

**EFFECTIVENESS OF AN INTERVENTION PROGRAMME
FOR ENHANCING AWARENESS ON FIRST AID
AT SECONDARY LEVEL**

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Thesis

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DOCTOR OF PHILOSOPHY IN EDUCATION**



**FAROOK TRAINING COLLEGE
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UNIVERSITY OF CALICUT**

2019

DECLARATION

I, **SANTHIKRISHNA C.**, do hereby declare that this thesis entitled as **“EFFECTIVENESS OF AN INTERVENTION PROGRAMME FOR ENHANCING AWARENESS ON FIRST AID AT SECONDARY LEVEL”** is an original work of research carried out by me under the supervision of **Dr.P.Rekha**, Assistant Professor, Farook Training College, Research Centre in Education, University of Calicut. I further declare that this thesis or any part of it has not been previously submitted by me for any Degree, Diploma, Title or Recognition, in this or any other University.

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Certificate

I, **Dr. P. REKHA.**, do hereby certify that this thesis entitled as **“EFFECTIVENESS OF AN INTERVENTION PROGRAMME FOR ENHANCING AWARENESS ON FIRST AID AT SECONDARY LEVEL”** is a record of bonafide study and research carried out by **Mrs. SANTHIKRISHNA.C** under my supervision and guidance. The report has not been submitted by her for the award of a Degree, Diploma, Title or Recognition before.

Farook Training College,

07.08.2020

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Chapter 1

INTRODUCTION

Contents

- *Need and Significance of the study*
- *Statement of the Problem*
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The purpose of education is clearly denoted by Kothari commission through the opening sentence of the report “India’s Destiny is being shaped in her classrooms”. The future of the country is decided by the students of the classroom. The students are to be equipped with knowledge, proper attitudes and skills which will help them to be confident in life. In the ancient period, the main aim of education was acquisition of proper knowledge. Later on, aims of education have changed in accordance with the changing society. Whatever may the change in aims, education has been accepted as Right to every human beings irrespective of caste, creed, religion and region.

When a child is born, he/she is wholly dependent and self centered. The first agency- family- nourishes and socializes the child. From the family the child learns how to love, and receive love, to aware of others and their needs, to know and co-operate with others, to accept responsibilities and thus lead the life as a responsible person. It is the top priority of all parents that their children should be in a school which is conducive to his/her all-round development. Parents believe that their children are safe in school than in any other place. Safe childhood is a right of the child also. A child is a human being below the age of 18 years. Earlier nobody thought to give special protection to children. The present century is more concerned with Rights of child and a safe learning environment is an essential attribute to their better education and development.

The school atmosphere is very important for the children and they must be made secure in such surroundings. They deserve to inherit a safe and healthy world where the hope and aspirations of children can be protected through different health measures. As per the Census 2001, 35 percent of population in India comprises of children below 14 years, the age group covering primary and secondary education. In Kerala about 55 percent of pupils are studying in schools from standard I to X. School-aged children (7 to 16 years age-group) spend about 30 percent of their time in schools in many countries (Sapien & Allen ,2001). In these settings, they are at a greater risk of injuries and medical emergencies due to the higher level of involvement in sports and extracurricular activities. According to the Centre for Disease Control Prevention, sports and recreation-related injuries are reported for more than 2.6 million school children worldwide annually (NIAMS,2013). Timely administration of first aid in response to injuries and medical emergencies will help to reduce complications, the cost of treatment and mortality among children (Al-Robaiaay,2013).

A child's world centers around the home, school and the local community and the biggest threats to children's health lies in these places that should be safest. Every year over 5 million children ages 0 to 14 die, mainly in the developing world, from disease related to their environment-the places where they live, learn and play. These diseases include diarrhoea, vector-borne diseases, acute respiratory infection and unintentional injuries. Realizing the importance of safe and healthy environment in the health of children, WHO coined the slogan: "Shape the future of Life; Healthy

Environments for Children” as part of World health day theme 2003 (“WPRO | World Health Day 2003,” n.d.).

Safety is of prime importance in our daily life since human beings are prone to meet with accidents in every walk of life. Today the activities are increasing in scale and involvement in any of such activity is compulsory for anyone. Such involvement may often call for the various kinds of hazards. Hazards can never be avoided in activities such as driving, riding, factory work, playing, kitchen work etc. In all these activities, safety is to be given prime importance. Major health organizations have highlighted the need for safety of human beings in any walk of their life. Awareness about the safety measure is essential for everyone in our social set up. Hazards are unpredictable, but can expect at anytime. Effective application of first aid is the mode of avoiding risk of life.

In schools the complications are more than other regions. The children often go careless about their safety in times of games and plays. Safety measures like first aid are made compulsory due to the chance of occurring emergencies around us. Awareness about safety measure is important in any field of activities. It will save the inmates from health hazard. Education in first aid measure is important to all, especially in primary schools and secondary level. To meet emergency in schools and colleges with the sudden measure of approaching with first aid is necessary to avoid health problems.

In the present setting of our schools, if a child is injured, the school will arrange a quiet comfortable place for him/her to take rest and inform parents or send him/her to the nearest dispensary. This may result in wastage of precious time in

preventing complications and saving the life of the child. With proper guidance and training of the teachers in first aid and emergency care, children's lives can be protected. This will help in risk reduction. Since injury is the fifth leading cause of death and children at the age of primary school are liable for accidents and lack of knowledge and good judgment of their teachers may lead to dangerous consequences when emergencies occur. A culture of safety should be the priority of the school and this will create a student community with all safety skills. The twenty first century learners have to acquire new skills to cope with the demands of the society. The present study is focused on the area First Aid Education which is relevant at anywhere and at all times.

Need and Significance of the Study

Schools can be dynamic settings for promoting health, for enabling children to grow and mature into healthy adults along with improving educational qualifications. Kindergarten schools give proper care and education to their children. In the primary level the school persons like teachers, ayahs, and also the parents will take care of them. The children of this age group will respond quickly but differently to the hazards happened in schools. Secondary school situation is somewhat different from the lower classes in the case of capacity to quick response. These students are grown up and their ability to take up the challenges will be higher than that of the small children. That is why they are more prone to hazards. It has long been recognized that schools provide the most appropriate setting for both health services and health education for children and young person. Yet the potential of the school to enhance health is often underutilized. Globally, school health has been an

important initiative for several decades comprising largely of school health services and school health education.

Accidents may occur on the road/way to school, during excursion, play ground, laboratory and class room etc. So the safety culture of a school extended to safety of children, teachers and one and all at school and what they learned from school will be useful in and out of school also. But in the Indian schools the need for first aid is not shared in an effective way.

According to Thumarukudy (2017), in developed countries, safety awareness including emergency preparedness and first aid is an integral part of their education system. Schools conduct orientation programmes for their students on basic safety skills from the very first day of their education. There is a huge opportunity to increase awareness among local community and enhance skills through mechanisms such as civil defense. Thumarukudy too praises by saying “in every disaster, be it flood or earthquake, 99 percent of people are saved by their family members or neighbours”. Centralized emergency response team can only have a role in coordinating, supporting and training local efforts.

Parthasarathy, Menon, and Nair (2003) published an article regarding school injuries trends. Data were gathered from nine public schools in Maharashtra. The purpose of the article was to demonstrate the value of collection and analysis of data apart from the school nurse’s role and provide some data on injuries that can be used for comparison procedures. The investigators state that children between the ages of 6 and 12 years have the highest frequency of injuries. The study reveals that falls,

burns and motor vehicle accidents are the leading killers in this age group, followed by drowning and asphyxia.

Kerala, the God's Own Country, is currently battling the aftermath of the most calamitous floods due to the relentless southwest monsoon rains. The situation deteriorated day by day with rains unleashing havoc in the state. The ruinous repercussions of this rainfall on various cities and villages across Kerala are a bleak reminder to the fact that a regular vigilance is a necessity to tackle the uncertain natural disasters. Every disaster demands the first aid among the affected.

Kerala is having a rate of epilepsy of 4.7 percent per 1000 of the population; with the highest age specific prevalence rate of 6.5 percent per 1000 population in the age group of 10-19 years(Iyer,Rekha,Kumar,Sarma,& Radhakrishnan,2011). Several cases of food poisoning are reported in various schools and college hostels in Kerala. School provides situation for physical and intellectual growth of children. In school where lack of proper facilities for playing and leisure time wandering, the children prone to get accidents. In most of the government schools the physical set up for the children are not satisfactory. Several schools are built on the waste-rock area of the land. The children often get minor injuries when they play in the gravet. Such situation demands the need for first aid. In most of the schools the first aid facility is not sufficient. The school authority often disregards the need for proper first aid in schools. The total poverty stricken life is reflected in schools as well.

At the time of life-threatening medical emergency, a student who is trained in first aid can help the victims. The medical case where professional assistance is not required, first aid is the better solution as an initial attendance. The students are

prone to get emergencies like sports injury, class room tension which leads to swooning and other ailments. First aid training will be greatly helpful in such a context. When the students are trained in schools with first aid treatment, the need for searching professionals is not arising. The victim gets great alleviation of the injuries. In schools, therefore, there must be provisions to give training to the students. Many a complication can be easily avoided in the event of first aid treatment to the victims. The teachers can also be given training in first aid. In this way the students will get proper guidance from the teachers. The school situation can, thus, be made a place for healthy give and take of mutual assistance. Thus the investigator has taken secondary school students as the sample of study.

Many national and international studies were conducted in the area of first aid.

Zubeyde (2017) conducted a study on effects of basic first aid education on teaching knowledge level: a pilot study. The main aim of this study was to compare teaching knowledge levels before and after the basic first aid education they were provided. The study adopted a pre test-post test control group design. The result shows a significant difference between pre test and post test scores of the experimental group ($z = - 4.215, p < 0.01$). This result indicates that the first aid education given to the experimental group was effective.

Wafik and Tork (2014) conducted a study to check the effectiveness of a first aid intervention programme applied by undergraduate nursing students to preparatory school children. It was a quasi-experimental study. The result shows that before the intervention the level of first aid knowledge was low in school students.

After the intervention statistically significant improvement was shown in the post and follow-up tests.

Zayapragassarazan (2016), in his article presented a case/ incident that took place in a sports ground in Pondicherry, where a 17-year-old school boy collapsed and died in the sports ground after running only 80 meters in the 1500 meters race. The cause of death was an underlying cardiac cause that has manifested during the athletic event. The stress caused by intense, excessive exercise can negatively affect the cardiovascular system. If the boy had received the first line of treatment with the cardiopulmonary resuscitation (CPR) on the spot, he may have survived.

A teacher in a secondary school died in the school itself because of heart attack. The case was not attended by any teacher of the school because none of the teachers not known how to save the life by providing first aid CPR. This incident made the investigator to develop some insights on how to prevent such tragedies by throwing light on the need to prepare our students and teachers who are organizers of such events by providing them training and certification in first aid and CPR. Surely this will be helpful to them so that they can effectively participate as rescuers when faced with such emergency situation to save the life of the concerned.

Rani (1968) found that age is an important variable influencing the knowledge of moral values. She found that knowledge of moral values seemed to increase with an increase in age. Extending help to others is one of the important values to be inculcated among children. So proper knowledge of first aid will be helpful to them to extend their hands to community since the main aim of first aid is save life.

According to Thummarukudi (2017) Kerala is higher in rank comparing to developed nations in literacy, longevity, and infant mortality rate. But far behind to them in safety. Annually almost 8000 people die by accidents in Kerala. Because of this he suggests a safety culture in Kerala society. He recommended that this culture should begin from schools. As students have no prejudice about safety, they will apply what they learned as a part of lessons from schools in their family and in their field of work immediately.

The above research studies highlight the need for first aid education in schools. However, the review of related studies conducted by the investigator revealed that educational programmes on first aid education/ studies are very few in number at all stages of Indian education, especially at the crucial secondary school level. In this context, the present study is an attempt to develop and validate a first aid intervention programme and to test its effectiveness among secondary school students of Kerala.

Statement of the Problem

The present study is entitled as **“EFFECTIVENESS OF AN INTERVENTION PROGRAMME FOR ENHANCING AWARENESS ON FIRST AID AT SECONDARY LEVEL”**.

Definition of Key Terms

Effectiveness

Effectiveness means the degree to which something is successful in producing a desired result; success. Effectiveness refers to the intervention’s ability

to do more good than harm for the target population in a real world setting (Schillinger,2010).

For the present study effectiveness means the result of the first aid intervention programme in enhancing the awareness of secondary school students on first aid.

Intervention Programme

The intervention programme means a set of programmes facilitated by the experimenter to change the relative position of the participants in relation to their psychological, familial and school environment bringing in changed developmental outcomes (Oxford Dictionary,2013).

In this study after the administration of the pre test, the investigator conducted classes on first aid based on the developed First aid intervention programme as part of the study. There were different emergency situations where first aid is to be given in the intervention and based on that 21 classes were taken. The development of the classes was as per the lesson transcripts and used Discussion, Demonstration, Mock situation, Chart presentation, Lecture, Video presentation, Power point presentation and Sharing of experiences.

Awareness

Awareness is the act of having or showing realization, perception or knowledge (Good, 1973). Knowledge or perception of a situation or fact (Oxford dictionary, 2013)

In the present study awareness means knowledge of first aid for managing emergency situations in life.

First Aid

First aid is the provision of limited care for an illness or injury, which could be provided, usually by a lay person, to a sick or injured patient until definitive medical treatment can be accessed, or until the illness or injury is dealt with (St. John Ambulance, 2006).

In the present study, the investigator has taken usual emergency situations occur at secondary level which need first aid. This includes Fainting, Wounds, Cardio Pulmonary Resuscitation (CPR) , Recovery position, Heart attack, Bleeding, Fracture and Immobilization, Dislocation, Sprain and Strain, PRICE method, Electric Shock, Burns, Sun burn, Poisoning, Bites and stings, Drowning, Choking, Epilepsy, Foreign bodies in the eye, ear and nose, Road accidents and some fundamentals of first aid.

Secondary Level

Secondary level denotes the standards VIII, IX and X of the schools of Kerala.

For the present study the students of standard IX was taken by the investigator for conducting the experiment.

Variables

The study has independent and dependent variables. Independent variable of the study is First Aid Intervention Program. First Aid Intervention Programme includes basic knowledge on first aid and 18 emergency situations of first aid. Basic knowledge includes Principles of first aid, first aider and qualities and

responsibilities of first aider, first aid kit and agencies of first aid. The emergency situations include CPR, Recovery position, Heart attack, Bleeding, Wounds, Fracture and immobilization, PRICE method, Strain, Sprain and Dislocation, Electric shock, Burns, Sun burn, Poisoning, Bites and stings, Drowning, Choking, Epilepsy, Foreign bodies in the eye, ear and nose, Fainting, and Road accidents.

Dependent variable is the Awareness on First Aid among secondary school students.

Objectives

Objectives of the study are as follows.

1. To analyze the need of an intervention programme on first aid education based on
 - a) Content of biology text books at secondary level
 - b) Views of teachers' about first aid at secondary level
 - c) Awareness on first aid among students at secondary level for
 - The total sample and
 - sub sample based on gender.
2. To develop an intervention programme on first aid to enhance awareness on first aid at secondary level.
3. To find out the effectiveness of the intervention programme to enhance awareness on first aid among students at secondary level
 - on comparison of pre test and post test scores for the total sample and subsample based on gender

- on comparison of post test and retention test scores for the total sample and subsample based on gender
- to find out the effect size of the intervention programme to enhance awareness on first aid at secondary level

Hypotheses

The present study is designed to test the following hypotheses;

1. There is significant difference between pre test and post test mean scores of Awareness on First Aid for the total sample.
2. There is significant difference between pre test and post test mean scores of Awareness on First Aid for boys.
3. There is significant difference between pre test and post test mean scores of Awareness on First Aid for girls.
4. There is no significant difference between post test and retention test mean scores of Awareness on First Aid for the total sample.
5. There is no significant difference between post test and retention test mean scores of Awareness on First Aid for boys.
6. There is no significant difference between post test and retention test mean scores of Awareness on First Aid for girls.
7. The developed Intervention programme is effective to enhance awareness on first aid among students at secondary level.

Methodology

The methodology of the study is provided below in brief.

Design of the Study

The main aim of the study was to find out the effectiveness of a first aid intervention programme at secondary level. Both survey and experimental methods were used in the study. Single group Pre- test- Treatment- Post- test- Retention test design was selected for experiment. The design of the study is illustrated below.

O1 X O2

Where, O1 is pretest and O2 is posttest

The study was conducted in three phases. The first phase is focused on the need of intervention programme on first aid at secondary level. This includes the following aspects.

The first phase includes analysis of secondary school Biology text books to find out the strength or concept of first aid in Biology curriculum, views of teachers on First Aid education at secondary level and finding out the existing level of awareness on first aid among students at secondary level. As part of need analysis the secondary level Biology curriculum was analyzed. Views of teachers were collected on first aid education at secondary level through an opinionnaire and focus group discussion. To find out the present level of awareness on first aid among secondary school students an awareness test was conducted among a large sample of students through survey.

The second phase was focused on the development of an intervention programme on first aid. Based on the need of such an intervention programme, the emergency cases /situations of first aid at secondary level for the target group was decided and included. Each emergency situation is explained through the definition, types, symptoms, do's and don'ts or the first aid to be given. The programme also incorporated the basic aspects of first aid.

The next phase is the transaction of the intervention programme among the target group. A Single group pre test-post test design was adopted to find out the effectiveness of the intervention on first aid education at secondary level. Here a single group of students was given a pre-test (O1), then the treatment (X), and the post test (O2). An evaluation of the change from pre test to post test is considered as the result of the study conducted. The students were given treatment by preparing and transacting content of the first aid education through lesson transcripts by different activities such as discussions, video presentations, sharing of experiences, mock situation etc. The same first aid awareness test was given as the post test to find out the effectiveness of the intervention on First Aid at secondary level. After a period of one month a retention test was conducted.

Sample used for the study

The study was based on both survey and experimentation. 628 secondary school students from the schools of Kozhikode, Malappuram and Palakkad districts of Kerala, has been taken for conducting the survey to assess the need for first aid education at secondary school level, and gender was taken as a subsample.

About 302 boys and 326 girls were involved in the survey. All samples were selected from standard IX, which is the middle of standard VIII and X.

78 teachers were selected as teacher sample to collect views about first aid at secondary level as part of need analysis. Among the 78 teachers 50 teachers were selected from different schools and 28 teachers who have participated in focus group discussion from a school at Malappuram district.

In the experimentation phase, the sample size was 35. The sample was selected from one school at Malappuram district. The boys were 13 and girls were 22 in number.

Instruments used in the study

The following instruments were used in the study.

1. First Aid Awareness Test
2. Opinionnaire on First Aid
3. Focus group interview schedule
4. First Aid Intervention Programme
5. Lesson Transcripts

Procedure

The procedure of the study is as follows.

1. Analyzing the content of Biology text books for standards VIII, IX and X to locate the concept of First Aid.
2. Collecting the views of teachers about the need of an Intervention on First Aid at secondary level.

3. Administering Awareness Test on First Aid in a large sample of students of IXth standard from Kozhikode, Malappuram and Palakkad districts.
4. Analysis of the scores of Awareness on First Aid among the large sample for the total and subsample based on gender.
5. Development of the Intervention Programme on First Aid for secondary school students.
6. Administering Awareness Test on First Aid as pre test of the selected experimental sample.
7. Analysis of the pre test scores.
8. Transaction of First Aid Intervention Programme for the sample of students.
9. Conducting post test.
10. Analysis of the post test scores
11. Testing the difference between pre test and post test mean scores for its significance.
12. Conducting the retention test.
13. Analysis of the retention test scores.
14. Testing the difference between post test and retention test mean scores for its significance.

15. Establishing the effectiveness of the Intervention Programme on First Aid at secondary level.

Statistical techniques used in the study

Statistical techniques adopted for the study were,

1. Descriptive statistics like Mean, Median, Mode, Standard Deviation, Skewness , Kurtosis and Percentiles.
2. Test of significance of difference between means.
3. Cohen's d

Scope and Limitations of the Study

The present study is aimed at improving awareness on first aid in secondary school students. Now-a-days the area of first aid education is becoming important in the education scenario because various emergency situations arise in the school atmosphere. As part of a safety culture of school first aid is relevant. The awareness on first aid will be helpful in school, outside school and in the area of work of all individuals. The disaster that recently happened in Kerala reminds the importance of first aid in the society. In the area of first aid a number of programmes were developed internationally. Voluntary organizations involved in these nations are St John Ambulance, The Red Cross, The Royal College of Nursing, and The British Heart Foundation.

In schools Junior Red Cross, Scouts and Guides and such units are playing their roles for improving awareness on first aid. But this covers very few students.

As part of safety all students should be aware of first aid. The school should have a first aid room with first aid kit and teachers as experts in giving first aid to students. The programme developed through the study will surely fulfill this need.

Students are the most powerful agents of first aid education in our society. But there is a big question posed by students about how the various emergency situations are to be identified and how the first aid is to be applied. The do's and don'ts are very important in the area of first aid. Even the parents are not known about first aid in some situations. So what about the students? Special training is very essential in the area of first aid. Transaction of the developed programme to the students will be highly useful. The secondary school students will immediately apply what they have learned. Hence the sample of the study selected was secondary school students.

The design was very apt to the study. Before preparing the programme need was analysed from teachers also, because they are the curriculum makers, and transacting people. Based on the opinion of teachers the programme was developed. After need analysis the developed programme was transacted among a small group of students. Transaction was systematic with planning and preparation of necessary materials. 35 students sample were selected from Malappuram district which is supposed to be adequate size to be handled for an experimental study. The 35 students of standard IX were given training in first aid. The first aid intervention programme was transacted through mock situation, lecturing, discussion, sharing of experiences etc.

The necessary tools prepared for the study were First aid awareness test for students, interview for teachers, first aid intervention programme and lesson plans for students. The tools were considered as appropriate and adequate for the purpose.

Simple experimental design was used and significance of pre-post-retention tests was analysed for effectiveness of the programme. Necessary statistical techniques were applied for the same. Thus the findings are generalizable.

The major limitation of the study was, because of the time constraints the investigator done the experiment only in one school. The experimental sample was 35 in which boys were 13 and girls 22.

Organization of the Report

The report has been presented in five chapters.

Chapter I is the **Introduction** which presents a rationale for selecting the problem, need and significance of the study, statement of the problem, definition of key terms used, variables, objectives, hypotheses, methodology in brief and scope and limitations of the study.

Chapter II is the **Review of related literature**. Its first part is the theoretical perspective of the variable in detail and the second part contains the survey of related studies.

Chapter III is the **Methodology**. It includes a detailed description of methodology adopted for the present study. It includes design of the study, variables, samples, tools, procedure in detail and statistical techniques used.

Chapter IV of the report is **Analysis and Interpretations**. This includes detailed statistical analysis of data, discussions and interpretations of the results, tenability of hypothesis and conclusion.

Chapter V is **Summary of Major Findings, Conclusions and Suggestions**. The study in retrospect, statement of the problem, major findings, conclusion, educational implications and suggestions for further research form the aspects of this chapter.

Chapter 2

REVIEW OF RELATED LITERATURE

REVIEW OF RELATED LITERATURE

Review of related literature is the key step in research process. “A review of literature provides you with the current theoretical and scientific knowledge about a particular problem, and resulting in a synthesis of what is known and not known” (Burns & Groove, 2007). Researchers undertake a literature review to familiarize them with that knowledge base (Polit, 2008).

Review of related literature gives the researcher an understanding of the tools and instruments which proved to be useful and promising in the previous studies. It also provides insight in to the statistical methods through which validity of the results is to be established.

The present investigation is an attempt to find out the effectiveness of an intervention on first aid education among secondary school students. This chapter consisted of two parts. The first part of the chapter provides the theoretical overview of the concept first aid and the second part provides a review of studies conducted in the area first aid.

Theoretical Overview

Theoretical Overview of the study is presented under the following heads.

- A. First aid
- B. History of first aid

- C. Aims of first aid
- D. First aid kit
- E. Life saving procedures
- F. First aid for common injuries
- G. First aid and emergency care in various emergency situations
- H. Agencies of first aid

A. First aid

The first recorded history of first aid dated back to 1099, when a religious order of knights were trained to administer medical treatment to the wounded during the crusades (Sovrin First Aid and Health & Safety Training, 2007).

First aid is the administration of immediate medical care to an injured or acutely ill patient before the arrival of a physician or advanced life support and transport to a health-care facility.

First aid and CPR are types of emergency care that are rendered to an injured individual. First aid is the immediate help given to a victim of injury or sudden illness until appropriate medical help arrives, or the victim is seen by a healthcare provider (National Safety Council, 2007).

B. History of first aid

The first recorded history of first aid formed in the 11th century, providing care to pilgrims and knights, and training other knights in how to treat common battle field injuries. The order of St John-The modern day St John Ambulance organization -specialized in the treatment of battle field injuries during the crusades

are the first recorded example of people trained to administer first aid. In 1792, the French Army Surgeon General started the field hospitals. The task was to administer first aid on the battle field and where necessary and to remove the casualty to the field hospital by carrying them on carts.

The practice of first aid fell largely in to disuse during the High Middle ages, and organized societies were not seen again until in 1859 when Jean Henry Dunant organized local villagers to help victims of the Battle of Solferino, including the provision of first aid. Four years later, during the 1860's four nations met in Geneva and formed the organization which has grown in to the Red Cross, with a key stated aim of "aid to sick and wounded soldiers in the field". Both resulted from the work begun by Henry Dunant, a Swiss man, who had witnessed soldiers of both sides, being left to die with horrific injuries during the Battle of Solferino in 1859. A short time later, an army surgeon first came up with the idea of training civilians in what was termed "pre-medical treatment".

This was followed by the formation of St. John Ambulance in 1877, based on the principles of the knights Hospitaller, to teach first aid, and numerous other organizations like British Red cross joined them. The term first aid first coined in 1878 as civilian ambulance services spread as a combination of "first treatment" and "national aid" in large railway centers and mining districts as well as with police forces. In 1878 surgeon-Major Peter Shepherd, together with Colonel Francis Duncan established the concept of teaching first aid skills to civilians. Shepherd, together with Dr. Coleman, conducted the first class in the hall of the Presbyterian school in Woolwich using a comprehensive first aid curriculum that he had

developed. It was Shepherd who first used the English term “first aid for the injured”. First aid training began to spread through the empire through organizations such as St.John, often starting, as in the UK, with high risk activities such as ports and railways.

Many developments in first aid and many other medical techniques have been driven by wars, such as in the case of the American Civil war, which prompted Clara Barton to organize the American Red Cross. Today, there are several groups that promote first aid, such as the military and the scouting movement. New techniques and equipment have helped to make today’s first aid simple and effective (Sunder, 2012) .

“Britains’s first official ambulance crews were trained for use in the mines and on the railways. The attendants were trained in the most basic first aid and equipped with handcarts, although a vast improvement on the facilities previously available, they were little more than a transport service. As late as 1897 saw the formation of London’s first fulltime ambulance service this was set up by the Metropolitan Asylums Board.

During the First and Second World Wars, the British Red Cross and St.John ambulance joined forces to form the Joint War Organization and played a major role in support of the medical services, both on the battle fields abroad and Britain.

The National Health Service Act of 1946 which came into effect in 1948 , laid down a statutory requirement for ambulances to be made available for callout by

anyone who needed them, which is the NHS ambulance service, as we know it today.

Modern day first aid training stems from the early work of the Red Cross and St John Ambulance, and its principle has changed little since the early training manuals reveals some practices, which today are rather amusing.

100 years after the first public first aid course, when training classes are made up of both male and female students, you would encounter problems if you attempted to enforce single sex classes, but, in 1908 it was accepted as the norm and 'Mixed classes of men and women are on no account permitted' was printed in the front of training manuals.

The International Federation of Red Cross and Red Crescent Societies (IFRC) introduced World First Aid Day in 2000. World First Aid Day is celebrated on Second Saturday in September every year for raising awareness of how first aid can save lives.

Each year, more than 100 Red Cross and Red Crescent Societies around the world organise events and ceremonies on the second Saturday of September to raise public awareness of how first aid can save lives in everyday and crisis situations. The IFRC believes that first aid should be accessible to all – including the most vulnerable, and should also be an integral part of a wider developmental approach.

C. Aims of first aid

The aims of first aid are

- To save the life
- To ease the pain

- To limit the effects of the condition
- To promote recovery
- To prevent conditions that might increase the original injury
- To arrange for transportation to the hospital

D. First aid kit

A first aider can help a victim who is in need of help in an emergency situation, with the assistance of a collection of equipments or materials. First aid kit is the box which contains these materials and equipments. A first aid kit is a collection of supplies and equipment that is used to give medical treatment. The contents of the first aid kit may vary with the institutions, or agencies providing first aid services. The common items included in a first aid kit are,

1. Antiseptic wash
2. Sterile gauze pads and medical tape
3. Scissors
4. Elastic bandage
5. Instant cold packs
6. Disposable gloves
7. Dressings- adhesive bandages
8. Tweezers
9. Sting and bite treatment
10. Antibiotic ointment
11. Bandages
12. Sterile eye pads

1. Antiseptic wash

The ideal way to clean a fresh wound is with soap and water. But unless you've somehow managed to rig a faucet into your car, this won't be an option in the case of, say, a roadside emergency. The next best thing is an antiseptic wash that comes out in a stream forceful enough to flush dirt particles out of a wound. Some brands include a mild pain reliever in addition to the antimicrobial medicine. The Red Cross advises individual packets of antiseptic wipes. Antiseptic wash can use on injuries as well as to wash the hands before or after administering first aid.

2. Sterile gauze pads and medical tape

Gauze pads should always be part of a first aid arsenal. Use them to stop bleeding or to cover a wound that an adhesive bandage won't accommodate, smearing it first with antibacterial ointment and using the tape to keep the gauze in place. A good rule of thumb is to have five each in sizes 3 inches by 3 inches and 4 inches by 4 inches. Scissors can be used to cut larger gauze pads down to size when necessary.

3. Scissors

A good pair of scissors has lots of uses, from trimming gauze pads and cutting lengths of medical tape, as noted *above*, to snipping clothing that needs to be trimmed out of the way. A pair of small curved medical scissors is worth the investment: They're safer than regular sewing or craft scissors and easier to manipulate.

4. Elastic bandage

Commonly referred to by the brand name ACE bandage, the length of stretchy fabric has a variety of uses when it comes to first aid care. It can be used to tightly wrap an injury to help reduce swelling, hold bandages in place, serve as a tourniquet, or hold hot or cold packs in place. Some elastic bandages come with metal clasps to hold them in place, but those that close with Velcro are more convenient.

5. Instant cold packs

Many types of injuries benefit from being iced: The cold can slow the flow of blood to decrease swelling and bruising of a twisted ankle or battered shoulder. Cold also can ease itching from stings and bites. But since it's impossible to carry ice around in a first aid kit, the next best thing is an instant cold pack that turns icy when a substance inside is activated (usually by shaking or bending the ice pack). Keep several in the kit: They can be used only once.

6. Disposable gloves

Gloves are important for protecting both the person administering first aid and the injured part from bacteria and other harmful microbes. They also come in handy for cleaning up the area where blood or other bodily fluids might have been left behind. Some people are highly allergic to latex, a material commonly used to make disposable gloves, so to be safe, stock up on nonlatex gloves made of nitrile or neoprene.

7. Dressings- adhesive bandages

Often referred to as Band-aids—although there are many other brand name and generic versions of adhesive bandages—these are essential for dealing with small injuries such as cuts, scrapes, and blisters. They come in many shapes and sizes to accommodate any size or type of injury on any part of the body (for example, some are designed to fit snugly on a finger), so stock in the kit with as much variety as one can. Be sure to include butterfly-shaped ones which can be used to hold two sides of a wound together. Other features to consider: bandages that are waterproof have built-in antibacterial medication, and more. It also the liquid bandage—a waterproof adhesive one can use to seal a cut closed while it heals.

8. Tweezers

A good pair of tweezers can come in handy for a plethora of purposes, including extracting splinters, thorns, insect stingers, and ticks. There are many varieties of this basic tool; needle-nose tweezers made from surgical steel, with their very fine point, are a good choice for first aid kits as they're sturdy, easy to handle, and allow for precision.

9. Sting and bite treatment

Insects and other creepy-crawlers are everywhere, particularly in warm climates, so it's a good idea to have several items on hand to deal with bites and stings. To ease itching (not only from bug bites but also from poison ivy or poison oak), have on hand calamine lotion or hydrocortisone cream, ointment, or

lotion. It wouldn't hurt to have an Epi-Pen either if you know that someone in your group is allergic to bees or other insects.

10. Antibiotic ointment

There are lots of these topical antibacterial medications on the market, including bacitracin, neomycin, and polymyxin, sold under these generic names as well as various brand names, such as Neosporin and Mycitracin. So-called "triple" antibiotic ointments contain all three of these medications. Whether alone or in combination, antibiotic ointments are applied directly to wounds or to an adhesive bandage or gauze pad before it's used to cover a wound (never ingested) to stop the growth of bacteria that could cause a wound to become infected.

11. Bandages

Mainly three types of bandages –Roller bandages, Triangular bandages and Tubular bandages

a. Roller bandages

These items are used to give support to injured joints, restrict movement, secure dressing in place and maintain pressure on them, and limit swelling.

b. Triangular bandages

Made of cloth or strong paper, it is used as bandages and slings. Sterile bandages used as dressing for large wounds and burns.

c. Tubular bandages

These bandages are rolls of seamless, tubular fabric. There are two types: elasticated bandages, used to support joints such as the elbow or ankle; and tubular gauze, designed to cover a finger or toe. The gauze is used with a special applicator, supplied, supplied with the bandage. It is suitable for holding dressings in place, but cannot exert enough pressure to control bleeding.

12. Sterile eye pads

Eye pads are dressing to protect injured eyes.

In case of emergency First aid kits are intended to help manage a non-emergency injury or other medical issue on the spot. For serious problems, such as a large wound that won't stop bleeding or a blow to the head, call for help or head directly to the nearest emergency room.

E. Life saving procedures

Life saving is the main aim of first aid. If a person found unconscious or having breath problem etc. a first aider can save his/her life by applying life saving procedure.

Life saving procedure or Basic life support refers to the procedures that focus on the victim's airway, breathing and circulation. Basic life support includes rescue breathing, CPR and obstructed airway management.

Major steps in basic life support

For the non-breathing victim, rescue breathing must be started immediately.

This is one of the most important procedures that a first aider will be called on to do.

- Check victim's responsiveness
- Activate the emergency medical service
- Position the unresponsive victim
- Open the victim's airway
- Check for breathing
- Give two slow breaths
- Check for pulse

How to check responses

On discovering a collapsed casualty, a first aider should first establish whether the victim is conscious or unconscious. Do this by gently shaking the casualty's shoulders. Ask 'What has happened?' or give a command: "Open your eyes". Speak loudly and clearly.

If there is a response

1. If there is no further danger, leave the casualty in the position in which he was found and summon help if needed.
2. Treat any condition found and monitor vital signs-level of response, pulse and breathing.
3. Continue monitoring the casualty either until help arrives or he recovers.

If there is no response

1. Shout for help. If possible, leave the casualty in the position in which he was found and open the airway.
2. If this is not possible, turn him onto his back and open the airway.

First Aid ABCs

If a victim is unconscious, the first priority of the first aider is to check that their Airway is open, that they are Breathing, and that they have a pulse or other signs of Circulation, such as movement, groaning, or coughing -- these are the ABCs of emergency first-aid.

Check Airway

- If victim is facedown, gently roll victim onto their back. Place one hand on the back of victim's neck and other on hip, and gently roll victim over onto back. If back or neck injury suspected, enlist aid of others to keep victim's head, neck, and back aligned as you roll victim over.
- Open victim's airway using head-tilt (even if there is back or neck injury)
- Kneel by victim's side, place one of our hands on victim's forehead, and gently
- Tilt victim' head back.
- Place fingers of our other hand on bony part of victim's chin -- not on throat.
- Gently lift chin straight up without closing mouth.

Check for Breathing and Circulation

- With victim's airway open, look, listen, and feel for breathing for 5-10 seconds by placing the cheek near victims' mouth and watching for chest to rise and fall.
- Check for signs of circulation, such as movement, groaning, or coughing.
- If victim is not breathing but has signs of circulation, go to rescue breathing. If victim is not breathing and has no signs of circulation, go to CPR. (First Aid Overview,2007).

Recovery position

It is the position in which an unconscious person who breathes normally is to be laid down. Part of first aid treatment where an unconscious, yet breathing person is placed in a position that will ensure clear and open airways and make sure that possible vomit or fluid will not cause them to choke.

Cardiopulmonary Resuscitation (CPR)

Cardiopulmonary resuscitation(CPR) is an emergency procedure that combines chest compression often with artificial ventilation in an effort to manually preserve brain function until further measures are taken to restore spontaneous blood circulation and breathing in a person.In 1960 CPR was developed.

CPR involves chest compressions for adults between 5 cm and 6cm deep and at a rate of at least 80 compressions per minute. CPR alone is unlikely to restart the heart. Its main purpose is to restore partial flow of oxygenated blood to the brain and

heart. The objective is to delay tissue death and to extend the brief window of opportunity for a successful resuscitation without permanent brain damage.

Open airway and remove any debris seen in the mouth and throat. Head tilt or neck lift method should be used. Place the palm of one hand on the victim's forehead, and other hand on the back of the neck. Apply firm backward pressure.

Artificial Ventilation

- Rescue shall open the mouth wide, take a deep breath, pinch(close) the casualty's nostrils together with fingers and seal lips of the casualty using the rescuers mouth.
- Blow air into the casualty's mouth, looking along his chest, until the chest rise to maximum expansion.(If the casualties heart fail to rise assume that the casualties airway is not fully opened adjust the position of the head and jaw and try again)
- Remove the rescuers mouth well away from the casualty's mouth and breath out any excess air while watching his chest fall. Take deep breath, repeat the procedure.
- After two inflation(the act of inflating),check the pulse to make sure the heart is beating.
- If the heart is not beating one must perform external chest compression.

Chest compression

- Lay the casualty on his back
- Kneel at one side of the chest.

- Find the lower half of the breastbone(the bone to which the ribs are joined)in the front of the chest.
- Place the left hand on top of the right
- With the arms straight push vertically down on the lower half of the breast bone for about 4cm in the adult.

Chest compression should be given 60 to 70 per minute for adults and for infants, the rate is 90 to 100/minute.

About 1/5th of the air we exhale contains oxygen, which is more than enough to sustain life. The continuous working of the heart and circulation of the blood maintains life. If the circulation fails, the life of the casualty will be in danger. Blue color of the face, lips, fingers and toes and no pulsations in the neck or in the front of the chest are some of the symptoms. The guidelines of CPR as specified by American Red Cross First Aid/CPR/AED Participant's Manual are given the Table 1.

Table 1

Rate of chest compression according to American Red Cross First Aid/CPR/AED Participant's Manual

	Adult	Child	Infant
Hand position	2 hands center of chest, lower half of breast bone	2 hands center of chest, lower half of breast bone	2-3 fingers in the center of the chest, lower half of the breast bone
Compression depth	2 inch	2inch	1 1/2
Compressions to Breaths	30:2	30:2	30:2
Compression rate	100/minute	100/minute	100/minute

F. First Aid for Common Injuries

Different wounds

Wounds are grouped into two main classifications

- Open wounds or exposed injuries
- Closed wounds or unexposed injuries

Open Wounds or exposed injuries

An open wound is a break in the skins surface results in external bleeding .It may allow bacteria to enter the body, causing infection. There are several types of open wounds. Some of them are:

- Abrasions: The top layer of the skin is removed, with little or no blood loss

- Laceration: Types of wound is this usually caused by a forceful tearing away of skin tissue. A laceration is a cut skin with jagged, irregular edges.
- Incisions: An incision tends to have smooth edges and resembles a surgical or knife cut. It may damage tendon, muscles and blood vessels. The amount of bleeding depends on the depth, the location and the size of the wound.
- Puncture Wound: Puncture wound are usually deep, narrow wound in the skin and underlying organ such as a stab wound from a nail or a knife, object causing the injury may remain in the wound.
- Blisters: A blister is a collection of fluid in a “bubble” under the outer layer of skin. Repeated rubbing of a small area of the skin will produce a blister. Friction blister occur anywhere on the body. Most common on the feet and hands.

Common first aid for open wounds is

- Clean properly with soap and water
- Clean with anti bacterial scrub
- Clean all foreign materials
- Apply antiseptic to the area
- If the wound is too deep go for sutures for adequate procedures
- Once bleeding has been controlled carefully clean and inspects the wound.
- Applying a sterile dressing

Closed wound or unexposed injuries

In closed wound, the skin is not broken, but tissue and blood vessels beneath the skin are damaged or crushed, causing bleeding within the area. Common forms of closed wound or unexposed injuries are contusion or bruise, strains, dislocation, and fractures.

- Contusion or Bruise

Results from direct blow or impact delivered to some part of the body, which causes damage to underlying blood vessels- discolourisation. Finally it causes a black and blue discoloration. PRICE is the first aid procedures used for contusion or bruise

- P - Protection-helps to prevent further injury
- R - Rest (immobilize the area)
- I - Apply ice pack it will help to decrease pain, swelling and inflammation
- C - Compression-gently apply to pressure
- E - Elevation-raise the injury part above the heart, it will help to reduce the blood supply to the affected area.

- Strains

A strain is also known as a pulled muscle or torn muscle is an acute or chronic soft tissue injury that occurs to a muscle, tendon, or both. The PRICE procedure is applicable for strains also.

- Sprains

When a joint is sprained, the ligaments are either partially or completely torn. There are different degrees of sprains (mild, moderate and severe), but it is

difficult for a first aider to classify the degree of a sprain. Sprains most often occur in the knee and the ankle, but can occur in any joint. The first aid for Sprains are,

- Follow the PRICE procedure
- Apply an ice pack for 20 minutes
- Apply compression with an elastic bandage for 3 to 4 hours
- Repeat the cycles of an ice pack for 20 minutes and 3 hours of compression
- Raise the injured part to reduce the flow of blood to the area.

- Dislocation

A dislocation occurs when a joint comes apart and stays apart with the bone ends no longer in contact. The shoulder, elbows, fingers, hips, kneecaps (patellas), and the ankles are the joints most frequently affected.

If the end of the dislocated bone is pressing on nerves or blood vessels, numbness or paralysis may exist below the dislocation. Always check the pulses. If there is no pulse in the injured extremity, transport the victim to a medical facility. Use the RICE (rest, ice, compression, elevation) procedures. Use a splint to stabilize the joint in the position in which it was found. Do not try to manipulate the joint because nerve and blood vessel damage could result. Seek medical care to reduce the dislocation.

Never try to relocate the bone of a dislocated joint or attempt any strategies to get the bone to pop back again. It is easy to inflict further serious damage. Immobilize the casualty and transport the casualty for immediate medical attention.

- Fractures

A fracture is the separation of an object or material in to two,or more,pieces under the actions of stress. A bone fracture is a medical condition in which there is a break in the continuity of the bone as a result of high force impact or stress.

Types of fracture

- Simple (closed) fracture. In this fracture the skin surface around the damaged bone is not broken.
- Compound (open) fracture: When the wound leads from the surface of the skin to the fracture or if a broken bone penetrates the surface of the skin the fracture is called open fracture.
- Complicated fracture: Closed or open fractures are said to be complicated when it is associated to blood vessels, nerve.

In case of fractures, lay the victim comfortably and looses or remove the clothes from the affected parts. Do not move the parts fractured. Treat for difficulty in breathing, bleeding and unconsciousness before attending the fracture. Immobilize and support the fractured limb using bandages, sling or splints.

- Sling: Slings are used to support or to limit, in case of injury or inflammation. In the view of Clement (2012) slings are used to support injured arms and to prevent the pull by upper limb to chest, shoulder and the neck, injuries.

- Splint :a strip of rigid material used for supporting and immobilizing a broken bone when it has been set.

Bleeding

Bleeding means the escape of blood from the blood vessels. It is a common cause of death in accidents. Because of bleeding the total blood volume of the body decreases and so does the blood pressure. These two together lead to circulatory failure and then to death.

Bleeding can be classified as:

- i) External bleeding and
- ii) Internal bleeding

i) First aid for external bleeding

- Put on disposable gloves if available. Remove or cut clothing as necessary to expose the wound.
- Apply direct pressure over the wound with your fingers or palm over a clean piece of cloth.
- Raise and support the injured limb above the level of the casualty's heart to reduce blood loss.
- Help the casualty to lie down on a blanket, to protect him from the cold. If suspect that shock may develop, raise and support the legs above the level of the heart.

- Secure the dressing with a bandage.
- If further bleeding occurs, apply a second dressing on top of the first.
- Support the injured part in a raised position with a sling and or/bandaging.

ii) In the case of internal bleeding

- Make the casualty lie down. Raise his legs by use of pillows etc.
- Keep him calm and relaxed. Reassure him. Do not allow him to move.
- Keep the body warm with thin blankets, rugs or coats.
- Do not give anything to eat or drink because he may have to be given an anesthetic later.
- Take him to a hospital as quickly as possible. Transport gently.

Nose bleeds

Nose bleeds appear unpleasant, but can sometimes be dangerous, if blood loss is excessive. If nose bleed follows a head injury, the blood may appear thin and watery. This is serious, as it indicates that cerebrospinal fluid is bleeding from or around the brain.

Nose bleeds usually starts at the lower end of the nose, although in older people with very high blood pressure, they may come from the back of the nose and be harder to stop. Nose bleeds often occur during or after a cold when the lining is inflamed. Other causes are a direct impact (which may also have caused concussion

and head or facial fracture),violet nose-blowing and nose picking. Watery blood from the nose may arise from a fracture at the base of the skull(Keech,2003).

1. Let the patient sit up, with head slightly bent forward.
2. Press the nostrils together, holding the pressure for several minute.
3. Apply a towel, wet with cold water or cracked ice, over the nose, face, forehead and at the back of the neck.
4. Loosen clothing at neck.
5. Do not let the patient talk, cough, laugh, walk about or blow the nose. Activity and excitement may increase the bleeding or cause it to restart.
6. Immediately take a narrow strip of gauze and crowd a small portion at a time in to nostril, pushing well in to nose with a pencil or penholder until a tight plug is produced. Keep plug in nose for several hours and when bleeding has stopped, remove it carefully so as not to renew bleeding.
7. Call a physician, if bleeding is excessive or continuous.

G. First aid and Emergency Care in Various Situations

Electric shock

Do not touch a person who is in contact with electric wire. The person should be removed from electric contact as quickly as possible. Transport the casualty to the hospital, if required.

- Artificial respiration should be instituted as soon as possible if required.

- The patient should be kept quiet and warm.
- The burnt area, which is often present at the site of contact, must be treated in the same manner as any burns.
- Place the patient on the back with his feet higher than the head.

Burns

Burns destroy skin, which controls the amount of heat the bodies retain or release, holds in fluids, and protects us from infection. While minor burn on fingers and hands are usually not dangerous, burns injuring even relatively small areas of skin can develop serious complications. The intensity of burns can be catagorised as

- First-degree burns: First degree burn are superficial/mild without blisters. Swelling, redness and pain in the injured area are the symptoms.
- Second-degree burns:Second degree burns extend to middle skin layer with swelling, blisters, redness, and scars.
- Third-degree burns:In third degree burns damage occurs to all the three skin layers and destroys adjacent hair follicles, sweat glands and nerve endings.

The First aid for burns is,

- Pour and cool the affected part using water for 10-15 minutes.
- Remove clothes and ornaments from the affected body part.
- If there are scalds on the skin, don't try to prick them.

Sun burn

Sunstroke is caused by too high a temperature in atmosphere by the sun rays.

First aid procedure for sun burn is,

- Remove the patient to dry and shady place, loosening his collar and any other tight clothing
- Raise the head and the upper part of the body
- Sprinkle cool water on his body or wrap him in a thin-wet sheet and fan him
- Use fan freely
- Keep on taking body temperature every 10 minutes
- Do not let the body temperature of patient fall below 102 F by the above method
- After this stage is reached, wrap him in a dry sheet and keep fanning so that the temperature does not rise up again
- If the patient is conscious, cool water mixed with salt and glucose can be given to him for drinking.
- Remove to the hospital.

Drowning

Drowning itself is quick and silent, although it may be preceded by distress which is more visible. A person drowning is unable to shout or call for help, or seek attention, as they cannot obtain enough air. The instinctive drowning response is the final set of autonomic reactions in the 20-60 seconds before sinking underwater.

- i) Rescue involves bringing the persons mouth and nose above the water surface.
- ii) The person is turned on their back with a secure grip used to tow from behind. If the person is unconscious they may be pulled out holding the chin and cheeks, ensuring that the mouth and nose are well above the water.
- iii) Special care has to be taken for people with suspected spinal injuries and a back board may be needed for the rescue. In water, CPR is ineffective, and the goal should be to bring the victim to a stable ground quickly and then to start CPR. Once on ground chest compressions are performed if the patient is pulse less and if they are not breathing.

Accident

Many people involved in accidents in which sme one is killed or injured are socially maladjusted and emotionally unstable, selfish and reckless.Lack of proper roads, rash and negligent driving and the apathy of pedestrians can partly be blamed for high number of accidents. A large portion of these deaths can be attributed to the fact that most accident victims do not get proper medical attention and first aid on time. The First aid procedure for dealing with an accident case is,

Immediately call for an ambulance or rush the person to a hospital.

- Next, check if the person is breathing.
- Check for injuries: first assess the extent of injuries.For e.g.is he bleeding from the head, neck, arms, legs, abdomen back etc.

- Treat the quietest person first. They are usually more seriously injured. People who can talk or scream, on the other hand, can breathe therefore can be treated a little later.
- Ask for the patient's name, if he responds, it means he is able to understand the situation and has most likely not suffered a severe head injury.
- Check the airway, use index and middle finger to clear the airway.
- If there is no pulse, start CPR. Keep the person's neck straight.
- If there is bleeding from the mouth or the patient is vomiting, turn the person to sideward. This will avoid any chances of the person choking.
- If there are open wounds, try to control the bleeding.
- If the person's neck is in an awkward position or the person is unconscious, do not move the patient. This could mean that the person's neck is broken, and moving in such a situation can cause more harm than good.
- Usually accident victims feel excessively cold due to shock. Therefore keeping them warm is essential to survival.
- Do not give the person water, food or other fluids through the mouth, it could lead to the patient choking.
- The patient should be transported on a stretcher or a stiff board.
- Keep the person's neck and back straight. You could place a rolled up towel or thick cloth under the neck for better support.

- Ensure that the person is lying down flat.
- In case of a bleeding injury, lift the injured part above the person's level.

Poisoning

Poison is a substance, which when taken into the body in sufficient quantity, may damage body system or end the life.

Poisoning is a condition which results from the consumption or introduction of harmful substance, damaging the organ of digestion or if absorbed into the body may affect the vital organs and even kill a person (Clement,2012).

Poisoning is a condition caused by introduction of harmful substances or chemicals into the body either by injection, inhalation or ingestions (Singh,2008).

A poison or toxin is a substance which, if taken into the body in sufficient quantity, can cause temporary or permanent damage. Poisons may be swallowed, inhaled, absorbed through the skin, instilled at the eye, or injected.

Once in the body, poisons may work their way into the blood stream, and be swiftly carried to all the tissues. Signs and symptoms vary depending on the poison and its method of entry, though vomiting is common to many cases, with the risk to the casualty that stomach contents may be inhaled. The First aid procedure for dealing with a person affected with poison is ,

- Call for medical help
- Talk to the casualty to reassure to keep the casualty calm
- Identify poison

- Look for any evidences of what the casualty has taken
- Keep evidence of the poison and hand over to the doctor
- Monitor the level of consciousness
- Look for burns around the mouth
- Check breathing
- Administer CPR if required

Food poisoning

Food poisoning is caused due to the consumption of food or water affected with virus or bacteria. The symptoms of food poisoning are nausea, vomiting stomach pain and dysentery.

First aid procedure for food poisoning is,

- Ask to take rest
- Give enough water to drink.
- Give medical aid immediately

Bites and stings

Snake bite

Snake bites may lead to fatal condition: it may lead even to death of the victim. Whenever a person is bitten by snake, we should immediately provide the first aid treatment, making all the possible attempts to save the life of the victim.

Call for emergency assistance immediately. Responding quickly emergency is crucial. While waiting for emergency assistance:

- Provide assurance to the victim.
- Wash the bite with soap and water
- Immobilize the bitten area and keep it lower than the heart.
- Cover the area with a clean, cool compress or a moist dressing to minimize swelling and discomfort.
- Monitor vital signs.

If a victim is unable to reach medical care Within 30 minutes, the American Red Cross recommends;

- Apply a bandage ,wrapped two to four inches above the bite, to help slow the venom. This should not cut off the flow of blood from a vein or artery-the band should be loose enough to slip finger under it.
- A suction device can be placed over the bite to help draw venom out of the wound without making cuts.
- Immediately following a snake bite
- Try to safely and quickly identify the species of snake.
- Move victim to safety.
- Without cutting, apply strong suction, preferably within seconds of the bite directly on the main bite marks.

Insect sting

Usually, a sting from a bee, wasp, or hornet is painful rather than dangerous.

An initial sharp pain is followed by mild swelling, redness, and soreness.

First aid procedure for Insect sting is,

- Reassure the casualty. If the sting is visible, brush or scrape it off sideways with your fingernail or the blunt edge of a knife. Do not use tweezers because more poison may be injected in to the casualty.
- Raise the affected part if possible, and apply an ice pack or cold compress. Advice the casualty to see her doctor if the pain and swelling persist.

Animal bite

A person affected with animal bite immediately:

- Clean the affected part thoroughly for 10 to 15 minutes using enough soap and water.
- Must get medical treatment and use the prescribed vaccines

Heart Attack (Myocardial infarction)

A heart attack or myocardial infarction occurs when the flow of blood to the heart is blocked, most often by a build-up of fat, cholesterol and other substances, which form a plaque in the arteries that feed heart (coronary arteries). The interrupted blood flow can damage or destroy part of the heart muscle. A heart attack can be fatal, but treatment has improved dramatically over the years. This term covers coronary thrombosis, coronary obstruction, myocardial infarction and other forms of diseases.

First aid procedure for heart attack is,

- Call 108 for ambulance service in Kerala, Transport the casualty to hospital as early as possible.
- Chew and swallow an aspirin, unless one is allergic to aspirin or have been told by your doctor never to take aspirin.
- Make the casualty to cough continuously till medical aid is available.
- Begin CPR if the person is unconscious (Ahammed et al., 2017).

Choking

The airway is the passage that connects the nose and mouth with the lungs. If anything blocks the airway, the person chokes and cannot get enough oxygen. This is a life-threatening emergency condition.

First aid procedure for heart attack is to,

- If the casualty is breathing, encourage him to continue coughing. Remove any obvious obstruction from the mouth.
- If the casualty cannot speak or stops coughing reassure the casualty. Bend her forwards so that her head is lower than the chest
- Give up to five sharp blows to her back ,between the shoulder blades, with the flat of your hand
- If backslaps fail, try abdominal thrusts. The sudden pull up against the diaphragm compress the chest, and may expel the obstruction.

If this does not free the blockage, try again four times, then alternate five back blows with five thrusts

Abdominal thrusts

- stand behind the victim
- wrap your arms around the victim's waist
- make a fist, clasp first with free hand
- press in with a quick inward and upward thrust.

Epilepsy

If the casualty is falling, try to support the fall and lay him down gently, in a safe place.

Clear a space around him and unless you want someone to help, ask all bystanders to leave. If possible, carefully loosen clothing around his neck and place something soft under his head. Do not move or lift the casualty unless in danger. Do not forcibly restrain him. Do not put anything in his mouth or try to open it. Do not try to wake the casualty.

When the convulsions cease, place the casualty until you are certain recovery is complete. Do not give the casualty until you are certain recovery is complete. Do not give the casualty anything to drink until you are sure of full alertness.

Even if he makes a full, quick recovery advise him to inform his doctor about the latest attack. Do not send for an ambulance unless the casualty has several

fits, or has been injured during the fit or takes longer than 15 minutes to regain consciousness.

Foreign Bodies in the Eyes, Ear and Nose

Some times foreign bodies may enter in the sense organs eyes, ears and nose. This may cause trouble to the victim.

Foreign bodies in the eyes

Foreign bodies in the eyes cause irritation, pain, redness etc to the affected.

First aid procedure

- Avoid rubbing the eye
- If foreign body is not visible, it may be under the upper eye lid. Ask the casualty to keep clean water in the hand and blink briskly in the water.
- If a foreign body is embedded in the eye, particularly the cornea don't touch it. Take him immediately to a hospital.

Foreign bodies in the ears

Foreign bodies or insects can fly into fly or crawl in to the ear and may cause disturbance to the person. Young children may push into their ear. This leads to swelling, pain or some discharges from the ear.

First aid procedure

- if it is an insect, fill the ear with warm salt water. The insect will float up and can be removed easily.

- If there is nothing floating up, then take him to a doctor.

Things Getting Trapped in the Nose

Children may push some objects in their noses. This may lead to infection in the nose.

First aid procedure

- Do not interfere with the foreign body.
- Make casualty breath through the mouth.
- Take him to the hospital

Fainting

A faint is a brief loss of consciousness caused by temporary reduction of the blood flow to the brain.

First aid procedure for Fainting is

- When a casualty feels faint, advise her to lie down. Kneel down, raise her legs, and support her ankles on your shoulders: this helps to improve the blood flow to the brain.
- Make sure that the casualty has plenty of fresh air: ask someone to open a window. In addition, ask any bystanders to stand clear.
- As she recovers, reassure her and help her to sit up gradually. If she starts to feel faint again, advise her to lie down again, and raise and support her legs until she recovers fully.

Shock

The life threatening condition occurs when the circulatory system fails and, as a result, vital organs such as the heart and brain are deprived of oxygen. It requires emergency treatment to prevent permanent organ damage and death.

Shock can be made worse by fear and pain. Whenever there is a risk of shock developing, reassuring the casualty by raising the lower limbs by about 2 feet and making him comfortable may be sufficient to prevent him from deteriorating. The most common cause of shock is severe blood loss.

First aid procedure for shock is to,

- Treat any possible cause of shock that you can detect, such as severe bleeding or serious burns.
- Lay the casualty down on a blanket to insulate her from the cold ground. Constantly reassure her.
- Raise and support her legs to improve the blood supply to the vital organs. Take care if you suspect a fracture.
- Loosen tight clothing at the neck, chest, and waist to reduce constriction in these areas.
- Keep the casualty warm by covering her body and legs with coats or blankets. Dial for ambulance.
- Monitor and record vital signs.

Hanging and strangulation

If pressure is exerted on the outside of the neck ,the airway is squeezed and the flow of air to the lungs is cut off. The main causes of such pressure are

- Hanging-suspension of the body by a noose around the neck.
- Strangulation-constriction or squeezing around the neck or throat.

First aid procedure for Hanging and strangulation is

- Quickly remove any constriction from around the casualty's neck. Support to the body while you do so if it is still hanging.
- Lay the casualty on the ground. Open the airway and check breathing. If person no breathing give chest compressions and rescue breaths. If breathing, place person in the recovery position.
- Dial for an ambulance.

Asthma

In an asthma attack, the muscles of the air passages in the lungs go into spasm and the linings of the airways swell. As a result, the airways become narrowed, which makes breathing difficult. First aid procedure for Asthma is

- Keep calm and reassure the casualty. Get her to take a puff of her reliever inhaler. It should relieve the asthma attack within a few minutes. Ask her to breath slowly and deeply.

- Let her adopt the position that she finds most comfortable-often sitting down. Do not make the casualty lie down.

A mild asthma attack should ease within 3 minutes. If it does not, ask the casualty to take another dose from the same inhaler.

Back pain

Back pain may occur in the spine itself or in the muscle and ligaments around it. The most common cause of back pain is overstretching of the ligaments or muscles as the result of a fall or strenuous activity. Other common causes of back pain are “whiplash” injuries, which lead to neck pain, and pregnancy and menstruation. First aid procedure for back pain is

- Advise the casualty to lie down flat in the most comfortable position for him, either on the ground or on a firm mattress.
- Advise him to lie as still as possible until the pain eases. Assist the casualty to take his own painkillers. If the symptoms persist, call his doctor or send him to hospital.

Headache

A head ache may accompany any illness, particularly a feverish ailment such as flu. It may develop for no reason but can often be traced to tiredness, tension, stress, or undue heat or cold. Mild “Poisoning” caused by a stuffy or fume-filled atmosphere, or by excess alcohol or any other drug, can also induce a headache.

However, a headache may also be the most prominent symptom of meningitis or stroke. First aid procedure for headache is,

- Help the casualty to sit or lie down in a quiet place. Apply a cold compress to the head.
- An adult may take two paracetamol tablets, a child the recommended dose of paracetamol syrup. Do not give a child aspirin.

Poisonous plants and fungi

Many young children eat plant leaves or brightly colored berries, but serious poisoning as a result rarely occurs. Serious poisoning as a result of eating mushrooms is also rare. First aid procedure for Poisonous plants and fungi is

- If the casualty is conscious, ask him what he has eaten and reassure him.
- Try to identify the poisonous plant, and find out which part of it been eaten. Get medical advice at once so that the appropriate treatment can be given.
- Keep any small piece of the plant that you have found ,together with samples of vomited material, to show to the doctor or to send with the casualty to hospital.

Allergy

An allergic reaction is an abnormal physical sensitivity to a “trigger” substance that is usually harmless, such as a food, a chemical, a drug, or pollen. It occurs when the immune system, which normally fights infection, “attacks” the trigger substance.

Allergies may produce various respiratory, digestive, and skin conditions. Eg:

Asthma

First aid procedure for asthma is

- Assess the casualty's signs and symptoms, and ask him whether he knows that he suffers from an allergy.
- Treat any symptoms, and help the casualty to take any medication that he has.
- Advise the casualty to arrange to consult his doctor. If you are all concerned about the casualty's condition, you should call a doctor yourself.

Fever

A sustained body temperature above the normal level of 37 degree C(98.6 degree F) is known as fever. First aid procedure for fever is

- Keep the casualty cool and comfortable, preferably in bed with a light covering. Give him plenty of cool, bland drinks to replace body fluids lost through sweating.
- An adult may take two paracetamol tablets or her own painkillers. A child may take the recommended dose of paracetamol syrup (not aspirin).

Cramp

This condition is a sudden, painful spasm in one or more muscles. Cramp commonly occurs during sleep. It can also develop after strenuous exercise, due to a

build-up of chemical waste products in the muscles or to excessive loss of salt and fluids from the body through sweating.

Cramp in the foot

- Help the casualty to stand with her weight on the front of her foot.
- Once the first spasm has passed, massage the affected area of the foot.

Cramp in the calf

- Straighten the casualty's knee and support the foot
- Flex the foot towards the shin to stretch the calf muscles, then massage the area.

Cramp in the thigh

- Help the casualty to lie down. To ease cramp in the back of the thigh, raise the leg and straighten the knee. For cramp in the front of the thigh, bend the knee.
- Support the leg and massage the affected thigh muscle gently but firmly with your fingers until the pain eases.(First Aid Manual, 2011)

H.Agencies of first aid

First Aid training programs vary from region to region.The main agencies involved in training programmes of first aid are also follows.

Lifesaving Society

The LSS, Canada's lifeguarding expert, provides first aid training geared toward both lifeguards and public

Red Cross(RC)

The RC has been a leading first aid training organization throughout North America.

St. John Ambulance

Provides first aid courses to the public, as well as more advanced training.

Canadian Ski Patrol

Provides first aid training for their ski patrollers as well as the public.

Heart and Stroke Foundation of Canada

- Corporate training programs: there are various corporations which provide their own programs.
- Many ambulance and fire services offer basic first aid courses to those who are interested.

British Red Cross

The British Red Cross is part of the worldwide organization, and provides personal and commercial first aid training

Review of Related Studies

The studies conducted in the area of first aid are given below.

Jamaluddin, Zakaria, Saidi and Chan (2018) studied “Knowledge, Awareness, and Attitude of First Aid among Health Sciences University Students”. The objective of the study assesses the level of knowledge and awareness of, and attitudes towards, first aid among IIUM Kuantan campus students. A quantitative cross-sectional survey with the stratified random sampling study was conducted among 348 students at the International Islamic University Malaysia (IIUM) Kuantan. A questionnaire was used in this study. The result shows that a total of 42.8 percent participants had a moderate level of first aid knowledge. However, 90.8 percent participants had awareness of and a positive attitude towards first aid knowledge. On the other hand, 55.4 percent of study participants had not taken first aid courses and they had little knowledge of this.

Qureshi, Khalid, Nigah-e-Mumtaz, Assad, and Noreen (2018) assessed in the study, the First aid facilities in the school settings: Are schools able to manage adequately? Participants are 209 school teachers of both the public and private sectors at both primary and secondary level. The result of the study revealed that First aid facilities at various schools of Karachi and availability of trained teachers who can provide first aid care are unsatisfactory.

Sharif, Hasan, Jamaludin, & Firdaus (2018) conducted a study on the need for first aid education for adolescents. A cross-sectional study using multistage sampling was conducted among 375 secondary school students in Kuantan, Pahang,

Malaysia. The survey was adapted from a Hong Kong Red Cross survey. A back to back translation of this instrument was carried out by two bilingual medical experts with Cronbach's alpha 0.8. The data were analyzed using SPSS (Statistical Package for the Social Sciences) in terms of descriptive analysis, and an independent t-test and chi-square test were carried out. There were 149 respondents from the lower form (grade level) and 226 respondents from the upper form. The majority of respondents (81.6 percent) were Malay. An independent t-test revealed a significant association between knowledge and attitude, as students who scored higher on first aid questions showed a more positive attitude towards first aid (1.475 percent). There were also significant associations between race and experience learning first aid. The conclusion was adolescents receive minimal first aid education. Thus, there is an urgent need to educate adolescents more in first aid to promote a safer community and to prevent any further injuries

Musa et al. (2017) conducted a research study on “knowledge of first aid skills among medical students at King Khalid University, Abha, Saudi Arabia”. The study was to assess the level of knowledge of medical students in providing first aid to the patients. A structured questionnaire was used as a tool. This study revealed that poor knowledge about first aid among the medical students at KKU. There is thus a need for first aid training to be introduced in the medical curriculum to improve the basic skill among all the students.

Magrabi, ElwardanyAly, and Khalaf (2017) conducted a study to find out the impact of a training programme regarding first aid knowledge and practices among preparatory school teachers. The quasi-experimental study used with one

group pre-post test research design. The study revealed that Mean \pm SD of teachers' age was 38.78 \pm 8.83, 26.7 percent of the teacher attended training programme about first aid, there were statistically significant differences between total score of teachers' knowledge (p-value = .000) in pre and immediate post-test. There were statistically significant differences between the performance level of preparatory schools teachers (p-value = .000*).

Panday et al. (2017) conducted a study in health assigned teachers of primary school about their first aid knowledge. It was a non-experimental survey study. Purposive sampling technique was used. The result shows that the majority of health assigns teachers were having average knowledge about first aid.

Allah, Salem, and Said (2017) conducted "an intervention study of enhancement of disaster management and first aid rules for primary school teachers in Egypt". The major objective of the study was to asses knowledge and skills regarding first aid and disaster management among school teachers and to check intervention programmes effectiveness also. The sample used for the programme was 43 teachers from two primary schools of Zagazig district. Questionnaire and an observational checklist were used for data collection. The result shows that the first aid knowledge and disaster management knowledge was increased to the teachers after the intervention.

Bakke, Steinvik, Angell, and Wisborg (2017) conducted a nationwide survey of first aid training and encounters in Norway. They conducted a telephone survey of 1000 respondents who were representative of the Norwegian population. The major findings show that among the respondents, 90 percent had received first aid

training, and 54 percent had undergone first aid training within the last 5 years. Of the 43 percent who had been faced in a situation requiring first aid, 89 percent had provided first aid in that situation. Theoretical first aid knowledge was not satisfactory. In the present scenario 42 percent of respondent would initiate CPR in an unconscious patient not breathing normally, and 46 percent would provide an open airway to an unconscious road traffic victim. Major conclusions of the study were a high proportion of the Norwegian population had first aid training, and Norwegian people were shows willingness to provide first aid. First aid theoretical knowledge was worse than expected. While first aid is part of national school curriculum, few have listed the school as the source for their first aid training.

Holding, Relton, Roberts, and Oliver (2017) conducted a study about first aid intervention in the adult population in Yorkshire. The aim of this study was to conduct a first aid behavior survey of a large adult population in the United Kingdom. Survey method used. Results showed that, of the 13,584 adults who responded, 11.6 percent reported having given first aid to someone in the previous year, of whom three quarters (76.3 percent) knew the recipient. Women, those aged 26-45, those with 2-4 children, and people on higher income were more likely to report having given first aid. Although young people were less likely to provide first aid, they were more likely to have assisted strangers. The findings can be used to inform the development of future population-based interventions such as targeted first aid education, providing a foundation for future research.

Galindo, Caetano, Barros, Silva, and Vasconcelos (2017) conducted a study about “First aid in school: construction and validation of an educational primer for

teacher”. Major goal was Build and validate an educational primer for early childhood and elementary school teachers about first aid in school. It is the study carried out from the construction of the educational material, with subsequent validation by 22 judges and evaluation of 22 teachers. The results show that the booklet addresses first aid that must be performed in 15 diseases and has 44 pages. All items were assessed as relevant and the Level Content Validity Index had an average of 0.96. The primer was approved by the teachers with a concordance index of 1.0. The primer was constructed and validated and can be used by nursing in health education with teachers on first aid at school.

Wilks and Pendergast (2017) suggested some important aspects about first aid at school. “The review considers initiatives in various countries to include mandatory first aid and cardiopulmonary resuscitation (CPR) training in schools, key educational considerations and the supporting empirical evidence, in particular the relevance of first aid and CPR training to broader educational goals of student capability, resilience and self-efficacy. Systematic reviews all show evidence to support the provision of first aid and CPR training courses and programmes in schools, with interventions effective in improving first aid knowledge and skills both post-training and in some studies up to 12 months afterwards. Important factors include ensuring the content is relevant and practical for the target group and offering an opportunity for young people to explore and discuss helping behavior in emergency situations. Age-appropriate first aid and CPR instruction should be integrated into the school curriculum beginning in the primary years and developed/refreshed annually. Topics covered should include calling for help,

bleeding, choking, burns, unconsciousness and resuscitation – all within the broader context of being confident and willing to help others. With the right training and support, schoolteachers can effectively deliver first aid instruction to their students. Future research should concentrate on gaps in evidence-based practice, especially measurements to demonstrate the effectiveness of first aid training, in order to advance the case for mandatory first aid education in schools. Young people to explore and discuss helping behavior in emergency situations.”

Gore et al.(2017) conducted a study on “knowledge regarding first aid among undergraduate medical students in Bangalore”. It was a cross-sectional study, in which a questionnaire was used. The result shows that first aid knowledge of medical students needs improvement. Level of knowledge improved with increasing terms but this was not sufficient and more first aid and basic life support training should be given to the medical students.

Kim, Baek, & Kang (2017) conducted a study in “Development and exploratory testing of a school-based educational programme for healthy life behaviors among fifth-grade children in South Korea.”The purpose of this study was to develop an educational programme to promote healthy life behaviors and to evaluate its potential effects on the health practices of fifth-grade elementary school children. It was an intervention study. The program, which consisted of six categories (daily life and health, disease prevention and management, prevention of drug misuse and overuse, sexuality and health, mental health, and injury prevention and first aid). A pretest-post-test, one-group, quasi-experimental design was used with 85 elementary school students who voluntarily participated in the

program. Results showed that a school-based educational program, called the “Six Kid Keys,” referring to the six categories of healthy life behaviors, was developed. Significant pre-post differences in two of the six healthy life behavior categories (disease prevention and management, injury prevention and first aid) were found. The major conclusion of the study is a school-based intervention that was aimed at changing habits related to healthy life behaviors could be effective for elementary school children.

Patrick and Matteson (2017) published an article on “Elementary and middle level biology topics: a content analysis of *Science and Children* and *Science Scope* from 1990 to 2014”. *Science and Children* and *Science Scope* are peer-reviewed science practitioner journals that publish articles for science educators who teach children of ages 5–10 years and 10–13 years respectively. As such these articles are a reflection of the science concepts that are being communicated to science educators. This comprehensive literature review was completed to determine the extent to which the articles included in these journals from 1990 to 2014 focused on biology topics, incorporated other non-science subjects and science disciplines, and encouraged inquiry-based learning. The results indicate that out of the 2701 total articles, 557 (21 percent) focused on biology. The biology topic covered most often by both journals was animals. The biology topics covered least often were fungi, photosynthesis, respiration and viruses. The findings are taken into consideration and the educational implications for the journals and educators are discussed

Mirza et al. (2016) conducted “a study among secondary school students in Makkah city, an intervention study”. The main aim of the study was to assess the

effect of a structured training course on students knowledge and behavior regarding first aid in secondary schools. A quasi-experimental pre-post method was used. After the intervention students showed that a possible correlation between first aid knowledge and behavior.

Alhejaili and Alsubhi (2016) studied about “knowledge and attitude of first aid skills among Health science students at Taibah University”. The main objective of the study was to assess awareness about first aid knowledge among the female students of health science colleges before and after awareness presentation. A cross-sectional study was done among the female students through pre and post test awareness assessment. The study revealed that inadequate knowledge about first aid among the female students. The major recommendation was Health science students at Taibah University need first aid training programme in their curriculum to improve the basic skill about it.

Lenson, and Mills (2016) conducted a “First aid knowledge retention in school children: A review of the literature”. The researcher conducted a search of the peer-reviewed and grey literature was conducted from a narrative review. Journal article is also selected. The main result of the study was the search yielded four primary studies of European school children aged 4–12 years trained by professional first aid providers. The subsequent review identified emergent themes of resuscitative first aid and non-resuscitative first aid. Heterogeneity was apparent in training and evaluation methods, and study quality varied. Reported first aid knowledge retention was mixed.

Khatatbeh (2016) conducted a study on the “First aid knowledge among university students in Jordan”. The finding was revealed that female students, having previous first aid experience, and being a student of the health sciences and scientific colleges were the only factors had significant statistical associations with better level of first aid knowledge.

Zayapragassarazan (2016) wrote an article “Urgent need to train teachers and students in first aid and CPR”. In this article he describes that teachers who are in need and importance of first aid training for students and teachers. He said that first aid training will help a person when face with such emergency situation to save the life of the concerned. This article also stresses the need for policy measures from the government side to include first aid and CPR as a mandatory subject at all levels of education to teach the next generation of life savers.

Reveruzzi, Buckley, and Sheehan (2016) analyzed “a school-based first aid training programs: a systematic review”. This review examines the breadth of first aid training delivered to school students and the components that are age appropriate to adolescents. Eligible studies included school-based first aid interventions are used for review. 20 journal article was used. The study concluded that review supports first aid in school curriculum and provides details of key components pertinent to design of school-based first aid programs. The findings suggest that first aid training may have benefits wider than the uptake and retention of knowledge and skills.

Mobarak, Afifi, and Qulali (2015) conducted a study on “ First Aid Knowledge among University Students in Jordan”. This study has aimed to evaluate the level of knowledge about the first aid process among the university students in

Jordan. The study population consisted of students of the 14 scientific and unscientific faculties at Yarmouk University, Jordan. Data were obtained via questionnaires from 883 students. The majority of participants were females (65.9 percent) with mean age (standard deviation) of 19.9 (2.6) years. Only 29.2 percent of students had previous first aid experience. When asked, only 11 percent of students knew the normal respiration rate of an adult in 1 min. Results revealed that female students, having previous first aid experience, and being a student of the health sciences and scientific colleges were the only factors had significant statistical associations with better level of first aid knowledge. Conclusions: The students' knowledge about first aid is not at an adequate level. It would be advisable that first aid course be handled as a separate and practical course at secondary schools.

Singh et al. (2015) conducted “an interventional study on awareness regarding first aid and fire safety among the second year undergraduate medical students of BJ Medical College, Ahmedabad”. The sample was 50 medical college students. The result shows that the awareness among medical students about first aid was poor and fire safety was average before the intervention, it was significantly increased after the intervention.

Joseph et al. (2015) measured “awareness, attitudes, and practices of school teachers and the facilities and available school facilities with respect to the administration of first aid”. A questionnaire was used to collect data. Results show that only 47 percent teachers got first aid training previously. 13 percent teachers found to be poor first aid knowledge 87 percent has moderate first aid knowledge. 66 percent teachers willing to administer first aid is provided with the required

training. Wounds (36 percent) and syncopal attack (23 percent) were common first aid situations in schools.

Shabani (2015) conducted a study in physical education teachers. The purpose of the study was the evaluation of knowledge of physical education teachers in using first aid in schools sports of the Dezful city in the 2014 academic year. A descriptive survey method was used. The study population has consisted of 210 primary and secondary school physical education teachers in Dezful city. A questionnaire was the tool. The results showed that the level of Knowledge and skills of teachers, respectively with 92 and 48 percent was in a favorable situation. The safety level of physical education classes also with 3.51 percent was favorable. First Aid skills of men were evaluated better than women, but in the knowledge of the application of first aid and safety principles, there was no difference between male and female teachers. Given the important role of physical education teachers in the development of sports and also the inevitability of sports injuries, it seems necessary to teach first aid and safety principles during a scheduled period.

De Buck et al. (2015) revealed evidence-based educational pathway for the integration of first aid training in school curricula. The major objectives were to develop an evidence-based educational pathway to enable the integration of first aid into the school curriculum by defining the goals to be achieved for knowledge, skills, and attitudes, for different age groups. Studies were identified through electronic databases research (The Cochrane Library, MEDLINE, Embase). They included studies on first aid education for children and adolescents up to 18 years old. A multidisciplinary expert panel formulated their practice experience and expert

opinion and discussed the available evidence. Results showed that 5822 references and finally retained 30 studies (13 experimental and 17 observational studies), including studies concerning emergency call (7 studies), cardiopulmonary resuscitation (18 studies), AED (Automated External Defibrillator) use (6 studies), recovery position (5 studies), choking (2 studies), injuries (5 studies), and poisoning (2 studies). Recommendations (educational goals) were derived after carefully discussing the currently available evidence in the literature and balancing the skills and attitudes of children of different ages. The conclusion was an evidence-based educational pathway with educational goals concerning learning first aid for each age group was developed. This educational pathway can be used for the integration of first aid training in school curricula.

Dasgupta, Bandyopadhyay and Das (2014) checked the “Effectiveness of health education in terms of knowledge acquisition on first-aid measures among school students in a rural area of West Bengal”. Imparting school children with appropriate knowledge on prevention, control, and management of common illnesses and injuries will play a long way in reducing the morbidity and mortality of the population of all ages and sex. Hence, any above related training is unquestionably a sound and logical investment which is the most important objective of this study. About 105 students of a rural school of West Bengal were administered with a self-administered questionnaire for assessing their baseline knowledge about selected first-aid skills, followed by the on-the-spot demonstration of the skills with the help of a systematically devised teaching module on the same day. Post-intervention evaluation of their knowledge acquisition was done after 2

weeks with the same questionnaire. A scoring system was devised to quantify the knowledge of students on first aid. Significant improvement in post-training knowledge score. Conclusion: Knowledge of school students regarding the management of common illnesses and injuries should be incorporated as a part of school curriculum.

Salminen, Kurenniemi, Råback, Markkula, and Lounamaa, (2014) conducted a study in School environment and school injuries in Finland. The main goal of the investigation was to examine the effect of environmental factors on school injuries. Methods were used nine comprehensive Finnish schools registered school injuries over a period of two school years. Injuries were classified as being associated with environmental factors, suspected environmental factors, and others. The consensus between two independent classifiers was 81 percent. Results: A total of 722 injuries were classified. In 11.6 percent of these injuries, the physical environment factor was evident, and in 28.1 percent of the injuries, physical environment was suspected of being a contributory risk factor. Thus the physical environment of the school was a contributing factor in over a third (39.7 percent) of injuries occurring in the school, on the school yard or during the journey to, or from school. In this study, conducted in Finland, ice on the ground was mentioned most frequently as an environmental risk factor. Major conclusion was in Finland, the Nordic weather conditions are not taken into account in the school yard and playground plans as they ought to from the safety point of view. An initiative has been launched on a mandatory wintertime master plan for every school yard.

Emerich, Włodarczyk, and Ziolkowski (2013) studied Education of Sport University student regarding first-aid procedures after dental trauma. The aim of this survey was to establish the current state of knowledge with regard to first-aid procedures and to compare the effectiveness of an educational lecture and a subsequent educational session. A questionnaire to assess the attitudes and anticipated behaviors of Sport University students related to first-aid procedures following dental injury was administered to the students 3 times (after 3 and 12 months). A lecture on the subject of dental trauma was given just after the first questionnaire survey. The present study revealed a low level of initial knowledge of physical education students concerning first-aid measures in the case of dental trauma. A 30-minute lecture and an extra educational task significantly improved the knowledge level. Even after one year the knowledge level was still high and sufficient to properly react when faced with dental trauma. Conclusion: The research proves that the inclusion of dental trauma as a topic in the Sport University students' curricular training and pedagogical education should be introduced in the form of a clear and concise lecture.

Ozkan (2013) conducted a study on “comparison of peer and self-video modeling in terms of effectiveness and efficiency in teaching first aid skills to children with intellectual disability” .The major finding of the study was, both peer and self-video modeling are equally effective and efficient.

Davies, Maguire, Okolie, Watkins, and Kemp (2013) studied about “How much do parents know about first aid for burns?” With an estimated 19,000 children attending emergency departments (ED) with a burn or scald every year in the UK, a

parent's knowledge of first aid is particularly important. This study evaluates the extent and source of this knowledge. A structured questionnaire used as a tool. The result showed that overall, the knowledge of burns first aid among parents is inadequate and correlates with lower socio economic groups. There was a significant association between knowledge and previous first aid training. Results suggest that targeting burns first aid training to all new parents, particularly those in low income households, would be of value.

Graham, Bache, Muthayya, Baker, and Ralston (2012) conducted a study to “evaluate the knowledge of burns first aid amongst parents in South Yorkshire, United Kingdom.” The sample was Parents who attending outpatient clinics at Sheffield Children's Hospital were interviewed and asked about the first aid they would provide for a child with a large scald. The questionnaire findings highlighted the need for improved parental awareness of burns first aid.

Bollig, Myklebust, and Ostringen (2011) conducted a study on the “effect of first aid training in the kindergarten a pilot study”. The aim of the study was to evaluate the effects of a first aid course for 4-5 years old kindergarten children given by a first aid instructor and kindergarten teachers. Mixed method was used for the study. The sample was 10 kindergarten children at the age of 4-5 years used for the study. The findings suggest that 4-5 years old children are able to learn and apply basic first aid. Kindergarten aged 4-5 years can learn basic first aid. First aid training should start in the Kindergarten.

Lippmann, Livingston, and Craike (2011) conducted a study in school students. Aims of the study were Flexible-learning first aid courses are increasingly

common due to reduced classroom contact time. This study compared retention of first aid knowledge and basic life support (BLS) skills three months after a two-day, classroom-based first aid course (STD) to one utilizing on-line theory learning at home followed by one day of classroom training (FLEX). Results: There was no significant difference in theory scores between the STD and FLEX groups immediately after training and after three months. STD participants had significantly higher BLS scores immediately after training ($p = 0.001$) and three months later ($p = 0.046$). Males had significantly higher BLS scores after training (p less than 0.001), but not three months later ($p = 0.02$). Participants older than 46 years had significantly lower BLS scores than younger participants (p less than 0.001). There was no significant difference in combined scores between the STD and FLEX groups or between genders, education or age groups either immediately after training or three months later. Conclusion: After replacing one day of classroom-based training with online theory training, there was no significant difference in the first aid competencies of the study population, as measured by an equally-weighted combined score of basic life support and first aid theory.

Carruth et al. (2010) conducted a collaborative study with first aid for medical emergencies. It was developed to support a TTT (A train-the-trainer) programme to prepare high school students to teach first aid skills. The intervention group included 27 participants. Independent t-test analyses were conducted on post-test scores to evaluate the knowledge acquisition and anticipatory action scores between groups. Focus group sessions assessed attitudes, experiences, and values held following the intervention of teaching peers. Results indicate that the

intervention group scored significantly higher on anticipatory action ($t = 2.23$, $p = .03$) but not knowledge acquisition ($t = 1.37$, $p = .18$). Focus group data suggest that the TTT format boost confidence in teaching confirmed that teens enjoy learning from teens, and fostered pride in teamwork.

Bhatia, Puri, Mangat, and Kaur (2010) conducted an interventional study to strengthen the first aid care in schools by involving teachers and training them on first aid. The study was conducted in 100 Govt. schools in Chandigarh, a Union Territory of India. The design adopted was cross-sectional interventional study design and the questionnaire was used to collect the required information. After the initial data collection, one-day training was given to the school teachers. After one month of training, post-test was conducted. The study reveals that only 6% of schools had healthcare/first aid kits in pre-intervention on phase which increased to 87% in post-intervention. Basic health equipment in schools also increased variably post interventionally. It was noticed that 65 percent of schools were having the facility for referring sick children to Govt. health centers and 16 percent to private clinics. 65 percent of teachers in charge of health and medicine were not sure of taking appropriate action or decision initially which subsequently decreased to nil in post-intervention. Availability of common drugs like paracetamol increased from 16 percent in pre-intervention to 71.7 percent later on. Knowledge of teachers about common drugs used in various ailments like fever increased from 71 percent to 86.9 percent.

Fleischhackl et al. (2009) conducted a study in School children sufficiently apply life supporting first aid: a prospective investigation. The main aim of the study

was the usefulness of CPR training in schools has been questioned because young students may not have the physical and cognitive skills needed to correctly perform such complex tasks correctly. Methods is in pupils, who received six hours of CPR training from their teachers during a standard school semester at four months post training the following outcome parameters were assessed: CPR effectiveness, AED deployment, accuracy in checking vital signs, correctness of recovery position, and whether the ambulance service was effectively notified. Possible correlations of age, gender, body mass index (BMI), and outcome parameters were calculated. Results of 147 students (mean age 13 ± 2 years), 86 percent performed CPR correctly. Median depth of chest compressions was 35 mm (inter quartile range (IQR) 31 to 41), and the median number of compressions per minute was 129 bpm (IQR 108 to 143). Sixty nine percent of the students tilted the mannequin head sufficiently for mouth to mouth resuscitation, and the median air volume delivered was 540 ml (IQR 0 to 750). Scores on other life supporting techniques were at least 80 percent or higher. Depth of chest compressions showed a correlation with BMI ($r = 0.35$; $P < 0.0001$), body weight ($r = 0.38$; $P < 0.0001$), and body height ($r = 0.31$; $P = 0.0002$) but not with age. All other outcomes were found to be unrelated to gender, age, or BMI. Conclusions of the study: Students as young as 9 years are able to successfully and effectively learn basic life support skills including AED deployment, correct recovery position and emergency calling. As in adults, physical strength may limit depth of chest compressions and ventilation volumes but skill retention is good.

A one year study by Chipp, Walton, Gorman, and Moiemmen (2008) studied about burn injuries in a British Emergency Department. Result revealed that only 30

percent of the patients received adequate first aid. Seven hundred and eighty five patients presented with a diagnosis of burns, accounting for 1 percent of all attendances. 53 percent of patients were male and most were young adults of working age. The most common causes of injury identified by him are scalds and flame. He also found that there are significant inadequacies in staff's knowledge about burn prevention and first aid.

Goel and Singh (2008) studied "a comparative impact of two training packages on awareness and practices of first aid for injuries and common illnesses among high school students in India". Sample was 120 students of 9th standard secondary school students in Chandigarh, India. Questionnaire was a tool. The mean group scores for both groups (Group A and B) on combined knowledge and skills were higher at post-intervention than pre-intervention. Increase in level of knowledge from pre test to post test was greater for Group B than for Group A by 33 percent. Also, increase in level of skills from pre test to post test was also greater for Group B than for Group A by 135 percent. Overall knowledge and skills increased to 43 percent in group B as compared to A. It is concluded that there is a need for strengthening the knowledge of students regarding common illnesses and injuries by incorporating these training and education as a part of school curriculum.

Tandon, Shaik, and Modi (2007) conducted a study to "identify the epidemiology of pediatric trauma in an urban scenario of India and compare result with studies from developed countries". 500 pediatric, orthopedic trauma patients presenting to King Edward VII memorial Hospital, Mumbai, were prospectively studied. The children's age ranged from 0 to 16 years, 274 were males. Most

fractures occurred in children aged 7 to 12 years and decreased in older children. The ratio of fractures in left versus right upper extremity was 2:1. In children aged 0 to 6 years, the most common injured site was the elbow, whereas in children aged 7 to 16 years it was the distal radius. In descending order, most injuries were sustained at home (47 percent), in school (21 percent), due to sports (17 percent) and due to vehicular accidents (13 percent).

Baser, Coban, Tasci, Sungur and Bayat (2007) studied “first aid knowledge and attitude among 312 Turkish primary school teachers regarding the administration of first aid”. Data were obtained using questionnaire. Data were analyzed by chi-square test. In the study, it was determined that most of the teachers (65.1 percent) do not have correct knowledge and attitude about first aid. It was found out that as the age of the teacher increases; appropriate first aid practices becomes more and more unlikely. The result of this study showed that teachers didn’t have enough knowledge about first aid.

Tomruk, Soysal, Gunay, and Arif (2007) studied “level of knowledge of relatives and bystanders in emergency situations in Turkey”. The aims of this study were to assess the level of FA knowledge among bystanders in emergency situations and to identify factors that affected this level of knowledge. 318 bystanders were given a questionnaire. Bystanders who had graduated from a university, were health care personnel, had taken a FA course, had a FA certificate, or had a drivers’ license were considered to be more successful.

Connolly, Toner, Connolly, and McCluskey (2007) conducted a comparative study in 10-12 years old school children to check the awareness of Basic life

support. The first aid basic support training section was given to school pupils in Northern Ireland. The questionnaire was used as a tool. The result showed that children instructed in CPR showed a highly significant increase in the level of first aid knowledge following the training section. While their level of knowledge decreased over of 6 months it remained significantly higher that of a comparable group of children who had never been trained.

Chini et al. (2006) conducted a retrospective cohort study to describe the injuries of children in the Lazio Region. The setting of the study was all Emergency Departments in Lazio Region and hospital discharge in the region during 2000-2001. The case were classified by body region and type of lesion. The result showed the rate of home accident visit was particularly high among children aged 1-5 years (55.2/1000), while the highest rate for road traffic injuries was in 14-18 year old children. Girls had a lower hospitalization rate than boys. The body region most frequently involved was the lower extremities (28.4 percent) and head and neck (34.8 percent). The youngest children are at high risk of home accidents while teenagers are at risk for road traffic injuries.

Kraus, Heiss, Alt, and Schenettler (2006) conducted a study to asses injury patterns with their treatment of school accidents in a Trauma service of a German University Hospital. All school accidents from 01.07.1999 to 30.06.2004 were statistically analyzed in a retrospective manner by chart review. There were 1399 school accidents treated in our department. Average age of the injured children was 11.8 years with a boy: girl ratio of 3:2. Almost 40 percent of the injuries occurred during school sports. The most frequently injured region was the upper extremity

including the hand (36.8 percent). Distortion and contusion were the most frequent diagnoses of all injuries. 16 percent of the cases had to be treated surgically and/ or under general anesthesia and also a total of 16 percent of the patients had to be admitted to the hospital.

Parnell, Pearson, Galletly, and Larsen (2006) studied “knowledge and attitudes towards resuscitation in New Zealand high school students”. The aim was to assess the attitude towards and knowledge of CPR in 16-17 year old high school students in New Zealand. Questionnaires were administered to 494 students aged 16-17 years across six high schools in Wellington, New Zealand. Both knowledge and attitude were evaluated in the questionnaire. Students showed poor theoretical knowledge, with a mean (SD) score of 5.61 (2.61) out of a maximum score of 18. Although there was no difference between male and female students, those who had received previous first aid training (70 percent) showed greater knowledge (6.04 (2.56) than their untrained counterparts (4.91 (2.24); $P=0.001$)). Those students with a positive attitude towards CPR and first aid training (63 percent) acquired a higher knowledge score (6.12(2.4)) than those with a negative attitude (17 percent, 4.65 (2.5), $P=0.001$) students with negative association were also less likely to want to learn more about CPR and first aid (11%) when compared with those with positive associations (92 percent) and indicated less willingness to perform CPR on a stranger (negative V positive, 47 percent V 70 percent). These findings suggest that although most high-school students are willing and motivated to learn CPR, a smaller percentage of students had a negative attitude towards CPR that would act as a barrier to future learning or performance of resuscitation. Introducing CPR training

to high schools is still recommended; however, this study shows the need to associate this training with positive references in an attempt to assist those for whom negative attitude may present as a barrier to learning and retaining CPR knowledge.

Allikar and Essien (2005) conducted a study to “determine the knowledge and attitude of primary school teachers on childhood epilepsy”. The design adopted was a cross-sectional study and the sample consisted of 118 school teachers from five randomly selected primary schools in Port Harcourt Metropolis, Nigeria. He found that the knowledge of primary school teachers in epilepsy and first aid management of an epilepsy attack is poor (43 percent) and 45.8 percent had a negative attitude towards epilepsy. They recommend that the education of school teachers on the first aid management of an epilepsy attack is poor (43 percent) and 45.8 percent had a negative attitude towards epilepsy. They recommend that the education of school teachers on first aid for epilepsy is very essential. He also recommends that effective seizure management in the school setting is a critical issue for students with seizures, as well as their parents, classmates, and teachers. The ability to respond appropriately to seizures is of concern to parents and school personnel. So the implementation of a seizure emergency treatment plan empowers school personnel to quickly treat the child.

Hatzakis, Kritsotakis, Angelaki, Tzanoudaki, and Androulaki, (2005) did a study and evaluate the knowledge on first aid of industry workers through a questionnaire revealed following findings: it was a comparative study with 40 (group A) were trained on FA by a team of doctors authorized by the Hellenic National centre of Emergency Greece, while 196 had never have a formal training on FA

(group B). In group A the mean value of correct answers (performance score) was higher than group B (62.7 & 50.4 respectively), while the total sample of workers ranged from 21.1 to 84.2. Group A replied correctly about normal values of pulse, arterial blood pressure (BP) and breaths at 67.5 percent, 35 percent and 47.5 percent respectively group B replied at 32.8 percent, 18.4 percent and 30.6 percent on the corresponding normal values. In group A, 95 percent answered properly about the definition of cardiopulmonary rehabilitation but only 25 percent were acquainted with the necessary number of chest compressions and 32.5 percent with the number of necessary mouth to mouth ventilations to practice in case of CPR. In group B, the corresponding percentages were 72.4 percent, 26 percent and 36.7 percent only 5 percent from group A and 1 percent from group B answered correctly and simultaneously about estimation of vital signs and CPR practice. In conclusion, the majority of workers are unable to provide efficient FA as long as they can't estimate vital signs and provide satisfactory CPR.

Rea, Kuthubutheen, Fowler, and Wood (2005) conducted a prospective audit of all new patients with burns, attending the minor burns, attending the minor burn facility at Royal Perth Hospital; found that only 39 percent of patients received appropriate first aid. It has been shown that good first aid improves the outcome of the burn patient and this study demonstrated that participation in a first aid course will help to improve knowledge (75 percent improvement in knowledge for non health professionals). It is justifiable to progress towards compulsory first aid courses which include first aid of the burns.

Verma(2005) studied the role of epidemiological parameters in burns injuries. The objective of the study was to identify the role of demographic distribution and epidemiological parameters for assessment of mortality rate and development of burn prevention strategy in pediatric patients. In a local hospital in Mumbai concludes that provision of first aid affects the mortality rate. He states that only 28 percent of burn patients in the emergency department received adequate first aid. They suggest that an intense and focused burn prevention campaign to educate the general population about dangerous etiological factors and first aid for burns will decrease the incidence of pediatric burn injuries and deaths associated with it.

Ndour et al. (2004) conducted “a survey on the knowledge of school teachers about epilepsy in Senegal”. 364 teachers participated in the study (88 percent of females and 12 percent of males). The method adopted for the study was a descriptive survey approach. A structured questionnaire was used to collect data. The result revealed that 84 percent of the teachers have poor knowledge about epilepsy and its first aid and most of them expressed their desire to undergo training on the management of epilepsy.

Ransone and Bennet (2004) professor of school of Applied Health and Educational Psychology Oklahoma State University, Stillwater, U K conducted a study on assessment of first aid knowledge and decision making of high school athletic coaches. Design was survey on demographic information, first aid assessment, and game situation data sheet. The setting was in 17 metropolitan high schools of Oklahoma State. A total of 17 metropolitan high school participated in this study, and 104 athletic coaches completed questionnaires. The result showed 38

percent of the total athletic scores tested achieved passing scores of 29 or higher, with the total scores ranging from 19 to 34. For the game situation data sheet, most coaches in the study chose to return injured players to the game. The investigator concludes that the athletic coaches did not adequately meet first aid standards as established for the study in accordance with the American Red Cross.

Parthasarathy, Menon, and Nair (2003) published an article regarding school injuries trends. Data were gathered from nine public schools in Maharashtra. The purpose of the article was to demonstrate the value of collection and analysis of data apart of the school nurse's role and provide some data on injuries that can be used for comparison procedures. He states that children between the ages of six and 12 years have the highest frequency of injuries. His study reveals that falls, burns and motor vehicle accidents are the leading killers in this age group, followed by drowning and asphyxia.

Limbos and Peek (2003) conducted a study for comparing unintentional and intentional injuries in a school. Retrospective survey approach was used for the study. Data were collected from school records and emergency medical departments of hospitals. Of the 11,674 annualized injuries, 77.2 percent were unintentional, 16.8 percent were intentional, and 6 percent were of unknown intent. Males in all grade levels had the highest rates of injury. Most injuries occurred during school hours

Engeland, Roysamb, Smedslund, and Sogaard (2002) conducted "a study in Norwegian junior high schools about Effect of first aid training in junior high schools." The programme was comprised of a textbook, a video, and a teachers manual. It was a quasi-experimental design. Data were collected from 82 randomly

selected schools. A pre-post method was used. A questionnaire was the tool. There is a positive significant difference showed among school students in relation with first aid.

Sosada, Zurawiński, Stepień, Makarska, and Myrcik (2002) studied “evaluation of the knowledge of teachers and high school students in Silesia on the principles of first aid”. The aim of the study was to evaluate the level of knowledge about first aid among Polish society on the example of secondary school students and teachers. The study was based on a sample of 227 secondary school students (34 males and 193 females) and 79 secondary school teachers (28 males & 51 females). The anonymous survey evaluating the level of first aid knowledge was carried out. It consisted of general and particular part. Seven of surveyed students achieved on excellent result, 57 a good result and 163 represented inadequate level of knowledge. None of surveyed teachers achieved an excellent result, 11 achieved a good result and 63 represented inadequate level of knowledge, higher level of knowledge was presented by those with a driving license. The knowledge of secondary school students and teachers appears to be insufficient to perform basic life support. They recommended education in first aid.

Cunningham (2002) studied about football officials responsible for dealing with injuries has appropriate first aid qualifications and knowledge. Information was collected from two English youth football leagues by questionnaire. First aiders were asked to provide details of their qualifications and their response from a list of alternative to an injury scenario. Fifty two of 86 respondents didn't have a current first aid qualification. Only 12 percent and 38 percent respectively gave the correct

response to the injury scenarios “players shocking” and “player unconsciousness”. Health and injury records for the players were kept by 40 percent and 19 percent of teams. Written parental consent to emergency treatment was obtained by 30 percent. This preliminary study showed an obligation on teams who don’t possess a qualified first aider to evaluate their legal and moral responsibilities to their players. He also recommended the football association and health and safety executive should produce a list of recommended equipment, facilities, and first aid qualified personnel to which teams should have access at games and training sessions and providers of first aid training should reassess their teaching on the management of the choking and unconsciousness casualty.

Jenkins, Loscalzo, and Bren (2001) in a study mentions that, analysis carried out on the basis of first aid management in emergency department in Boston shows that most of the external bleeding can be controlled by direct pressure. If an extremity is involved and direct pressure on the blood vessels supplying the area may be used temporarily while other care is rendered. Manual pressure on gauze or other cloth placed over the bleeding source helps to control bleeding. If bleeding continues, don’t remove the gauze; add more gauze on top and apply more pressure.

Maitra (1997) conducted a study in accident and emergency department, Royal Victoria Infirmary, New Castle, to identify the profile of injuries sustained by children in school accident and suggest preventive measures. 500 children who sustained injuries in school due to a variety of activities were studied. 10 and 12-year-old pupils suffered most injuries in school grounds/ playgrounds, on concrete, or on grass/soil surfaces due to random activities resulting in striking or being struck

by objects/persons, tripping or slipping, and sports (mainly in football); 65.5 percent of these activities were not supervised and 67.4 percent occurred during play time; 2 percent sustained fractures or dislocations, 28.2 percent needed to follow up treatment, and 1.4 percent were admitted.

Bijur et al. (1995) conducted an epidemiological study to identify the trend of sports related injuries among adolescents in the United States. He explained that sports accounts for 36 percent of injuries of all causes and 33 percent of all the serious injuries. The most common injuries was found to be sprain (60 percent) followed by fracture and dislocation (48 percent).

Mc Garry and Moulton (1993) conducted a study regarding “the first aid management of epistaxis in the Accident and Emergency department in Glosgow Royal Infirmary, U K”. They found that most of the nose bleeds can be controlled by compressing the ala nasi, thus applying direct pressure over ‘little area’. The ability to demonstrate the correct position of this maneuver was assessed in 115 members of staff of accident and emergency department of major teaching hospital. Over all correct response rate was only 33 percent and even trained medical and nursing staff achieved less than 50 percent success rate. So increased awareness of this simple and effective technique is recommended

Feldman, Woodward, Hodgson, Harsanyi, Milner, and Feldman (1983) conducted a prospective study of school injuries, incidence, types, related factors and initial management. The aim of the study was to identify the most commonly occurring school injuries and its risk factors. Questionnaire and observation check list was used for data collection. It was descriptive survey study conducted in 400

schools of Canada and found that falls and wounds are the most frequent injuries (42 percent), injuries are significantly more frequent in the elementary as opposed to the secondary schools and boys were injured more often than girls.

Conclusion

The investigator collected and analysed more than 60 studies in the area first aid. Majority of the studies collected are from out side India. An analysis of the studies reviewed shows that knowledge in first aid among students, teachers and even medical experts are not satisfactory. All studies recommend the improvement of first aid knowledge among the participants. To improve the knowledge in first aid, the facilities of the schools and availability of trained persons are to be improved. Besides, the first aid education should be mandatory in schools. Intervention programmes, conducted in the studies of international level have proved its significance.

The above literature highlighted the significance of first aid knowledge in each emergency situations like CPR, falls, wounds...etc. The investigator found that each emergency situation is to be introduced in school curriculum and all students and teachers are to be trained in first aid to deal with these situations. Therefore this experimental study is designed to develop an intervention programme for enhancing awareness on first aid at secondary level and to find out the effectiveness of this programme.

Chapter 3

METHODOLOGY

Contents

- *Variables*
- *Design of the study*
- *Sample selected for the study*
- *Instruments used in the study*
- *Procedure of the study*
- *Data collection procedure*
- *Scoring and consolidation of data*
- *Statistical techniques used in the study*

METHODOLOGY

Methodology is the vital part of research, as it guides the way to proceed. The success of any work depends largely upon the suitability of the methods, tools and techniques followed by the researcher for collecting and processing data. Thus the role of methodology is to carry on the research work in a scientific and valid manner.

The present study is entitled as “Effectiveness of an intervention programme for enhancing Awareness on First Aid at secondary level”. The aim of the study was to find out the effectiveness of First Aid intervention programme at Secondary level.

The methodology has been described under the following heads.

- Variables
- Design of the study
- Sample selected for the study
- Instruments used in the study
- Procedure of the study
- Data collection procedure
- Scoring and consolidation of data
- Statistical techniques used in the study

Each one of the steps of methodology is described below.

Variables

“Variable are the conditions or characteristics that the experimenter manipulates, controls or observes” (Best & Khan, 2016). Independent and dependent variables are descriptors of variable commonly used in educational research.

Independent variable

Independent variables are the variables that the experimenter changes to test their variable. The independent variable selected for this study was ‘First Aid intervention Programme’. “First Aid is an immediate and temporary care given to a victim of an accident or sudden illness before the services of a physician is obtained.” The First Aid intervention Programme developed by the investigator is on various emergency situations and its related First Aid along with fundamentals of First Aid.

Dependent variable

A dependent variable is dependent on the independent variable. As the experimenter changes the independent variable, the change in the dependent variable is observed and recorded. The dependent variable selected for the study was Awareness on First Aid among secondary school students.

The variables of the present study are illustrated in Figure 1.

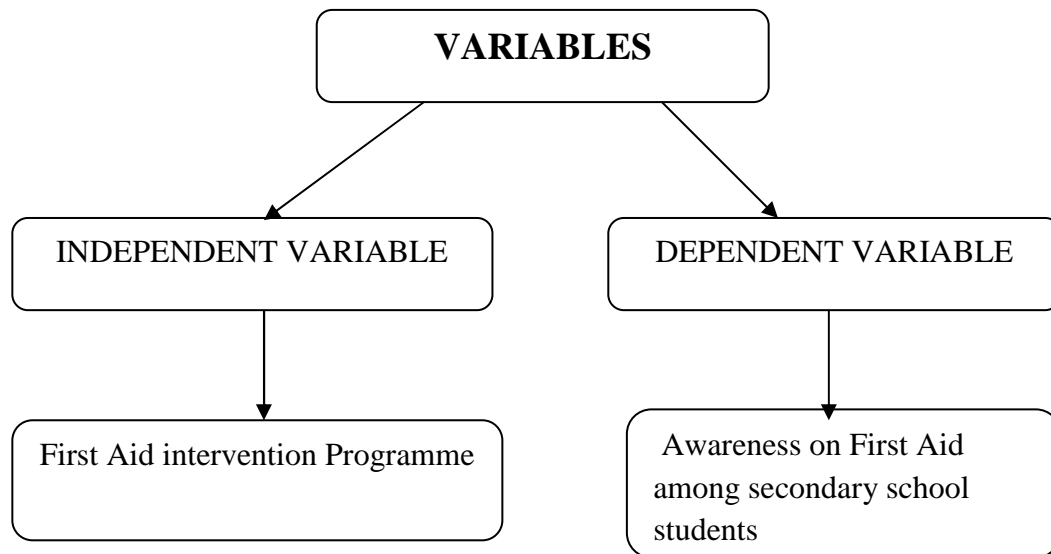


Figure 1. Variables of the study.

Design of the Study

Research design is a detailed out line of how an investigation will take place. “A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure”(Selltiz et al.,1965).

The main aim of the study was to find out the effectiveness of a First Aid intervention programme at secondary level. Survey and experimental methods were used in the study. Single group Pre- test- Experiment- Post- test- Retention test design was used for experiment.

The study was conducted in three phases.

The first phase focused on the need of an intervention on First Aid at secondary level. This includes the following aspects.

- Content analysis of secondary school Biology curriculum to find out the strength or concept of First Aid
- Views of teachers on First Aid education at secondary level and
- The present level of Awareness on First Aid among students at secondary level

As part of need analysis the secondary level Biology curriculum was analyzed. Views of teachers were collected on First Aid education at secondary level through an opinionnaire and focus group discussion. To find out the present level of Awareness on First Aid of secondary school students an awareness test was conducted among a large sample of students through survey.

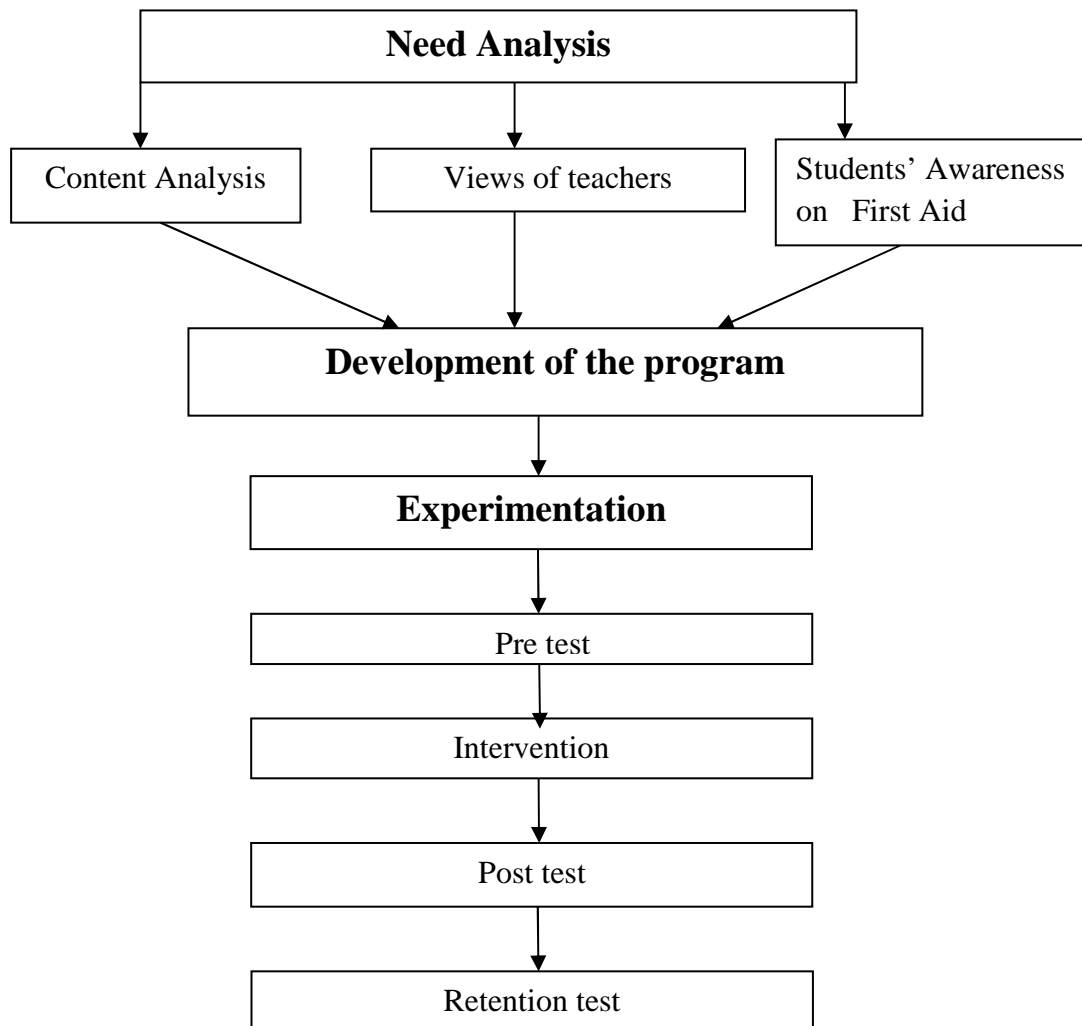
The second phase was focused on the development of an intervention programme on First Aid. Based on the need of such an intervention programme, the emergency situations of First Aid at secondary level was decided. Each emergency situation is explained through the definition, types, symptoms, causes, do's and don'ts or the First Aid to be given in the program.

The third phase was the transaction of the intervention programme among the target group. A Single group pre test-post test design was adopted to find out the effectiveness of the intervention on First Aid education at secondary level. Here a single group of students was given a pre-test(O1), then the treatment (X) and the post test(O2). An evaluation of the change from pre test to post test is considered as the result of the study conducted. The students were given treatment by preparing and transacting content of the First Aid education through lesson transcripts by

applying different activities such as discussions, power point presentation, sharing of experiences, mock situation etc. The same First Aid Awareness Test was given as the post test to find out the effectiveness of the intervention on First Aid at secondary level. After a period of one month a retention test was conducted to find out the retention effect of the programme.

The diagrammatic representation of the design adopted for the study is given as follows.

Design of the study is given in Figure 2



*Figure 2.*Design of the study.

Sample selected for the study

The selection of the sample is of great importance in a study. A subset of a population that is used to represent the entire group as a whole is called sample. The process of obtaining information about an entire population by examining only a part of it is known as sampling (Kothari,2009).

Secondary school students and teachers were used as the sample of the study. Study is based on both survey and experiment. 628 secondary school students from the schools of Kozhikode, Malappuram and Palakkad districts of Kerala, has been selected randomly for conducting the survey to assess the need for First Aid education at secondary school level. Gender is considered as a subsample. All samples were selected from standard IX, which is the middle group of VIII and X. List of the schools showing student sample for survey and breakup of the sample are given as Figure 3 and Table 2 respectively.

Sample of the study is given in Figure 3.

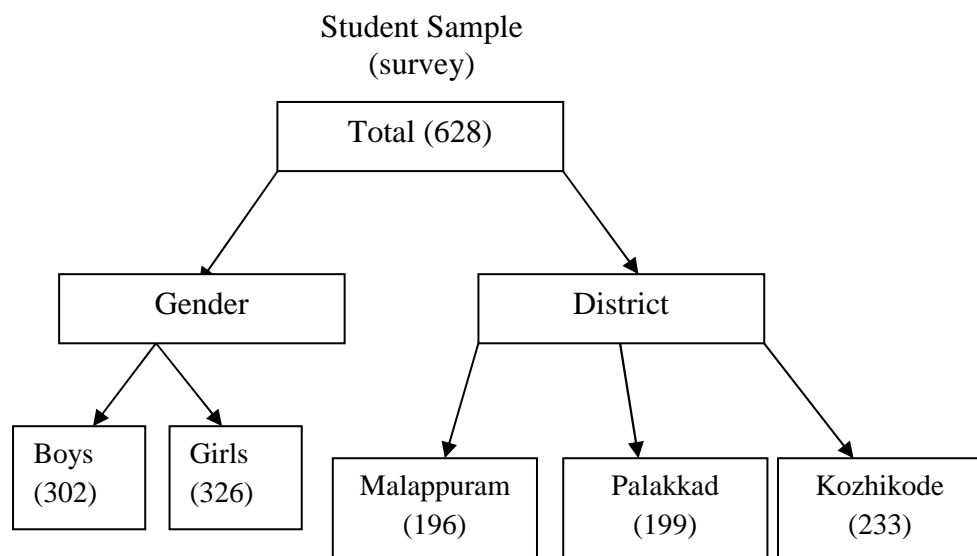


Figure 3. Sample of the study.

Table 2

Schools selected for survey

Sl no	Name of the school	Number of students	Total
1	G.H.S.S.Pookkotur, Malappuram	196	196
2	A.S.M.H.S. Velliyancheri, Palakkad	35	199
3	G.H.S.S.Vettathur, Palakkad	74	
4	G.H.S.S.Alanallur, Palakkad	45	
5	G.H.S.S.Pattikkad, Palakkad	45	
6	Farook Higher Secondary school, Kozhikode	126	233
7	G.V.H.S.S.Meenchanda, Kozhikode	107	
Total			628

To find out the views of teachers on First Aid education at secondary level a sample of 78 teachers were selected. 50 teachers were from schools of Malappuram and Kozhikode districts and from different disciplines. The selection of teachers to know the opinion on first aid education was on the basis of the available teachers at the time of data collection in the schools. The remaining 28 teachers were participated in a Focus group discussion conducted by the investigator in a school at Malappuram district. The discussion was conducted in the same school where the investigator conducted the experiment. 28 teachers who were available on the day were participated in the focus group discussion.

The student sample for experiment was 35. The sample was selected from a single school at Malappuram district (GHSS Pookotur). As the investigator was residing in Malappuram district and by considering the low awareness of students in first aid at Malappuram, the investigator selected the school from the district to conduct the experiment. The total sample was 35 having 14 Boys and 21 Girls.

Instruments used in the study

The following instruments were used in the study.

1. First Aid Awareness Test
2. Opinionnaire on First Aid
3. Focus Group Interiew Schedule
4. First Aid intervention Programme
5. Lesson Transcripts

All the instruments were prepared by the investigator with the help of supervising teacher. The development of each tool is explained in detail below.

1. First Aid Awareness Test

The test was developed to asses the existing level of Awareness on First Aid among secondary school students. The test measures students' Awareness on First Aid in various emergency situations. The procedure followed in the construction of First Aid Awareness Test is given below.

a) Planning and preparation of the test

While planning the test the investigator went through the available literature related to First Aid education and read many books related with First Aid. The prominent books referred were First Aid manual-(the authorized manual of St. John ambulance, St. Andrew's ambulance association and the British Red cross),Manual of First Aid by Gupta and Gupta (2000), First Aid manual (Authorized manual St.John ambulance India and Indian red cross society) etc. Experts from emergency

medical care, physical education teachers, resource persons at secondary level and health department were consulted before preparing the items in the awareness test.

Earlier there was a text book which dealt with health education at secondary level. Now very short description about First Aid is seen in the text book of physical education. The teachers themselves are witnessed many emergency cases happens in schools. Thus the content analysis of text books and the opinion from teacher samples gave direction to the items to be included in the awareness test for students. The items in the following emergency situations are decided to include in the awareness test. For basic Awareness on First Aid some fundamental aspects including Agencies of First Aid and Basic life support procedures were considered in the test.

First Aid basics, Agencies of First Aid, First Aid kit, CPR, Recovery position, Heart attack, Bleeding ,Wounds, Fracture and immobilization, Dislocation, Sprain and Strain, PRICE method, Electric shock, Burns, Sunburn, Poisoning, Bites and stings, Drowning, Choking, Epilepsy, Foreign bodies in the eye, ear and nose, Fainting and Road accidents were the areas selected in the test.

Since it was an awareness test maximum items were included in the test. Based on the opinion of teachers, the mostly occurred and usually occurred incidents of cases which need First Aid at secondary level are incorporated in the tool. Thus a draft test was prepared with 60 items with four options each. The prepared draft schedule was presented before the resource persons for expert criticism. Some items were deleted and some others were modified after a careful scrutiny of the items with regard to the language, accuracy and clarity of the questions. The final form of the test consisted of 57 multiple choice test items with four options.

Some examples are shown below.

Example:

What is First Aid?

- a) The immediate and temporary treatment given to the victims on site
- b) Treatment given in the casualty
- c) The act of taking the victim to the hospital
- d) Self introduced treatment by the victim himself.

Example:

What is the name given to the First Aid in the form of pressing on the chest and artificial respiration on stopping respiration and blood circulation?

- a) First Aid
- b) Cardio Pulmonary Resuscitation (CPR)
- c) Overcoming to dangerous situation
- d) Heimlich maneuver

Example:

As a First Aid, what will you do immediately to a burn caused by fire?

- a) Cover the area with anything
- b) Apply antiseptic ointment
- c) Wash with plenty of cold water
- d) Apply oil to the affected part

Mode of answering

The tool was prepared with necessary instructions to students. All questions have four options of A,B,C and D. A single response sheet containing four options to answer the items was prepared.

A sample copy of the Test (Malayalam and English version) and Response Sheet are provided as Appendix I,II, and III respectively.

Scoring procedure

As the test was a multiple choice one, one mark is given for right answer and zero for incorrect answer. Thus the maximum score in the test was 57. A copy of the answer key is given as Appendix IV.

Reliability and validity of the test

Reliability of the test is its ability to yield consistent result from one set of measure to another. In the present study, the investigator checked the reliability of First Aid Awareness Test using Cronbach Alpha and was found to be .66 which shows the test is reliable. The reliability co-efficient by test retest method was found and it was .72, which shows the test is reliable.

The validity of the present test was ensured by using face validity and content validity. For ensuring face validity the investigator consulted various experts during the development of awareness test. After the test construction the same was given to the experts for the approval of items and they approved the test is an appropriate tool for measuring secondary school student's Awareness on First Aid.

Content validity is estimated by evaluating the relevance of the test items, in relation to instructional objectives and actual subject matter studied, individually and as a whole. For ensuring content validity, while preparing the items due weightage was given to select each area of First Aid Awareness Test. Thus, content validity of the tool was ensured.

2. Opinionnaire on First Aid

The Opinionnaire on First Aid was used to know the opinion of teachers about the state of present First Aid education at school. The opinionnaire was consisted of questions related to the role of curriculum at secondary level, cases of First Aid among their students, need of First Aid training to students and teachers, importance of First Aid training programme to teachers etc. There were seven questions included in the opinionnaire which was used to know opinion of teachers for the need of an intervention on First Aid at secondary level. Copy of the Opinionnaire on First Aid (Malayalam and English version) is provided as Appendix V and Appendix VI respectively.

3. Focus Group Interview Schedule

A Focus Group Interview Schedule was used to conduct a focus group discussion in the sample of 28 teachers from a secondary school at Malappuram district. The schedule was prepared by the investigator with the help of her supervising teacher for the present study. This tool was used to collect the emerging views of teachers on First Aid education at secondary level.

Planning and preparation of the Focus Group Schedule

Before preparing for the discussion with teachers the area and sample was selected. Next the investigator went through a number of research methodology books to collect the knowledge about focus group discussion. The prominent source books referred to were Silverman (2013), Koul (2006) and Flick (2018).

A focus group interview is an interview with a small group of people on a specific topic. Groups are typically six to eight people who participate in the interview for one and a half to two hours (Patton 2002, p.385). Focus group discussion is used as a method on their own or in combination with other methods-surveys, observations, single interviews and so on.

Focus group methodology is a way of collecting qualitative data, which usually involves engaging a small number of people in an informal group discussion or discussions, 'focused' around a particular topic or set of issue. The discussion is usually based on a series of questions (the focus group 'schedule') and the researcher generally acts as a 'moderator' for the group: posing the questions, keeping the discussion flowing, and enabling group members to participate fully.

Although focus groups are sometimes referred to as 'group interviews', the moderator does not ask questions of each focus group participant in turn but, rather, facilitates group discussion, actively encouraging group members to interact with each other. This interaction between research participants-and the potential analytic use of such interaction-has been described as the 'hallmark' of focus group research (Morgan,1988). Typically, the discussion is recorded, the data transcribed, and then

analysed using conventional techniques for qualitative data, most commonly, content or thematic analysis.

In this study investigator used Focus Group Interview Schedule for collecting data from secondary school teachers.

While planning the schedule the investigator went through the available literature related to First Aid education. Investigator collected expert's opinion before construction of Focus Group Schedule questions. Questions were mainly focused to collect data from secondary school teachers to know the current status and need of First Aid education in schools.

By keeping the aspects of basic knowledge about First Aid and various emergency situations occurs in secondary schools in mind the investigator developed "Focus Group Interview Schedule". The opinionnaire for teachers about First Aid helped the investigator to concentrate the questions for schedule. Investigator prepared 12 questions for focus groups with the help of supervising teacher. Before drafting the final form, the investigator took all possible measures to make the focus group interview questions was good and perfect. Expert from emergency medical care, physical education teachers and other resource persons were consulted before preparing the draft schedule.

For making the tool more reliable and valid the specific questions were prepared in advance to conduct in all four groups. Content, form of questions, procedures established for a structured group interview, physical setting, mode of recording etc. ensured by the investigator in advance. Copy of the

Focus Group Interview Schedule (Malayalam and English version) is provided as Appendix VII and Appendix VIII respectively.

4. First Aid intervention Programme

A First Aid Intervention Programme was developed by the investigator with the help of supervising teacher to enhance Awareness on First Aid among students at secondary level. The stages involved in the development of the programme are as follows.

1. Planning of the programme
2. Preparation of the programme
3. Evaluation of the programme

1. Planning of the programme

In the first stage, planning, what are the First Aid cases to be included in the programme was the task before the investigator. In this planning phase, need analysis of First Aid Intervention Programme helped the investigator to include the cases in the programme. Need analysis was done through analysis of the content of secondary level Biology text books to find out the First Aid topics. From this analysis it was found that First Aid is a neglected area in the secondary level. Opinion was also collected from teachers at secondary level on the present status of First Aid. From the opinion of teachers (N=50) it was found that the secondary level curriculum is weak in First Aid concept. A focus group discussion was conducted among teachers (N=28) in a school also found that First Aid education is an emerging need at secondary level. From the opinion of teachers, the usual

emergency cases appeared at secondary level are First Aid basics, First Aid kit, Agencies of First Aid, CPR, Recovery position, Heart attack, Wounds, Bleeding, Fracture and immobilization, PRICE method, Strain, Sprain and Dislocation, Electric shock, Burns, Sunburn, Poisoning, Bites and stings, Drowning, Choking, Epilepsy, Foreign bodies in the eye, ear and nose, Fainting and Road accidents. It is found from the teachers that, the basic Awareness on First Aid in such cases are not satisfactory among students and even teachers also.

The awareness test conducted among a large sample of students at secondary level also motivated the investigator to plan for a First Aid Intervention Programme for secondary school students.

2. Preparation of the programme

From the planning stage, the investigator selected the various emergency cases of First Aid included in the programme. With the help of supervising teacher, the investigator developed a structure of the programme. The structure of the programme includes a general introduction to the programme, objectives, content and a conclusion.

The content of each case is presented through objectives, definition, types, symptoms and do's and don'ts of First Aid. These steps may differ as the case may be.

An outline of the programme is given as Table 3.

Table 3

Outline of First Aid Intervention Programme

→ Introduction		
→ Objectives		
→ Content	<ul style="list-style-type: none"> → First Aid basics → First Aid kit → Agencies of fist aid → CPR → Recovery position → Heart attack → Bleeding → Wounds → Fracture and immobilization → PRICE method ,strain, sprain and Dislocation → Electric shock → Burns → Sunburn → Poisoning → Bites and stings → Drowning → Choking → Epilepsy → Foreign bodies in the eye, ear and nose → Fainting and → Road accidents 	<ul style="list-style-type: none"> → Objectives → Definition → Types → Symptoms → Causes → Do's and Don'ts
→ Conclusion		

The complete First Aid intervention Programme(Malayalam and English) is provided as Appendix IX and Appendix X respectively .

Evaluation of the programme

The First Aid Intervention Programme has given to some experts in the field for evaluation. Medical experts, teachers at higher education and secondary level were the experts who valued the programme. The criteria for evaluation were selection of the content, organization of the content, presentation of the content, appropriateness of the content and language used. Modifications were done by considering the suggestions of the experts in the field.

5. Lesson Transcripts

Lesson transcript is the tool to transact the developed First Aid Intervention Programme. There were 21 lesson transcripts to transact the content of the First Aid Intervention Programme. Constructivist methodology was adopted to prepare the lesson transcript. Multiple methods were used to transact the content. It includes sharing of experiences, lectures, video presentation, demonstration, discussion, mock situation etc.

Since the programme was on First Aid, sharing of experiences of students were used in all cases. Opportunities were given to students to share what they have done or familiar in and out of school when an emergency situation occurs.

Group discussions and presentations also used in class rooms which was helpful to know the practices of others and do's and don'ts in emergency cases.

Video presentation provided direct experiences to the students as the First Aid is a practical aspect. Lectures became helpful to know more about First Aid procedures along with video presentation.

Demonstration classes were conducted to transact the programme, which was very much useful to the students to follow correct procedures in First Aid. Some cases were demonstrated by the experts from the medical field and physical education which provided firsthand experience to students. Exhibition, quiz competition, and mock situations were also conducted in the area First Aid.

A sample copy of the lesson transcript is given below. The complete lesson transcripts (English version) are provided as Appendix XI.

Name of the Topic: Fundamentals of First Aid

Objectives

1. To recognize what is First Aid
2. To understand the aim and principles of First Aid
3. To understand the role and responsibilities of First Aider

Concept

First Aid-fundamentals

Learning aids

Videos and charts

Activity	Topic	Methodology	Duration
1	Importance of First Aid	Sharing of experiences, video presentation	10 minutes
2	Aims of First Aid, principle etc.	Lecture with Power point presentation, chart presentation	15 minutes
3	Discussion about the qualities and responsibilities of the First Aid	Group discussion, individual presentation , power point presentation	15 minutes

Activity I

The teacher entered the classroom and writes about First Aid on the black board. Asks the students to share their experiences in the cases, they are in need of First Aid measures at home, school etc. After the presentation of cases by the students, the teacher showed some videos of emergency cases with the First Aid given.

Activity II

After the presentation, the aims and principles of First Aid is given by the teacher to the students with the assistance of power point.

Activity III

The teacher gives some hints to the groups of students to discuss with the role of First Aider. Teacher encouraged the group discussion followed by presentation of students. Teacher gave a brief discussion on role and responsibilities of the First Aider.

Responses

The students shared their daily life experiences regarding First Aid. They attended the class about First Aid very enthusiastically because they don't know First Aid. They conducted discussions on the qualities of a First Aider and also about their responsibilities. They understood the importance of First Aid with the help of the power point presentation.

Follow up activity

1. Prepare a write up on the importance of First Aid in daily life.
2. List the situations in daily life in which First Aid becomes necessary.

Procedure of the Study

The procedure adopted for the study is as follows

1. Analyzing the content of Biology text books for standards VIII, IX and X to locate the concept of First Aid.
2. Collecting the views of teachers about the need of an Intervention on First Aid at secondary level.
3. Administering Awareness Test on First Aid in a large sample of students of IXth standard from Kozhikode, Malappuram and Palakkad districts.
4. Analysis of the scores of Awareness on First Aid among the large sample for the total and subgroups based on gender.

5. Development of the Intervention Programme on First Aid for secondary school students.
6. Administering Awareness Test on First Aid as pre test of the selected experimental sample.
7. Analysis of the pre test scores.
8. Transaction of First Aid Intervention Programme for the sample of students.
9. Conducting post test.
10. Analysis of the post test scores
11. Testing the difference between pre test and post test mean scores for its significance.
12. Conducting the retention test.
13. Analysis of the retention test scores.
14. Testing the difference between post test and retention test mean scores for its significance.
15. Establishing the effectiveness of the Intervention Programme on First Aid at secondary level.

In the procedure given above the first four steps are conducted to establish the need of the First Aid Intervention at school. So, these four steps are combined and described below in detail under the heading “need of an intervention programme

on first aid” for secondary school students. The procedure number five was for development of intervention programme for students. From procedure six to fifteen are the experimental part of the study.

Need of an intervention programme on first aid

The investigator analyzed the content of Biology text books for standards VIII ,IX and X to find out the concept of First Aid. In the process of analysis of the content, the investigator gone through the title of the chapter first and then concentrated subtitles of the chapter one by one. The investigator gone through the content under each sub title thoroughly for searching the First Aid topics. There were six chapters in the biology text book of standard VIII. The detailed analysis of the content of the biology textbooks for standard VIII revealed that no chapter heading is on First Aid and also no sub headings. What identified related with First Aid topic was a picture of Red Cross in the sixth chapter. Red Cross is an important agency of First Aid. But the book never provides an idea of such an agency in First Aid. That means basic Awareness on First Aid is not given anywhere in the chapter.

The same procedure is followed for text books of standard IX and X .

From the analysis of the text books of standard IX found that (From the period 2014-2018) there are 15 chapters in two books. It was found that Biology text books of standard IX didn't provide any information or content on First Aid.

Biology text books of standard X consisted of 16 chapters in two volumes. From the analysis it was found that there is no chapter heading with First Aid. The

sixth chapter, ‘the strategy of defence and treatment’ includes sub topic ‘medicines’. The subtopic is presented with some pictures and illustrations to check the First Aid knowledge of the students. At the same time the content provides a clue that there is a lack of sufficient awareness on First Aid. Without elaborating the concept of First Aid and various emergencies of First Aid, the content is demanding a preparation from the students. There are a number of do’s and don’ts in First Aid. But it is not provided in the space. Therefore it was found that the secondary school biology curriculum didn’t provide detailed information on First Aid, as it is very essential among students at secondary level.

The summary of the content analysis of one chapter from ninth standard is presented here. The content analysis of complete chapters of Biology text books of standard VIII, IX and X are given as Appendix XII. An illustration of the content analysis is given below.

Chapter-1 .The sign of life

Major concept- The sign of life

SI No	Minor concepts	First Aid content identified
1	Introduction
2	Life-The miracle on the green earth
3	The greenness of leaves
4	Soliloquy of the sun
5	The phase which requires sunlight(Light reaction)
6	The phase which does not require sunlight(Dark reaction)

No First Aid content is identified in this chapter

Next the investigator analyzed the views of secondary school teachers, about the need of First Aid education at secondary level. An opinionnaire was used to collect the views of teachers at secondary level on First Aid education. 50 teachers were there in the sample. The investigator collected the views of teachers on First Aid education by conducting a survey.

Next the investigator conducted a focus group discussion among the sample of 28 teachers in a selected school to collect their views. Four groups with seven participants were there in the discussion. An open discussion on 12 questions about First Aid was conducted. From the discussion the views emerged was reported.

Next step was conducting an awareness test on First Aid in a large sample of students of IXth standard from Kozhikode, Malappuram and Palakkad districts to find out the need of an intervention programme. An analysis was made in the total sample and subsample based on gender.

Development of the First Aid Intervention Programme for secondary school students

In the developmental phase a First Aid Intervention Programme was prepared by the investigator. The programme follows definite steps with possible learning outcomes.

Experimentation phase

Pre-test

For experimentation the investigator selected a secondary school at Malappuram district and contacted the head of the school. With sufficient number of instruments and response sheets the investigator administered pre test in the IXth standard students.

Treatment

Immediately after the administration of the pre test the investigator conducted classes on First Aid based on intervention programme. 21 classes has taken based on the intervention programme. The development of the classes was as per the lesson transcripts. Discussion, Demonstration, mock situation, chart presentation, Lecture, Video presentation, Power point presentation, sharing of experiences are provided to students to enhance their Awareness on First Aid. This was conducted during June 2017.

Administration of Post test

The post test was conducted by using the same tool used for pre testing.

The scores was analysed for the total sample and sub sample based on gender.

Administration of Retention Test

After a gap of one month from the post test, the retention test was conducted in the sample of students. This was conducted during August 2017.

The score of the retention test was analyzed for the effectiveness of the developed intervention programme.

Data Collection Procedure

For conducting survey, the investigator contacted the heads of the schools of different districts, Malappuram, Kozhikode and Palakkad. After getting permission from the heads the investigator collected data from the students. For experimentation phase the investigator approached the heads of the institution and sought permission to execute the programme.

Before the administration of the tools, accurate and precise information about the tool was given to the students. Investigator explained the relevance and need of the study and sought the sincere cooperation from them. Investigator explained the way of answering of each question and after a pre determined time the response sheets were collected. A uniform procedure of administration of the tools was adopted in all schools.

Scoring and Consolidation of Data

Scoring was done as per scoring key of the tool prepared. Incomplete response sheets were eliminated. All the scores were entered in the consolidation

sheet in a systematic way so that the sub samples also could be identified easily. The consolidated data was used for statistical analysis by applying SPSS software.

Statistical Techniques used in the Study

Statistical techniques adopted for the study were,

1. Preliminary analysis

Descriptive statistics like Mean, Median, Mode, Standard Deviation, Skewness and kurtosis were calculated to know the nature of distribution .Percentile is calculated to know the position of students.

2. Test of significance of difference between means.

Test of significance of difference between means was used to know the significant difference in awareness on first aid between pre test and post test and post test and retention test for the total sample and relevant subsample.

3. Cohen's d.

Cohen's d is calculated to find out the effect of the programme used in experimental group. The formula used for finding out Cohen's d is given below.

Effect size is calculated by Cohens's d.

$$\text{The equation is } d = \frac{t}{\sqrt{n}}$$

Where as

t = Difference between means

n = Sample size

The effect varies according to the varying indices of Cohens' D. The indices are as follows.

> 0.2 small,

> 0.5 medium,

> 0.8 large

The analysis and its findings are presented in the next chapter.

Chapter 4

ANALYSIS AND INTERPRETATIONS

Contents

- *Section I: Analysis of Need of an Intervention Programme on First Aid at Secondary Level*
- *Section II: Analysis of the Comparison of Mean Scores of the Variable Awareness on First Aid among Experimental Sample*
- *Tenability of Hypotheses*
- *Conclusion*

ANALYSIS AND INTEPRETATIONS

This chapter deals with the statistical analysis of the collected data and interpretations. By keeping the objectives in mind which are already cited in the introduction chapter the investigator analysed the classified data.

Analysis of data and the results are presented in two sections. The first section deals with the views of teachers on First Aid education at secondary level and data and results of the analysis done on the variable Awareness on First Aid in the large sample of students taken in survey.

The second section deals with data and results of the analysis of the variable Awareness on First Aid in the experimental sample of students.

SECTION – I. ANALYSIS OF NEED OF AN INTERVENTION PROGRAMME ON FIRST AID AT SECONDARY LEVEL

This section presents the views of teachers on First Aid education at secondary level and comparison of mean scores of the variable Awareness on First Aid among secondary school students for the total sample and sub sample based on gender.

Views of teachers about First Aid education at secondary level are collected in two ways.

1. Opinion of teachers about First Aid education at secondary level by using an opinionnaire on a sample of 50 teachers
2. Views of teachers about first aid education by conducting a Focus Group Discussion on a sample of 28 teachers in a school

Result of analysis of opinion of teachers is presented first and is followed by the analysis of focus group discussion.

I.1 Analysis of Opinion of teachers on First Aid education at secondary level.

To analyze the need of a First aid intervention programme at secondary level an opinionnaire was used among teachers. Seven questions were included in the opinionnaire. The result of analysis is given below.

- 1 From the 50 teachers (N=50) 38percent (19 teachers) opined that the present curriculum at secondary level is weak with respect to First Aid.
1. All the teachers (50) opined that there are a number of emergency situations which necessitates First Aid among students at secondary level.
2. From the opinion of the teachers Wounds, Injuries, Fracture, Asphyxia, Sprain, Fainting, Blood pressure, Epilepsy, Common diseases like fever, head ache stomach ache, vomiting etc are the various cases reported in their schools.
3. 25 percent (13) teachers opined that they have witnessed emergency situations among students but became helpless because of lack of First Aid knowledge.

4. All the teachers opined that First Aid training to students at secondary level is necessary.
5. 96 percent (48) of teachers are not received First Aid training. All the teachers have the opinion that training in First Aid is very essential to teachers.
6. All the teachers (50) opined that special programmes on First Aid will be useful for enhancing knowledge on first aid.

I.2 Analysis of Focus Group Discussion among teachers at secondary level

Focus Group Discussion was conducted among a sample of 28 teachers from a secondary school to analyze the need of first aid intervention programme at secondary level. Discussion was based on the questions of the schedule prepared.

Analysis of the views of teachers from the discussion is presented below.

- With respect to the events where First Aid was necessary to the students, all the four groups reported that fainting, fracture, road accidents, epilepsy, wounds, bleeding, dislocation, sprain and strain were the common emergency situations occurred in the school.
- To the mostly occurred First Aid emergency situation at secondary schools different groups considered different cases. The maximum number of teachers opined fainting and fracture as the common emergency situations in their school.
- To the question how could the teachers help the students at times of the need for First Aid in their school, the teachers told that in the case of fainting,

most of the participants allowed the students to take rest only. The sample of teachers doesn't aware of any particular First Aid for fainting. In the emergency situation fracture, the teachers provided First Aid in their school itself. All the teachers applied First Aid as cleaning the wounds in the case of emergency situation wounds.

- About the obstacles which hinder First Aid Awareness, the participants explained the following factors.
 - a. Lack of First Aid facilities of the school.
 - b. Absence of trained persons in First Aid in the school.
 - c. No programs on First Aid in school.
 - d. Absence of First Aid content in the curriculum.
 - e. Lack of time to participate in First Aid programmes.
 - f. Some religious factors act as hindrances

- About the First Aid facilities, all the groups were dissatisfied with the First Aid facilities of their school. Even though the First Aid box is available, only some common items are seen. All the participants are happy with the presence of a physical training teacher, a part time nurse, faculty for scout and guide and JRC in school. **First Aid room with a First Aid kit is an emerging need of the participants.**

- Views of teachers to improve the First Aid facility available in the school, were
 - a) First Aid room with sufficient items in the First Aid kit

- b) A permanent trained person in First Aid in the school
- c) First Aid training programmes for teachers and students.
- d) Awareness programs to all the stakeholders of schools on First Aid.

➤ The views of teachers about the content of First Aid in the curriculum are given below.

- The teacher participants were from the disciplines Biology, Languages, Mathematics, Social studies, Physics, Physical education, and Chemistry. **Biology teachers opined that former curriculum included First Aid. Earlier there was a text book for First Aid education, as Health science. At present no concept of First Aid inheres in the Biology curriculum.**
- In the text book health and physical education some situations like **sling**, **splint** and **CPR** are seen in standard VIII. But the teacher participant opined that the content is insufficient with the concept First Aid. The limitation, the teacher highlighted was the time limit to transact the same content. In science subjects, Physics text book contains two situations, **lightening** and **electric shock** and necessary First Aid. In languages the participants wanted the concept First Aid in their text books.

➤ It is revealed from the discussion that no teachers were satisfied with the First Aid concept given in their subject. One or two emergency situations (Sling, Splint and CPR) are seen but without necessary information.

- About the Intervention on First Aid among teachers and students at secondary level all the teacher participants positively supported the necessity of training. **The view emerged from the groups is that the training on First Aid at secondary level students will be beneficial in their future life also.**
- About the First Aid programmes given at school the participants responded that an Awareness class for a short group of students as JRC and a road safety Awareness class highlighting traffic Awareness.
- To the need of supporting materials to improve the First Aid knowledge, the views of teachers are as follows
 - As the main focus of the discussion was First Aid, the group was opined that First Aid should be a part of the curriculum. Then only they have to find out time to transact the content.
 - Separate learning materials are to be developed for First Aid education at secondary level.
 - Sufficient period and time is to be given to students for First Aid.
 - To improve the first aid knowledge mock videos with illustration are essential.
 - All teachers are strongly supported the First Aid training in the in-service programmes. First Aid knowledge of all teachers will be very much helpful for the students at school as well as the situations at outside the

school. Life saving is the principle of First Aid. So it should be the motto of the school.

The emerging views of focus group discussion are

1. All the four groups reported that fainting, fracture, road accidents, epilepsy, wounds, bleeding, dislocation, sprain and strain were the common emergency situations occurred among the students at secondary level.
2. Fainting and fracture are the most common emergency situations in their school.
3. Need of a First Aid room with a First Aid kit in secondary schools.
4. Earlier there was a text book for First Aid education, as Health science. At present the curriculum is weak in First Aid.
5. Training on First Aid at secondary level students will be beneficial in their future life also.
6. Separate learning materials are to be developed for First Aid education at secondary level.
7. Sufficient period and time is to be given to students for First Aid.
8. To improve the first aid knowledge mock videos with illustration are essential.

I.3 Extent of Awareness on First Aid among secondary school students for the total sample and sub sample based on gender.

Data and results of Awareness on First Aid among secondary school students for the total sample and subsample based on gender are analyzed.

The descriptive statistics of the variable Awareness on First Aid for the total sample is given in Table 4

Table 4

Descriptive Statistics of the variable Awareness on First Aid among Secondary School Students

N	628
Mean	21.92
Median	21.00
Mode	19.00
Std. Deviations	5.95
Skewness	0.14
Kurtosis	-0.56

It is observed from the Table 4, that the mean value of Awareness on First Aid among secondary school students is 21.92, median is 21 and mode is 19. The standard deviation is 5.95, skewness is 0.14 and kurtosis is -0.56. The mean, median and mode values are approximately equal. Hence the data shows a normal distribution.

The QQ plot to show the distribution of scores is presented in Figure 4.

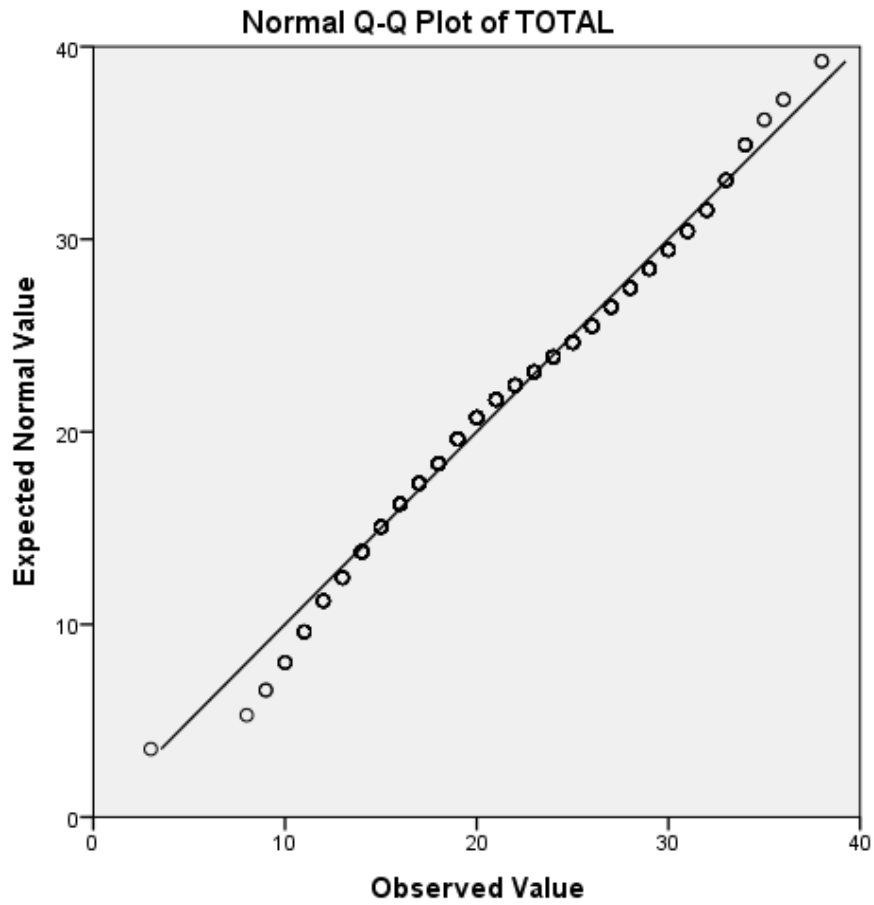


Figure 4. The QQ plot showing Awareness on First Aid among secondary school students.

The statistical constants and graphical representation of the distribution of Awareness on First Aid of secondary school students (large sample) follow approximately a normal distribution.

The percentile analysis of the scores obtained for the variable Awareness on First Aid is given in Table 5.

Table 5

Percentile Analysis of Awareness on First Aid among Secondary School Students

		Percentile	
Mean=21.92	P ₁₀	14.00	
	P ₂₀	16.80	
	P ₃₀	18.00	
	P ₄₀	20.00	
	P ₅₀	21.00	
	P ₆₀	23.00	
	P ₇₀	26.00	
	P ₈₀	27.00	
	P ₉₀	30.00	

In the Table 5, the percentile analysis scores are presented. The 10th, 50th and 90th percentile of First Aid Awareness of students are 14, 21 and 30 respectively. The percentile analysis of the scores obtained shows that 90 percent of the population scores below 30. Only 10 percent scores lie above 30. 50 percent of the population scores above 21 and 50 percent falls below that. Only 10 percent of the population scores lie below 14.

Pictorial representation of the percentiles of Awareness on First Aid is given in Figure 5.

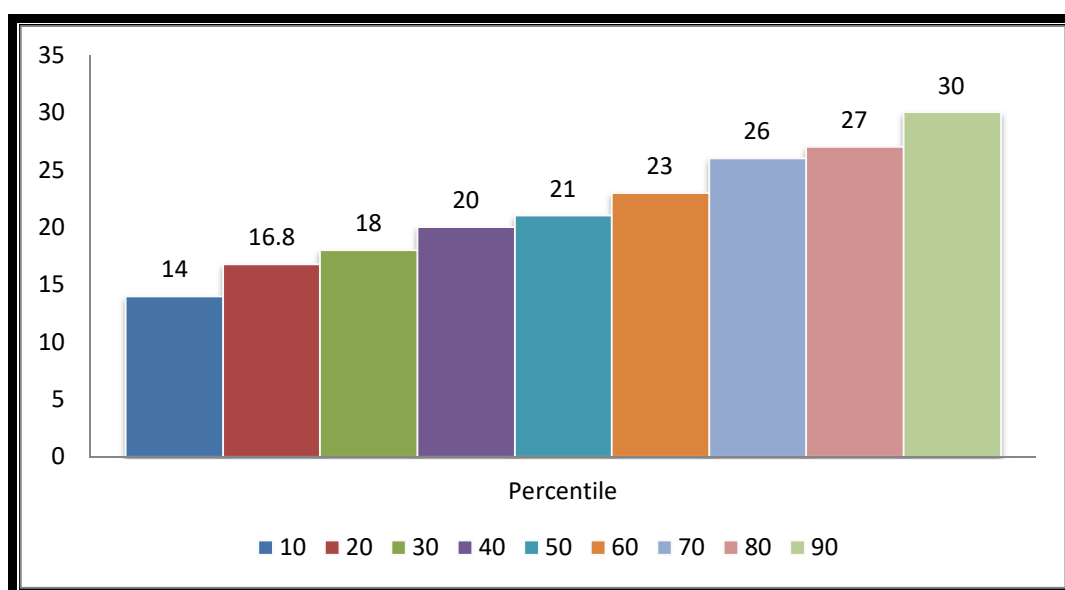


Figure 5. Percentile analysis of Awareness on First Aid among secondary school students.

1.3.1 Descriptive statistics of Awareness on First Aid among secondary school students based on gender

Descriptive statistics of Awareness on First Aid among secondary school students based on gender is given in Table 6.

Table 6

Descriptive Statistics of Awareness on First Aid among Secondary School Students based on Gender

Description	Boys	Girls
N	302	326
Mean	20.44	23.29
Median	20	24
Mode	19	26
Std. Deviation	5.60	5.94
Skewness	0.40	-0.11
Std. Error of Skewness	0.14	0.13
Kurtosis	0.27	-0.86
Std. Error of Kurtosis	0.28	0.27

Table 6 shows the descriptive statistics of Awareness on First Aid among secondary school students based on gender.

In the case of boys, the mean value is 20.44, median is 20 and mode is 19. The standard deviation is 5.60, skewness is 0.40 and kurtosis is 0.27.

In the case of girls, the mean value is 23.29, median is 24 and mode is 26. The standard deviation is 5.94, skewness is -0.11 and kurtosis is -0.86.

It is found from the table that girls have more Awareness on First Aid than boys.

1.3.2. Comparison of Awareness on First Aid between boys and girls

Comparison of Awareness on First Aid between boys and girls are presented in the Table 7.

Table 7

Gender wise comparison of Awareness on First Aid among Secondary School Students

Variable	Gender	N	Mean	Std. Deviation	T
Awareness on First Aid	Boys	302	20.44	5.60	6.16**
	Girls	326	23.28	5.94	

**denotes $p < .01$

The Table 7 indicates that, there was significant difference between boys and girls in their scores of Awareness on First Aid, since the obtained ‘t’ value of 6.16 is higher than tabled ‘t’ value (2.58) for significance at .01 level .

Comparison of Awareness on First Aid among secondary school students between boys and girls is represented in Figure 6.

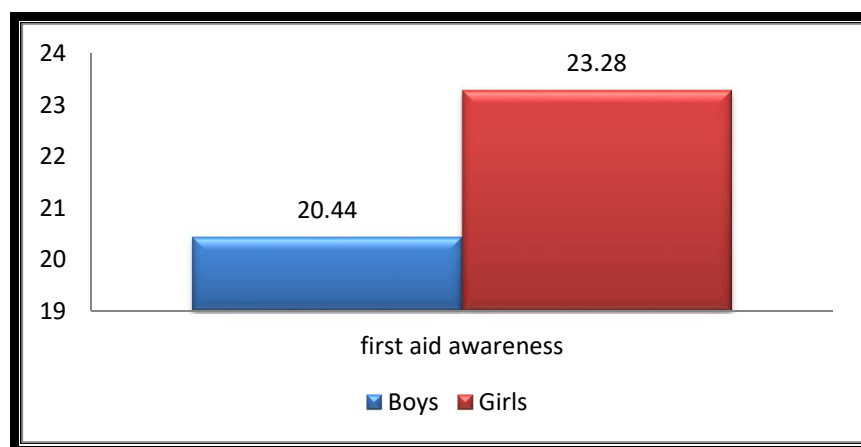


Figure 6. Graphical representation of Comparison of Awareness on First Aid among secondary school students between boys and girls

Discussion

The analysis of mean scores of Awareness on First Aid among students at secondary level shows that the students are not having satisfactory level of awareness in first aid. The maximum score obtainable in the test is 57. For the total sample the mean score was 21.92

In the case of subsample gender, boys have a mean score of 20.44 and that of girls was 23.29. Girls have a higher mean score than boys. Comparison of mean scores between boys and girls shows a significant difference in the t value at .01 level. The higher mean score of girls shows that girls are more aware of first aid than boys.

Section II. ANALYSIS OF COMPARISON OF MEAN SCORES OF THE VARIABLE AWARENESS ON FIRST AID AMONG EXPERIMENTAL SAMPLE

This section presents the data and results of comparison of the mean scores of the variable Awareness on First Aid between the pre test and post test for the Whole sample and sub sample based on gender.

The analysis of data and results are given below.

Comparison of mean scores of the variable Awareness on First Aid between the pre test and post test for the total sample

The data and results of the test of significance of difference in means of the variable Awareness on First Aid between the pre test and post test for the whole sample are given in Table 8.

Table 8

Data And Results of Comparison of Mean Scores of the Variable Awareness on First Aid between the Pre Test and Post Test for the Whole Sample (N=35)

Variable	Pre test		Post test		r	C.R.
	M ₁	S.D. ₁	M ₂	S.D. ₂		
Awareness on First Aid	22.11	6.34	43.86	8.26	0.49	16.97**

**Significant at .01 level

From the Table 8, it is found that, the mean value of pre test for the total sample is 22.11 and S.D.is 6.34.The mean score of post test is 43.86 and S.D.is 8.26.The critical ratio obtained for the variable Awareness on First Aid is 16.97.

The critical ratio obtained is higher than the required value of significance at .01 level.

Graphical representation of comparison of pre test and post test mean scores of Awareness on First Aid among secondary school students is given as Figure 7.

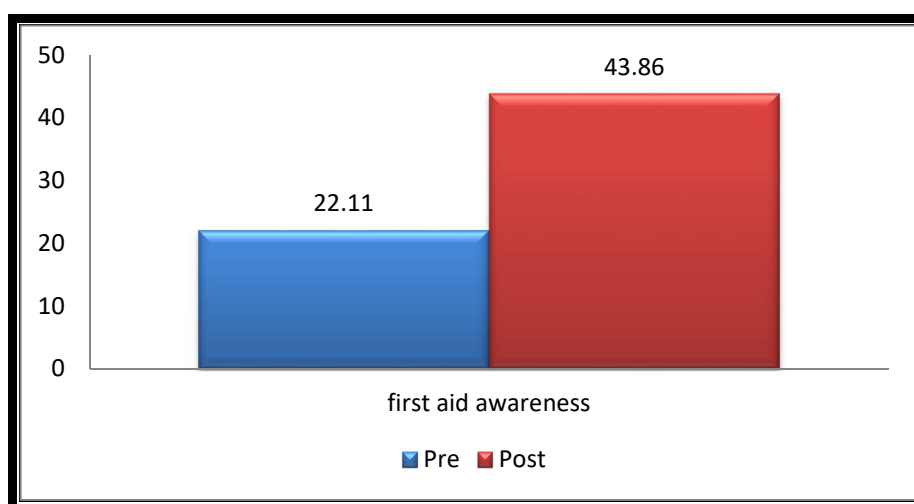


Figure 7: Graphical representation of comparison of pre test and post test mean scores of the variable Awareness on First Aid among secondary school students.

Comparison of mean scores of Awareness on First Aid between pre test and post test for boys.

Data and results of the test of significance of difference in means of the variable Awareness on First Aid between the pre test and post test for boys is given below in Table 9.

Table 9

Data And Results of Comparison of Mean Scores of the Variable Awareness on First Aid between the Pre Test and Post Test For Boys

Variable	Pre test		Post test		r	C.R.	df
	M ₁	S.D. ₁	M ₂	S.D. ₂			
Awareness on First Aid	18.50	4.33	39.79	7.20	0.24	10.70**	13

**Significant at .01 level

From Table 9, it is found that the mean value of pre test for the sample is 18.50 and S.D.is 4.33.The mean score of post test is 39.79 and S.D.is 7.20.The mean difference analysis shows that the obtained 't' value is 10.70 which is higher than the required value for significance(2.58) at .01 level.

Graphical representation of comparison between pre test and post test mean scores of Awareness on First Aid for boys is given in Figure 8

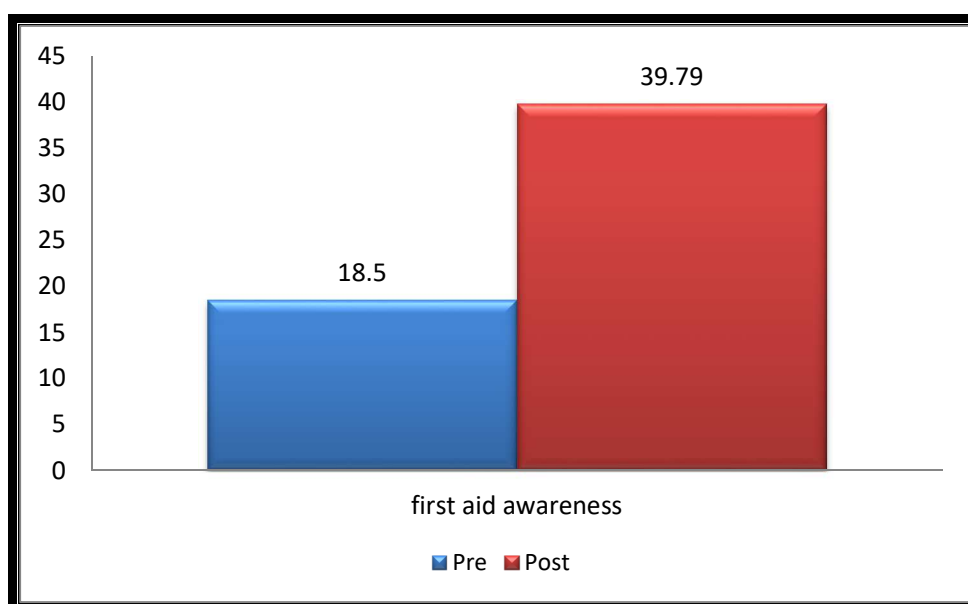


Figure 8: Graphical representation of comparison between pre test and post test mean scores of Awareness on First Aid for boys

Comparison of mean scores of Awareness on First Aid between the pre test and post test for girls.

Data end results of the test of significance of difference in means of the variable Awareness on First Aid between the pre test and post test for girls is given below in Table 10.

Table 10

Data and Results of Comparison of mean scores of the variable Awareness on First Aid between Pre test and Post test for Girls

Variable	Pre test		Post test		r	C.R.	df
	M ₁	S.D. ₁	M ₂	S.D. ₂			
Awareness on First Aid	24.52	6.39	46.57	7.94	0.42	12.90**	20

* **Significant at .01 level

From Table 10 it is found that, the mean value of pre test for the sample is 24.52 and S.D.is 6.39.The mean score of post test is 46.57 and S.D.is 7.94.The table shows that, there is significant difference between pre test and post test mean scores of Awareness on First Aid, since the obtained ‘t’ value of 12.90 is higher than the value required for significance (2.58) at .01 level with 20 degrees of freedom.

Graphical representation of comparison between pretest and post test mean scores of Awareness on First Aid for girls is given in Figure 9.

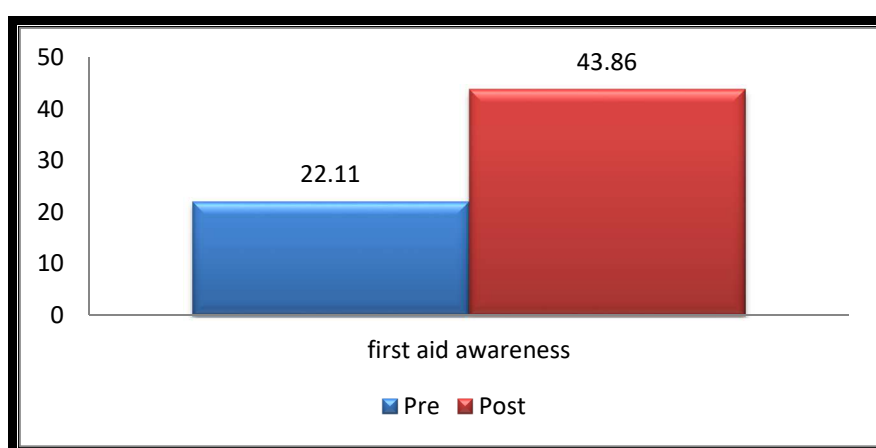


Figure 9: Graphical representation of comparison between pre test and post test mean scores of Awareness on First Aid for girls.

Examination of the results of comparison between pre test and post test

The Tables 8,9and 10 shows the data and results of comparison of mean scores of mean scores of Awareness on First aid between pre test and post test for the total sample, boys and girls respectively. Comparison of pre test and post test mean scores shows that all the critical ratios are higher than the required value for significance at .01 level.

From the analysis of data it is found that the variable Awareness on First Aid is significantly developed for the total sample and sub sample based on gender. This shows that the developed programme to enhance the Awareness on First Aid is found effective among secondary school students.

Comparison of mean scores of the variable Awareness on First Aid between the post test and retention test for the whole sample

The data and results of the test of significance of difference in means of the variable Awareness on First Aid between the post test and retention test for the whole sample is given in Table 11.

Table 11

Data And Results of Comparison of Mean Scores of the Variable Awareness on First Aid between the Post test and Retention Test for the Whole Sample (N=35)

Variable	Post test		Retention test		r	C.R.
	M ₁	S.D. ₁	M ₂	S.D. ₂		
Awareness on First Aid	43.86	8.26	44.80	8.28	0.72	0.90

The correlated mean between post test and retention test were compared for significance, the critical ratio obtained was 0.90.

Graphical representation of comparison between post test and retention test mean scores of Awareness on First Aid for the total sample is shown in Figure 10.

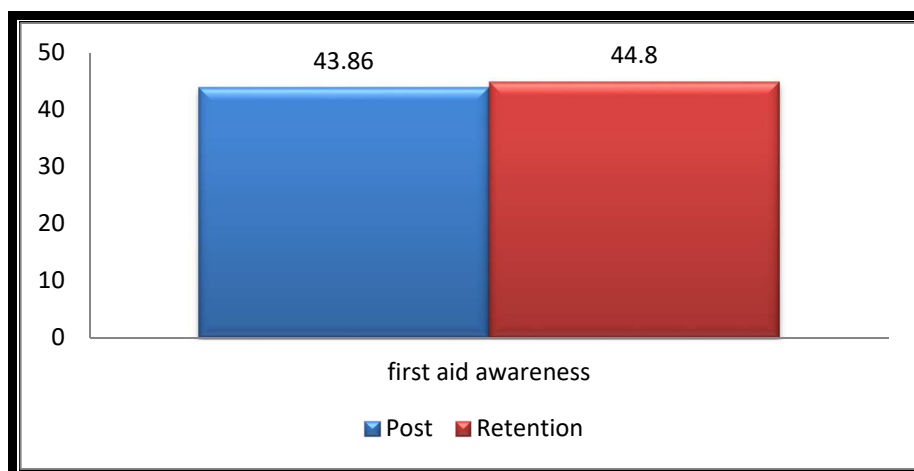


Figure 10: Graphical representation of comparison between post test and retention test mean scores of Awareness on First Aid for the total sample.

Discussion

From Table 11 it is found that the critical ratio obtained for the variable Awareness on First Aid is less than the value required for significance at .05, that is 1.96. Hence it is drawn from the result that the effect of the developed programme is retained for the whole sample.

Comparison of mean scores of the variable Awareness on First Aid between the post test and retention test for boys.

Data and results of the test of significance of difference in means of the variable Awareness on First Aid between the post test and retention test for boys is given in table 12.

Table 12

Data and Results of Comparison of Mean Scores of the Variable Awareness on First Aid between Post test and Retention Test for Boys

Variable	Posttest		Retention test		r	C.R.	df
	M ₁	S.D. ₁	M ₂	S.D. ₂			
Awareness on First Aid	39.79	7.20	40.43	8.38	0.67	0.37	13

The Table 12 indicates that there is no significant difference between post test and retention test score of Awareness on First Aid , since the obtained ‘t’ value of 0.37 is lesser than table ‘t’ value of 2.04 at 0.05 level of significance with 13 degrees of freedom.

Graphical representation of comparison between post test and retention test mean scores of Awareness on First Aid for boys is shown in Figure 11.

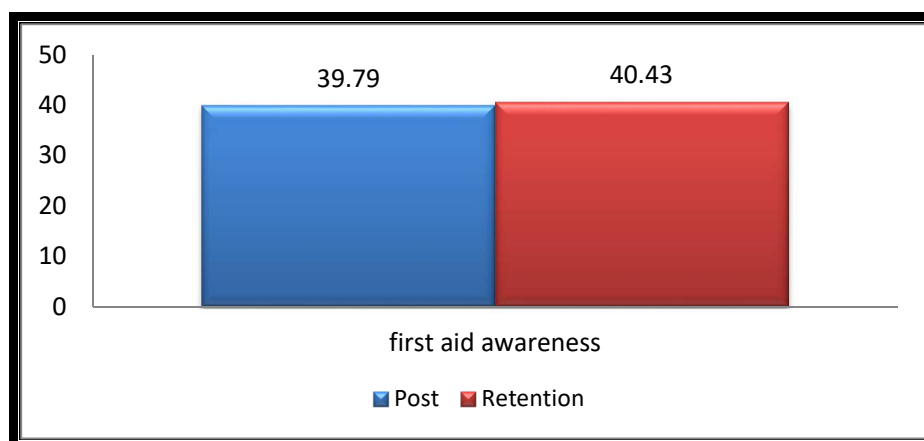


Figure 11: Graphical representation of comparison between post test and retention test mean scores of Awareness on First Aid for boys

Comparison of mean scores of the variable Awareness on First Aid between the post test and retention test for girls.

Data and results of the test of significance of difference in means of the variable Awareness on First Aid between the post test and retention test for girls is given below in table 13.

Table 13

Data And Results of Comparison of Mean Scores of the Variable Awareness on First Aid between Post test and Retention test for Girls

Variable	Post test		Retention test		r	C.R.	df
	M ₁	S.D. ₁	M ₂	S.D. ₂			
Awareness on First Aid	46.57	7.94	47.71	6.97	0.66	0.85	20

P>.05.

The post test mean of the variable Awareness on First Aid for girls was 46.57 and that of retention test was 47.71. The mean scores were compared for significance. The critical ratio obtained was 0.85 which is less than the level of significance that is 1.96.

Graphical representation of comparison between post test and retention test mean scores of Awareness on First Aid for girls is shown in Figure 12.

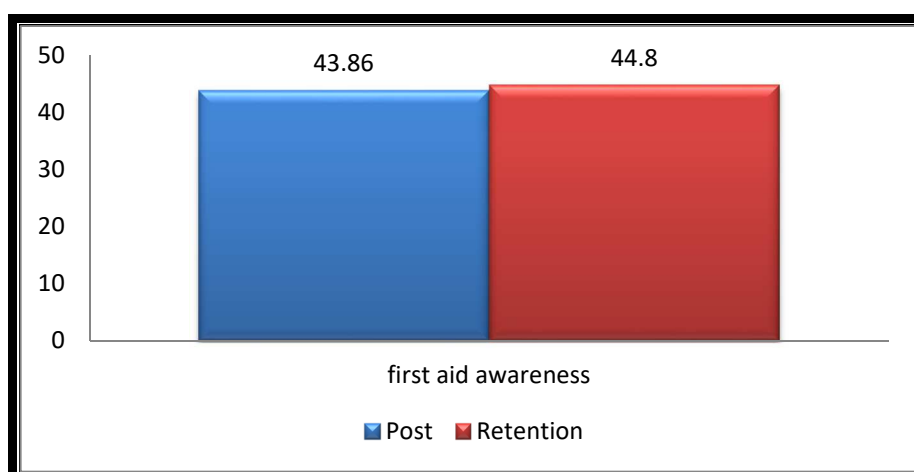


Figure 12: Graphical representation of comparison between post test and retention test mean scores of Awareness on First Aid for girls.

Discussion

From Table 12 it is found that the critical ratio obtained for the variable is less than the required value for significance at .05 level. Hence the post test and retention test mean scores of Awareness on First Aid for boys do not differ significantly ($P > .05$).

Table 13 shows that in the case of girls the critical ratio obtained is less than the required value for significance at .05 level. Hence the post test and retention test mean scores of Awareness on First Aid for girls do not differ significantly ($P > .5$). That is the knowledge acquired through the programme has successfully retained among boys as well as girls over a period of one month.

Examination of the results of comparison between post test and retention test

From the analysis of data between post test and retention test it was found that the effect shown in the post test is retained by the total sample and sub sample

based on gender after one month of post test. This shows that the Awareness on First Aid which is enhanced with the Intervention programme on First Aid is retained among the secondary school students.

Effect size

Effect size is calculated to find out the magnitude of the difference of the variable Awareness on First Aid using Cohens's d. The effect size obtained is 2.87 which shows the effect is large ($d > 1$).

Tenability of Hypotheses

The tenability of hypotheses was examined in the light of above findings.

The first hypothesis states that there is significant difference between pre test and post test mean scores of Awareness on First Aid for the total sample.

The critical ratio obtained for the variable Awareness on First Aid when comparing pre test and post test was significant at .01 level. This finding shows that the hypotheses one is fully substantiated.

The second hypothesis states that there is significant difference between pre test and post test mean scores of Awareness on First Aid for boys

When compared the pre test and post test mean scores of the variable Awareness on First Aid for its significance, the result showed that there is significance difference between pre test and post test means in the case of boys. Thus the second hypothesis is fully substantiated.

The third hypothesis states that there is significant difference between pre test and post test mean scores of Awareness on First Aid for girls.

The results showed that there is significant difference between pre test and post test mean scores of the variable Awareness on First Aid in the case of girls also. Thus the hypothesis is fully substantiated.

The fourth hypothesis states that there is no significant difference between post test and retention test mean scores of Awareness on First Aid for the total sample.

The comparison between the post test and retention test shows that there is no significant difference in the critical ratio obtained in the case of total sample. Thus the hypothesis is fully substantiated. That means the awareness on first aid is retained by the total sample.

The fifth hypothesis states that there is no significant difference between post test and retention test mean scores of Awareness on First Aid for boys.

The comparison between the post test and retention test shows that there is no significant difference in the Awareness on First aid in the case of boys. Thus the hypothesis is fully substantiated. The awareness on first aid is retained by boys.

The sixth hypothesis states that there is no significant difference between post test and retention test scores of Awareness on First Aid for girls.

The comparison between the post test and retention test shows that there is no significant difference in the awareness on First aid in the case of girls. Thus the hypothesis is fully substantiated.

The last hypothesis states that the developed Intervention programme is effective to enhance Awareness on First Aid among students at secondary level.

The effect of the developed programme is proved statistically. Thus this hypothesis is also fully substantiated.

Conclusion

The findings of the study can be concluded as the following

1. The developed First Aid Intervention programme is effective to enhance Awareness on First Aid among students at secondary level.
2. The effect of the developed programme on First Aid is having large and is also retained by the secondary school students.

Chapter 5

SUMMARY OF MAJOR FINDINGS, CONCLUSIONS AND SUGGESTIONS

Contents

- *Study in retrospect*
- *Summary of Important findings*
- *Conclusion*
- *Educational implications*
- *Suggestions for further research*

SUMMARY OF MAJOR FINDINGS, CONCLUSIONS AND SUGGESTIONS

This chapter highlights the significant stages of the study, important findings, their educational implications and suggestions for further research.

Restatement of the Problem

The study entitled as **“EFFECTIVENESS OF AN INTERVENTION PROGRAMME FOR ENHANCING AWARENESS ON FIRST AID AT SECONDARY LEVEL”**

Objectives

Objectives of the study are as follows.

1. To analyze the need of an intervention programme on first aid education based on
 - a) Content of biology text books at secondary level
 - b) Views of teachers' about first aid at secondary level
 - c) Awareness on first aid among students at secondary level for
 - The total sample and
 - sub sample based on gender.
2. To develop an intervention programme on first aid to enhance awareness on first aid at secondary level.
3. To find out the effectiveness of the intervention programme to enhance awareness on first aid among students at secondary level

- on comparison of pre test and post test scores for the total sample and subsample based on gender
- on comparison of post test and retention test scores for the total sample and subsample based on gender
- to find out the effect size of the intervention programme to enhance awareness on first aid at secondary level

Hypotheses

The present study is designed to test the following hypotheses;

1. There is significant difference between pre test and post test mean scores of Awareness on First Aid for the total sample.
2. There is significant difference between pre test and post test mean scores of Awareness on First Aid for boys.
3. There is significant difference between pre test and post test mean scores of Awareness on First Aid for girls.
4. There is no significant difference between post test and retention test mean scores of Awareness on First Aid for the total sample.
5. There is no significant difference between post test and retention test mean scores of Awareness on First Aid for boys.
6. There is no significant difference between post test and retention test mean scores of Awareness on First Aid for girls.

7. The developed Intervention programme is effective to enhance awareness on first aid among students at secondary level.

Methodology

The methodology of the study is provided below in brief.

Design of the study

The main aim of the study was to find out the effectiveness of a first aid intervention programme at secondary level. Both survey and experimental methods were used in the study. Single group Pre- test- Treatment- Post- test- Retention test design was selected for experiment. The design of the study is illustrated below.

O1 X O2

Where, O1 is pre test and O2 is post test

The study was conducted in three phases. The first phase is focused on the need of an intervention programme on first aid at secondary level. This includes the following aspects.

The first phase includes analysis of secondary school Biology text books to find out the strength or concept of first aid in Biology curriculum, views of teachers on First Aid education at secondary level and finding out the existing level of awareness on First aid of students at secondary level. As part of need analysis the secondary level Biology curriculum was analyzed. Views of teachers were collected on first aid education at secondary level through an opinionnaire and focus group discussion. To find out the present level of awareness on first aid among secondary

school students an awareness test was conducted among a large sample of students through survey.

The second phase was focused on the development of an intervention programme on first aid. Based on the need of such an intervention programme, the emergency cases /situations of first aid at secondary level for the target group was decided and included. Each emergency situation is explained through the definition, types, symptoms, consequences, do's and don'ts or the first aid to be given. The programme also incorporated the basic aspects of first aid.

The next phase is the transaction of the intervention programme among the target group. For this a Single group pre test-post test design was adopted to find out the effectiveness of the intervention on first aid education at secondary level. Here a single group of students was given a pre-test (O1), then the treatment (X), and the post test(O2). An evaluation of the change from pre test to post test is considered as the result of the study conducted. The students were given treatment by preparing and transacting content of the first aid education through lesson transcripts by different activities such as discussions, video presentations, sharing of experiences, mock situation etc. The same first aid awareness test was given as the post test to find out the effectiveness of the intervention on First Aid at secondary level. After a period of one month a retention test was conducted.

Sample used for the study

628 secondary school students from the schools of Kozhikode, Malappuram and Palakkad districts of Kerala, has been taken for conducting the

survey to assess the need for first aid education at secondary school level, and gender was taken as a subsample. All samples were selected from standard IX, which is the middle of standard VIII and X.

78 teachers were selected as teacher sample to collect views about first aid at secondary level as part of need analysis. Among the 78 teachers 50 teachers were selected from different schools and 28 teachers who have participated in focus group discussion from a school at Malappuram district.

The experimental sample of students was 35. The sample was selected from one school from Malappuram district. The boys were 13 and girls were 22 in number.

Instruments used in the study

The following instruments were used for the study.

1. First Aid Awareness Test
2. Opinionnaire on First Aid.
3. Focus group interview schedule
4. First Aid Intervention Programme
5. Lesson Transcripts

Procedure

The procedure of the study is as follows.

1. Analyzing the content of Biology text books for standards VIII, IX and X to locate the concept of First Aid.
2. Collecting the views of teachers about the need of an Intervention on First Aid at secondary level.
3. Administering Awareness Test on First Aid in a large sample of students of IXth standard from Kozhikode, Malappuram and Palakkad districts.
4. Analysis of the scores of Awareness on First Aid among the large sample for the total and subsample based on gender.
5. Development of the Intervention Programme on First Aid for secondary school students.
6. Administering Awareness Test on First Aid as pre test of the selected experimental sample.
7. Analysis of the pre test scores.
8. Transaction of First Aid Intervention Programme for the sample of students.
9. Conducting post test.
10. Analysis of the post test scores

11. Testing the difference between pre test and post test mean scores for its significance.
12. Conducting the retention test.
13. Analysis of the retention test scores.
14. Testing the difference between post test and retention test mean scores for its significance.
15. Establishing the effectiveness of the Intervention Programme on First Aid at secondary level.

Statistical techniques used in the study

Statistical techniques adopted for the study were,

1. Descriptive statistics like Mean, Median, Mode, Standard Deviation, Skewness, Kurtosis and Percentiles.
2. Test of significance of difference between means.
3. Cohen's d

Major Findings

1. Emerging views of teachers about first aid education at secondary level

1. All the four groups reported that fainting, fracture, road accidents, epilepsy, wounds, bleeding, dislocation, sprain and strain were the common emergency situations occurred among the students at secondary level.

2. Fainting and fracture are most the common emergency situations in their school.
3. Need of a First Aid room with a First Aid kit in secondary schools.
4. Earlier there was a text book for First Aid education, as Health science. At present the curriculum is weak in First Aid.
5. Training on First Aid at secondary level students will be beneficial in their future life also.
6. Separate learning materials are to be developed for First Aid education at secondary level.
7. Sufficient period and time is to be given to students for First Aid.
8. To improve the first aid knowledge mock videos with illustration are essential.

2. From the sample of students in the survey it was found that

- Mean score of awareness on first aid for the total sample (N= 628) is **21.92**. The total score of the test was 57. From this awareness of the sample on first aid is found low.
- The mean score obtained for boys in their awareness on first aid was **20.44** and that of girls was **23.29**. From the comparison of awareness on first aid between boys and girls the 't' value obtained was **6.16** which shows mean

difference is significant at .01 level. This shows that there is difference between boys and girls in their awareness on first aid.

3. Experimental sample

1. Comparison of mean scores of awareness on first aid between pre test and post test for the whole experimental sample
 - In the experimental sample the pre test mean score for the total sample was 22.11 and the post test mean score was 43.86. The 't' value for the total sample was 16.97 which shows significant difference at .01 level.
2. Comparison of mean scores of awareness on first aid for boys
 - In the case of boys the pre test mean score was 18.50 and that of post test was 39.79 and the 't' value was 10.70. The 't' value shows significance at .01 level.
3. Comparison of mean scores of awareness on first aid for girls.
 - In the case of girls the pre test mean score was 24.52 and that of post test was 46.57. The 't' value was 12.90 which shows significance at .01 level.
4. Comparison of mean scores of awareness on first aid between Post test and retention test for the total sample(N=35)

- For the total sample the post test mean score was 43.86 and that of retention test was 44.80. The critical ratio obtained was .90 which is less than the score of significance at .05 level.
5. Comparison of mean scores of awareness on first aid between Post test and retention test for boys
 - In the case of boys the post test mean score was 39.79 and the retention test score was 40.43. The difference between means is not significant at any level.
 6. Comparison of mean scores of awareness on first aid between Post test and retention test for girls
 - In the case of girls the post test mean score was 46.57 and the retention test mean score was 47.71. The difference between means is not significant at any level.
 7. The magnitude of the effect of first aid intervention programme was found large since the value is higher than 1.

Conclusion

1. Based on the need of an intervention on first aid education explicitly stated in terms of content of Biology text books, views of teachers at secondary level and the awareness of students on first aid, a programme on first aid is essential at secondary level.

2. The developed programme was found effective in enhancing awareness on first aid among secondary school students through the comparison of results between pre test and post test for the total sample and subsample based on gender and also the effect is found large.
3. The effect of the intervention programme was found long lasting as evidenced through the retention test.

Educational Implications of the Study

The study provides a number of implications in the educational field.

The intervention programme of the study is useful to students at secondary level especially and to teachers, parents and the whole members of the community. Because the first aid knowledge is essential at any place at any time. The implications of the study are as follows

1. The main principle of first aid is to save life. Every student knows the fact that “life is precious”. In this context first aid knowledge is very essential to students. The knowledge of first aid is very much helpful in and outside the school. This knowledge is also helpful in one’s future life.
2. Each school should develop a culture of safety and this should be given to all its stake holders.
3. Every school should have adequate facilities with regard to first aid (First aid room, first aider, first aid kit, first aid service, emergency numbers etc).
4. Mock situations related to first aid should be incorporated in the regular working of school.

5. The important tool in the hands of a teacher is text book. So text book should incorporate first aid topics with necessary information.
6. Special packages on first aid training should be developed.
7. The pre service and in service training programmes incorporate first aid.
8. Every disaster necessitates first aid service. So training of the public on first aid is acceptable. Hence the programme will be highly useful to students, teachers, parents and to the public.

Suggestions for Further Research

A number of studies are conducted in first aid internationally. In India first aid is a neglected area especially in school level. Hence the present study necessitates more studies on first aid. Some suggestions for further research are as follows.

1. All the stakeholders of schools are to be trained in first aid. Hence a study on school based intervention on first aid is to be conducted.
2. When a disaster comes the people who witnessed, neighbours, or even the children may help the affected. So first aid is an extensive area and its knowledge is to be given to all strata of people. So studies are to be conducted to develop intervention programmes for all strata of people.
3. The present study is conducted experimentally in a class of students at standard IX. Studies can be conducted in large sample by adopting true experimental design.

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APPENDICES

Appendix I

FAROOK TRAINING COLLEGE

Santhikrishna. C
Senior Research Fellow

Dr. P. Rekha
Assistant Professor

FIRST AID AWARENESS TEST

സെക്കന്ററിതലത്തിലെ വിദ്യാർത്ഥികൾ അറിഞ്ഞിരിക്കേണ്ട പ്രഥമശുശ്രൂഷയുമായി ബന്ധപ്പെട്ട ഏതാനും ചോദ്യങ്ങളാണ് ചുവടെ ചേർത്തിരിക്കുന്നത്. ഓരോ ചോദ്യത്തിനും താഴെ a, b, c, d എന്നിങ്ങനെ നാല് ഓപ്ഷനുകൾ നൽകിയിട്ടുണ്ട്. ചോദ്യം വായിച്ച് ശരിയായ ഉത്തരം തിരഞ്ഞെടുത്ത് റെസ്പോൺസ് ഷീറ്റിൽ അതത് കോളത്തിൽ (✓) മാർക്ക് ഉപയോഗിച്ച് രേഖപ്പെടുത്തുക. ഒരു ചോദ്യത്തിന് ഒരു ഉത്തരം മാത്രമേ രേഖപ്പെടുത്താവൂ. ഗവേഷണാർത്ഥം ഉപയോഗിക്കാനുള്ള ഒരു ചോദ്യാവലി ആണ് ഇത്.

1. പ്രഥമശുശ്രൂഷ എന്നാൽ എന്ത്?
 - a) അപായപ്പെട്ട വ്യക്തിക്ക് നൽകുന്ന താൽക്കാലികവും പെട്ടെന്നുള്ളചികിത്സ
 - b) ആശുപത്രിയിലെ അത്യാഹിത വിഭാഗത്തിൽ നൽകുന്ന ചികിത്സ
 - c) അപായപ്പെട്ട വ്യക്തിയെ ആശുപത്രിയിൽ എത്തിക്കുന്ന പ്രവൃത്തി
 - d) അപായപ്പെട്ട വ്യക്തി സ്വയം ചെയ്യുന്ന ചികിത്സ
2. അസ്ഥിഭംഗം എന്നാൽ എന്ത്?
 - a) ഭാഗികമായോ, പൂർണ്ണമായോ ഉള്ള അസ്ഥിയിലെ പൊട്ടൽ
 - b) അസ്ഥിയിലെ വളയൽ
 - c) അസ്ഥിയിലെ കടുത്ത വേദന
 - d) അസ്ഥിസന്ധിയിലെ ദ്രാവകത്തിന്റെ കുറവ്
3. മുറിവ് കെട്ടുന്നതിനുള്ള പ്രഥമശുശ്രൂഷയുടെ ഭാഗമായി ഉടൻ ചെയ്യേണ്ടത് എന്താണ്?
 - a) മരുന്ന് പുരട്ടൽ
 - b) മുറിവ് മുടിവെക്കൽ
 - c) വെള്ളമുപയോഗിച്ച് വൃത്തിയാക്കൽ
 - d) നിരീക്ഷണം.
4. CPR ന്റെ മുഴുവൻ പേര്?
 - a) കാർഡിയോ പൾമണറി റേറ്റ്
 - b) കാർഡിയോ പൾമണറി റെസസൈറ്റേഷൻ
 - c) കാർഡിയോ പൾമണറി റസ്റ്റ്
 - d) കാർഡിയോ പൾമണറി റെസ്പിറേഷൻ

5. വെള്ളത്തിൽ വീണ വ്യക്തിക്ക് നൽകാവുന്ന പ്രഥമശുശ്രൂഷ എന്ത്?
 - a) വെള്ളത്തിൽ നിന്ന് എടുത്തതിന് ശേഷം ചൂടുള്ള വസ്ത്രങ്ങൾ ധരിപ്പിച്ച് ഒരുവശം ചെരിച്ച് കിടത്തി ആശുപത്രിയിൽ എത്തിക്കുക.
 - b) വയറിൽ അമർത്തി വെള്ളം പുറത്തുകളയുക
 - c) അവർക്ക് ഉടൻ തന്നെ കൃത്രിമശ്വാസോച്ഛാസം നൽകുക
 - d) ഇവയൊന്നുമല്ല
6. നിങ്ങളുടെ സുഹൃത്തിന്റെ തൊണ്ടയിൽ എന്തെങ്കിലും വസ്തു കുടുങ്ങിയതായി നിങ്ങളുടെ ശ്രദ്ധയിൽ പെട്ടാൽ നിങ്ങൾ എന്തുചെയ്യും?
 - a) അവനോട് ശക്തിയായി ചുമക്കാൻ പറയും
 - b) തൊണ്ടയിൽ നിന്ന് എത്രയും പെട്ടെന്ന് അത് നീക്കം ചെയ്യും
 - c) വെള്ളം കുടിക്കാൻ കൊടുക്കും
 - d) ഖരപദാർത്ഥങ്ങൾ കഴിക്കുവാൻ കൊടുക്കും
7. ഏത് അവയവത്തിന്റെ പ്രവർത്തനത്തിലുണ്ടാകുന്ന തകരാറുമൂലമാണ് അപസ്മാരം ഉണ്ടാകുന്നത്?
 - a) ഹൃദയത്തിനുണ്ടാകുന്ന പ്രവർത്തന വൈകല്യം
 - b) നാഡികളുടെ പ്രവർത്തന വൈകല്യം
 - c) തലച്ചോറിന്റെ പ്രവർത്തന വൈകല്യം
 - d) പേശികളുടെ പ്രവർത്തന വൈകല്യം
8. ശ്വാസോച്ഛാസവും രക്തചംക്രമണവും നിലച്ചാൽ കൃത്രിമശ്വാസോച്ഛാസം നൽകുകയും നെഞ്ചിൽ അമർത്തുകയുമാണ് വേണ്ടത്. ഈ പ്രക്രിയയെ പറയുന്ന പേരെന്ത്?
 - a) പ്രഥമ ശുശ്രൂഷ
 - b) പുനരുജ്ജീവന പ്രക്രിയ (CPR)
 - c) അപകടസന്ധി തരണം ചെയ്യൽ
 - d) ഹെയ്മംലിച്ച് മാന്യൂർ
9. ഹൃദയത്തിന്റെ പ്രവർത്തനം കാര്യക്ഷമമാകണമെങ്കിൽ മിനിറ്റിൽ എത്രതവണ വരെ കൃത്രിമ ശ്വാസോച്ഛാസം നൽകണം?
 - a) 10-12 പ്രാവശ്യം
 - b) 5-10 പ്രാവശ്യം
 - c) 16-18 പ്രാവശ്യം
 - d) 5-8 പ്രാവശ്യം
10. ഒരു വ്യക്തി വൈദ്യുതിമൂലം ഷോക്കടിച്ചു നിലത്തുകിടക്കുന്നതായി കണ്ടാൽ നിങ്ങൾ പ്രധാനമായും ശ്രദ്ധിക്കേണ്ട കാര്യം എന്ത്?
 - a) അവരെ എത്രയും പെട്ടെന്ന് വലിച്ചു മാറ്റും
 - b) അവരുമായിനേരിട്ട് സ്പർശിക്കാൻ ശ്രമിക്കാതെ വൈദ്യുതിബന്ധം വിച്ഛേദിക്കുക.
 - c) അയാളെ റബ്ബർഷീറ്റ് കൊണ്ട് മൂടുവാൻ ശ്രമിക്കുക
 - d) ഒരു മെഡിക്കൽ സംഘം വരുന്നതുവരെ കാത്തിരിക്കുക

11. സൂര്യാഘാതമുണ്ടായാൽ (ചൂടുകൊണ്ട്) രോഗിയെ പ്രധാനമായി എന്തുചെയ്യണം?
 - a) തണുപ്പിക്കാനായി നനഞ്ഞവസ്ത്രം കൊണ്ട് പൊതിയുക
 - b) രോഗിയെ കിടക്കാൻ അനുവദിക്കുക
 - c) രോഗിയെ ഒരു പുതപ്പുകൊണ്ട് മൂടുക
 - d) രോഗിക്ക് എത്രയും വേഗം ഭക്ഷണം നൽകുക
12. ഒരാൾ അവിചാരിതമായി എന്തെങ്കിലും വസ്തു വിഴുങ്ങിയാൽ താഴെ പറയുന്ന ഏത് കാര്യത്തിനാണ് പ്രാധാന്യം നൽകേണ്ടത്?
 - a) രോഗിയെ ചെരിച്ച് കിടത്തുക
 - b) രോഗിയെ മലർത്തി കിടത്തുക
 - c) രോഗിയോട് സ്വയം അത് എടുക്കാൻ നിർദ്ദേശിക്കുക
 - d) രോഗിക്ക് കുടിക്കാനോ കഴിക്കാനോ ഒന്നും കൊടുക്കാതിരിക്കുക
13. പ്രഥമശുശ്രൂഷയുടെ പ്രധാനലക്ഷ്യമെന്താണ്?
 - a) വേദന കുറയ്ക്കുക
 - b) രക്തസ്രാവം തടയുക
 - c) ഉടനടി ആശുപത്രിയിൽ എത്തിക്കുക
 - d) ജീവൻ രക്ഷിക്കുക
14. അസ്ഥിഭംഗത്തിന്റെ ലക്ഷണങ്ങൾ എന്താണ്?
 - a) കടുത്ത രക്തസ്രാവം, ബോധക്ഷയം
 - b) ശരീരത്തിലെ നിറം മാറ്റം
 - c) വേദന, വീക്കം, ചലനത്തിനുള്ള തടസ്സം
 - d) ചർദ്ദിയും തലവേദനയും
15. രക്തസ്രാവം നിർത്താനുള്ള അടിയന്തര പ്രവൃത്തി ഏതാണ്?
 - a) ശീലകൊണ്ട് ചെറുതായി അയഞ്ഞ രീതിയിൽ മർദ്ദത്തോടെ കെട്ടുക.
 - b) ശീലകൊണ്ട് മൂടുക
 - c) മുറിവിൽ വെള്ളം ഒഴിക്കുക
 - d) കുടിക്കുവാൻ ധാരാളം വെള്ളം കൊടുക്കുക
16. നിങ്ങൾ നടന്നുപോകുമ്പോൾ ഒരു വ്യക്തി തറയിൽ ബോധരഹിതനായി കിടക്കുന്നത് കണ്ടാൽ നിങ്ങൾ ചെയ്യുന്ന പ്രഥമശുശ്രൂഷ എന്ത്?
 - a) ഉടനെ CPR നൽകും
 - b) വ്യക്തിയുടെ പൾസ് നോക്കും
 - c) ഉടനെ ഹോസ്പിറ്റലിൽ എത്തിക്കും
 - d) സംഭവസ്ഥലം സുരക്ഷിതമാക്കുകയും പ്രതികരണം പരിശോധിക്കുകയും ചെയ്യും

17. തീപൊള്ളലിന് എന്ത് പ്രഥമശുശ്രൂഷയാണ് നൽകേണ്ടത്?
 - a) പൊള്ളിയ ഭാഗം കെട്ടിവെക്കുക
 - b) അണുനാശിനി ലേപനങ്ങൾ പുരട്ടുക
 - c) തണുത്ത വെള്ളമുപയോഗിച്ച് കഴുകുക
 - d) ഉടൻ തന്നെ എണ്ണ പുരട്ടുക
18. നിങ്ങളുടെ സഹപാഠിക്ക് ലാബിൽ വെച്ച് രാസപദാർത്ഥത്താൽ പൊള്ളലേറ്റു. പൊള്ളലേറ്റ ഭാഗത്ത് എന്ത് പ്രഥമശുശ്രൂഷ നൽകണം?
 - a) പൊള്ളലേറ്റ ഭാഗം ഉടൻതന്നെ ഒരു തുണികൊണ്ട് കെട്ടിവെക്കുക.
 - b) പൊള്ളലേറ്റ ഭാഗം വൃത്തിയാക്കി 20 മിനുട്ട് നേരം വെള്ളം ഒഴിച്ചശേഷം ഹോസ്പിറ്റലിൽ എത്തിക്കുക
 - c) പൊള്ളലേറ്റ ഭാഗത്ത് മഷിപുരട്ടുക
 - d) പൊള്ളലിനുള്ള ആന്റിസെപ്റ്റിക് ലേപനം ഉടൻ പുരട്ടുക
19. ആരാണ് പ്രഥമശുശ്രൂഷകൻ ?
 - a) ഡോക്ടർ
 - b) നഴ്സ്
 - c) പ്രഥമശുശ്രൂഷാ പരിശീലനം ലഭിച്ച വ്യക്തി
 - d) ഇവരൊന്നുമല്ല
20. മുറിവ് മുടുവാൻ താഴെപറയുന്നവയിൽ ഏത് വസ്തുവാണ് ഉപയോഗിക്കേണ്ടത്?
 - a) സാധാരണ തുണി
 - b) സാധാരണ ഗോസ്
 - c) അണുവിമുക്തമാക്കിയ ഗോസ്
 - d) പ്ലാസ്റ്റർ
21. മുറിവിൽ രക്തസ്രാവം നിർത്താനായി എങ്ങനെയാണ് സിരകളിൽ മർദ്ദമുപയോഗിക്കുന്നത്?
 - a) ശീലകൊണ്ട്
 - b) വിരലുകൾ ഉപയോഗിച്ച്
 - c) കൈപ്പത്തികൊണ്ട്
 - d) ഉപകരണത്തിന്റെ സഹായത്താൽ
22. തൊണ്ടയിൽ കുടുങ്ങിയ വസ്തു മാറ്റുവാനായി കൈചുരുട്ടിപ്പിടിച്ച് വയറിൽ പിടിച്ച് മുൻപോട്ടും പുറകോട്ടും അമർത്തുന്ന പ്രക്രിയക്ക് പറയുന്ന പേര്?
 - a) പുനരുജ്ജീവന പ്രക്രിയ
 - b) CPR
 - c) പ്രാഥമിക പ്രഥമ ശുശ്രൂഷ
 - d) ഹെയ്മംലിച്ച് മാനൂവർ (Heimlich maneuver)
23. CPR കൊടുക്കുമ്പോൾ എത്ര അനുപാതത്തിലാണ് നെഞ്ചിലമർത്തേണ്ടതും, കൃത്രിമശ്വാസോച്ഛാസം നൽകേണ്ടതും?
 - a) 15:10
 - b) 30:2
 - c) 14:10
 - d) 25:3

24. പൊള്ളലേറ്റാൽ ചെയ്യരുതാത്തത് എന്ത്?
 - a) ശരീരവുമായി ഒട്ടിപ്പിടിച്ച് വസ്ത്രങ്ങളും മറ്റും എടുത്തുകളയാൻ ശ്രമിക്കുക.
 - b) പൊള്ളലേറ്റ ഭാഗത്ത് കുമിളകളുണ്ടെങ്കിൽ പൊട്ടിക്കാൻ ശ്രമിക്കുക.
 - c) പൊള്ളിയ ഭാഗത്ത് ലോഷനുകൾ, എണ്ണ തുടങ്ങിയവ പുരട്ടുക.
 - d) മൂന്നും ശരിയാണ്
25. പാമ്പ് കടിച്ചാൽ നൽകേണ്ട പ്രഥമശുശ്രൂഷ?
 - a) രോഗിയെ ഇരുത്തി കടിയേറ്റഭാഗം ഹൃദയത്തിന്റെ നിരപ്പിൽ നിന്നും താഴ്ത്തി വെക്കുക.
 - b) മുറിവ് വളരെ മുറുക്കത്തിൽ കെട്ടിവെക്കുക
 - c) രോഗിയോട് വേഗതയിൽ നടക്കാൻ പറയുക
 - d) രോഗിക്ക് ഉടൻ വെള്ളം കുടിയ്ക്കാൻ കൊടുക്കുക
26. കണ്ണിൽ എന്തെങ്കിലും കരടുപോയാൽ ചെയ്യേണ്ട പ്രഥമശുശ്രൂഷ എന്ത്?
 - a) ശുദ്ധജലം ഉപയോഗിച്ച് കഴുകുക
 - b) കണ്ണ് തുടർച്ചയായി ചിമ്മാൻ പറയുക
 - c) തുണി ഉപയോഗിച്ച് കരട് പുറത്തെടുക്കുക
 - d) ഒരു വസ്തുവിനെ ഏകാഗ്രമായി നോക്കാൻ നിർദ്ദേശിക്കുക
27. പ്രഥമശുശ്രൂഷകന് വേണ്ട പ്രധാന ഗുണം എന്ത്?
 - a) ഉന്നതവിദ്യാഭ്യാസം
 - b) ശാന്തമായും വേഗത്തിലും പ്രവർത്തിക്കാനുള്ള കഴിവ്
 - c) ധൈര്യശാലി ആയിരിക്കണം
 - d) മെഡിക്കൽ വിദ്യാഭ്യാസം നേടിയിരിക്കണം
28. സ്പ്ലിന്റ് അഥവാ താങ്ങു എന്തുകൊണ്ടൊക്കെ ഉണ്ടാക്കാം?
 - a) വർത്തമാനപത്രം
 - b) തുണിക്കഷ്ണം
 - c) കട്ടിയുള്ള മരക്കഷ്ണം
 - d) എല്ലാം ശരിയാണ്
29. മുഗുണ്ടൾ (ഉദാ:- നായ, പൂച്ച തുടങ്ങിയവ) കടിച്ചാൽ പ്രധാനമായും ചെയ്യേണ്ടത്?
 - a) കടിയേറ്റഭാഗം സോപ്പും ചൂടുവെള്ളവും ഉപയോഗിച്ച് കഴുകുക
 - b) എത്രയും പെട്ടെന്ന് വൈദ്യസഹായം നൽകി പേവിഷ പ്രതിരോധ കുത്തിവെപ്പ് എടുക്കുക
 - c) രണ്ടും ശരിയാണ്
 - d) രണ്ടും തെറ്റാണ്
30. പ്രഥമശുശ്രൂഷകന്റെ കർത്തവ്യം എപ്പോഴാണ് അവസാനിക്കുന്നത്?
 - a) അപായപ്പെട്ട വ്യക്തി പൂർണ്ണമായും സുഖം പ്രാപിക്കുമ്പോൾ
 - b) അപായപ്പെട്ട വ്യക്തിയെ മെഡിക്കൽ ജീവനക്കാരുന് കൈമാറുമ്പോൾ
 - c) അപായപ്പെട്ട വ്യക്തിക്ക് ബോധം തെളിയുമ്പോൾ
 - d) അപായപ്പെട്ട വ്യക്തിയെ ബന്ധുക്കളെ ഏൽപ്പിക്കുമ്പോൾ

31. CPR കൊടുക്കുന്നതിനുവേണ്ടി രോഗിയെ തയ്യാറാക്കുന്ന വിധം ഏത്?
 - a) തല ഉയർത്തി കിടത്തുക
 - b) മലർത്തി കിടത്തുക
 - c) ഒരു വശത്തേക്ക് ചെരിച്ച് കിടത്തുക
 - d) രോഗിയെ ഇരുത്തുക
32. പ്രഥമശുശ്രൂഷയുടെ സുവർണ്ണ നിയമം എന്താണ്?
 - a) അപായപ്പെടുത്താതിരിക്കുക
 - b) വെള്ളം കൊടുക്കുക
 - c) ആശുപത്രിയിലേക്ക് മാറ്റുക
 - d) വായുസഞ്ചാരം ഉറപ്പുവരുത്തുക
33. കുട്ടുകാരന്റെ മുക്കിൽ നിന്ന് രക്തം വരുന്നതായി ശ്രദ്ധയിൽപ്പെട്ടാൽ നിങ്ങൾ എന്തു ചെയ്യും?
 - a) കഴുത്ത് മുന്നോട്ടാക്കി രോഗിയെ ഇരുത്തുക
 - b) മുക്കിന്റെ അറ്റം ചൂണ്ടുവീരലും തള്ളുവീരലും ഉപയോഗിച്ച് 10-15 മിനുട്ട് വരെ മുറുക്കിപ്പിടിക്കുക
 - c) വായിലൂടെ ശ്വാസം എടുക്കാൻ ആവശ്യപ്പെടുക ഐസ് വെക്കുക, വൈദ്യസഹായം തേടുക
 - d) എല്ലാം ശരിയാണ്
34. പ്രഥമശുശ്രൂഷയിൽ ആദ്യം ചെയ്യേണ്ടതെന്ത്?
 - a) വെള്ളം കുടിക്കുവാൻ കൊടുക്കുക
 - b) കിടക്കുവാൻ അനുവദിക്കുക
 - c) സാഹചര്യം വിലയിരുത്തൽ
 - d) ഉടനെ ഡോക്ടറെ ബന്ധപ്പെടുക
35. രോഗിയെ ചലിപ്പിക്കുന്നതിനു മുൻപ്, അസ്ഥിഭംഗമുള്ള ഭാഗം എന്തുചെയ്യണം?
 - a) ശീലകൊണ്ട് കെട്ടണം
 - b) പൊട്ടിയഭാഗം തലക്കുമുകളിൽ പിടിക്കുക
 - c) അസ്ഥികൾ യോജിപ്പിച്ചു നിർത്തുവാൻ ശ്രമിക്കുക
 - d) സ്പ്ലിന്റ് അഥവാ താങ്ങു വെച്ച് കെട്ടുക
36. അബോധാവസ്ഥയിലുള്ള വ്യക്തി ശ്വാസോച്ഛ്വാസം നടത്തുന്നത് എങ്ങനെയാണ് മനസ്സിലാക്കുന്നത്?
 - a) വായ്ക്കുമുകളിൽ ചെവി വെച്ച് ശ്വാസോച്ഛ്വാസം ശ്രദ്ധിക്കുന്നു
 - b) നെഞ്ചിന്റെയും വയറിന്റെയും ചലനം ശ്രദ്ധിക്കുക
 - c) രണ്ട് രീതിയും ഉപയോഗിച്ച്
 - d) ഇവയൊന്നുമല്ല

37. ചെവിയിൽ വസ്തുക്കൾ കൂടുങ്ങിയാൽ ശ്രദ്ധിക്കേണ്ട കാര്യം എന്ത്?
- a) പഞ്ഞിയോ തീപ്പെട്ടിക്കൊള്ളിയോ ഉപയോഗിച്ച് പുറത്തെടുക്കാം
 - b) ചെവിയിൽ എന്തെങ്കിലും കടത്തി ബാഹ്യവസ്തുവിനെ നീക്കം ചെയ്യാൻ ശ്രമിക്കരുത്
 - c) a ശരിയാണ് b തെറ്റാണ്
 - d) a തെറ്റാണ് b ശരിയാണ്
38. നിസ്സാരമല്ലാത്ത രീതിയിൽ ശരീരത്തിൽ തുളച്ചുകയറിയ വസ്തു നിങ്ങൾ എങ്ങനെയാണ് കൈകാര്യം ചെയ്യുന്നത്?
- a) അത് ഇളക്കി മാറ്റുകയോ, അമർത്തുകയോ ചെയ്യാതെ ഹോസ്പിറ്റലിൽ എത്തിക്കുക
 - b) ഉടൻ തന്നെ ഇളക്കി മാറ്റി കെട്ടിവെക്കുക
 - c) ചവണ ഉപയോഗിച്ച് മാറ്റുക
 - d) ഇവയൊന്നുമല്ല
39. പ്രഥമശുശ്രൂഷ നൽകിയതിനുശേഷം രോഗിയെ എന്തുചെയ്യണം?
- a) വീട്ടിൽ വിടാം
 - b) വൈദ്യസഹായം നൽകണം
 - c) വിശ്രമിക്കാൻ അനുവദിക്കണം
 - d) വ്യായാമത്തിലേർപ്പെടാൻ അനുവദിക്കണം
40. ഷഡ്പദങ്ങൾ ചെവിയിൽ അകപ്പെട്ടാൽ താഴെ പറയുന്നവയിൽ എന്ത് പ്രഥമശുശ്രൂഷ നൽകണം?
- a) ബഡ്സ് ഉപയോഗിച്ച് ഉടൻ പുറത്തെടുക്കുക
 - b) ചവണയുടെ സഹായത്താൽ പുറത്തെടുക്കുക
 - c) തല ചെരിച്ചുവെച്ച ശേഷം ചെവിയിൽ ഇളം ചൂടുവെള്ളം ഒഴിച്ച് 10 മിനിറ്റ് നേരം പിടിക്കുക
 - d) ഇവയൊന്നുമല്ല
41. തൊണ്ടയിൽ എന്തെങ്കിലും വസ്തു കൂടുങ്ങിയാൽ നിങ്ങൾ ചെയ്യേണ്ട പ്രഥമശുശ്രൂഷ എന്ത്?
- a) കാണുവാൻ പറ്റുന്നതാണെങ്കിൽ വിരലുകൾ ഉപയോഗിച്ച് അത് എടുത്തുമാറ്റുക
 - b) മുളളും മറ്റും കൂടുങ്ങിയെങ്കിൽ റിക്കവറി പൊസിഷനിൽ കിടത്തി ഹോസ്പിറ്റലിൽ കൊണ്ടുപോവുക
 - c) രണ്ടും ശരിയാണ്
 - d) രണ്ടും ശരിയല്ല
42. ഹൃദയസ്തംഭനം വന്ന വ്യക്തിക്ക് അടിയന്തിരമായി ചെയ്യേണ്ടത്?
- a) കൃത്രിമശ്വാസവും ഹൃദയോത്തേജനവും
 - b) രോഗിയെ ഉടൻ ആശുപത്രിയിലെത്തിക്കുക
 - c) രോഗിക്ക് വെള്ളം കുടിക്കാൻ കൊടുക്കുക
 - d) നെഞ്ചിൽ ഏതെങ്കിലും ലേപനം പുരട്ടുക

43. ഒടിവുപറ്റിയ ഭാഗം താങ്ങു ചെയ്ത് നിർത്താനായി ഉപയോഗിക്കുന്ന സ്കെയിലോ അല്ലെങ്കിൽ അതിനു സമാനമായ മരച്ചീളുകൾക്കോ പറയുന്ന പേരെന്ത്?
- a) സ്ലിംഗ്
 - b) സൂർണ്ണിക്കേറ്റ്
 - c) സ്പ്രിന്റ്
 - d) ഇവയൊന്നുമല്ല
44. മുറിവ് കെട്ടുവാൻ വേണ്ടി ഫസ്റ്റ് എയ്ഡ് ബോക്സിൽ കരുതുന്ന ലായനിയേത്?
- a) സ്പിരിറ്റ്
 - b) ഫിനോൾ
 - c) ഡെറ്റോൾ
 - d) 2% ആൽക്കഹോളടങ്ങിയ അയഡിൻ അഥവാ ബീറ്റാഡിൻ
45. റോഡപകടം നടന്ന സ്ഥലത്തുനിന്നും ആളുകളെ ആശുപത്രിയിലേക്ക് മാറ്റുമ്പോൾ പ്രധാനമായും ശ്രദ്ധിക്കേണ്ടത്?
- a) തല, കഴുത്ത്, നെഞ്ച്, വയറ് എന്നിവ ഒന്നായി നീക്കുന്ന വിധത്തിൽ വേണം രോഗിയെ എടുത്തുമാറ്റാൻ. ഇതിന് നാലുപേരെങ്കിലും ചേർന്ന് പ്രവർത്തിക്കണം.
 - b) രോഗി ഹെൽമറ്റ് ധരിച്ചിട്ടുണ്ടെങ്കിൽ ശ്രദ്ധയോടെ ഊരിയെടുക്കണം.
 - c) യാതൊരു കാരണവശാലും കൈകാലുകൾ പിടിച്ച് തൂക്കിയെടുക്കരുത്. തലയും കഴുത്തും ഉടലിൽ നിന്നും ഉലയാതിരിക്കാൻ പ്രത്യേകം ശ്രദ്ധിക്കണം.
 - d) എല്ലാം ശരിയാണ്.
46. പ്രഥമശുശ്രൂഷയുടെ പിതാവ് ആര്?
- a) ജാനറ്റ് യെല്ലൻ
 - b) ആൽബർട്ട് സാബിൻ
 - c) ഡോക്ടർ ഇസ്മാർക്ക്
 - d) പോൾ ടി. അനസ്താസ്
47. പ്രഥമശുശ്രൂഷ മേഖലയിൽ പ്രവർത്തിക്കുന്ന ഏജൻസി ഏത്?
- a) സെന്റ് ജോൺ ആംബുലൻസ്
 - b) റെഡ്ക്രോസ്
 - c) ആർ.എൽ.എസ്.എസ്
 - d) ഇവയെല്ലാം
48. അബോധാവസ്ഥയിലുള്ള സാധാരണ രീതിയിൽ ശ്വസിക്കുന്ന ഒരാളെ ആശുപത്രിയിലേക്ക് മാറ്റുമ്പോൾ സ്വീകരിക്കേണ്ട മാർഗ്ഗമേത്?
- a) റിക്കവറി പൊസിഷനിൽ കിടത്തുക
 - b) സി.പി.ആർ
 - c) പുനരുജ്ജീവന പ്രക്രിയ
 - d) ഹെയ്മംലിച്ച് മാന്യൂർ

49. പാമ്പുകടിയേറ്റാൽ ചെയ്യാൻ പാടില്ലാത്ത കാര്യം?
- a) മുറിവിന് മുകളിൽ വളരെ മുറുക്കത്തിൽ കെട്ടിവെക്കുക
 - b) മുറിവ് കൂടുതൽ തുറക്കാനോ രക്തം വീഴ്ത്തിക്കളയാനോ ശ്രമിക്കുക
 - c) രോഗിയെ എഴുന്നേറ്റ് നടക്കാൻ അനുവദിക്കുക
 - d) എല്ലാം ശരിയാണ്.
50. ഭക്ഷ്യ വിഷബാധയുടെ ലക്ഷണങ്ങൾ എന്തെല്ലാം?
- a) മലബന്ധം
 - b) ഓക്കാനവും ഛർദ്ദിയും
 - c) മുത്രശങ്ക
 - d) പനി
51. ഭക്ഷ്യവിഷബാധയുടെ ഏറ്റവും വലിയ അപകടമേത്?
- a) നിർജ്ജലീകരണം
 - b) കാഴ്ച തകരാറ്
 - c) അബോധാവസ്ഥ
 - d) തലചുറ്റൽ
52. ഭക്ഷ്യവിഷബാധയുള്ളപ്പോൾ നൽകേണ്ട പ്രഥമശുശ്രൂഷ എന്ത്?
- a) ഒന്നും കൂടിക്കാൻ കൊടുക്കാതിരിക്കുക
 - b) സാധാരണ ആഹാരം കൊടുക്കുക
 - c) കൂടിക്കാൻ ധാരാളം വെള്ളം കൊടുക്കുക
 - d) ഉടൻ ആശുപത്രിയിലെത്തിക്കുക
53. അബോധാവസ്ഥയിൽ കിടക്കുന്ന ഒരു വ്യക്തിക്ക് നൽകേണ്ട ബേസിക് ലൈഫ് സപ്പോർട്ട് എന്ത്?
- a) എത്രയും വേഗം വിളിച്ചുണർത്തുവാൻ നോക്കുക
 - b) ABC (Airway, Breathing & Circulation) നോക്കുക.
 - c) മുഖത്ത് വെള്ളം തളിക്കുക
 - d) സി.പി.ആർ കൊടുക്കുക
54. ഉളുക്ക് ഉണ്ടാകാനുള്ള കാരണമെന്ത്?
- a) എല്ലു പൊട്ടൽ
 - b) ലിഗ്‌മെന്റിന്റെ വലിച്ചിൽ
 - c) സന്ധികളുടെ പ്രവർത്തനവൈകല്യം
 - d) എല്ലിന്റെ വളയൽ
55. അമിതമായ രക്തസ്രാവത്തിന്റെ പ്രത്യാഘാതമെന്ത്?
- a) രോഗാണുബാധ
 - b) വേദന
 - c) നീർക്കട്ട്
 - d) അബോധാവസ്ഥ

56. ഉളുക്ക് വന്നാൽ ചെയ്യാവുന്ന പ്രഥമശുശ്രൂഷ എന്ത്?
- a) പരിക്കുപറ്റിയ ഭാഗത്തിന് അവശ്യം വേണ്ട വിശ്രമം നൽകുക
 - b) ഉളുക്കിയഭാഗത്ത് ഐസുകൊണ്ടോ, തണുത്ത വെള്ളത്താലോ അമർത്തുക
 - c) പരുക്കുപറ്റിയ ഭാഗം അമർത്തുകയും ഉയർത്തിപ്പിടിക്കുകയും ചെയ്യുക.
 - d) എല്ലാം ശരിയാണ്
57. അബോധാവസ്ഥയിലുള്ള വ്യക്തിയുടെ രക്തചംക്രമണം എങ്ങിനെയാണ് ഉറപ്പുവരുത്തുന്നത്?
- a) നാഡീമിടിപ്പിലൂടെ
 - b) നെഞ്ചിന്റെ ചലനം നോക്കി
 - c) കാലിന്റെ ചലനം നോക്കി
 - d) ഇവയൊന്നുമല്ല

Appendix II

FAROOK TRAINING COLLEGE

Santhikrishna. C
Senior Research Fellow

Dr. P. Rekha
Assistant Professor

FIRST AID AWARENESS TEST

Some questions about first aid which are to be understood by the students of secondary level, are given below. For each question a,b,c,d options are given. Mark(✓) against correct answer in the response sheet. Mark only one answer to a question. This is a questionnaire supplied for the research purpose.

1. What is First aid?
 - a) The immediate and temporary treatment given to the victims on site
 - b) Treatment given in the casualty
 - c) The act of taking the victim to the hospital
 - d) Self introduced treatment by the victim himself.
2. What is Fracture?
 - a) Partial or complete break of the bone
 - b) Self bending of the bone
 - c) Severe pain in the bone
 - d) Deficiency in the synovial fluid on the synovial joints
3. What is to be done immediately as part of first aid given in dressing a wound?
 - a) Applying medicine
 - b) Covering the wound
 - c) Washing the wound
 - d) Patting to observation
4. Expansion of CPR?
 - a) Cardio pulmonary rate
 - b) Cardio pulmonary resuscitation
 - c) Cardio pulmonary rest
 - d) Cardio pulmonary respiration
5. Which first aid can be given to the drowned person?
 - a) Replace with warm dress and let him lie sideways and take him to the hospital
 - b) Press on the stomach and drain out the water
 - c) Give artificial respiration to the victim
 - d) None of these

6. What will you do if you find a friend with something blocked in throat?
 - a) Telling him to cough strongly
 - b) Remove it immediately from the throat
 - c) Giving water to drink
 - d) Make him eat solid food items
7. Partial dysfunction of which organ leads to Epilepsy?
 - a) Partial dysfunction of Heart
 - b) Partial dysfunction of Nerves
 - c) Partial dysfunction of Brain
 - d) Partial dysfunction of Muscles
8. What is the name given to the first aid in the form of pressing on the chest and artificial respiration on stopping respiration and blood circulation?
 - a) First aid
 - b) Cardio pulmonary resuscitation (CPR)
 - c) Overcoming to dangerous situation
 - d) Heimlich maneuver
9. How many times should artificial respiration be given in a minute to ensure effective functioning of heart?
 - a) 10-12 times
 - b) 5-10 times
 - c) 16-18 times
 - d) 5-8 times
10. If you find a person affected by electric shock; what should you do?
 - a) Pull back the person immediately
 - b) Switch off the electricity instead of touching the person directly
 - c) Try to cover the person with rubber sheet
 - d) Waiting for the medical team's arrival
11. How would you deal with a patient affected from sunstroke?
 - a) Cover with wet cloth
 - b) Let the person lie down
 - c) Cover the patient with blanket
 - d) Give food immediately to the patient
12. What is the first step in managing a person who swallowed something accidentally?
 - a) Lay the patient side ways
 - b) Lay the patient on his back
 - c) Instruct the patient to take it back himself
 - d) Don't give the patient anything for eating or drinking

13. The main aim of first aid is?
 - a) To lessen pain
 - b) To prevent bleeding
 - c) To bring the victim to the hospital immediately
 - d) To save life
14. Which is the signs and symptoms of fracture?
 - a) Extreme bleeding, fainting
 - b) Discoloration of skin
 - c) Pain, swelling of the area, loss of normal movement
 - d) Head ache and vomiting
15. Immediate step to stop bleeding is
 - a) Apply pressure bandage
 - b) Cover the area with a clean cloth
 - c) Pour water in the wound
 - d) Give victim plenty of water to drink
16. What will you do as the first aid, when a man on the way faints?
 - a) Give CPR immediately
 - b) Check his pulse
 - c) Immediately taking the victim to the hospital
 - d) Make the area safe . Check his response
17. As a first aid, what will you do immediately to a burn caused by fire?
 - a) Cover the area with anything
 - b) Apply antiseptic ointment
 - c) Wash with plenty of cold water
 - d) Apply oil to the affected part
18. Your friend gets burned of chemicals from the lab. What first aid should be applied in the burned part?
 - a) Bind burned part with cloth
 - b) Wash the burn with plenty of cold water for about 20 minutes and seek medical help if the burn is serious
 - c) Apply ink in the affected area
 - d) Apply antiseptic ointment
19. Who is a first aider?
 - a) Doctor
 - b) Nurse
 - c) Any person trained in first aid
 - d) None of these

20. Which material you should use to cover a wound?
 - a) Ordinary cloth
 - b) Ordinary gauze
 - c) Germless gauze pad
 - d) Plaster
21. How is pressure applied on nerves to stop bleeding in the wounds?
 - a) With cloth
 - b) Using fingers
 - c) Using palm
 - d) With the help of instrument
22. What is the process of pressing the stomach with folded hands forward and backward to remove the particle stuck in one's stomach is called as?
 - a) Resuscitation
 - b) CPR
 - c) Primary first aid
 - d) Heimlich maneuver
23. While applying CPR at what ratio one has to press heart and give artificial respiration?
 - a) 15:10
 - b) 30:2
 - c) 14:10
 - d) 25:3
24. What should not be done against burning?
 - a) Do remove cloths sticking to the burn
 - b) Do burst any blishes
 - c) Do apply lotions, factor adhesive to the burnt area
 - d) All are right
25. What is the First aid given against snake-bite?
 - a) Make the patient sit and place the wounded area down heart position
 - b) Bind the wound tight
 - c) Tell the patient to walk fast
 - d) Give the patient water to drink immediately
26. What is the first aid for eye sore with dust particle in it?
 - a) Wash the eye with pure water
 - b) Tell him to wink the eye several times
 - c) Take out the particle using a cloth piece
 - d) Instruct to look at an object constantly

27. What is the major quality of a first aid provider?
 - a) Higher qualification
 - b) Ability for calm and swift action
 - c) Should be courageous
 - d) Should have acquired medical education
28. What kind of things are used in making splint?
 - a) News paper
 - b) Piece of cloth
 - c) Wooden pieces
 - d) All are correct
29. What first aid should be done against animal biting (eg: dog, cat etc.)?
 - a) Clean the wound with hot water and soap
 - b) Immediately take anti- rabies vaccination
 - c) Both are correct
 - d) Both are wrong
30. When would the service of a first-aider end?
 - a) On getting the affected person completely well.
 - b) On handing over the affected person to the medical team.
 - c) On getting him to his senses.
 - d) On handing over the affected person to his relatives.
31. How is the patient made ready for CPR?
 - a) Let him lay with the head up.
 - b) Let him lay on his back.
 - c) Take him lay in sides.
 - d) Make him sit.
32. What is the golden principle of first aid?
 - a) Not to bring to damages
 - b) Give water
 - c) Take over to hospital
 - d) Ensure proper ventilation
33. What will you do on noticing nose-bleeding of your friend?
 - a) Make the patient sit with straight neck
 - b) Thoroughly hold the tip of nose using thumb and little finger for about 10 to 15 minutes.
 - c) Instruct him to inhale through nose, put ice, and seek medical aid
 - d) All are correct

34. What is first action in first-aid?
 - a) Give water to drink
 - b) Let him la y
 - c) Assessing the situation
 - d) Connect with the doctor immediately
35. What should be done with the fractured area before moving the patient?
 - a) Bind with a piece of cloth
 - b) Raise the fractured part above head
 - c) Try to bring the bones together.
 - d) Use splint and bind
36. How do we understand the mode of respiration of an unconscious person?
 - a) Notice respiration putting nose on the mouth
 - b) Notice the motion of stomach and chest
 - c) Using both ways
 - d) None of these
37. What is to be cared if something get to blocked in the ear?
 - a) Use cotton and match to take it out.
 - b) Don't try to put something in and remove the particle
 - c) a is right, b is wrong
 - d) a is wrong and b is right
38. How do you deal with the particle pricked in the skin without danger?
 - a) Without letting it loose and pressing take to hospital
 - b) Remove it soon and bind the wound
 - c) Use a plier to remove it
 - d) none of these
39. What should be done with the patient after giving first aid?
 - a) Send him home
 - b) Medical aid be given
 - c) Let him take rest
 - d) Allow him to take exercise
40. What is the first aid against insect-ridden ear?
 - a) Use buds and take it out
 - b) Take it out using a pliers
 - c) Pour warm water in the ear after moving head to a side and keep it for 10 minutes
 - d) none of these

41. What first aid will you give if something blocks the throat?
 - a) Use finger to take it if visible
 - b) If it is thorn like object, lay him in recovery position and take to hospital
 - c) Both are correct
 - d) Both are not correct
42. What emergency attention should be given to patient suffering from Heart attack?
 - a) Artificial respiration and Resuscitation
 - b) Immediately take the patient to hospital
 - c) Give the patient water to drink
 - d) Rub any ointment on the chest
43. What is the name of the scale or wooden piece used to support the fractured part?
 - a) Sling
 - b) Tourniquet
 - c) Splint
 - d) None of these
44. Which is the liquid kept in the first aid box for dressing wound?
 - a) Spirit
 - b) Phenol
 - c) Dettol
 - d) Iodine contained 2% alcohol or Betadine
45. What should be taken care of the most while removing the wounded to hospital from the accident site?
 - a) Move the patients head, neck, chest and stomach all alike. For this a minimum four persons should work together.
 - b) Remove the helmet carefully if the patient wears one.
 - c) On no account he must be hung catching legs or hands. Don't let head and neck sway from the body.
 - d) all are right
46. Who is the father of first aid?
 - a) Janette Yellen
 - b) Albert Sabin
 - c) Doctor Ismark
 - d) Paul de Anasthas
47. Which is the agency working in the field of first aid?
 - a) St.John Ambulance
 - b) Red cross
 - c) RLSS
 - d) All these

48. What care be taken while removing a normally breathing person who is unconscious to hospital?
- Lay him on recovery position
 - CPR
 - Resuscitation
 - Heimlich maneuver
49. What shouldn't be done on snake bite?
- Bind the upper side of the wound tightly
 - Attempt to open the wound and bleed
 - To let the patient walk
 - All are correct
- 50) Which are the symptoms of food poisoning ?
- Constipation
 - Nausea and vomiting
 - Feeling of pissing
 - Fever
51. What is the dangerous side of food poisoning?
- Dehydration
 - Myopia
 - Swooning
 - Giddiness
52. What first aid is to be given on food poisoning?
- Give nothing to drink
 - Give normal food
 - Give enough water to drink
 - Immediately remove to the hospital
53. Which is the life support to be given for an unconscious person?
- Try to wake up him immediately
 - ABC(Airway, Breathing and Circulation)check
 - Spray water on the face
 - Give CPR
54. What is the cause of sprain?
- Broken bone
 - Twitching of ligaments
 - Disorder in bones
 - Bending of bones

55. What is the result of excessive bleeding?
- a) Viral infection
 - b) pain
 - c) Swelling
 - d) State of being swooned
56. What is the First aid to sprain?
- a) Give enough rest to the stricken part
 - b) Pres the stricken part with ice or cold water
 - c) Press and raise the stricken part
 - d) All are right
57. How can we ensure blood circulation of an unconscious person?
- a) Through checking pulse rate
 - b) By checking the movement of chest
 - c) By checking the movement of legs
 - d) None of these

**Appendix III
RESPONSE SHEET**

Name of the Student :

Sex : M/F

Class :

Name of the School :

No.	a	b	c	d
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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29	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

No.	a	b	c	d
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Appendix IV
ANSWER KEY

No.	Answer	No.	Answer
1	A	30	B
2	A	31	B
3	C	32	A
4	B	33	D
5	A	34	C
6	A	35	D
7	C	36	C
8	B	37	D
9	A	38	A
10	B	39	B
11	A	40	C
12	D	41	C
13	D	42	A
14	C	43	C
15	A	44	D
16	D	45	D
17	C	46	C
18	B	47	D
19	C	48	A
20	C	49	D
21	B	50	B
22	D	51	A
23	B	52	C
24	D	53	B
25	A	54	B
26	A	55	D
27	B	56	D
28	D	57	A
29	C		

Appendix V

Opinionnaire for Teachers (Malayalam)

Santhikrishna. C
Senior Research Fellow

Dr. P. Rekha
Assistant Professor

1. ഇപ്പോഴത്തെ സെക്കന്ററി പാഠ്യപദ്ധതിയിൽ പ്രഥമശുശ്രൂഷക്ക് വേണ്ടത്ര പ്രധാന്യം നൽകിയിട്ടുണ്ടോ?
2. സെക്കന്ററി സ്കൂളുകളിൽ കുട്ടികൾക്ക് പ്രഥമശുശ്രൂഷ നൽകേണ്ടതായ സന്ദർഭങ്ങൾ ഉണ്ടാവാറുണ്ടോ?
3. പ്രഥമശുശ്രൂഷ ആവശ്യം വേണ്ട ഏതൊക്കെ സന്ദർഭങ്ങളാണ് സെക്കന്ററി തലത്തിലുള്ള കുട്ടികൾക്കിടയിൽ ഉണ്ടാവാറുള്ളത്?
4. പ്രഥമശുശ്രൂഷ ആവശ്യംവേണ്ട സന്ദർഭങ്ങൾ കൈകാര്യം ചെയ്യുമ്പോൾ അധ്യാപകർക്ക് ബുദ്ധിമുട്ട് അനുഭവപ്പെടാറുണ്ടോ?
5. കുട്ടികൾക്ക് പ്രഥമശുശ്രൂഷാ പരിശീലനം നൽകേണ്ട ആവശ്യമുണ്ടോ?
6. പ്രഥമശുശ്രൂഷാ സാഹചര്യങ്ങൾ കൈകാര്യം ചെയ്യാൻ അധ്യാപകർക്ക് പരിശീലനം ആവശ്യമുണ്ടോ?
7. പ്രത്യേക പ്രോഗ്രാമായി പ്രഥമശുശ്രൂഷാ പരിശീലനം നൽകേണ്ട ആവശ്യമുണ്ടോ?

Appendix VI
Opinionnaire for Teachers (English)

Santhikrishna. C
Senior Research Fellow

Dr. P. Rekha
Assistant Professor

1. Whether the present secondary school curriculam gives due importance to the concept of first aid?
2. Is there any situations of emergency cases which need first aid at secondary level?
3. If yes, name the emergency cases which need first aid?
4. Is there any difficulty faced by teachers to deal with emergency cases which need first aid?
5. Whether there is the need of first aid training to students at secondary level?
6. Whether there is a need of first aid training to teachers at secondary level?
7. Is there any need of special programme to first aid training?

Appendix VII
Focus group interview schedule

Santhikrishna. C
Senior Research Fellow

Dr. P. Rekha
Assistant Professor

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1. സ്കൂളിലെ കുട്ടികൾക്ക് ഫസ്റ്റ് എയ്ഡ് ആവശ്യം വേണ്ടി വന്ന സന്ദർഭങ്ങൾ വിവരിക്കുക
 2. കുട്ടികൾക്ക് ഇടയിൽ ഏറ്റവും കൂടുതൽ ഉണ്ടായിട്ടുള്ള ഫസ്റ്റ് എയ്ഡ് ആവശ്യമായ സാഹചര്യങ്ങൾ എന്തൊക്കെയാണ് ?
 3. നിങ്ങളുടെ സ്കൂളിൽ കുട്ടികൾക്ക് ഫസ്റ്റ് എയ്ഡ് ആവശ്യം വന്ന സാഹചര്യത്തിൽ താങ്കൾക്ക് ഏത് രീതിയിൽ സഹായിക്കാൻ സാധിച്ചു. ഉദാഹരണ സഹിതം വിശദമാക്കുക ?
 4. നിങ്ങളുടെ സ്ഥാപനത്തിലെ വിദ്യാർത്ഥികൾക്കും അധ്യാപകർക്കും ഫസ്റ്റ് എയ്ഡ് അറിവിനെ പരിപോഷിപ്പിക്കുന്നതിന് തടസ്സം നിൽക്കുന്ന ഘടകങ്ങൾ എന്തൊക്കെയാണ് ?
 5. താങ്കളുടെ സ്കൂളിലെ ഫസ്റ്റ് എയ്ഡ് സൗകര്യങ്ങൾ എന്തൊക്കെ ?
 6. സ്കൂളിലെ ഫസ്റ്റ് എയ്ഡ് സൗകര്യം എങ്ങനെ മെച്ചപ്പെടുത്താം എന്നാണ് താങ്കൾ കരുതുന്നത് ?
 7. നിങ്ങൾ പഠിപ്പിക്കുന്ന വിഷയങ്ങളിൽ ഫസ്റ്റ് എയ്ഡും ഉൾപ്പെടുത്തേണ്ടതിന്റെ പ്രാധാന്യമെന്ത് ?
 8. കണ്ടെത്തിയ ഭാഗങ്ങളിൽ തൃപ്തികരമായ വിശദീകരണം ഉൾപ്പെടുത്തിയതായി നമുക്ക് മനസ്സിലാക്കാൻ സാധിക്കുമോ ? വിശദീകരിക്കുക.
 9. താങ്കളുടെ സേവനകാല പരിശീലനങ്ങളിൽ ഫസ്റ്റ് എയ്ഡ് ട്രെയിനിംഗ് ഉൾപ്പെടുത്തേണ്ടതിന്റെ പ്രാധാന്യമെന്ത് ?
 10. സെക്കന്ററി തലത്തിലുള്ള അധ്യാപകർക്കും കുട്ടികൾക്കും ഫസ്റ്റ് എയ്ഡിൽ പരിശീലനം നൽകുന്നതിനെക്കുറിച്ച് താങ്കളുടെ അഭിപ്രായമെന്ത് ?
 11. നിങ്ങളുടെ സ്കൂളിൽ ഫസ്റ്റ് എയ്ഡിന് വേണ്ടത്ര പ്രാധാന്യം കൊടുത്തുകൊണ്ട് നടത്തിയ പരിപാടികൾ ഏതൊക്കെയാണ് ? വിശദീകരിക്കുക.
 12. ഫസ്റ്റ് എയ്ഡ്നെപ്പറ്റിയുള്ള അവബോധം വർദ്ധിപ്പിക്കാനായി പഠനസഹായികളുടെ ആവശ്യകതയെക്കുറിച്ച് വിശദമാക്കുക ?

Appendix VIII

Focus group interview schedule

Santhikrishna. C
Senior Research Fellow

Dr. P. Rekha
Assistant Professor

1. Describe the events where first aid was necessary to the students.
2. What are the events where first aid becomes necessary among the students.?
3. How could you help the students in times of the need for first aid in your school?
4. What are the obstacles which prevents the enrichment of the awareness about first aid?
5. What are the first aid facilities available in your school.?
6. How do you think you can improve the first aid facility available in the school.?
7. Where have you located something about first aid related ideas in your teaching part?
8. Can you understand whether satisfied explanation is included in the located part?
9. What is the importance of including first aid in your service period?
10. What is your opinion about giving training in first aid to the students in secondary level?
11. What are the programmes in your school conducted giving importance to first aid. Explain?
12. Explain the need for teaching aids to improve the idea about the first aid?



Appendix IX

പ്രഥമ ശുശ്രൂഷ ഇടപെടൽ പ്രോഗ്രാം

ആമുഖം

ഈ പ്രഥമശുശ്രൂഷാ ഇടപെടൽ പ്രോഗ്രാം, സെക്കണ്ടറി തലത്തിലെ വിദ്യാർത്ഥികൾക്കുവേണ്ടി ഉണ്ടാക്കിയിട്ടുള്ളതാണ്. പ്രഥമശുശ്രൂഷയുടെ അടിസ്ഥാന ആശയങ്ങൾ, പ്രഥമശുശ്രൂഷ വേണ്ടിവരുന്ന അടിയന്തിര സാഹചര്യങ്ങൾ, സാഹചര്യങ്ങൾക്ക് വേണ്ടുന്ന പ്രഥമശുശ്രൂഷ എന്നിവയെക്കുറിച്ച് വിദ്യാർത്ഥികൾക്ക് അറിവ് നൽകുന്നു. ഈ അറിവ് വിദ്യാലയത്തിൽ ഒരു സുരക്ഷാ സംസ്കാരം ഉണ്ടാക്കിയെടുക്കുവാൻ സഹായിക്കുന്നു. പ്രഥമശുശ്രൂഷയിലെ അറിവ് വിദ്യാർത്ഥിക്ക് വിദ്യാലയത്തിലും വിദ്യാലയത്തിനു പുറത്തും അതുപോലെ അവരുടെ ഭാവിമേഖലയിലും ഉപയോഗിക്കുവാൻ സഹായിക്കുന്നു.

ലക്ഷ്യങ്ങൾ

സെക്കണ്ടറിതല വിദ്യാർത്ഥികളിൽ

- പ്രഥമശുശ്രൂഷയുടെ അടിസ്ഥാന ആശയങ്ങളിൽ അറിവ് നൽകുന്നു.
- പ്രഥമശുശ്രൂഷ ആവശ്യമായിവരുന്ന അടിയന്തിര സാഹചര്യങ്ങളെക്കുറിച്ച് പരിചിതമാവുന്നു.
- പ്രഥമശുശ്രൂഷയിൽ എന്തെല്ലാമാണ് ചെയ്യേണ്ടത്, ചെയ്യരുതാത്തത് എന്നതിനെക്കുറിച്ച് അറിവ് നൽകുന്നു.

പരിപാടിയുടെ ഉള്ളടക്കം

പ്രഥമശുശ്രൂഷ ഇടപെടൽ പ്രോഗ്രാം പ്രധാനമായും രണ്ട് യൂണിറ്റായി തിരിച്ചിരിക്കുന്നു. യൂണിറ്റ് ഒന്നിൽ പ്രഥമശുശ്രൂഷയിലെ അടിസ്ഥാന കാര്യങ്ങളും യൂണിറ്റ് രണ്ടിൽ സെക്കണ്ടറി തലത്തിൽ പ്രഥമശുശ്രൂഷ ആവശ്യമായി വരുന്ന അടിയന്തിര സാഹചര്യങ്ങളും കൊടുത്തിരിക്കുന്നു.

പ്രഥമശുശ്രൂഷ ഇടപെടൽ പ്രോഗ്രാമിൽ ഉൾപ്പെടുന്ന അടിസ്ഥാന കാര്യങ്ങളാണ്

- പ്രഥമശുശ്രൂഷയുടെ ലക്ഷ്യങ്ങൾ
- പ്രഥമശുശ്രൂഷയുടെ തത്വങ്ങൾ
- പ്രഥമശുശ്രൂഷ ചെയ്യുന്ന വ്യക്തിയുടെ ഗുണങ്ങളും ഉത്തരവാദിത്തങ്ങളും
- പ്രഥമശുശ്രൂഷ കിറ്റ്
- പ്രഥമശുശ്രൂഷ ഏജൻസികൾ എന്നിവ.

ഈ പദ്ധതിക്കു കീഴിൽ പ്രഥമശുശ്രൂഷ വേണ്ടുന്ന പതിനെട്ടോളം അടിയന്തിരസാഹചര്യങ്ങൾ ഉൾപ്പെടുന്നു. ഇതിലുൾപ്പെടുന്ന കേയ്സുകൾ പ്രധാനമായും സെക്കന്ററി തലത്തിലുള്ള വിദ്യാർത്ഥികളെ ലക്ഷ്യംവെച്ചിട്ടുള്ളതാണ്.

സി.പി.ആർ (CPR), റിക്കവറി പൊസിഷൻ, രക്തസ്രാവം, മുറിവുകൾ, ഹൃദയാഘാതം, ഒടിവും നിശ്ചലമാക്കലും, സ്ഥാനമാറ്റം, ഉള്ളൂക്ക്, ചതവ്, വൈദ്യുതാഘാതം, പൊള്ളൽ, സൂര്യഘാതം, വിഷബാധ, ജീവികളുടെ കടിയും കുത്തലും, മുങ്ങിമരണം, ചോക്കിങ്ങ്, അപസ്മാരം, അന്യവസ്തുക്കൾ മൂക്കിലും ചെവിയ്ക്കിലും കണ്ണിലും പെട്ടാൽ, തലകറക്കം, റോഡപകടങ്ങൾ തുടങ്ങിയവയാണ് ഇതിൽ ഉൾപ്പെടുത്തിയിട്ടുള്ള പ്രഥമശുശ്രൂഷ അറിയേണ്ടുന്ന സാഹചര്യങ്ങൾ.

നിശ്ചിതമായ രീതിയിലാണ് ഓരോ സാഹചര്യവും അവതരിപ്പിക്കുന്നത്. നിർവ്വചനം, തരം, ലക്ഷണങ്ങൾ, കാരണങ്ങൾ, ചെയ്യേണ്ടതും, ചെയ്യരുതാത്തതുമായ കാര്യങ്ങൾ തുടങ്ങിയവയാണ് ഈ ഘട്ടങ്ങൾ. ഓരോ സാഹചര്യത്തിനും ഈ ഘട്ടങ്ങൾ വ്യത്യസ്തപ്പെട്ടിരിക്കാം.

യൂണിറ്റ് ഒന്ന്

1. പ്രഥമശുശ്രൂഷയിലെ അടിസ്ഥാന കാര്യങ്ങൾ
2. പ്രഥമശുശ്രൂഷാ കിറ്റ്
3. പ്രഥമശുശ്രൂഷാ സംഘടനകൾ

യൂണിറ്റ് രണ്ട്

4. സി.പി.ആർ (CPR, ജീവൻ രക്ഷാമാർഗ്ഗങ്ങൾ/അടിസ്ഥാന ജീവസഹായം)
5. റിക്കവറി പൊസിഷൻ
6. ഹൃദയാഘാതം
7. രക്തസ്രാവം
8. മുറിവുകൾ
9. ഒടിവും (അസ്ഥിഭംഗം) നിശ്ചലമാക്കലും
10. PRICE രീതി, പേശീ വലിവ്, ഉളുക്ക്, സ്ഥാനവ്യതിയാനം
11. വൈദ്യുതാഘാതം
12. പൊള്ളൽ
13. സൂര്യഘാതം

Appendices

14. വിഷബാധ
15. ജീവികളുടെ കടിയേൽക്കൽ, കുത്തേൽക്കൽ
16. മുങ്ങിമരണം
17. ചോക്കിങ്ങ്
18. അപസ്മാരം
19. അന്യവസ്തുക്കൾ കണ്ണിലും, ചെവിയിലും, മൂക്കിലും പെട്ടാൽ
20. തലകറക്കം
21. റോഡപകടങ്ങൾ

1. പ്രഥമശുശ്രൂഷയിലെ അടിസ്ഥാന കാര്യങ്ങൾ

പ്രഥമശുശ്രൂഷയിൽ പരിശീലനം നേടിയ ഒരു വിദഗ്ധൻ മുറിവേറ്റ അല്ലെങ്കിൽ അപായപ്പെട്ട വ്യക്തിക്കു നൽകുന്ന അടിയന്തിരവും താൽക്കാലികമായ സംരക്ഷണവുമാണ് പ്രഥമ ശുശ്രൂഷ. ആദിമകാലം മുതൽക്കുതന്നെ രോഗികൾക്കും, മുറിവേറ്റവർക്കും പരിചരണം നൽകിയിരുന്നു. പ്രശസ്തനായ ജർമ്മൻ സർജൻ ജനറൽ എസ്മാർക്ക് (1823-1908) ആണ് പ്രഥമശുശ്രൂഷ എന്ന ആശയം കൊണ്ടുവന്നത്. അതിനാൽ പ്രഥമ ശുശ്രൂഷയുടെ പിതാവായി അദ്ദേഹം അറിയപ്പെടുന്നു. 1877 ലാണ് പ്രഥമശുശ്രൂഷ എന്ന ആശയം ലോകത്തിൽ വ്യാപിച്ചത്. ഈ വർഷം തന്നെയാണ് സെന്റ് ജോൺ ആംബുലൻസ് രൂപീകൃതമായത്. ആധുനിക യാന്ത്രിക സംസ്കാരത്തോടൊപ്പം പ്രഥമശുശ്രൂഷയുടെ ആവശ്യകതയും വളരെ വലുതാണ്.

പ്രഥമശുശ്രൂഷ - ലക്ഷ്യങ്ങൾ

- ജീവൻ സംരക്ഷിക്കുക.
- പരിക്ക് അധികമാവാതെ തടയുക.
- ആപൽഘട്ടത്തിൽപ്പെട്ട വ്യക്തിക്ക് മനോധൈര്യവും ഊർജ്ജവും നൽകുക.
- പരിക്ക് പറ്റിയ ആൾക്ക് വൈദ്യസഹായം എത്രയും പെട്ടെന്ന് ലഭ്യമാക്കുക.

പ്രഥമശുശ്രൂഷയുടെ തത്വങ്ങൾ

താഴെ പറയുന്നവയാണ് പ്രഥമശുശ്രൂഷയുടെ തത്വങ്ങൾ. ഒരു പ്രഥമശുശ്രൂഷകൻ നിർബന്ധമായും ഈ തത്വങ്ങൾ പാലിക്കണം.

1. പ്രഥമശുശ്രൂഷകനും നിലവിലെ അടിയന്തിര സാഹചര്യവും നിയന്ത്രണത്തിലായിരിക്കണം.

2. നിശബ്ദമായും ബുദ്ധിപൂർവ്വമായും പ്രതികരിക്കുക.
3. ദയയോടെ, കാര്യവിവരത്തോടുകൂടെ രോഗിയോട് സംസാരിക്കുക.
4. പരിശോധനയിലും ചികിത്സയിലുടനീളം രോഗിയിൽ വിശ്വാസം നില നിർത്തുക.
5. നിങ്ങൾ എന്താണ് ചെയ്യുന്നതെന്ന് വിശദീകരിക്കുക.
6. സത്യസന്ധമായി ഉത്തരം പറയുക. അറിയില്ലെങ്കിൽ അറിയില്ല എന്നുപറയുക. തെറ്റായ വിവരം നൽകാതിരിക്കുക.
7. രോഗിയെ ഒറ്റയ്ക്കാക്കാതിരിക്കുക. കൈപിടിച്ചുകൊണ്ട് അവരോട് തുടർച്ചയായി സംസാരിക്കുക.
8. രോഗിക്ക് പിന്തുണ ഉറപ്പുനൽകുക.
9. കുട്ടിയെ (രോഗി കുട്ടിയാണെങ്കിൽ) രക്ഷിതാക്കളിൽ നിന്നും വേർപെടുത്താതിരിക്കുക.
10. എത്രയും വേഗത്തിൽ രോഗിയെ ആശുപത്രിയിൽ എത്തിക്കുക. ഗുരുതരമായ അപകടങ്ങളെക്കുറിച്ച് പോലീസിൽ വിവരമറിയിക്കുക.
11. ബന്ധുക്കളെ വിവരം അറിയിക്കുക.

പ്രഥമശുശ്രൂഷകൻ

പ്രഥമ ശുശ്രൂഷയെക്കുറിച്ച് കൃത്യമായ ധാരണയുള്ള/ പരിശീലനം ലഭിച്ച വ്യക്തിയായിരിക്കണം പ്രഥമശുശ്രൂഷകൻ. ഒരു പ്രഥമശുശ്രൂഷകൻ കർത്തവ്യബോധമുള്ള ആളായിരിക്കണം. അപായപ്പെട്ട വ്യക്തിക്ക് ആവശ്യമുള്ള സമയത്ത് പ്രഥമ ശുശ്രൂഷ നൽകുക എന്നതാണ് ഇവരുടെ ധർമ്മം.

പ്രഥമശുശ്രൂഷ ചെയ്യുന്ന വ്യക്തിക്ക് വേണ്ട ഗുണങ്ങൾ

പ്രഥമശുശ്രൂഷകന് താഴെ പറയുന്ന ഗുണങ്ങൾ ആവശ്യമാണ്.

1. നിരീക്ഷണ പാടവം
2. നിശബ്ദമായും വേഗത്തിലും പ്രതികരിക്കാനുള്ള കഴിവ്
3. നേതൃത്വ പാടവം
4. പ്രഥമ ശുശ്രൂഷയെപ്പറ്റി കൃത്യമായ ധാരണ
5. ആത്മവിശ്വാസം
6. ചുറ്റും കൂടിയവരെ നിയന്ത്രിക്കാനും, അവരിൽനിന്നും ആവശ്യമായ സഹായം തേടാനുമുള്ള കഴിവ്.
7. രോഗിയ്ക്കും ബന്ധുക്കൾക്കും രോഗാവസ്ഥയെക്കുറിച്ച് ധാരണ പകരുക. രോഗത്തിൽ നിന്നും വിമുക്തി നേടുമെന്ന് ഉറപ്പുവരുത്തുക.
8. സഹായ മനോഭാവം

ഒരു പ്രഥമശുശ്രൂഷകന്റെ ഉത്തരവാദിത്തം

- ഉചിതമായ സഹായം ലഭ്യമാക്കാനായി ഒരു സാഹചര്യത്തെ വളരെ വേഗത്തിലും സുരക്ഷിതമായും വിലയിരുത്തുക.
- നിലവിലുള്ള അപകടസാഹചര്യത്തിൽ നിന്നും രോഗിയേയും ബന്ധുക്കളെയും രക്ഷിക്കുക.
- രോഗത്തിന്റെ അപകടത്തെയും അതിന്റെ സ്വഭാവത്തെയും രോഗിയെ എങ്ങിനെ ബാധിക്കുമെന്ന് തിരിച്ചറിയുക.
- അപകട ബാധിതർക്ക് അനുയോജ്യമായ ചികിത്സ നൽകുക. ഗുരുതരമായി പരിക്കേറ്റവർക്ക് ആദ്യ ചികിത്സ കൊടുക്കുക.

- അപകടത്തിൽപ്പെട്ട വ്യക്തിയെ ആശുപത്രിയിലോ ഒരു ഡോക്ടറുടെ സഹായം ക്ഷണത്തിലോ അല്ലെങ്കിൽ വീട്ടിലോ എത്തിക്കുവാൻ വേണ്ട സാഹചര്യം മൊരുക്കുക.
- മറ്റു സേവനങ്ങൾ ലഭിക്കുന്നതുവരെ രോഗിയുടെ കൂടെ നിലകൊള്ളുക.
- രോഗിയെ ശുശ്രൂഷിക്കുന്നവരുമായി ആവശ്യമായ നിരീക്ഷണങ്ങൾ പങ്കിടുകയും, ആവശ്യമെങ്കിൽ തുടർസഹായവും നൽകുക.
- കഴിവതും രോഗങ്ങൾ പകരാതെ സൂക്ഷിക്കുക.

അപകട ബാധിതരെ ആശുപത്രിയിൽ എത്തിക്കുന്നതോടെ പ്രഥമശുശ്രൂഷകന്റെ ചുമതല തീരുന്നു. പിന്നീട് മെച്ചപ്പെട്ട വൈദ്യസഹായം ലഭിക്കുന്നതിനു വേണ്ടി അപകടത്തിൽപ്പെട്ട വ്യക്തിയെ സഹായിക്കാവുന്നതാണ്.

ലോക പ്രഥമ ശുശ്രൂഷാ ദിനം

റെഡ്ക്രോസ്, റെഡ്ക്രസന്റ്

Symbol of Red Cross and Red Crescent Societies

സൊസൈറ്റികളുടെ അന്താരാഷ്ട്ര സംഘടന 2000 ൽ ലോക പ്രഥമ ശുശ്രൂഷാ ദിനം പ്രഖ്യാപിച്ചു. പ്രഥമശുശ്രൂഷയെക്കുറിച്ച് ജനങ്ങളെ ബോധവൽക്കരിക്കാൻ



വേണ്ടി സെപ്തംബർ മാസത്തിലെ രണ്ടാം ശനിയാഴ്ച ആണ് ലോക പ്രഥമശുശ്രൂഷാദിനമായി ആചരിക്കുന്നത്.

2. പ്രഥമശുശ്രൂഷാ കിറ്റ്

ചികിത്സയ്ക്ക് ആവശ്യമായ ഉപകരണങ്ങൾ അടങ്ങുന്ന ഒന്നാണ് പ്രഥമശുശ്രൂഷാകിറ്റ്. ഫസ്റ്റ് എയ്ഡ് നൽകുന്ന വ്യക്തിക്ക്, അത്യാഹിത ഘട്ടങ്ങളിൽ ആവശ്യമായ ഉപകരണങ്ങളുടെ സഹായത്തോടെ ഇരകളെ സഹായിക്കാൻ സാധിക്കും. ഇത്തരത്തിലുള്ള ഉപകരണങ്ങൾ അടങ്ങിയ പെട്ടിയാണ് പ്രഥമശുശ്രൂഷാ കിറ്റ്.



വ്യത്യസ്ത സ്ഥാപനങ്ങളിൽ നിന്നുള്ള പ്രഥമശുശ്രൂഷാ കിറ്റുകളിൽ ചില വ്യത്യസ്തതകണ്ടുവരുന്നുണ്ട്. അത് സ്ഥാപന അധികൃതരുടെ അറിവും പരിചയവും പ്രഥമശുശ്രൂഷ നൽകേണ്ടുന്ന സ്ഥലം എന്നിവ അനുസരിച്ച് വ്യത്യാസപ്പെട്ടിരിക്കാം.

ഫസ്റ്റ് എയ്ഡ് കിറ്റിലേക്ക് ആവശ്യമായ അടിസ്ഥാന വസ്തുക്കൾ



പെട്ടെന്ന് തിരിച്ചറിയാവുന്ന ജലരോധകമായ പെട്ടി (മഴയിൽ നിന്നും മറ്റു ജല സ്രോതസ്സുകളിൽ നിന്നും സംരക്ഷിക്കുന്നു)



മുറിവുകെട്ടുന്ന പ്ലാസ്റ്റേഴ്സ് (ചെറിയ മുറിവുകൾക്ക് ഉപയോഗിക്കുന്നു)



അണുവിമുക്തമായ 9 ഇടത്തരം ബാൻഡേജുകൾ



2 വലിയ ബാൻഡേജുകൾ



2 വലിയ അണുവിമുക്തമാക്കിയ ഡ്രസിങ്ങുകൾ (മുറിവുകൾക്ക് സുരക്ഷിതമായ വലയം തീർക്കാൻ അണുവിമുക്തമാക്കിയ ഡ്രസിങ്ങുകൾ സഹായിക്കുന്നു)



രണ്ട് അണുവിമുക്തമാക്കിയ ഐപാഡുകൾ (പരിക്കേറ്റ കണ്ണുകളെ സംരക്ഷിക്കുന്നതിന്)



ആറ് ത്രികോണാകൃതിയിലുള്ള ബാൻഡേജുകൾ (വലിയ മുറിവുകൾ, പൊള്ളലുകൾ എന്നിവ അണുബാധയേൽക്കാതിരിക്കാതെ സംരക്ഷിക്കാൻ)



ആറ് സേഫ്റ്റി പിന്നുകൾ (ബാൻഡേജുകളുടെ അറ്റങ്ങളിൽ ഉപയോഗിച്ച് സുരക്ഷിതമാക്കി നിർത്തുന്നതിന്)



ഡിസ്പോസിബിൾ ഗ്ലൗസ് (ശരീരദ്രവങ്ങൾ, മാലിന്യങ്ങൾ എന്നിവ കൈകാര്യം ചെയ്യുന്നതിന്)

ഉപയോഗപ്രദമായ മറ്റുചിലത്



ചവണ - (മുളളുകൾ, ചീളുകൾ, പ്രാണികളുടെ കൊമ്പുകൾ മുതലായവ എടുക്കുന്നതിന്)



കത്രിക - (മുറിവുകൾ ഉണ്ടാകത്തക്ക വിധത്തിലുള്ള മുർച്ചയുള്ള വക്കുകൾഒഴിവാക്കുന്നതിന്)



2 ക്രേപ്പ് റോളർ ബാൻഡേജസ് (സന്ധികളിൽ താങ്ങേ ആകുന്നതിനോ തുറന്ന മുറിവുകളിൽ മർദ്ദം പ്രയോഗിക്കുന്നതിനോ ഉപയോഗിക്കുന്നു)



പഞ്ഞി (പാഡിങ്ങിനോ ഡ്രെസ്സിങ്ങിന് മുകളിൽ ആഗിരണം ചെയ്യുന്നതിനുള്ള പാളി ഒരുകുന്നതിനോ ഉപയോഗിക്കുന്നു)



നോൺ - ആൽക്കഹോളിക് വുണ്ട്സ് ക്ലിൻസിങ്ങ് വൈപ്പ്സ് (മുറിവിനു ചുറ്റും ഉള്ള തൊലി വൃത്തിയാക്കുന്നതിനും കൈ വൃത്തിയാക്കുന്നതിനും ഉപയോഗിക്കുന്നു)



ഒട്ടിക്കുന്നതിനുള്ള ടേപ്പ്- (ബാൻഡേജ്, മറ്റ് ഡ്രെസിങ്ങുകൾ മുറിവിനുമുകളിൽ ഒട്ടിനിൽക്കുന്നതിന്)



പ്ലാസ്റ്റിക് ഫേസ് ഷീൽഡ്/ പോക്കറ്റ് ഫേസ് മാസ്ക്
(പരിക്കേറ്റയാളെയും ഒപ്പമുള്ളയാളെയും
അണുബാധയിൽ നിന്ന് രക്ഷിക്കുന്നു)



നോട്ട്‌പാഡ്, പെൻസിൽ, ടാഗുകൾ



കമ്പിളി, സർവൈവൽ ബാഗ്, ടോർച്ച്, വിസിൽ



ഇരുപത് ആന്റി സെപ്റ്റിക് വൈപ്സ് (അണു
ക്കളെ നശിപ്പിച്ച ഇത് പ്രയോഗിച്ച ഭാഗം അണു
വിമുക്തമാക്കുന്നു)



ഒരു ബോട്ടിൽ ബറ്റാഡിൻ ലായനി (മുറിവുകളിലും
മറ്റും ഉപയോഗിക്കുന്നു)



സർജിക്കൽ സ്പിരിറ്റ് ബോട്ടിൽ (മുറിവുകളും
പോറലുകളും വെട്ടുകളും വൃത്തിയാക്കുന്നതിന്)



ഒരു ഗൗസ് റോൾ 2 ഇഞ്ച് (10 എണ്ണം)
(പാഡിങ്ങിനോ ഡ്രെസ്സിങ്ങിനോ മുറിവുകൾക്ക് ചുറ്റും വൃത്തിയാക്കുന്നതിനോ ഉപയോഗിക്കുന്നു.)



ഒരു ഗൗസ് റോൾ 3 ഇഞ്ച്



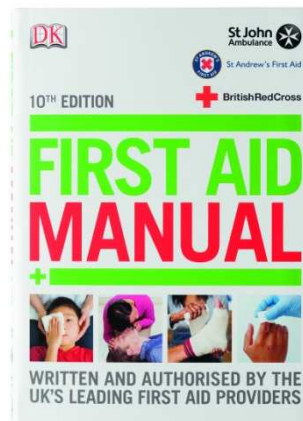
ടോർണികെറ്റ് ബ്ലഡ് സ്റ്റോപ്പിങ്ങ് ബാൻഡേജ്
(രക്തസ്രാവം നിയന്ത്രിക്കുന്നതിന്)



ആർ ബേൺ ജെൽ (സിൽവെറൈറ്റ്)
(പൊള്ളിയ ഭാഗങ്ങളിൽ അണുബാധയേൽക്കാതിരിക്കാൻ)



സ്പ്ലിന്റ് (ഏതെങ്കിലും ഒരു അവയവം പ്രത്യേകിച്ച് കൈക്ക് താങ്ങു നൽകുന്നതിനോ ചലനരഹിതമാക്കുന്നതിനോ)



പ്രഥമശുശ്രൂഷ ഗൈഡ്



അസെറ്റാമിനോഫെൻ ടാബ്ലറ്റ്സ് (തീവ്രമല്ലാത്ത വേദനകൾക്കും പനി കുറയ്ക്കുന്നതിനും ഉപയോഗിക്കുന്നു.)



ടാബ്ലറ്റ് അവിഡ് (വിവിധതരം ബാക്ടീരിയ ബാധകൾക്ക് എതിരെ ഉപയോഗിക്കുന്നു)

3. പ്രഥമശുശ്രൂഷാ സംഘടനകൾ

പ്രഥമശുശ്രൂഷാ പരിപാടികൾ നടത്തുന്ന രണ്ട് പ്രധാനപ്പെട്ട അന്താരാഷ്ട്ര സംഘടനകൾ ആണ് റെഡ്ക്രോസ്, സെയിന്റ് ജോൺ ആംബുലൻസ് എന്നിവ.

റെഡ്ക്രോസ്

പ്രഥമശുശ്രൂഷാ പരിശീലന സംഘടനകളിൽ മുൻനിരയിൽ നിൽക്കുന്ന സംഘടനയാണ് റെഡ്ക്രോസ്.

വിവേചനമില്ലാതെ യുദ്ധഭൂമിയിൽ പരിക്കേറ്റവരെ ശുശ്രൂഷിക്കുക, മനുഷ്യൻ അനുഭവിക്കുന്ന പീഡകളിൽ നിന്നും അവരെ മുക്തരാക്കുക എന്നീ ആഗ്രഹങ്ങളിൽ നിന്നാണ് ഇതിന്റെ പിറവി.



ജീവനും ആരോഗ്യവും സംരക്ഷിക്കുക, മനുഷ്യരോടുള്ള ആദരവ് ഉറപ്പുവരുത്തുക എന്നിവയാണ് ഇതിന്റെ ലക്ഷ്യം. ഇത് ഒരു സന്നദ്ധ ദുരിതാശ്വാസ പ്രസ്ഥാനമാണ്. ബ്രിട്ടീഷ് റെഡ്ക്രോസ് ലോകവ്യാപകമായ സംഘടനയുടെ ഭാഗമാണ്. ഇത് വ്യക്തിപരവും വ്യാവസായികവുമായ പ്രഥമശുശ്രൂഷാ പരിശീലനം നൽകുന്നു.

യുദ്ധ ഭൂമിയിൽ രോഗികളും പരിക്കേറ്റവരും ആയവരെ ശുശ്രൂഷിക്കുക എന്നതാണ് റെഡ്ക്രോസിന്റെ ലക്ഷ്യം.

സെയിന്റ്ജോൺ ആംബുലൻസ്

പ്രഥമശുശ്രൂഷാ പരിശീലന രംഗത്തെ മറ്റൊരു സന്നദ്ധ സംഘടനയാണ് സെയിന്റ് ജോൺ ആംബുലൻസ്. നൈറ്റ്സ് ഹോസ്പിറ്റലറുടെ പ്രമാണങ്ങളെ അടിസ്ഥാനമാക്കി 1877 ൽ പ്രഥമശുശ്രൂഷ പഠിക്കുന്നതിനുവേണ്ടി സ്ഥാപിതമായി.



ജൂനിയർ റെഡ് ക്രോസ്



റെഡ് ക്രോസിന്റെ വിദ്യാർത്ഥി സംഘടനയാണ് ജൂനിയർ റെഡ്ക്രോസ്. വിദ്യാലയങ്ങളിൽ സംഘടിപ്പിക്കുന്ന വിദ്യാർത്ഥികളുടെ പ്രസ്ഥാനമാണ് ഇത്. ജൂനിയർ റെഡ്ക്രോസ് പ്രവർത്തനങ്ങളിൽ സജീവമായി പങ്കെടുക്കുന്ന വിദ്യാർത്ഥികൾ ജൂനിയേഴ്സ് എന്നറിയപ്പെടുന്നു. ഇവർക്ക് മാർഗ്ഗനിർദ്ദേശങ്ങൾ നൽകുന്ന അധ്യാപകരെ കൗൺസിലേഴ്സ് എന്ന് പറയുന്നു.

ജൂനിയർ റെഡ്ക്രോസിന്റെ ലക്ഷ്യങ്ങൾ

യൂത്ത് റെഡ്ക്രോസ് സംഘടിപ്പിക്കുന്നതിന്റെ ലക്ഷ്യങ്ങൾ ഇവയൊക്കെയാണ്.

- വൃത്തിയും ആരോഗ്യവും പ്രോത്സാഹിപ്പിക്കുക.
- മറ്റുള്ളവരെ സഹായിക്കുക.
- വിശ്വസൗഹൃദം പ്രചരിപ്പിക്കുക.

4. ജീവൻ രക്ഷാമാർഗ്ഗങ്ങൾ / അടിസ്ഥാന ജീവസഹായം

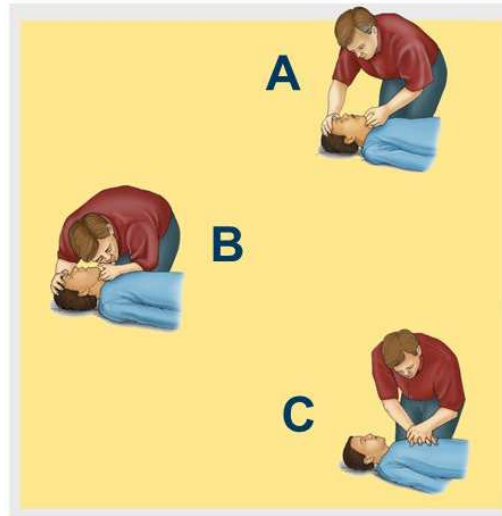
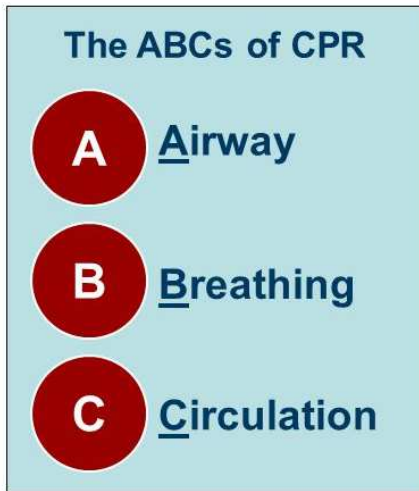
ജീവൻ രക്ഷിക്കുക എന്നതാണ് പ്രഥമശുശ്രൂഷയുടെ ലക്ഷ്യം. അബോധാവസ്ഥയിൽ ഒരു വ്യക്തി വീണ്ടു കിടക്കുന്നതായി കണ്ടാൽ നമ്മൾ അയാൾക്ക് അടിസ്ഥാന ജീവസഹായം നൽകണം. അടിസ്ഥാന ജീവസഹായം എന്നാൽ ആപത്തിൽപ്പെട്ടയാളുടെ വായുമാർഗ്ഗം, ശ്വാസനം, രക്തചംക്രമണം എന്നിവയിൽ കേന്ദ്രീകരിച്ച് ജീവൻ രക്ഷിക്കാനുള്ള പ്രവർത്തനങ്ങൾ ആണ്. ഇതിൽ സി.പി.ആർ. (കാർഡിയോ പൾമണി റെസസിറ്റേഷൻ / പുനരുജീവന പ്രക്രിയ), റിക്കവറി പൊസിഷൻ എന്നിവകൂടി ഉൾപ്പെടും.

പ്രഥമശുശ്രൂഷയുടെ A,B,C

അബോധാവസ്ഥയിൽ കിടക്കുന്ന വ്യക്തിക്ക് നൽകേണ്ട പ്രഥമശുശ്രൂഷയുടെ ആദ്യ പടിയാണ് A,B,C പ്രഥമ ശുശ്രൂഷയിൽ A,B,C എന്നത് വായുമാർഗ്ഗം, ശ്വാസനം, രക്തചംക്രമണം എന്നിവയെ പ്രതിനിധീകരിക്കുന്നു.

- A. ആപത്തിൽപ്പെട്ടയാളുടെ വായുമാർഗ്ഗത്തിൽ പ്രശ്നമില്ലെന്ന് പ്രഥമശുശ്രൂഷകൻ ഉറപ്പുവരുത്തണം.
- B. ശ്വാസനത്തിൽ ബുദ്ധിമുട്ട് നേരിടുന്നില്ലെന്ന് ഉറപ്പുവരുത്തണം.
- C. രക്തചംക്രമണത്തിൽ കുഴപ്പമില്ലെന്ന് ഉറപ്പുവരുത്തണം.

A, B, C യിൽ പ്രഥമശുശ്രൂഷകൻ വായുമാർഗ്ഗം സുതാര്യമാക്കാനും മറ്റും ശ്രദ്ധിക്കണം.



വായുമാർഗ്ഗം പരിശോധിക്കുന്നതിനുള്ള മാർഗ്ഗങ്ങൾ

- ചുണ്ടുവീരലും നടുവീരലും ഉപയോഗിച്ച് താടി ഉയർത്തുക. അതേസമയം മറ്റേകെ ഉപയോഗിച്ച് തലയുടെ മുൻഭാഗം താഴേക്ക് അമർത്തുക.



- ശ്വാസനത്തിന്റെ ഏതെങ്കിലും അടയാളം ഉണ്ടോ എന്ന് ശ്രദ്ധിക്കുക.

- വായയിൽ എന്തെങ്കിലും വസ്തുക്കൾ കുടുങ്ങിയിട്ടുണ്ടോ എന്ന് നോക്കുക.

ശ്വാസനം



- ✓ ശ്വാസം ശ്രദ്ധിക്കുക
- ശ്വാസനം വിവിധ രീതിയിൽ പരിശോധിക്കാം
- ✓ വയറിന്റെ ചലനം ശ്രദ്ധിക്കുക.
- ✓ അപകടത്തിൽപ്പെട്ട ആളുടെ മൂക്കിനടുത്ത് വെച്ച് ശ്വാസം പരിശോധിക്കുക
- ✓ വായ-വായ ശ്വാസനം വഴിയോ വായ-മുക്ക് ശ്വാസനം വഴിയോ ശ്വാസനം പൂർവ്വസ്ഥിതിയിൽ ആക്കുക.

രക്തചംക്രമണ പരിശോധന

സ്വനപേടകത്തിൽ വിരലുകൾ കൊണ്ട് പതുക്കെ സ്പർശിച്ച് കഴുത്തിലെ ഹൃദയമിടിപ്പ് പരിശോധിക്കുന്നു.

കാർഡിയോ പൾമണറി റെസസിറ്റേഷൻ (CPR)



സി.പി. ആറിന്റെ ലക്ഷ്യങ്ങൾ

കലകളുടെ പുനരുജ്ജീവനത്തിനും, അവയുടെ ശോഷണം നീട്ടിവെക്കുന്നതിനും സ്ഥിരമായ മസ്തിഷ്ക മരണത്തിന് ഇടവെക്കാതെ കലകളുടെ പുനരുജ്ജീവനത്തിനും സാധ്യത ഒരുക്കുന്നു. ഹൃദയം രക്തം പമ്പ് ചെയ്യാൻ പരാജയപ്പെടുമ്പോൾ സി.പി.ആർ വഴി രക്തം പമ്പ് ചെയ്യാൻ സഹായിക്കുന്നു. ഇതിന് നെഞ്ച് അമർത്തുകയും വായിലൂടെ ശ്വാസം നൽകുകയും ശ്വസനവും രക്തചംക്രമണവും നിലനിർത്താൻ പരിശീലനം സിദ്ധിച്ച ഒരാളുടെ സാന്നിധ്യം ആവശ്യമാണ്.

എ.ബി.സി ക്ക് ശേഷം വേണം സി.പി.ആർ നൽകാൻ. ഇതിൽ കൃത്രിമ വായുസഞ്ചാരമാർഗ്ഗം ഒരുക്കുക, നെഞ്ച് അമർത്തുക എന്നിവ ഉൾക്കൊള്ളുന്നു.

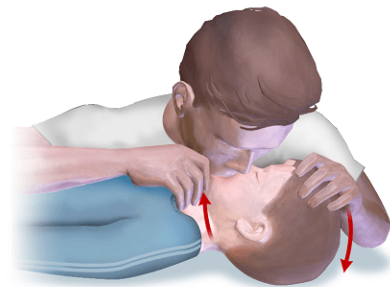
കൃത്രിമ വായുസഞ്ചാരം ഒരുകൾ

✓ രക്ഷിക്കാൻ ശ്രമിക്കുന്ന വ്യക്തി ദീർഘമായി ശ്വാസം ഉള്ളിലേക്ക് എടുത്ത് അപകടത്തിൽപ്പെട്ട ആളുടെ നാസാദാരങ്ങൾ ഒരു മിച്ച് വിരലുകൾ കൊണ്ട് അടച്ച് രണ്ടുപേരുടെയും ചുണ്ടുകൾ പരസ്പരം ചേർത്തുവെക്കുക.



✓ അപകടത്തിൽപ്പെട്ട ആളുടെ നെഞ്ച് പരമാവധി വികസിക്കുന്നത് വരെ വായിലേക്ക് ശക്തമായി വായു ഊതുക. അപകടത്തിൽപ്പെട്ട ആളുടെ ഹൃദയം വികസിക്കാതിരിക്കുകയാണെങ്കിൽ ശ്വാസമാർഗ്ഗം പൂർണ്ണമായും തുറന്നിട്ടില്ല എന്നു മനസ്സിലാക്കുക. തലയുടെയും താടിയുടെയും സ്ഥാനം ശരിയാക്കിയതിന് ശേഷം പ്രക്രിയ തുടരുക.

✓ അപകടത്തിൽപ്പെട്ട ആളുടെ നെഞ്ച് താഴുന്ന സമയം രക്ഷകന്റെ വായ അയാളുടെ വായയിൽ നിന്നും വേർപെടുത്തി അധികമുള്ള വായു പുറത്തേക്ക് കളയുന്നു. ദീർഘമായി ശ്വസിച്ചതിനുശേഷം പ്രക്രിയ തുടരുന്നു.



Mouth-to-Mouth Breathing

✓ രണ്ടു പ്രാവശ്യം ഇങ്ങനെ ചെയ്തതിനുശേഷം ഹൃദയമിടിപ്പ് പരിശോധിക്കുക.

✓ എന്നിട്ടും ഹൃദയം മിടിക്കുന്നില്ലെങ്കിൽ നെഞ്ച് അമർത്തേണ്ടതായി വരും

നെഞ്ച് അമർത്തൽ

✓ അപകടത്തിൽപ്പെട്ടയാളെ മലർത്തികിടത്തുക.

✓ നെഞ്ചിന്റെ ഒരു വശത്ത് മുട്ടുകുത്തി നിൽക്കുക.



✓ വാരിയെല്ലുകൾ മാറേല്ലിനോട് ചേരുന്ന താഴത്തെ പകുതിയിലെ ഭാഗം നെഞ്ചിന്റെ മുൻഭാഗത്ത് കണ്ടെത്തുക.

✓ ഇടതുകൈ വലതുകയ്യിനുമുകളിൽ വെക്കുക

✓ പ്രായപൂർത്തിയായ ഒരു വ്യക്തിയാണെങ്കിൽ അയാളുടെ നെഞ്ച് 4 സെ.മീ. താഴ്ന്ന തരത്തിൽ കൈകൾ കൊണ്ട് മാറേല്ലിന്റെ താഴ് ഭാഗം നേരെ താഴത്തേക്ക് അമർത്തുക.

മുതിർന്നവരിൽ മിനുട്ടിൽ 60-70 പ്രാവശ്യം നെഞ്ച് അമർത്തണം. ശിശുക്കളിൽ അത് മിനുട്ടിൽ 90-100 തവണയാണ്.

നമ്മൾ നിശ്ചയിക്കുന്ന വായുവിന്റെ ഏകദേശം 5ൽ ഒരു ഭാഗം ഓക്സിജൻ ആണ്. അത് ജീവൻ നിലനിർത്താൻ ആവശ്യമായതിലും ഏറെയാണ്. ഹൃദയത്തിന്റെ നിരന്തരമായ പ്രവർത്തനം രക്തചംക്രമണം എന്നിവയാണ് ജീവൻ നിലനിർത്തുന്നത്. രക്തചംക്രമണം നിലച്ചാൽ അയാളുടെ ജീവൻ ആപത്തിലാകും. മുഖം, ചുണ്ട്, വിരലുകൾ എന്നിവ നീലനിറത്തിലാകുക, കഴുത്തിലും നെഞ്ചിനു മുൻവശത്തും ഹൃദയമിടിപ്പ് അനുഭവപ്പെടാതിരിക്കുക എന്നിവ ഇതിന്റെ ചില ലക്ഷണങ്ങൾ ആണ്.

പട്ടിക

	മുതിർന്നവർ	കുട്ടികൾ	ശിശുക്കൾ
കയ്യിന്റെ സ്ഥാനം	മാറൈല്ലിന്റെ താഴത്തെ പകുതിയിൽ നെഞ്ചിന്റെ നടുവിലായി 2 കൈകൾ	മാറൈല്ലിന്റെ താഴത്തെ പകുതിയിൽ നെഞ്ചിന്റെ നടുവിലായി 2 കൈകൾ	മാറൈല്ലിന്റെ താഴത്തെ പകുതിയിൽ നെഞ്ചിന്റെ നടുവിലായി 2-3 വിരലുകൾ
അമർത്തേണ്ടതിന്റെ തോത്	2 ഇഞ്ച്	2 ഇഞ്ച്	1 1/2 ഇഞ്ച്
അമർത്തൽ: ശ്വസനം	30:2	30:3	30:2
അമർത്തൽ നിരക്ക്	100/മിനുറ്റ്	100/മിനുറ്റ്	100/മിനുറ്റ്

American Red Cross First Aid/CPR/AED Participants manual

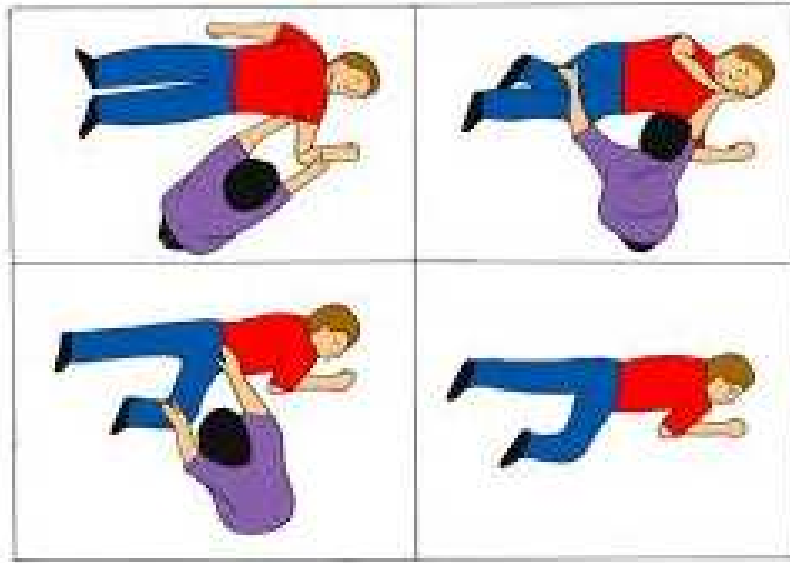
5. റിക്കവറി പോസിഷൻ (Recovery Position)

സാധാരണ നിലയിൽ ശ്വസിക്കുന്ന അബോധാവസ്ഥയിൽ ആയ വ്യക്തിയെ രക്ഷിക്കാനുള്ള ആദ്യപടിയെന്ന നിലയിൽ അയാളെ ഒരു പ്രത്യേകരീതിയിൽ കിടത്തേണ്ടതുണ്ട്. ഇതിനെയാണ് റിക്കവറി പോസിഷൻ എന്നുപറയുന്നത്.

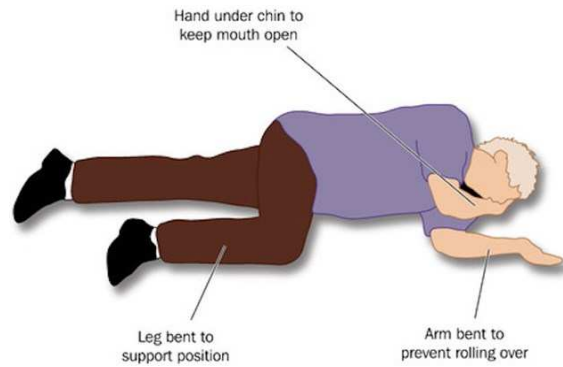
ഈ രീതിയിൽ കിടത്തുന്നത് നാവ് കണ്ഠനാളത്തെ അടക്കുന്നത് ഒഴിവാക്കുന്നു. ഈ രീതിയിൽ തല മറ്റ് ശരീരഭാഗങ്ങളെക്കാൾ കുറച്ച് താഴെയായിട്ടാണ് വെക്കുക. വായിൽ നിന്ന് ദ്രവങ്ങൾ ഒഴിവാക്കുന്നതിനാണ് ഇത്. തല, കഴുത്ത്, പുറം എന്നിവ ഒരു നേർരേഖയിൽ വരുന്ന രീതിയിൽ ആണ് കിടക്കുക. കൈകാലുകൾ വളച്ച് വെക്കുന്നത് കൂടുതൽ സുരക്ഷിതമായ സുഖപ്രദമായ ഒന്നാക്കി ഈ രീതിയെ മാറ്റും.

പെട്ടെന്ന് ചെയ്യേണ്ടത്

- ✓ പ്രഥമ ശുശ്രൂഷകൻ രോഗിയുടെ ഒരു വശത്ത് ഇരിക്കണം.
- ✓ രോഗിയുടെ കൈ ആ വശത്ത് ലംബമായി വെക്കണം. കൈമുട്ട് മടക്കിയിരിക്കണം.
- ✓ മറുവശത്തെ കാൽമുട്ട് മടക്കുന്നത് രോഗിയുടെ ശരീരം നേരെ നിൽക്കുന്നതിന് സഹായിക്കുന്നു.
- ✓ ഇങ്ങനെ കിടത്തിക്കൊണ്ട് എത്രയും പെട്ടെന്ന് രോഗിയെ ആശുപത്രിയിൽ എത്തിക്കുക.



രിക്കവറി പൊസിഷൻ രോഗിക്ക് ചരിഞ്ഞോ മലർന്നോ ഒക്കെ കിടക്കാ
നുള്ള സാധ്യത നൽകുന്നുണ്ട്.
രോഗിയെ ചരിച്ച് കിടത്തുന്നതിന്
മുൻപ് രോഗിയുടെ കണ്ണട, പോക്ക
റ്റിലെ ഭാരമുള്ള വസ്തുക്കൾ എന്നിവ
നീക്കം ചെയ്യേണ്ടതാണ്.



6. ഹൃദയാഘാതം

മയോകാർഡിയൽ ഇൻഫർക്ഷൻ എന്നും ഹൃദയാഘാതം അറിയപ്പെടുന്നു. ഹൃദയത്തിലേക്കുള്ള ശുദ്ധ രക്തത്തിന്റെ പ്രവാഹം തടസ്സപ്പെടുകയോ കോറോണറി രക്തക്കുഴലിൽ കൊഴുപ്പ് അടിഞ്ഞു കൂടുകയോ ചെയ്യുന്നതിന്റെ ഭാഗമായാണ് ഇതുണ്ടാകുന്നത്.

ലക്ഷണങ്ങൾ

- കൈകൾ, തോളുകൾ, കീഴ്ത്താടി എന്നിവയിലേക്ക് പടരുന്ന കഠിനമായ നെഞ്ചുവേദന.
- വിയർക്കുക, ശ്വാസം മുട്ടൽ, ഹൃദയമിടിപ്പിലെ താളപ്പിഴ (ശക്തം/ദുർബലം), അബോധാവസ്ഥയിൽ ആകുക, ചർമ്മം ചാരനിറത്തിൽ ആവുക.



കാരണങ്ങൾ

- കൊളസ്ട്രോൾ, കൊഴുപ്പ് മുതലായവ രക്തക്കുഴലിൽ അമിതമായ അളവിൽ കാണപ്പെടുന്നത്.

പ്രഥമശുശ്രൂഷ

- ✓ പെട്ടെന്നുള്ള വൈദ്യസഹായത്തിന് വേണ്ടി അടുത്തുള്ള ആശുപത്രിയിലേക്ക് വിളിക്കുക. എത്രയും പെട്ടെന്ന് ആശുപത്രിയിൽ എത്തിക്കുന്നതിനായി വാഹനം തയ്യാറാക്കുക.
- ✓ ഡോക്ടർ മുൻപ് നൽകിയിട്ടുള്ള ഗുളികകൾ നൽകുക (ആസ്പിരിൻ)
- ✓ രോഗി അബോധാവസ്ഥയിൽ ആണെങ്കിൽ സി.പി.ആർ തുടങ്ങുക

7. രക്തസ്രാവം

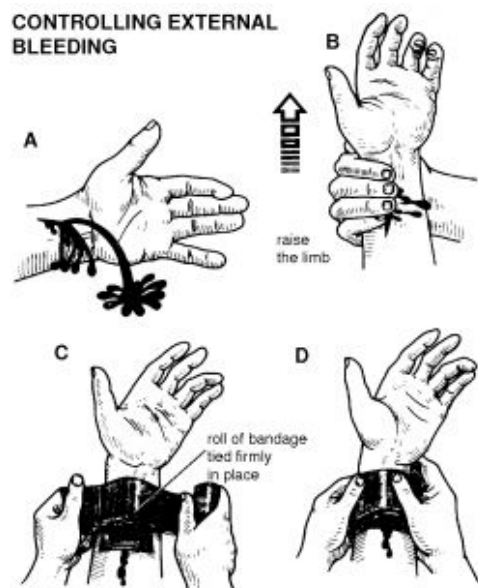
മുറിവ് കാരണം ഉണ്ടാകുന്ന സങ്കീർണതകളിൽ ഒന്നാണ് രക്തസ്രാവം. രക്തക്കുഴലിലെ പൊട്ടലുകൾ കാരണം ഉണ്ടാകുന്ന രക്തത്തിന്റെ കുഴലിന് പുറത്തേക്കുള്ള ഒഴുക്കാണ് ഇത്. ഈ അവസ്ഥയെ ഹെമറേജ് എന്നും വിളിക്കുന്നു.

രക്തസ്രാവത്തിന്റെ ലക്ഷണങ്ങൾ

- മുറിവിൽ നിന്നും രക്തം ഒഴുകുന്നു (മുറിവിന്റെ വലിപ്പം, ആഴം, സ്ഥാനം എന്നിവയനുസരിച്ച്)
- വൃക്തി ബോധം കെട്ട് വീഴും
- ഹൃദയമിടിപ്പിന്റെ തോത് വ്യത്യാസപ്പെടാം
- ശ്വാസമെടുക്കുന്നതിൽ വ്യത്യാസം അനുഭവപ്പെടും
- കൂടുതലായി വിയർക്കും
- ദാഹം അനുഭവപ്പെടും

പ്രഥമശുശ്രൂഷ

- ✓ രക്തമൊഴുകുന്ന മുറിവ് വെള്ളമുപയോഗിച്ച് കഴുകുക
- ✓ രക്തത്തിന്റെ പുറത്തേക്കുള്ള ഒഴുക്ക് നിലക്കുന്നതുവരെ മുറിവിൽ അമർത്തികൊണ്ടിരിക്കുക.
- ✓ 20 മിനിറ്റോളം വൃത്തിയുള്ള തുണി ഉപയോഗിച്ച് മുറിവിൽ അമർത്തുക.



- ✓ പറ്റുമെങ്കിൽ രക്തമൊഴുകുന്ന ഭാഗം ഉയർത്തിവെക്കുക.
- ✓ രക്തസ്രാവം നിലക്കുമ്പോൾ മുറിവുള്ള ഭാഗം അനക്കാതെ രോഗിയെ നീക്കുക.
- ✓ അടിയന്തിര വൈദ്യസഹായം തേടുക.

ഇവചെയ്യരുത്

- ✗ രോഗിക്ക് തിന്നാനോ കുടിക്കാനോ ഒന്നും നൽകരുത്.
- ✗ വേർപെട്ട ഭാഗങ്ങൾ മുറിവിനോട് ചേർത്തുവെക്കാൻ ശ്രമിക്കരുത്.

മുക്കിലെ രക്തസ്രാവം

മുക്കിനുള്ളിലെ രക്തക്കുഴലുകൾ പൊട്ടുന്നത് മൂലം ഉണ്ടാകുന്നു.

കാരണങ്ങൾ

- രക്തസമ്മർദ്ദം കൂടുതലുള്ള വ്യക്തികളിൽ മുക്കിൽ നിന്നും ചോരവരാൻ സാധ്യതയുണ്ട്.
- തലയോടിന് താഴ്ഭാഗത്തുള്ള പരിക്കുകൾ മുക്കിലൂടെ ചോരവരാൻ കാരണം ആകാറുണ്ട്. ഇത് ഗുരുതരമായ പ്രശ്നമാണ്.
- വീഴുമ്പോൾ മുഖത്തെ ഏതെങ്കിലും ഭാഗത്ത് പറ്റുന്ന പരിക്കുകൾ മുക്കിലൂടെയുള്ള രക്തസ്രാവത്തിന് കാരണമാകാം.

ചെയ്യേണ്ടവ

- ✓ രോഗിയെ കഴുത്ത് മുന്നോട്ട് ആക്കി ഇരുത്തുക.
- ✓ ചുണ്ടു വിരൽ, പെരുവിരൽ എന്നിവ ഉപയോഗിച്ച് മുക്കിന്റെ അറ്റം 10-15 മിനിറ്റ് ശക്തിയായി അമർത്തുക.
- ✓ രോഗിയോട് വായയിലൂടെ ശ്വസിക്കാൻ ആവശ്യപ്പെടുക.
- ✓ മുറിവുള്ള പ്രദേശത്ത് ഐസ് പ്രയോഗിക്കുക
- ✓ വൈദ്യസഹായം തേടുക



8. മുറിവുകൾ

ചർമ്മത്തിലോ ശരീരോപരിതലത്തിലോ ഉണ്ടാകുന്ന പൊട്ടലുകൾ ആണ് മുറിവ് എന്നതുകൊണ്ട് അർത്ഥമാക്കുന്നത്. ഇത്തരം മുറിവുകളിൽകൂടി രക്തസ്രാവം ഉണ്ടാകും. കൂടാതെ ഇത് രോഗാണുക്കൾക്ക് ശരീരത്തിൽ പ്രവേശിക്കാൻ വഴിയൊരുക്കുന്നു. കത്തി, വെടിയുണ്ട മുതലായവ ഉണ്ടാക്കുന്ന ആഴത്തിലുള്ള മുറിവുകൾ അപകടകാരികൾ ആണ്.

വിവിധതരം മുറിവുകൾ

മുറിവുകളെ പൊതുവെ രണ്ടായി തിരിച്ചിരിക്കുന്നു.

- തുറന്ന മുറിവ്
- അടഞ്ഞ മുറിവ്

തുറന്ന മുറിവ്

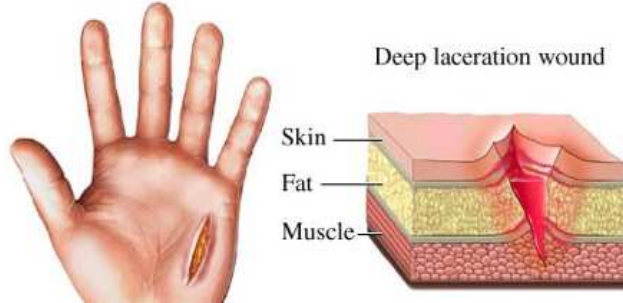
ചർമ്മോപരിതലത്തിൽ ഉള്ള ബാഹ്യരക്തസ്രാവത്തിന് ഇടയാകുന്ന വിടവാണ് തുറന്ന മുറിവ്. ഇത് പോറൽ, ആഴത്തിലുള്ള മുറിവ്, വെട്ട്, ചെറിയ മുറിവ്, ചർമ്മത്തിലുണ്ടാകുന്ന പോള എന്നിങ്ങനെ പലതരത്തിൽ ഉണ്ട്.

പോറൽ: ചർമ്മത്തിന്റെ ഏറ്റവും മുകളിലെ പാളി ചെറിയ തരത്തിലുള്ള രക്ത നഷ്ടത്തോടുകൂടെയോ അല്ലാതെയോ നീക്കം ചെയ്യപ്പെടുന്നു.



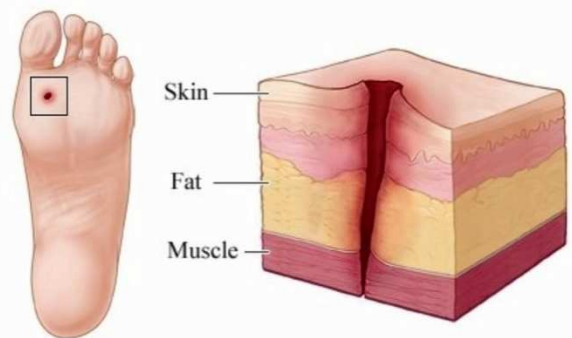
ആഴത്തിലുള്ള മുറിവ്

ചർമ്മകലകൾ ബലമായി ചീന്തിമാറ്റപ്പെടുന്നു. ഇതിൽ മുറിവ് അറ്റം പരുപരുത്ത്, ക്രമരഹിതമായ അകത്തോടുകൂടെ രൂപപ്പെടുന്നു.



വെട്ട്: ഇതിന് പര്യായമായി പരുക്കനല്ലാത്തതുപോലുള്ള അറ്റങ്ങളുണ്ടാകാം. ശസ്ത്രക്രിയയ്ക്കിടയിലുണ്ടാകുന്ന കത്തികൊണ്ടുള്ള മുറിവുപോലെ പ്രത്യക്ഷത്തിൽ തോന്നാം. സ്നാനങ്ങൾ, പേശികൾ, രക്തക്കുഴലുകൾ എന്നിവയെ നശിപ്പിക്കാൻ ഇത് കാരണമാകാം. രക്തസ്രാവത്തിന്റെ തോത് മുറിവിന്റെ ആഴം, സ്ഥാനം, വലിപ്പം എന്നിവയെ ആശ്രയിച്ചാണ് ഉണ്ടാകുക.

ചെറിയ മുറിവ്: ചർമ്മത്തിൽ ഉണ്ടാകുന്ന ആഴത്തിലുള്ള, വണ്ണം കുറഞ്ഞ മുറിവ്, കത്തി, ആണി പോലുള്ള വസ്തുക്കൾ കുത്തിക്കയറിയുണ്ടാകുന്ന മുറിവുകൾ ഇതിൽപ്പെടുന്നു.



ചർമ്മത്തിലുണ്ടാകുന്ന പൊള്ള: ചർമ്മത്തിനടിയിലെ പാളിയിൽ ദ്രവം നിൽക്കുന്ന കുമിളയാണ് ഇത്. ചർമ്മത്തിലെ ഒരു പ്രദേശം തുടർച്ചയായി

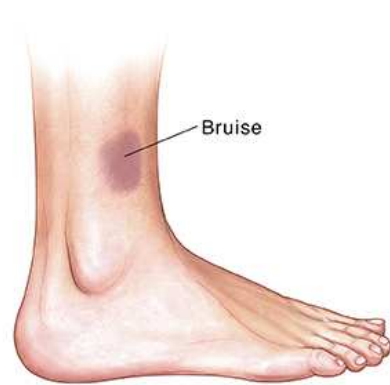
ഉരസുന്നത് കുമിളയുണ്ടാക്കാൻ ഇടയാക്കുന്നു. ഘർഷണത്തിലുണ്ടാകുന്ന കുമിള ശരീരത്തിൽ എവിടെയും ഉണ്ടാകാം. സാധാരണയായി കാലിലും കയ്യിലും ആണ് ഉണ്ടാകാറ്.

പ്രഥമശുശ്രൂഷ

- ✓ പ്രഥമശുശ്രൂഷകൻ തന്റെ കൈ സോപ്പിട്ട് കഴുകണം.
- ✓ മുറിയിൽ പൊടി പോലെ വല്ലതും ഉണ്ടോ എന്ന് നോക്കണം.
- ✓ മുറിവ്, സോപ്പ്, വെള്ളം എന്നിവ ഉപയോഗിച്ച് വൃത്തിയാക്കണം.
- ✓ മുറിവിലെ വെള്ളം വൃത്തിയുള്ള തുണികൊണ്ട് തുടച്ചു നീക്കണം.
- ✓ മുറിവിൽ മരുന്ന് പുരട്ടി, ഡ്രസ്സിങ്ങിന് ശേഷം ബാൻഡേജ് കെട്ടുക.

അടഞ്ഞ മുറിവ്

ചർമ്മം മുറിഞ്ഞതായി കാണില്ല. ചർമ്മത്തിനടിയിലെ കലകൾ, രക്തക്കുഴലുകൾ എന്നിവ പൊട്ടുകയോ നശിക്കുകയോ ചെയ്യുന്നു. ഇത് ഇവിടെ രക്തസ്രാവം ഉണ്ടാക്കുന്നു.



ചതവ്

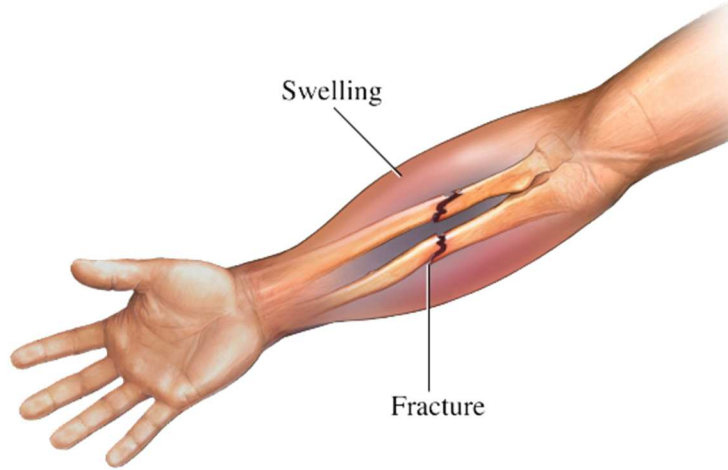
പ്രത്യേക പ്രദേശത്ത് അമിതമായ മർദ്ദം പ്രയോഗിക്കപ്പെട്ടാൽ അതിനുതാഴെയുള്ള രക്തക്കുഴലുകളെ നശിപ്പിക്കുന്നു. ഇത് ആ പ്രദേശത്തെ നിറം മാറുന്നതിന് ഇടയാക്കുന്നു. (കറുപ്പ്/ നീല)

പ്രഥമ ശുശ്രൂഷ

- ✓ PRICE Procedure ഉപയോഗിക്കുക.

9. അസ്ഥിഭംഗം

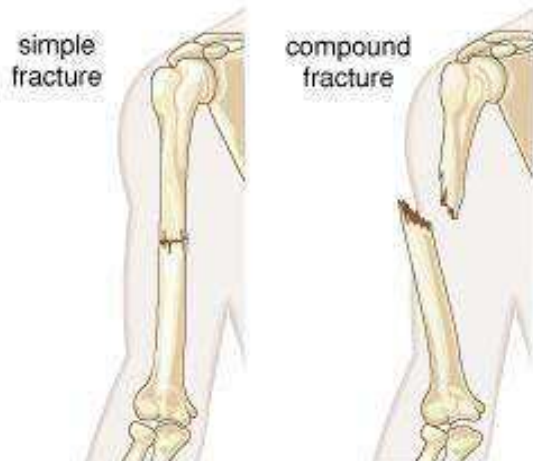
അസ്ഥിഭംഗം എന്നുപറഞ്ഞാൽ എല്ലിൽ ഉണ്ടാകുന്ന പൊട്ടൽ



വിവിധതരം ഭംഗങ്ങൾ

ലഘു ഭംഗം

എല്ലി പൊട്ടുമെങ്കിലും ചുറ്റുമുള്ള തൊലി പൊട്ടുന്നില്ല.



മിശ്രഭംഗം

പൊട്ടിയ എല്ല് ചർമ്മം തുളച്ച് പുറത്ത് വരുന്നു.

ലക്ഷണങ്ങൾ

- വേദന
- ഭംഗമുള്ള ഭാഗം ചലിപ്പിക്കാൻ ബുദ്ധിമുട്ട് അനുഭവപ്പെടുക

- വീങ്ങുകയും നിറം മാറുകയും ചെയ്യുക
- ചർദ്ദി
- ഹൃദയമിടിപ്പ് കൂടുകയോ ദുർബലമാകുകയോ ചെയ്യുക.

പ്രഥമശുശ്രൂഷ

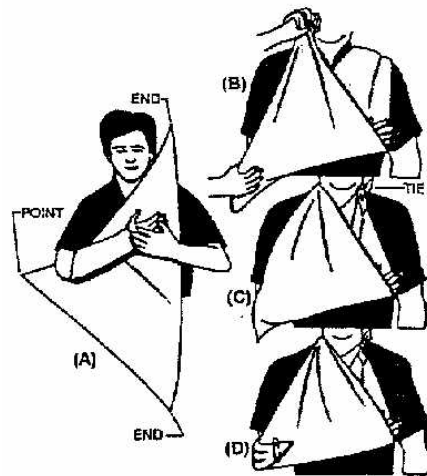
- ✓ അനങ്ങാതിരിക്കുക
- ✓ രക്തസ്രാവം ഉണ്ടെങ്കിൽ അത് നിർത്തുക
- ✓ പരിക്കേറ്റ ഭാഗം അനങ്ങാത്ത രീതിയിൽ ആക്കുക. മരക്കഷ്ണം/ലോഹം (splint) തുണി ഉപയോഗിച്ച് പരിക്കേറ്റ ഭാഗത്ത് ആ ഭാഗം അനങ്ങാത്ത രീതിയിൽ കെട്ടുന്നു. പരിക്കേറ്റ ഭാഗം അനങ്ങാതെ ആക്കാൻ തലയിണ, കാർഡ് ബോർഡ്, മടക്കിയ പത്രം എന്നിവയോട് ചേർത്ത് കെട്ടാം. അല്ലെങ്കിൽ അതിനോട് ചേർന്നുള്ള പരിക്കേൽക്കാത്ത ഭാഗത്തോട് ചേർത്തുകെട്ടാം.
- ✓ വീങ്ങലും വേദനയും ഒഴിവാക്കാൻ പരിക്കേറ്റ ഭാഗത്ത് ഐസ്ബാഗ് ഉപയോഗിക്കുക.
- ✓ രോഗിയെ എത്രയും പെട്ടെന്ന് ആശുപത്തിയിൽ എത്തിക്കുക.

ചെയ്യരുതാത്തവ

✗ സ്ഥാനവ്യതിയാനം സംഭവിച്ച, പൊട്ടിയ എല്ലുകൾ പഴയപോലെ വെക്കാൻ ശ്രമിക്കരുത്.

കൈകളിലെ ഭംഗത്തിനുള്ള പ്രഥമശുശ്രൂഷ

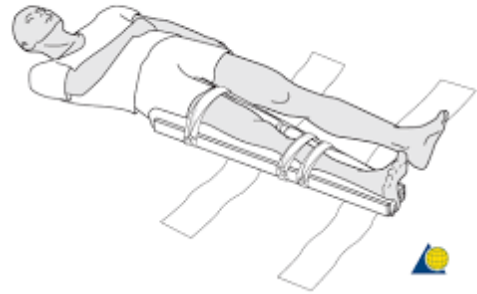
1. പരിക്കേറ്റയാളോട് ഇരിക്കാൻ ആവശ്യപ്പെടുക.
2. സാവധാനം, ശ്രദ്ധിച്ച് കൈ ശരീരത്തിന് തിരശ്ചീനമായി വെക്കുക
3. കൈയും പാഡിങ്ങും ത്രികോണാകൃതിയിലുള്ള ബാൻഡേജുകൊണ്ട് ഉണ്ടാക്കിയ കെട്ടിൽ ബന്ധിപ്പിക്കുക.



4. കെട്ടിന് മുകളിലൂടെ നെഞ്ചിനു കുറുകെ വീതിയേറിയ മടക്ക് ഉണ്ടാക്കി കയ്യിനെ സംരക്ഷിക്കുക.
5. ഇതൊന്നും ലഭ്യമല്ലെങ്കിൽ രോഗിയുടെ ഷർട്ട് ഉപയോഗിച്ച് കൈ ചലിക്കാത്ത രീതിയിൽ കെട്ടാവുന്നതാണ്.
6. രോഗിയെ ആശുപത്രിയിലേക്ക് കൊണ്ടുപോവുക.

കാലിലുണ്ടാകുന്ന ഭംഗത്തിനുള്ള പ്രഥമശുശ്രൂഷ

1. പരിക്കേറ്റയാളെ നിലത്ത് കിടക്കാൻ സഹായിക്കുക. പരിക്കേറ്റ കാൽ സാവധാനം നേരെവെക്കുക.
2. പരിക്കേറ്റ ഭാഗം അനങ്ങാതിരിക്കാൻ കൈകൊണ്ട് താങ്ങു കൊടുക്കുക.
3. പാഡെയ് സ്പ്ലിന്റ് കൊണ്ട് പരിക്കേറ്റ ഭാഗം ചലിക്കാത്ത രീതിയിൽ ആക്കുക.



കെട്ടാനുള്ള വസ്തു ലഭ്യമല്ലെങ്കിൽ പരിക്കേൽക്കാത്ത കാൽ പരിക്കേറ്റതിന് അടുത്ത് വെച്ച് പാദം, മുട്ട്, കണങ്കാൽ എന്നിവയിൽ സ്നൈഡ് ബാൻഡേജ് വെച്ചു കെട്ടുക. കാലുകൾക്കിടയിൽ പാഡിങ്ങ് വെക്കുക. (സ്പ്ലിന്റ് - പൊട്ടിയ എല്ലിന് ഇളക്കം തട്ടാതിരിക്കാൻ കാറി



നുമുള്ള മരകഷ്ണം, ലോഹകഷ്ണം, പ്ലാസ്റ്റിക് എന്നിവ ഉപയോഗിച്ച് ആ ഭാഗത്ത് മുകളിലും താഴെയും ആയി കെട്ടുന്നത്. പഞ്ഞി, തുണി എന്നിവയും ഉപയോഗിക്കാം. അടിയന്തിരഘട്ടങ്ങളിൽ സ്കെയിൽ, കട്ടിയായി മടക്കിയ ന്യൂസ്പ്രിന്റ് എന്നിവയും സ്പ്ലിന്റ് ആയി ഉപയോഗിക്കാം.)

10. PRICE രീതി, പേശീവലിവ് (Strain), ഉളുക്ക് (Sprain), സ്ഥാന വ്യതിയാനം (Dislocation)

PRICE രീതി



PRICE രീതി, സ്ഥാനവ്യതിയാനം, ഉളുക്ക്, പേശീവലിവ് എന്നീ അവസരങ്ങളിൽ PRICE രീതിയാണ് ഉപയോഗിക്കുന്നത്.

PRICE രീതി

- P-protect - പരിക്കേറ്റഭാഗം സംരക്ഷിക്കുക.
- R-rest - പരിക്കേറ്റ ഭാഗം അനങ്ങാതെ സൂക്ഷിക്കുക.
- I-ice - ഐസ്‌പാക്ക് വേദന കുറയ്ക്കുന്നതിനും വീങ്ങാതിരിക്കാനും വേണ്ടി പ്രയോഗിക്കുക.
- C- compress - സൂക്ഷിച്ച് മർദ്ദം പ്രയോഗിക്കുക.
- E-elevate - രക്തം വരുന്നത് കുറയ്ക്കാനായി പരിക്കേറ്റ ഭാഗം ഹൃദയത്തേക്കാൾ ഉയർത്തിവയ്ക്കുക.

പേശിവലിവ് (Strain)

പേശികളിലെ, സ്നായുക്കളിലെ അല്ലെങ്കിൽ രണ്ടിലെയും മൃദുകലയിലെ വിട്ടുമാറാത്ത, തീവ്രമായ പരിക്ക്.



ലക്ഷണങ്ങൾ

- പേശിയിലെ പെട്ടെന്നുള്ള വേദന
- പേശി വീങ്ങുകയും കടുപ്പമുള്ളതാകുകയും ചെയ്യുക
- പൊട്ടലുണ്ടായാൽ കഠിനമായ വേദന അനുഭവപ്പെടുകയും ആ ഭാഗം അനക്കാൻ പറ്റാതിരിക്കുകയും ചെയ്യും

പ്രഥമശുശ്രൂഷ

Price പ്രക്രിയ



ഉളുക്ക് (Sprain)

കാൽമുട്ട്, കണങ്കാൽ എന്നിവയിൽ ആണ് സാധാരണ ഉളുക്ക് ഉണ്ടാകാറ്. എന്നാൽ ഏത് സന്ധിയിലും ഇത് ഉണ്ടാവുന്നതാണ്. സന്ധിയിലെ പെട്ടെനുള്ള തിരിയൽ കൊണ്ടോ മറയൽ കൊണ്ടോ ഉണ്ടാകുന്നു. കാഠിന്യമനുസരിച്ച് ലഘുവായത്, ശരാശരി, തീവ്രമായത് എന്നിങ്ങനെ ഇതിനെ മൂന്നായി പറയാം.



ലക്ഷണങ്ങൾ

- സന്ധികളിൽ വേദന
- വീങ്ങലും ചതവും
- സന്ധികളുടെ ചലനം വേദനാജനകം ആകും

പ്രഥമശുശ്രൂഷ

- ✓ PRICE പ്രക്രിയ (Protection, Rest, Ice- 20 മിനുട്ട്), Compress (3-4 മണിക്കൂർ), & Elevate

സ്ഥാനവ്യതിയാനം (Dislocation)

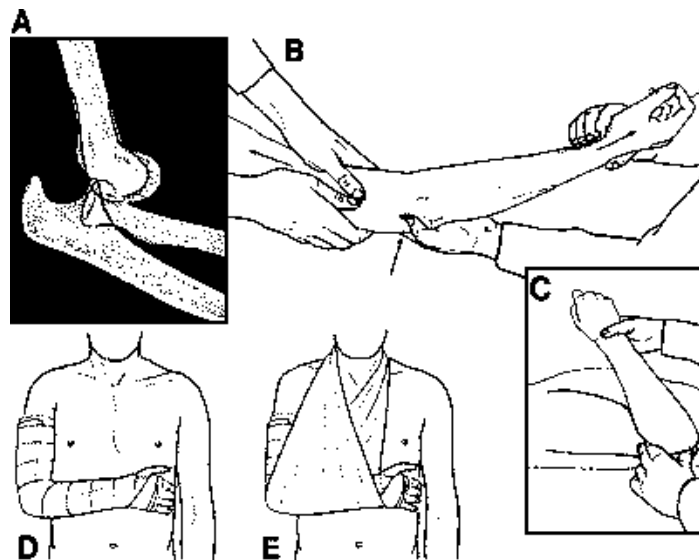
എല്ലുകളുടെ അനൈച്ഛികമായ വേർപെടലോ മറ്റൊരു എല്ലുമായുള്ള സാധാരണ ബന്ധം പെട്ടെന്ന് വിട്ടുമാറുന്നത് എന്നതോ സ്ഥാനവ്യതിയാനമാണ്. പെട്ടെന്നുള്ള വീഴ്ച ഇതിനൊരു കാരണമാണ്.

ലക്ഷണങ്ങൾ

- സന്ധിയിൽ തീവ്രമായ വേദനയും വീങ്ങലും
- സന്ധി ചലിപ്പിക്കാൻ കഴിയാതിരിക്കുക
- അംഗങ്ങളുടെ സ്ഥാനചലനവും തുടർന്നുള്ള വീങ്ങലും

പ്രഥമശുശ്രൂഷ

- ✓ ഇളക്കമേൽക്കാത്ത രീതിയിൽ രോഗിയെ വൈദ്യസഹായത്തിനായി കൊണ്ടു പോകുക.
- ✓ സന്ധിഇളകാതിരിക്കാൻ കെട്ട് (സ്ക്ലിന്റ്) ഉപയോഗിക്കുക.
- ✓ കൂടുതൽ പ്രശ്നം ഉണ്ടാകുന്നതിന് മുൻപ് വൈദ്യസഹായം തേടുക.



ചെയ്യരുതാത്തവ

- ✘ പരുകേന്ദ്ര സന്ധി കൈകാര്യം ചെയ്യാൻ ശ്രമിക്കരുത്. അത് ഞരമ്പുകൾക്കും രക്തക്കുഴലുകൾക്കും പ്രശ്നം ഉണ്ടാക്കാം. സ്ഥാന വ്യതിയാനം കുറക്കാൻ വൈദ്യ സഹായം തേടുക.

- ✘ സ്ഥാനവ്യതിയാനം സംഭവിച്ച സന്ധി, എല്ല് എന്നിവ വീണ്ടും പഴയപോലെ ആക്കാൻ ശ്രമിക്കരുത്. കൂടുതൽ പ്രശ്നങ്ങൾ ഉണ്ടാക്കാനേ അത് ഉപകരിക്കൂ.

11. വൈദ്യുതഘാതം

ശരീരത്തിലൂടെ ആകസ്മികമായി വൈദ്യുതി പ്രവഹിക്കുന്നതിനെയാണ് വൈദ്യുതഘാതം എന്നു പറയുന്നത്. കറന്റിന്റെ പ്രകൃതം, വോൾട്ടേജ്, കറന്റ് ശരീരത്തിലേക്ക് വന്ന വഴി, വ്യക്തിയുടെ ആരോഗ്യനില, വൈദ്യസഹായം ലഭിക്കുന്നതിനെടുത്ത സമയം എന്നിവയാണ് വൈദ്യുതഘാതത്തിന്റെ ആഘാതങ്ങൾ നിർണ്ണയിക്കുന്ന ഘടകങ്ങൾ.

ലക്ഷണങ്ങൾ

സംവേദനക്ഷമത നഷ്ടപ്പെടുന്നു, തരിപ്പ്, ബോധമില്ലായ്മ, പേശീവേദന, പൊള്ളൽ, മനം പുരട്ടൽ, അസാധാരണമായ ഹൃദയമിടിപ്പ്, ഹൃദയസ്തംഭനം, അപസ്മാരം.

പെട്ടെന്ന് ചെയ്യേണ്ടത്

ഒന്നാം ഘട്ടം: വൈദ്യുതിയുടെ സ്രോതസ്സിൽ നിന്ന് ആളെ വേർപെടുത്തുക. ഷോക്കേറ്റ ആളെ വൈദ്യുതചാലകമല്ലാത്ത വസ്തുവെങ്കിലും നീക്കുക. കറന്റ് ലൈൻ വിച്ഛേദിക്കുന്നതിന് മുമ്പ് മരപ്പലകയിലോ മറ്റോ ആണ് നിൽക്കുന്നത് എന്ന് ഉറപ്പ് വരുത്തുക. കത്തിയോ കത്രികയോ വൈദ്യുതി വിച്ഛേദിക്കുന്നതിന് ഉപയോഗിക്കരുത്.



ഘട്ടം രണ്ട്-പൊള്ളലുകൾ ഉണ്ടെങ്കിൽ

Appendices

സാധാരണ പൊള്ളലുകൾക്ക് ചെയ്യുന്ന അതുപോലെ തന്നെ അതിനെയും പരിചരിക്കുക.

ഘട്ടം മൂന്ന് - അടിയന്തിര വൈദ്യസഹായം ഏർപ്പാട് ചെയ്യുക.

12. പൊള്ളൽ

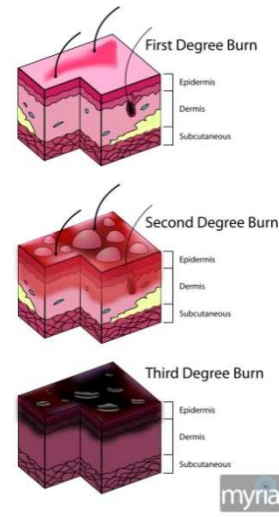
അമിതമായ ചൂടുകൊണ്ട് ഉണ്ടാകുന്ന പരിക്കുകൾ ആണ് പൊള്ളൽ എന്നു പറയുന്നത്. വൈദ്യുതി, നീരാവി, റേഡിയേഷൻ, രാസവസ്തുക്കൾ എന്നിവ കൊണ്ട് പൊള്ളൽ ഉണ്ടാകാം.

ലക്ഷണങ്ങൾ

- വേദന
- ചർമ്മം ചുവക്കുന്നു
- ചൂടെടുക്കുകയും ചർമ്മത്തിൽ കുമിളകൾ പ്രത്യക്ഷപ്പെടുകയും ചെയ്യുന്നു

വിവിധതരം പൊള്ളലുകൾ

- വിവിധതരം പൊള്ളലുകൾ എന്നതുകൊണ്ട് സൂചിപ്പിക്കുന്നത് കലകൾക്ക് വരുന്ന കേടിന്റെ തോതാണ്.
- മൂന്ന് തരം പൊള്ളലുകൾ ഉണ്ട്. ഒന്നാം തരം ചർമ്മം ചുവക്കുക മാത്രം ചെയ്യുന്നു (1st Degree).
- രണ്ടാം തരം - ചർമ്മത്തിൽ കുമിളകൾ കാണുന്നു (2nd Degree).
- മൂന്നാം തരം - ആഴത്തിലുള്ള പൊള്ളലിൽ പേശികൾ, ഞരമ്പുകൾ, കലകൾ മുതലായവ നശിപ്പിക്കപ്പെടുന്നു (3rd Degree).



പെട്ടെന്ന് ചെയ്യേണ്ടത്

✓ പരിക്കേറ്റ ഭാഗത്ത് തണുത്ത വെള്ളം ഏകദേശം 10-15 മിനുറ്റ് ഒഴിക്കുക.

✓ പരിക്കേറ്റ ശരീരഭാഗത്തു നിന്നും ആഭരണങ്ങളും വസ്ത്രങ്ങളും ശ്രദ്ധിച്ച് മാറ്റുക.



✓ പരിക്കേറ്റ ഭാഗത്ത് ആന്റിസെപ്റ്റിക് പുരട്ടുക.

✓ അണുവിമുക്തമാക്കിയ ബാൻഡേജ് കൊണ്ട് പൊള്ളലുകൾ മൂടിവെക്കുക.

ചെയ്യരുതാത്തവ

✗ പൊള്ളലിൽ എണ്ണ, തേൻ, മുട്ടയുടെ വെള്ള, വെണ്ണ, മഷി എന്നിവ പുരട്ടരുത്.

✗ കുമിളകൾ കുത്തിപ്പൊട്ടിക്കരുത്.

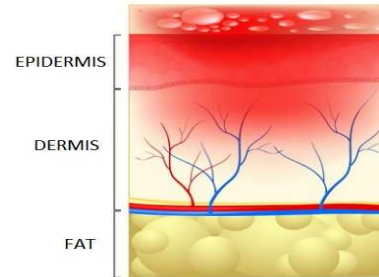
✗ പൊള്ളിയ ഭാഗത്ത് ബലമായി ഉരസരുത്.

✗ രാസവസ്തുക്കളാൽ ഉണ്ടായിട്ടുള്ള പൊള്ളലുകൾ വെള്ളമുപയോഗിച്ച് കഴുകരുത്. പൊടിയുടെ രൂപത്തിലുള്ള രാസവസ്തു ആണെങ്കിൽ അത് ശരീരത്തിൽ നിന്നും കളഞ്ഞതിനു ശേഷമേ പൊള്ളിയ ഭാഗം വൃത്തിയാക്കാവൂ.

സാരമായ പൊള്ളൽ (2nd Degree burns)

മേൽപറഞ്ഞ പൊതുവായ ശുശ്രൂഷക്ക് പുറമെ ഇനി പറയുന്നവ കൂടെ ചെയ്യാവുന്നതാണ്.

- സാവധാനം ജലാംശം കളയുക.
- രോഗിയെ കിടത്തുക.
- പൊള്ളിയ ഭാഗം ഉയർത്തിവയ്ക്കുക.
- പൊള്ളലേറ്റ സന്ധികൾക്ക് പരിക്ക് അധികമാകാതിരിക്കാൻ കെട്ടാവുന്നതാണ് (സ്പ്ലിന്റ്).
- ആശുപത്രിയിൽ കൊണ്ടുപോവേണ്ടത് അത്യാവശ്യമാണ്.

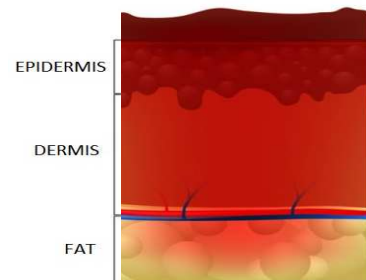


Second-degree burn

ഗുരുതരമായ പൊള്ളൽ (3rd Degree burns)

പെട്ടെന്ന് തന്നെ ആശുപത്രിയിൽ എത്തിക്കേണ്ടതാണ്. പ്രഥമശുശ്രൂഷ എന്ന നിലയിൽ താഴെ പറയുന്നവ ചെയ്യാം.

- ✓ നിർജ്ജലീകരണത്തിന് ദ്രാവകം ഞരമ്പിലൂടെ നൽകാം.
- ✓ കൃത്യമായ ഇടവേളകളിൽ ശുദ്ധമായ തണുത്ത വെള്ളം പൊള്ളലുകളിലൂടെ ഒഴിക്കുക.
- ✓ പൊള്ളലുകൾ പെട്ടെന്ന് ഭേദമാകുന്നതിന് പോഷകം നിറഞ്ഞ ഭക്ഷണം നൽകുക.



Third-degree burn

13. സുര്യാഘാതം

പ്രത്യേക കാലാവസ്ഥയിൽ വെയിലുള്ള ദിവസങ്ങളിൽ സൂര്യപ്രകാശം ചർമ്മത്തിൽ പതിക്കുന്നത്മൂലം ഉണ്ടാകുന്ന പൊള്ളലുകൾ ആണ് സുര്യാഘാതം എന്നു പറയുന്നത്. ഉപരിതലത്തിൽ സാധാരണ പൊള്ളൽ മാത്രമായും വേദനാജനകമായ കുമിളകളായും ഇത് വരാം.

ലക്ഷണങ്ങൾ

- ചർമ്മം ചുവക്കുകയും വീങ്ങുകയും വേദനിക്കുകയും ചെയ്യുക
- പൊള്ളലിനോട് ചേർന്ന് ചൊറിയൽ അനുഭവപ്പെടും
- ബാധിക്കപ്പെട്ട ചർമ്മത്തിൽ ചൂട് അനുഭവപ്പെടും

പ്രഥമശുശ്രൂഷ

✓ രോഗിയെ പെട്ടെന്നുതന്നെ തണുപ്പുള്ള ഒരിടത്തേക്ക് മാറ്റുക.

✓ നനഞ്ഞ തുണികൊണ്ട് രോഗിയെ പൊതിയുക. തുടർന്ന് തണുത്ത വെള്ളം അതിലൂടെ ഒഴിച്ചുകൊണ്ടിരിക്കുക. രോഗിക്ക് തലവേദന അനുഭവപ്പെടുന്നെങ്കിൽ പേപ്പർകൊണ്ട് വീശിക്കൊടുക്കാവുന്നതാണ്.



✓ വെള്ളം അല്ലെങ്കിൽ തിളപ്പിച്ചാറിയ പാൽ, തിന്നാവുന്ന തണുപ്പുള്ള എന്തെങ്കിലും ഒക്കെ രോഗിക്കു നൽകുക.

14. വിഷബാധ

ആരോഗ്യത്തിന് അപകടകരമായ, മരണവരെ സംഭവിക്കാവുന്ന വസ്തുക്കൾ (വിഷം) കഴിക്കുകയോ മറ്റെന്തെങ്കിലും തരത്തിൽ ശരീരത്തിൽ എത്തുകയോ ചെയ്യുന്നതിനെയാണ് വിഷബാധ എന്നുപറയുന്നത്. അറിഞ്ഞോ അറിയാതെയോ ഇത് സംഭവിക്കാം.



ലക്ഷണങ്ങൾ

- ചുണ്ടിലോ വായക്ക് ചുറ്റുമോ പൊള്ളലുകൾ, നിറം മാറ്റം എന്നിവ കാണപ്പെടുക.
- നിശ്വസിക്കുമ്പോൾ ചീത്ത മണം വരിക.
- ഉറക്കം വരിക.
- ശ്വസിക്കാൻ ബുദ്ധിമുട്ട് അനുഭവപ്പെടുക.
- ചർദ്ദിക്കാൻ തോന്നുക.
- ഉപയോഗിച്ച വിഷവസ്തുക്കൾ സമീപത്ത് കാണുക.

പെട്ടെന്ന് ചെയ്യേണ്ടവ

- ✓ രോഗിയെ ശുദ്ധവായു ശ്വസിക്കാൻ അനുവദിക്കുക.
- ✓ ശരീരത്തിൽ വിഷാംശം കണ്ടെത്തിയാൽ അത് വൃത്തിയാക്കിക്കളയുക
- ✓ വിഷാംശം ഉള്ള വസ്ത്രം മാറ്റി ശരീരഭാഗങ്ങൾ വെള്ളമുപയോഗിച്ച് വൃത്തിയാക്കുക.
- ✓ അടിയന്തിര വൈദ്യസഹായം തേടുക

ചെയ്യരുതാത്തവ

- ✗ ചർദ്ദിക്കുന്നതിനായി രോഗിയെ നിർബന്ധിക്കരുത്.
- ✗ രോഗിക്ക് ഉറക്കം വരുന്നുണ്ടെങ്കിൽ വെള്ളമോ ഭക്ഷണമോ നൽകരുത്.

ഭക്ഷ്യവിഷബാധ

അണുബാധയുള്ള വെള്ളം കുടിക്കുക വഴിയോ, ഭക്ഷണം കഴിക്കുക വഴിയോ ഉണ്ടാകുന്ന വിഷബാധയാണ് ഭക്ഷ്യ വിഷബാധ എന്നറിയപ്പെടുന്നത്.

ലക്ഷണങ്ങൾ

- ചർദ്ദിക്കാനുള്ള പ്രവണത
- ചർദ്ദിക്കുക
- വയറുവേദന
- വയറിളക്കം

പ്രാഥമശുശ്രൂഷ

- ✓ വിശ്രമിക്കുക
- ✓ കുടിക്കാൻ ആവശ്യത്തിന് വെള്ളം നൽകുക
- ✓ പെട്ടെന്നുതന്നെ വൈദ്യസഹായം നൽകുക



15. ജീവികളുടെ കടിയേൽക്കൽ, കുത്തേൽക്കൽ

സർപ്പദംശനം

വിഷമുള്ള പാമ്പുകളുടെ കടിയേൽക്കുന്നതാണ് സർപ്പദംശനം. ഇത് രോഗിയുടെ മരണത്തിന് കാരണാകാം.



ലക്ഷണങ്ങൾ

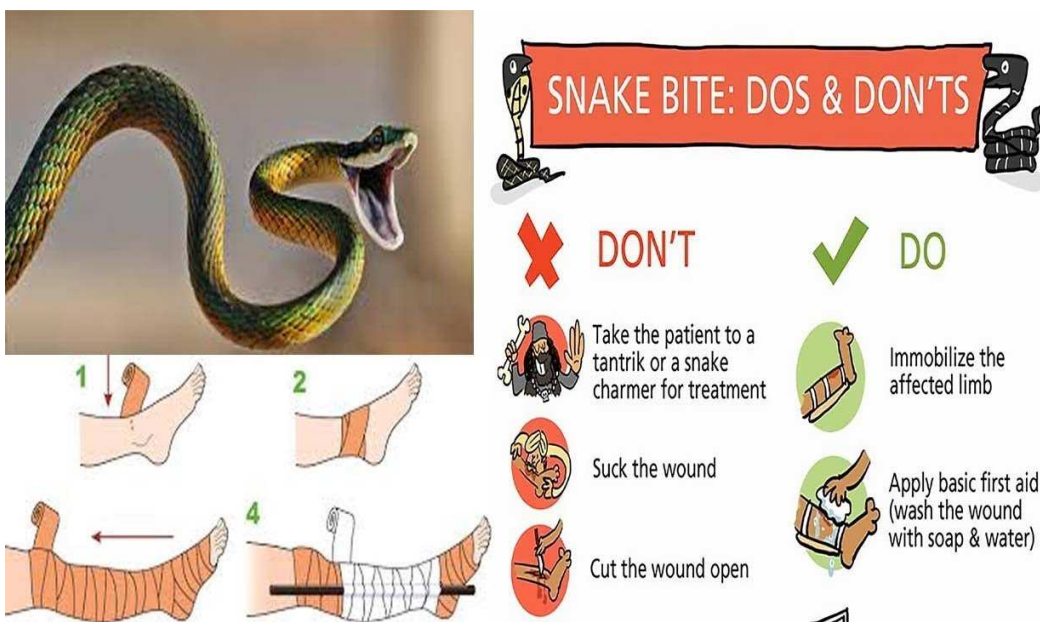
- കടിയേറ്റ ഭാഗത്ത് വേദനയും തരിപ്പും അനുഭവപ്പെടും.
- കടിയേറ്റ ഭാഗത്ത് ചുട്ടുപൊള്ളുന്ന വേദന
- ഉറക്കം തുങ്ങുക
- കടിയേറ്റ ഭാഗം വീങ്ങുക
- കാഴ്ച മങ്ങുന്നു.
- സംസാരിക്കാനും ശ്വസിക്കാനും ബുദ്ധിമുട്ടനുഭവപ്പെടുന്നു.
- കടിയേറ്റതിന് ശേഷം ആ ഭാഗം നീലനിറം ആകുന്നു.
- വായിൽ നിന്ന് ഉമിനീരൊലിക്കലും പക്ഷാഘാതം സംഭവിക്കുകയും ചെയ്യുന്നു.
- ഞരമ്പുകൾ വലിഞ്ഞു മുറുകുന്നു. ഇത് കോമയിലേക്ക് നയിക്കുന്നു.

പെട്ടെന്ന് ചെയ്യേണ്ടവ

- ✓ സമാധാനത്തോടെ ഇരിക്കാൻ ആവശ്യപ്പെടുക.
- ✓ കടിയേറ്റ ഭാഗത്തുനിന്ന് വളകൾ, മോതിരങ്ങൾ തുടങ്ങി ആഭരണങ്ങൾ നീക്കം ചെയ്യുക.
- ✓ പറ്റുമെങ്കിൽ കടിയേറ്റ ഭാഗം ഹൃദയത്തേക്കാൾ താഴെ വരത്തക്ക രീതിയിൽ കിടത്തുക.
- ✓ കാഠിന്യമേറിയ വസ്തുക്കൊണ്ട് കടിയേറ്റ ഭാഗം അനങ്ങാത്ത രീതിയിൽ കെട്ടുക.
- ✓ മുറിവ് ശ്രദ്ധയോടെ വൃത്തിയാക്കുക.
- ✓ അടിയന്തിര വൈദ്യസഹായം ലഭ്യമാക്കുക.






ചെയ്യരുതാത്തവ

- ✗ മുറിവിന് മുകളിൽ ശക്തിയിൽ കെട്ടരുത്.
- ✗ മുറിവ് വലുതാക്കാനോ അതിലൂടെ കൂടുതൽ രക്തം പുറത്തേക്ക് കളയാനോ ശ്രമിക്കരുത്.



1 **2** **3** **4**

SNAKE BITE: DOS & DON'TS

✗ DON'T	✓ DO
<ul style="list-style-type: none">  Take the patient to a tantrik or a snake charmer for treatment  Suck the wound  Cut the wound open 	<ul style="list-style-type: none">  Immobilize the affected limb  Apply basic first aid (wash the wound with soap & water)

മൃഗങ്ങളുടെ കടിയേൽക്കൽ

മൃഗങ്ങളുടെ കടിയേൽക്കൽ ഇന്ന് സാധാരണയാണ് (ഉദാ: നായ, പൂച്ച തുടങ്ങിയവ). മൃഗങ്ങളുടെ കടിയേറ്റാൽ ഉണ്ടാകുന്ന ഭയത്തെയാണ് ആദ്യം പരിഹരിക്കേണ്ടത്. റാബിസ് എന്ന വൈറസ് ബാധയുള്ള പട്ടികൾ കടിച്ചാൽ ഉണ്ടാകുന്ന അവസ്ഥയാണ് ഹൈഡ്രോഫോബിയ (ജലപ്പേടി).

പെട്ടെന്ന് ചെയ്യേണ്ടത്

- ✓ ആവശ്യത്തിന് വെള്ളവും സോപ്പും ഉപയോഗിച്ച് കടിയേറ്റ ഭാഗം 10-15 മിനുറ്റ് വരെ കഴുകുക.
- ✓ വൈദ്യസഹായം ലഭ്യമാക്കുക. നിർദ്ദേശിതമായ വാക്സിനുകൾ നൽകുക.



ഷഡ്പദങ്ങളുടെ കടിയേൽക്കൽ

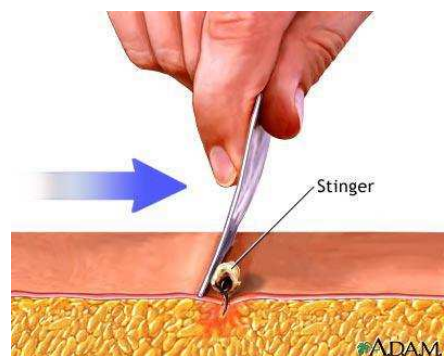
കടന്നൽ, തേനീച്ച പോലുള്ള ഷഡ്പദങ്ങളുടെ കുത്തേറ്റ് കഴിഞ്ഞാൽ വലിയ വേദന ഉണ്ടാകാൻ ഇടയുണ്ട്. അത്തരം സാഹചര്യങ്ങളിൽ പ്രഥമശുശ്രൂഷ നൽകേണ്ടത് അത്യാവശ്യമാണ്.

ലക്ഷണങ്ങൾ

- തീവ്രമായ വേദന
- കുത്തേറ്റ ഭാഗം വീങ്ങുന്നു.
- അതിന്റെ മധ്യഭാഗത്തിൽ ചുവന്നകുത്ത് കാണപ്പെടുന്നു.
- മുളള്/ കൊമ്പ് കുത്തേറ്റ ഭാഗത്ത് ഉണ്ടാകാം.
- ഷോക്ക്
- വായയിലും കഴുത്തിലുമുള്ള കുത്തൽ വീങ്ങുന്നതിനും, അത് അസ്ഥി ക്സിയക്കും കാരണമാകാം.

പ്രഥമശുശ്രൂഷ

- ✓ അനുവിമുക്തമാക്കിയ സൂചികൊണ്ട് കൊമ്പ്/ മുളള് നീക്കം ചെയ്യുക.
- ✓ ദുർബലമാക്കിയ അമോണിയയോ സോഡയുടെ ബൈ കാർബണേറ്റോ ആന്റി ഹിസ്തമിൻ ഓയിൻമെന്റോ, കുത്തേറ്റ ഭാഗത്ത് പുരട്ടുക. ഇത് വേദന ശമിപ്പിക്കും.
- ✓ പെട്ടെന്ന്തന്നെ വൈദ്യസഹായം ലഭ്യമാക്കുക.



16. മുങ്ങിമരണം (Drowning)

വെള്ളവുമായി ബന്ധപ്പെട്ട അപകടമാണ് മുങ്ങിമരണം.

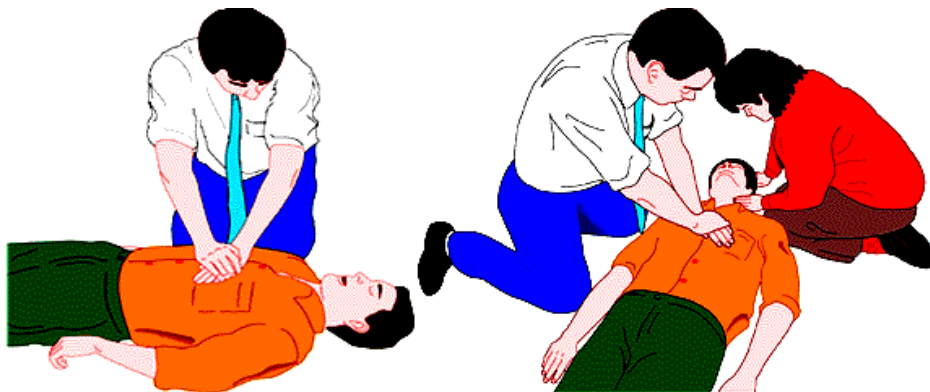
വ്യത്യസ്ത വയസ്സിൽ ഉള്ളവർ ഇതിന് ഇരയാകാറുണ്ട്.

കാരണങ്ങൾ

അപകടങ്ങൾക്ക് സ്വാഭാവിക കാരണങ്ങൾ ഉണ്ട്. കൂടാതെ കരുതിക്കൂട്ടി ചെയ്യുന്ന കാര്യങ്ങളും മുങ്ങലിന് കാരണമാകാറുണ്ട്. ഉദാഹരണത്തിന് ബോട്ടപകടങ്ങളിൽ, മദ്യപിച്ചുകൊണ്ടുള്ള ബോട്ടിങ്ങ്, അപകടകരമായ സാഹചര്യത്തിലുള്ള നീന്തൽ മുതലായവ.

പെട്ടെന്ന് ചെയ്യേണ്ടവ

- ✓ അപകടത്തിൽപ്പെട്ട ആളെ വരണ്ട ഇടത്തിൽ കിടത്തുക. നനഞ്ഞ വസ്ത്രമൊക്കെ മാറ്റി ഉണങ്ങിയവ ധരിപ്പിക്കുക. പിന്നെ നിലത്ത് കിടന്ന് നെഞ്ച് അമർത്തികൊണ്ടിരിക്കുക.
- ✓ ശ്വാസം ഇല്ലെങ്കിൽ ശ്വാസം നൽകുന്നതിന് വേണ്ട നടപടികൾ സ്വീകരിക്കുക.
- ✓ വ്യക്തിയെ എത്രയും പെട്ടെന്ന് ആശുപത്രിയിൽ എത്തിക്കുക.

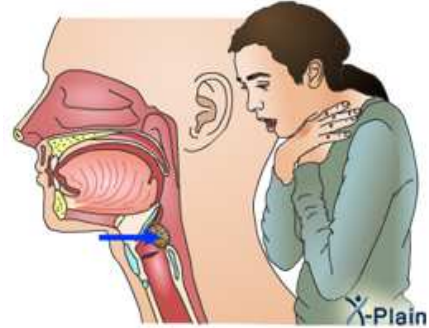


ചെയ്യരുതാത്തവ

- ✗ വയറിൽ അമർത്തി വെള്ളം വായയിലൂടെ പുറത്തുകൊണ്ടുവരാൻ ശ്രമിക്കരുത്.

17. ചോക്കിങ്ങ് (Choking)

ശ്വാസനാളം അന്യപദാർത്ഥത്താൽ അടഞ്ഞതുകൊണ്ട് ശ്വസിക്കാനുള്ള ബുദ്ധിമുട്ടാണ് ചോക്കിങ്ങ്. വായു കുറവായതുകൊണ്ടും ഇത് സംഭവിക്കാം. ചെറിയ കുട്ടികളിൽ ഇത് മരണത്തിന് കാരണമാകാറുണ്ട്.



ലക്ഷണങ്ങൾ

- കഴുത്ത് അമർത്തിപ്പിടിച്ച് ശ്വസിക്കാനുള്ള ബുദ്ധിമുട്ട് പ്രകടിപ്പിക്കുന്നു.
- കണ്ണുകൾ പുറത്തേക്ക് തള്ളുന്നു.
- ഭ്രാന്തമായ പരിഭ്രമം കാണിക്കുന്നു.
- മുഖമാകെ നീലനിറം വ്യാപിക്കുന്നു.
- സംസാരിക്കാനുള്ള ബുദ്ധിമുട്ട്.

കാരണങ്ങൾ

ഭക്ഷണം, ചെറിയ വസ്തുക്കൾ എന്നിവകൊണ്ട് ശ്വാസനാളം അടയുന്നതാണ് പ്രധാന കാരണം.

പ്രഥമശുശ്രൂഷ

ചോക്കിങ്ങിനുള്ള പ്രഥമശുശ്രൂഷക്ക് ഹെയ്‌മംലിച്ച് മാമ്പർ (Heimlich Maneuver) എന്നുപറയുന്നു.

- ✓ രോഗിക്കു പിന്നിൽ നിൽക്കുക
- ✓ മുഷ്ടി ചുരുട്ടി അത് പൊക്കിൾക്കൊടിക്ക് മുകളിൽ വെക്കുക
- ✓ മുഷ്ടി മറ്റേ കൈകൊണ്ട് പിടിച്ച് വ്യക്തിവ്യക്തിയുടെ വയറിനു മുൻഭാഗത്ത് ശക്തിയായി തട്ടിക്കൊണ്ട് പെട്ടെന്ന് മുകളിലേക്ക് ഉയർത്തുക.



- ✓ തടസ്സം ഒഴിയുന്നത് വരെ ഇത് തുടരുന്നു.
- ✓ വ്യക്തി അബോധാവസ്ഥയിൽ ആകുകയാണെങ്കിൽ അയാൾക്ക് സി.പി.ആർ നൽകുക.

18. അപസ്മാരം

തലച്ചോറിലെ വൈദ്യുത തരംഗങ്ങളുടെ പ്രവർത്തനത്തിൽ ഉണ്ടാകുന്ന തകരാറുമൂലം പേശികളുടെ അനൈച്ഛികമായ ചുരുങ്ങലിനെയാണ് അപസ്മാരം എന്ന് പറയുന്നത്. ഫിറ്റ്സ് എന്നും ഇതറിയപ്പെടുന്നു.

ലക്ഷണങ്ങൾ

- ബോധം നഷ്ടപ്പെടുന്നു.
- ഓർമ്മ നഷ്ടപ്പെടുന്നു.
- ഇടക്കിടെ കൈകാലുകൾ കോച്ചി വലിക്കുന്നു.
- ശ്വാസനത്തിൽ ബുദ്ധിമുട്ട്.
- അസാധാരണമായ വിറയലും തുള്ളലും.
- താൻ ചെയ്യുന്നത് എന്തെന്ന് അറിയാത്ത അവസ്ഥ.
- കാഴ്ച മങ്ങുന്നു.
- വായിൽ നിന്ന് നൂരയും പതയും പുറത്തുവരുന്നു.

കാരണങ്ങൾ

- തലക്കേറ്റ് പരിക്ക്
- തലച്ചോറിനെ നശിപ്പിക്കുന്ന രോഗങ്ങൾ
- തലച്ചോറിൽ ഓക്സിജൻ കുറയുന്നു.

പെട്ടെന്ന് ചെയ്യേണ്ടത്

- ✓ സുരക്ഷിതമായ ഒരിടത്ത് വ്യക്തിയെ കിടത്തുക (റിക്കവറി പൊസിഷനിൽ).
- ✓ വ്യക്തിയെ തല പിന്നിലേക്ക് തിരിച്ച് ഒരു വശം ചേർത്ത് കിടത്തുക.
- ✓ രോഗിയെ ശ്വസിക്കാൻ സഹായിക്കുക.
- ✓ അപസ്മാരത്തിന്റെ ലക്ഷണങ്ങൾ 6 മാസത്തിനും 6 വയസ്സിനും ഇടയിലുള്ള കുട്ടികളിൽ പനിക്കൊപ്പം പ്രത്യക്ഷപ്പെടാറുണ്ട്. അങ്ങനെ ഉണ്ടാകുമ്പോൾ തുണി നനച്ച് കുട്ടിയുടെ നെറ്റിയിലും മറ്റ് ശരീരഭാഗങ്ങളിലും ഇടുക.
- ✓ ലക്ഷണങ്ങൾ നിന്നാലും രോഗിയെ ആശുപത്രിയിലേക്ക് കൊണ്ടുപോവുക.



ചെയ്യരുതാത്തവ

- ✘ അബോധാവസ്ഥയിൽ ഗുളികകൾ ഒന്നും നൽകരുത്.
- ✘ നാവ് കടിച്ചു മുറിക്കാതിരിക്കാൻ ലോഹക്കുപ്പണം, മരക്കുപ്പണം എന്നിവ അവസ്ഥാവസ്ഥയിൽ വായിൽ വെച്ചു കൊടുക്കരുത്.
- ✘ ലോഹക്കുപ്പണം, മരക്കുപ്പണം എന്നിവ രോഗിക്ക് നൽകുന്നതുകൊണ്ട് ഒരുപ യോഗവും ഇല്ല.
- ✘ അത്യാവശ്യം ഇല്ലെങ്കിൽ രോഗിയെ നീക്കാനോ ഉയർത്താനോ പാടില്ല.
- ✘ രോഗിയെ അതുപോലെ രോഗിയുടെ ചലനങ്ങളെ അനാവശ്യമായി നിയന്ത്രിക്കാൻ ശ്രമിക്കരുത്.
- ✘ അബോധാവസ്ഥയിൽ ഉള്ള രോഗിയെ ഉണർത്താൻ ശ്രമിക്കരുത്.
- ✘ രോഗിക്ക് കുടിക്കാൻ കൊടുക്കരുത്.

19. അന്യവസ്തുക്കൾ കണ്ണിലും ചെവിയിലും മുക്കിലും പെട്ടാൽ

ചില സമയങ്ങളിൽ അന്യവസ്തുക്കൾ നമ്മുടെ ഇന്ദ്രിയങ്ങളായ കണ്ണ്, ചെവി, മുക്ക് എന്നിവയിൽ എത്തപ്പെടുന്നു. ഇത് ചിലപ്പോൾ പ്രശ്നങ്ങളുണ്ടാക്കുന്നു.

കണ്ണിൽ വസ്തുക്കൾ പോകുന്നത്

കണ്ണിൽ വസ്തുക്കൾ പോകുന്നത് കണ്ണ് ചുവക്കുന്നതിനും വേദന ഉണ്ടാക്കുന്നതിനും ചൊറിയുന്നതിനും കാരണമാകും.

പെട്ടെന്ന് ചെയ്യേണ്ടത്

✓ വൃത്തിയുള്ള വെള്ളം കൊണ്ട് 10-15 മിനിറ്റ് കണ്ണ് കഴുകുക

✓ വസ്തു കണ്ണിൽ നീങ്ങുന്നതായി ശ്രദ്ധയിൽ പെട്ടാൽ അണുവിമുക്തമാക്കിയ തുണികൊണ്ട് അത് കളയുക.



✓ കോണ്ടാക്ട് ലെൻസ് വയ്ക്കുന്നവർ അത് ഊരിയതിനുശേഷം വേണം പ്രഥമ ശുശ്രൂഷ ചെയ്യാൻ

✓ വൈദ്യ സഹായം തേടുക.

ചെയ്യരുതാത്തവ

✗ കണ്ണ് തിരുമ്മരുത്

✗ കണ്ണ് ഇറുക്കി അടയ്ക്കരുത്

ചെവിയിൽ വസ്തുക്കൾ പോയാൽ

പ്രാണികളോ ചെറിയ വസ്തുക്കളോ ചെവിയിൽ പോകുന്നത് വൃത്തിക്ക് അലോസരം സൃഷ്ടിക്കും. ചെറിയ കുട്ടികൾ ചെവിയിൽ വല്ലതും ഒക്കെ ഇടാൻ ഇടയുണ്ട്. ഇത് ചെവി വീങ്ങുന്നതിനും വേദനയുണ്ടാക്കുന്നതിനും കാരണമാകും.

പെട്ടെന്ന് ചെയ്യേണ്ടത്

- ✓ ബാധിക്കപ്പെട്ട ചെവി താഴ്ത്തി പിടിച്ച് ഉള്ളിൽ പോയത് പുറത്തെടുക്കുക.
- ✓ ജീവനുള്ള പ്രാണിയാണ് ഉള്ളിൽ പോയതെങ്കിൽ ചെവി മുകളിലേക്ക് തുറന്ന് വച്ച് വശങ്ങളിലേക്ക് കുലുക്കുക. ശേഷം നേർത്ത ചൂടുവെള്ളം ഒഴിക്കുക. അതിനുശേഷം 10 മിനിറ്റ് കാത്തിരിക്കുക.
- ✓ വൈദ്യസഹായം തേടുക.



ചെയ്യരുതാത്തവ

- ✗ കൂർത്തവസ്തുക്കൾ ചെവിയിലേക്ക് കടത്തി ഉള്ളിൽ കുടുങ്ങിയ വസ്തുക്കൾ പുറത്തെടുക്കാൻ ശ്രമിക്കരുത്.

മുക്കിൽ വല്ലതും പോയാൽ

ചെറിയ കുട്ടികൾ മുക്കിലേക്ക് വസ്തുക്കൾ ഇടാൻ സാധ്യതയുണ്ട്

ഇത് അണുബാധയ്ക്ക് ഇട വെയ്ക്കും.

പെട്ടെന്ന് ചെയ്യേണ്ടത്

- ✓ വ്യക്തിയെ ശാന്തനായി ഇരുത്തുക
- ✓ വായിലൂടെ ശ്വസിക്കുക
- ✓ വൈദ്യസഹായം തേടുക

ചെയ്യരുതാത്തവ

- ✗ കൂർത്ത വസ്തുക്കൾ മുക്കിലേക്കിട്ട് കൂടുങ്ങിയ വസ്തു പുറത്തെടുക്കാൻ ശ്രമിക്കരുത്.

20. തലകറക്കം (Fainting)

തലച്ചോറിലേക്ക് കൃത്യമായി രക്തം എത്താത്തതിനാൽ ഉണ്ടാകുന്ന അബോധാവസ്ഥയാണ് തലകറക്കം.

ലക്ഷണങ്ങൾ

- സാവകാശത്തിലുള്ള, ദുർബലമായ ഹൃദയമിടിപ്പ്
- രോഗി വിളരുന്നു
- തലകറക്കം / ബോധക്കേട്

കാരണങ്ങൾ

- തലച്ചോറിലേക്കുള്ള രക്തപ്രവാഹത്തിലെ പ്രശ്നങ്ങൾ
- കുറഞ്ഞ ഭക്ഷണം
- വൈകാരികമായ പിരിമുറുക്കം
- തുടർച്ചയായി, വിശ്രമമില്ലാതെ കായിക പ്രവർത്തനങ്ങളിൽ ഏർപ്പെടുന്നത്.

പ്രഥമ ശുശ്രൂഷ

- ✓ വ്യക്തിയെ താഴെ കിടത്തുക
- ✓ കാലുകൾ 10 മിനിറ്റോളം ഉയർത്തിവയ്ക്കുക. ഇത് തലച്ചോറിലേക്കുള്ള രക്തപ്രവാഹം വർദ്ധിപ്പിക്കും.



Appendices

- ✓ ഇറക്കുമുളള വസ്ത്രമാണെങ്കിൽ അയവുളളതാക്കുക.
- ✓ രോഗിക്ക് ശുദ്ധവായു ശ്വസിക്കുന്നതിന് അവസരം ഒരുകുക.
- ✓ ബോധം വരുമ്പോൾ സാവധാനം അയാളെ ഇരുത്തുക. ശേഷം കുടിക്കാൻ ശുദ്ധമായ വെള്ളം കൊടുക്കുക.

21. റോഡപകടങ്ങൾ

മനുഷ്യ നിർമ്മിത ദുരന്തമാണ് റോഡപകടം. സെക്കണ്ടറി തല വിദ്യാർത്ഥി കളിൽ ഏറ്റവും കൂടുതൽ മരണകാരണമായി അപകടങ്ങൾ അറിയപ്പെടുന്നു. ശക്തമായ സുരക്ഷാ പരിപാടികൾ ഈ അപകടങ്ങൾ ഇല്ലാതാക്കാൻ വിദ്യാർത്ഥികൾക്ക് നൽകേണ്ടതുണ്ട്.

കാരണങ്ങൾ

അശ്രദ്ധമായ ഡ്രൈവിംഗ്, മോശം റോഡുകൾ, കാൽ നടക്കാരോടുള്ള മനുഷ്യത്വരഹിതമായ പെരുമാറ്റം തുടങ്ങിയവ ഒരുപാട് ജീവൻ നഷ്ടപ്പെടാൻ ഇടയാക്കിയിട്ടുണ്ട്. ഭൂരിപക്ഷം മരണങ്ങളും കൃത്യമായ വൈദ്യ സഹായമോ പ്രഥമശുശ്രൂഷയോ ലഭ്യമാകാത്തതിനെ തുടർന്നുണ്ടാകുന്നതാണ്.



പ്രഥമ ശുശ്രൂഷ

- ✓ ആദ്യം അപകടം പറ്റിയ ആളെ നിരീക്ഷിക്കുക.
- ✓ അപകടം പറ്റിയ ആളെ കൈകാര്യം ചെയ്യുമ്പോൾ സൂക്ഷിക്കണം

✓ തല, നെഞ്ച്, വയർ എന്നിവ ഒരുമിച്ച് നീങ്ങത്തക്ക വിധം വേണം അപകടം പറ്റിയ ആളെ നീക്കാൻ. ഇതിന് ഏകദേശം നാല് പേരോളം വേണ്ടി വരും.

✓ അപകടം പറ്റിയ ആൾ ഹെൽമെറ്റ് ധരിച്ചിട്ടുണ്ടെങ്കിൽ ഒരാൾ കൈകൾ കഴുത്തിന് ഇരുവശത്തുമായി വെച്ച് താടിയെല്ലിന് ശരിയാക്കി പിടിക്കണം. മറ്റെവ്യക്തി ഹെൽമെറ്റിന്റെ സ്ക്രാപ്പ് സാവധാനം അഴിക്കുക.



✓ എത്രയും പെട്ടെന്ന് അപകടത്തിൽപ്പെട്ട ആളെ വിദഗ്ധരുടെ അടുത്തെത്തിക്കുക.

ചെയ്യരുതാത്തവ

✗ അപകടത്തിൽപ്പെട്ട ആളുടെ കാലുപിടിച്ചു വലിക്കരുത്. തലയും കഴുത്തും ഉലയാതെ സൂക്ഷിക്കണം.

ഉപസഹാരം

സെക്കണ്ടറി തലത്തിലുള്ള വിദ്യാർത്ഥികളിലാണ് പ്രഥമശുശ്രൂഷ നൽകേണ്ടതായ സാഹചര്യങ്ങൾ ഏറ്റവും കൂടുതൽ ഉണ്ടാകുന്നത്. വിദ്യാലയങ്ങളിൽ വെച്ചു നടക്കുന്ന കായിക പരിപാടികൾക്കിടയിലും മറ്റുമാണ് കൂടുതൽ അപകടങ്ങൾ ഉണ്ടാകുന്നതെന്ന് പഠനങ്ങൾ പറയുന്നു. അതുകൊണ്ടുതന്നെ പ്രഥമശുശ്രൂഷയിലുള്ള വിദ്യാർത്ഥികളുടെ അറിവ് വർദ്ധിപ്പിക്കേണ്ടതുണ്ട്. ഈ ലക്ഷ്യം വെച്ചുകൊണ്ടുള്ള പ്രഥമശുശ്രൂഷാ പ്രോഗ്രാം വിദ്യാർത്ഥികൾക്ക് ഏറ്റവും കൂടുതൽ പ്രയോജനപ്പെടുമെന്ന് പ്രതീക്ഷിക്കുന്നു.

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Appendix X

FIRST AID INTERVENTION PROGRAMME

Introduction

The First Aid Intervention Programme is developed to enhance awareness on fundamental aspects of First Aid, Various emergency situations which need First Aid among secondary school students and the First Aid to be applied in such emergency situations. The knowledge in these aspects will be helpful to develop a safety culture in the school. The programme will be helpful to secondary school students to apply what they learned through the programme in and out of school and also in their future profession.

Objectives of the Programme

The secondary school students will be able to

- become aware of fundamentals of first aid.
- familiarize the various emergency situations which need first aid.
- become aware of do's and dont's in first aid.

Structure of the programme

The first aid education programme is presented as two units. Unit one includes basic/fundamentals of first aid and unit two is with emergency cases usually seen at secondary level and related first aid.

The fundamentals of first aid education includes aims of first aid, Principle of first aid, Qualities and responsibilities of first aider, first aid kit and agencies of first aid.

The emergency cases included in the programme mainly aimed at secondary school students. There are 18 cases included in this programme. These are, CPR, recovery position, bleeding, wounds, heart attack, fracture and immobilization, dislocation, sprain and strain, electric shock, burns, sun burn, poisoning, bites and stings, drowning, choking, epilepsy, foreign bodies in the eye, ear and nose, fainting and road accidents.

Each case is presented in the form of separate steps, The steps are, definition, types, symptoms, causes and do's and don'ts. These steps may differ slightly in the cases presented.

Unit 1

1. Fundamentals of first aid
2. First aid kit
3. Agencies of first aid

Unit II

4. CPR (Life Saving Procedures / Basic Life Support)
5. Recovery position
6. Heart attack
7. Bleeding
8. Wounds
9. Fracture and Immobilization
10. PRICE Method, Strain, Sprain and Dislocation
11. Electric shock

Appendices

12. Burns
13. Sun burn
14. Poisoning
15. Bites and stings
16. Drowning
17. Choking
18. Epilepsy
19. Foreign bodies in the Eye, Ear and Nose
20. Fainting
21. Road accidents

1. Fundamentals of First Aid

First aid is the immediate and temporary care given to a wounded or sick person by an expert who is trained in first aid. The famous German surgeon General Esmarch (1823-1908) is considered as the father of the idea 'First-aid'.

First aid to sick and wounded has been practiced since ancient times. An organized world wide effort at giving first aid came only in the year 1877. In this year the St. John ambulance association of England was formed after the great apostle of St. John. Since then the universal need and utility of first aid has been increasing and it is most urgent in this modern mechanized civilization.

Aims of First Aid

The aims of first aid are

- To save life.
- To prevent further injury or worsening of the condition.
- To make the victim as comfortable as possible to conserve strength.
- To bring the injured person before professional medical care at the earliest.

Principles of First aid

The following are the principles of first aid. A first aider necessarily should follow the principles.

1. Be in control, both of yourself and the problem
2. Act calmly and logically

3. Be gentle but firm. Speak to the casualty kindly but purposefully.
4. Build up trust while talking to the casualty throughout the examination and treatment.
5. Explain what you are going to do.
6. Answer honestly and say 'no' if you do not know. Avoid misleading information.
7. Never leave the casualty alone. Continue to talk to him or her and hold his hands.
8. Reassure the casualty.
9. Do not separate a child from its parents or guardian.
10. Casualty should be sent to a hospital or doctor by quickest means of transport. Always inform police about serious accidents.
11. Inform the relatives.

The First aider

A first aider is just a common person who are trained in First aid. First aider should be a responsible person. The responsibility of the first aider is to provide appropriate first aid treatment to the victim.

A first aider should have the following qualities

1. Observation capacity
2. Ability to act calmly and quickly
3. Leadership quality
4. Sound knowledge about First aid
5. Self confidence
6. Ability to control the crowd and take help from them.
7. Able to reassure the victim and his/her relatives
8. Servicemindedness

The first aider's responsibilities are,

- To assess the situation quickly and safely and summon appropriate help.
- To protect casualties and others at the scene from possible danger.
- To identify, as far as possible, the injury or nature of the illness affecting a casualty.
- To give each casualty early and appropriate treatment. Give priority to treat the most serious conditions first.
- To arrange for the casualty's removal to hospital into the care of a doctor or to his home as necessary.
- To remain with the casualty until further care is available,if medical aid is needed,

- To report observations to those who take care of casualty and also give further assistance, if required.
- To prevent cross-infection between yourself and the casualty as far as possible. (first aid manual)

The responsibility of the first aider ends when the casualty is handed over to the care of the medical personnel. Later on he may assist the victim for getting better medical help.

World First Aid Day

The International Federation of Red Cross and Red Crescent Societies (IFRC) introduced **World First Aid Day** in 2000.

World First Aid Day is celebrated on Second Saturday in September every year to raise awareness on first aid.

Symbol of Red Cross and Red Crescent Societies



2. First Aid Kit

A **first aid kit** is a collection of supplies and equipment that is used to give medical treatment. A first aider can help a victim who is in need of help in an emergency situation, with the help of a collection of equipments or materials .First aid kit is the box which contain these materials and equipments.



The contents of the first aid box may vary in accordance with institution or based on the knowledge and experience of those putting it together, the differing first aid

requirements of the area where it may be used and variations in legislation or regulation in a given area.

Basic materials for a First aid Kit



Easily identifiable watertight box

(Protection against the occasional rainstorm or other water source)



20 adhesive dressings (plasters) in assorted sizes.

(Applied to small cuts)



Six medium sterile dressings



Two large sterile dressings



Two extra - large sterile dressings
(Sterile dressing helped for sealed in a protective wrapping to wounds)



Two sterile eye pads
(Dressing to protect injured eyes)



Six triangular bandages
(Helped for dressings for large wounds and burns)



Six safety pins
(Used to secure the ends of bandages)



Disposable gloves

(Helped for handle body fluids or other waste materials)

Useful additions



Tweezers

(Extracting splinters, thorns, insect stingers, and ticks)



Scissors

(Choose items that are blunt ended so that they will not cause injuries)



Two crepe roller bandages

(Used to support joints or apply pressure to an open wound)



Cotton wool

(Used as padding or an absorbent layer over a dressing)



Non-alcoholic wounds cleansing wipes
(Used to clean skin around wounds, or
to clean your hands)



Adhesive Tape
(To hold a bandage or other dressing
on to a wound)



Plastic face shield or pocket face mask
(Protect you and the casualty from
infections)



Notepad, pencil and tags



Blanket, survival bag, torch, whistle



20 Antiseptic wipes

(Kill germs and sanitize skin or whatever surface to which they are applied)



Betadine solution 1 bottle

(Used to wound and skin infections)



Surgical spirit bottle

(Cleaning wounds, cuts and scratches)



1 Gauze roll 2 inch(10 nose)



1 Gauze roll 3 inch

(Use these as dressing, as padding, or as swabs to clean around wounds)



Tourniquet bar blood stopping band aid

(Used to control bleeding)



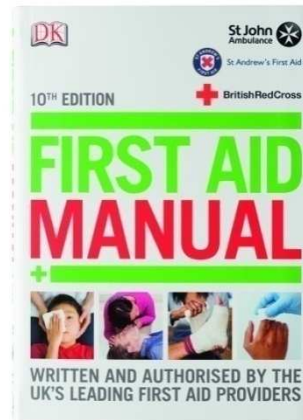
6 burn gel (Silverex)

(Anti-infective used for burn)



Splint

(used for support or immobilization of a limb or the spine)



First Aid Guide



Acetaminophine Tablets

(Treat mild to moderate and pain or to reduce fever)



Tablet Avid

(Used to treat a variety of bacterial infections)

3. Agencies of First Aid

The two important international agencies involved in first aid programme are Red Cross and St. John Ambulance.

Red Cross

The Red Cross has been a leading first aid training organization. This is born of a desire to bring assistance without discrimination to the wounded on the battlefield, and to prevent and alleviate human suffering wherever it may be found. It's purpose is to protect life and health and ensure respect for the human being. It is a voluntary relief movement. The British Red Cross is part of the worldwide organization and provides personal and commercial first aid training .



The aim of Red cross is “**aid to sick and wounded soldiers in the field**”.

St. John Ambulance

SJA is the other main voluntary provider of first aid training . St. John Ambulance is formed in 1877, based on the principles of the Knights Hospitaller, to teach first aid.



Junior Red Cross

The Junior Red Cross is the students' wing of the Red Cross Society. It is a students' movement organized within schools. Pupils who are actively involved in Junior Red Cross activities are known as 'Juniors'. The Teachers guiding the pupils in JRC activities are called "COUNSELLORS"



The Aims of Junior Red Cross

The main purpose of organizing the Youth Red Cross is

- Promotion of health & hygiene.
- Service to other.
- World friendliness.

4. Life Saving Procedures / Basic Life Support

Life saving is the aim of first aid .When we see a person lying unconscious, we give the person basic life support.

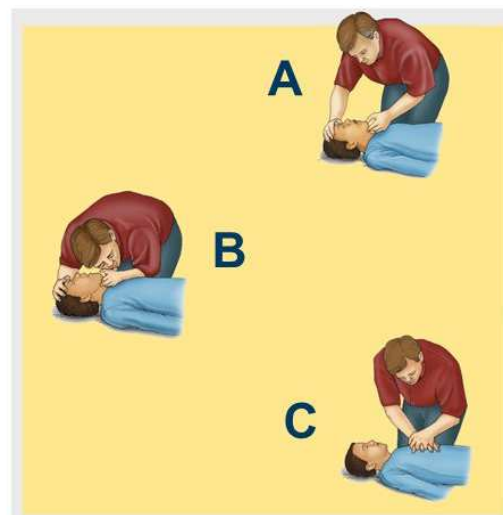
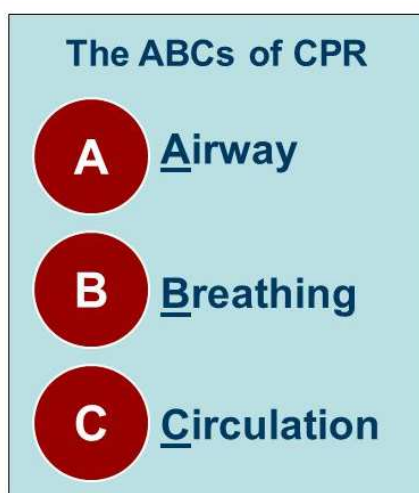
Basic life support refers to life saving procedures that focus on the victims Airway, Breathing and Circulation(ABC). It also includes Cardio Pulmonary Resuscitation (CPR) and Recovery position.

ABC of first aid

ABC is the first step as part of first aid given to a person who is unconscious. In first aid ABC stands for airway, breathing and circulation.

- A Airway-first aider make sure that airway of the victim is clear
- B Check the breathing of the person
- C Checking for circulation

In ABC, the first aider should open and clear the airway



Methods to check airway

- Lift the chin forward with the index and middle finger of one hand and press the forehead backwards with the other hand.
- Listen and feel for any sign of respiration.
- Examine the mouth to check any foreign body.



Breathing



- ✓ Check breathing
 - Check breathing by different methods
- ✓ Check abdominal movements
- ✓ By placing ear near the nostrils of the victim
- ✓ Restore breathing by mouth to mouth respiration or mouth to nose respiration

Checking for circulation

Checking the pulse at the neck by putting finger tips gently on the voice box.

Cardio Pulmonary Resuscitation (CPR)



Objective of CPR

This is helpful for delaying tissue death and give opportunity for a successful resuscitation without permanent brain damage. When the heart fails, the process of CPR helps the body to pump blood. For this the intervention of a trained person who presses up and down the chest of the patient which is known as chest compressions along with mouth to mouth resuscitation to restore breathing and circulation.

After the procedure of ABC, CPR is to be given. This includes artificial ventilation and chest compression.

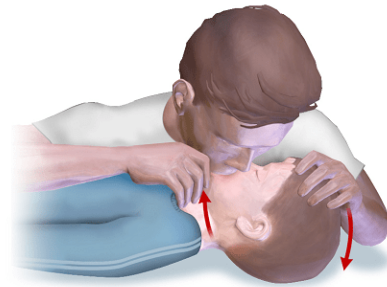
Artificial Ventilation

- ✓ Rescue shall open the mouth wide, take a deep breath, close the casualty's nostrils



together with fingers and seal lips of the casualty using the rescuers mouth.

- ✓ Blow air into the casualty's mouth, looking along his chest, until the chest rise to maximum expansion. If the casualties heart fail to rise, assume that the casualties airway is not fully opened. Then adjust the position of the head and jaw and try again the process
- ✓ Remove the rescuers mouth well away from the casualty's mouth and breath out any excess air while watching his chest fall. Take deep breath, repeat the procedure.

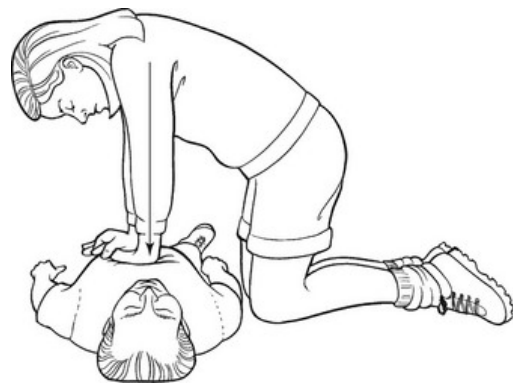


Mouth-to-Mouth Breathing

- ✓ After two inflation(the act of inflating), check the pulse to heart beat.
- ✓ If the heart is not beating one must perform external chest compression.

Chest compression

- ✓ Lay the casualty on his back
- ✓ Kneel at one side of the chest.
- ✓ Find the lower half of the breastbone the bone to which the ribs are joined- in the front of the chest.
- ✓ Place the left hand on top of the right hand



- ✓ With your arms straight push vertically down on the lower half of the breast bone for about 4cm in the adult.

Chest compression should be given 60 to 70 per minute for adults and for infants, the rate is 90 to 100/minute.

About 1/5th of the air we exhale contains oxygen, which is more than enough to sustain life. The continuous working of the heart and circulation of the blood maintains life. If the circulation fails, the life of the casualty will be in danger. Blue color of the face, lips, fingers and toes and no pulsations in the neck or in the front of the chest are some of the symptoms.

This is shown below in the figure.

	Adult	Child	Infant
Hand position	2 hands center of chest, lower half of breast bone	2 hands center of chest, lower half of breast bone	2-3 fingers in the center of the chest, lower half of the breast bone
Compression depth	2 inch	2inch	1 1/2
Compressions to Breaths	30:2	30:2	30:2
Compression rate	100/minute	100/minute	100/minute

(American Red Cross First Aid/CPR/AED Participant's Manual)

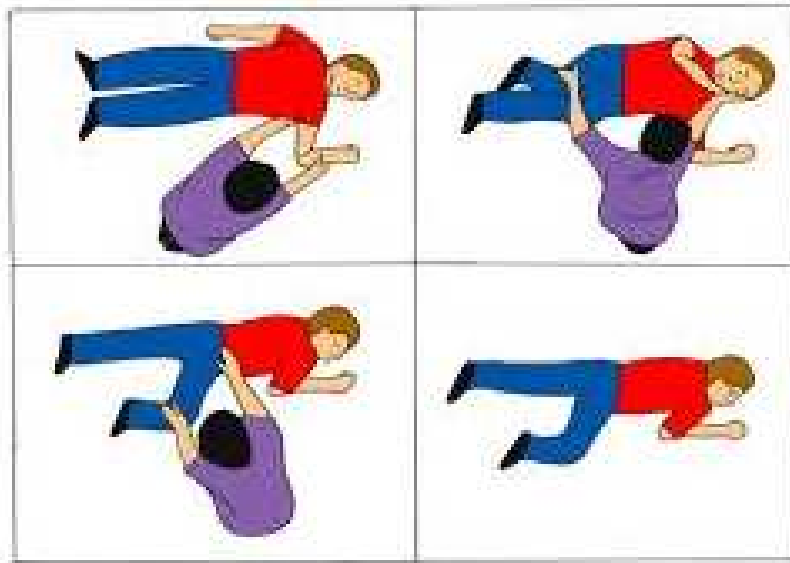
5. Recovery Position

As a basic life support an unconscious person who breaths normally is to be laid down in a particular position. This is known as recovery position.

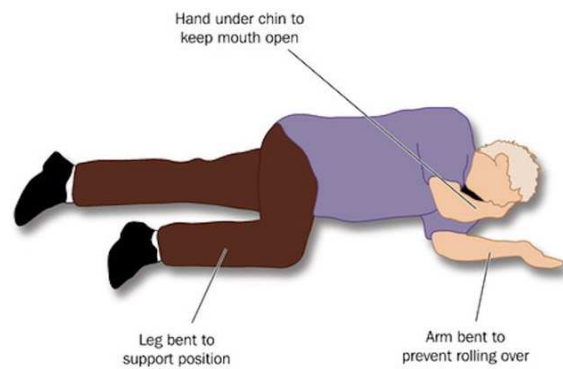
This position prevent the tongue blocking the throat. In this position the head is placed slightly lower than the rest of the body and thus it allows liquids to drain from the mouth. The head, neck and back are kept in a straight line while the bent limbs keep the body propped in a secure and comfortable position.

To do immediately

- ✓ The first aider should sit by one side of the patient
- ✓ Keep the patient's arm on that side perpendicular to the body, with folded elbow.
- ✓ Folding the knees of the leg on the other side, keep the patients body straight and lay on the hands after fitting the body to one side.
- ✓ Laying in this position, take the patient immediately to the hospital.



The recovery position allows the casualty lying on his or her side or front. Before turning a casualty, remove his or her spectacles if he wears and any heavy objects in the pocket.



6. Heart attack

Heart attack is also known as myocardial infarction. This occurs when the flow of pure blood to the heart is blocked or due to the deposition of fats in the coronary blood vessels.

Symptoms may be

- Severe pain in the chest, that spreads to shoulders, neck, lower jaw or palm.
- Sweating, breathlessness, irregular pulse (fast or weaker), unconsciousness, ashen colored skin.



Causes

- The causes are the high level of fat, cholesterol or other substances in the blood vessels.

First aid

- ✓ Call for medical help and transport the casualty to the hospital at the earliest.
- ✓ Give the pills that the doctor prescribed earlier (aspirin)
- ✓ Begin CPR if the patient is unconscious

7. Bleeding

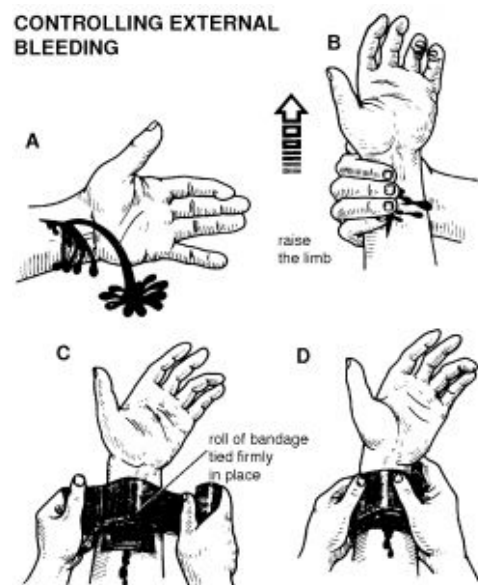
Bleeding is the complications of a wound. It is a condition in which blood flow occurs due to the ruptures in the blood vessels. It is otherwise known as Hemorrhage.

Sign and Symptoms of bleeding

- From the wounds blood flows (Depending on the depth of wound)
- The person may faint and may even collapse.
- Pulse may change
- Breathing becomes shallow, casually gaps for breath and signals deeply.
- Profuse sweating
- Feels thirsty

First aid

- ✓ Clean the bleeding wound using water
- ✓ Keep pressing on the wound till the blood flow stops.
- ✓ Press for about 20 minutes using a clean cloth
- ✓ If possible, keep the bleeding part in an elevated position
- ✓ When the blood flow stops, move the patient carefully by keeping the bleeding part still.
- ✓ Seek emergency medical aid.



Don'ts

- ✗ Never let the patient eat or drink anything.
- ✗ Never try to keep the misplaced organs back into the wound.

Nose bleeding

Nasal bleeding occurs when the blood vessels inside the nose rupture

Causes

- In the case of persons with high blood pressure may cause bleeding from the nose.
- Head injury affecting base of skull gives rise to bleeding from the nose. It is serious.
- Injury of facial part when falling

Do's

- ✓ Let the patient sit keeping his neck forward
- ✓ Press tightly at the tip of the nose using the index finger and thumb for 10 to 15 minutes
- ✓ Ask the patient to breathe through the mouth
- ✓ Apply ice
- ✓ Seek medical aid



8. Wounds

Wound is a break in the skin or body surfaces. There will be bleeding from the injured part and it also forms an opening through which germs can get into the body. The depth of a wound caused by knives, bullets etc. are often more dangerous.

Types of wound

Wounds are grouped into two

- Open wounds or exposed injuries
- Closed wounds or unexposed injuries

Open wounds

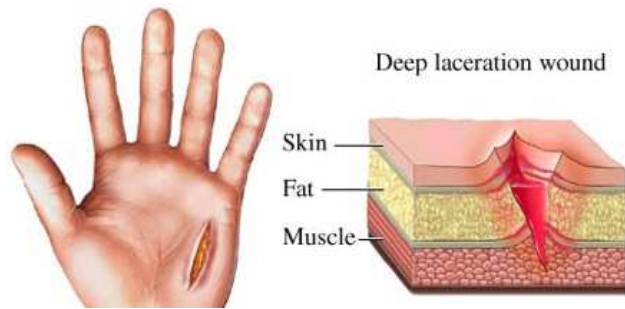
An open wound is a break in the skins surface results in external bleeding.

This may be **Abrasions, Laceration, Incisions, Puncture wound, Blisters**

Abrasions: The top layer of the skin is removed, with little or no blood loss.

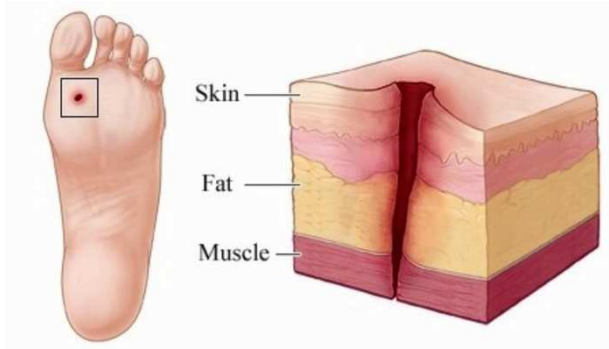


Laceration: Types of wound usually caused by a forceful tearing away of skin tissue. A laceration is a cut skin with jagged, irregular edges.



Incisions: An incision tends to have smooth edges and resembles a surgical or knife cut. It may damage tendon, muscles and blood vessels. The amount of bleeding depends on the depth, the location and the size of the wound.

Puncture wound: Puncture wound are usually deep, narrow wound in the skin and underlying organ such as a stab wound from a nail or a knife, object causing the injury may remain in the wound.



Blisters: A blister is a collection of fluid in a “bubble” under the outer layer of skin. Repeated rubbing of a small area of the skin will produce a blister. Friction blister occur anywhere on the body. Most common on the feet and hands.

First aid

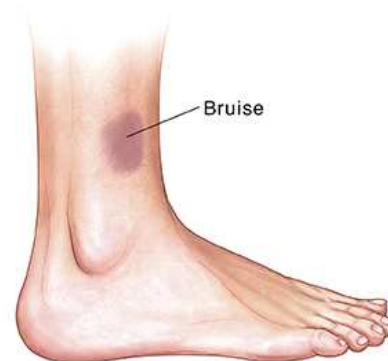
- ✓ As a first aider wash your hands with soap and water.
- ✓ Observe the wound for any dust, dirt or foreign bodies within the wound.
- ✓ Clean the wound thoroughly using soap and water
- ✓ Dry the wound using a clean or disinfected cloth.
- ✓ Apply a bandage after applying proper medicine on the wound and dressing it.

Closed Wounds or Unexposed Injuries

In closed wounds, the skin is not broken, but tissue and blood vessels beneath the skins are damaged or crushed, causing bleeding within the area.

Contusion or Bruise

Results from direct blow or impact delivered to some part of the body, which causes damage to underlying blood vessels-discoloration. Finally it causes a black and blue discoloration.

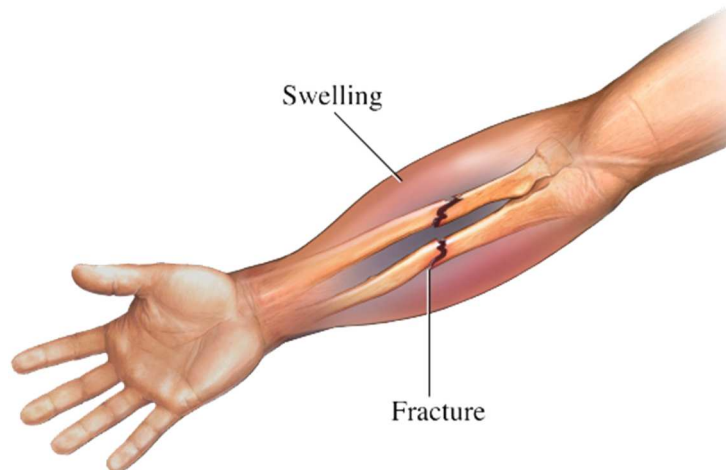


First aid

- ✓ Apply PRICE Procedures

9. Fracture and immobilization

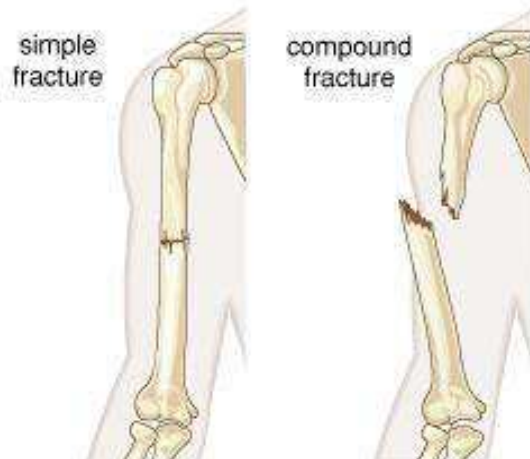
Fracture is a break or crack in a bone.



Types of Fracture

1. Simple (closed) fracture

In this type of fracture the skin surface around the damaged bone is not broken.



2. Compound (open) fracture

When the broken bone penetrates the surface of the skin. This type of fracture is called open fracture.

Signs and Symptoms

- Pain
- Difficult to move the part
- Swelling of the area and discoloration
- Vomiting
- Rapid/ weak pulse

First aid

- ✓ Don't move
- ✓ Stop any bleeding if that has occurred
- ✓ Immobilize the injured area. Make a splint, place it gently under the limb and tie it to the limb with pieces of cloth.

The things used to immobilize the injured area

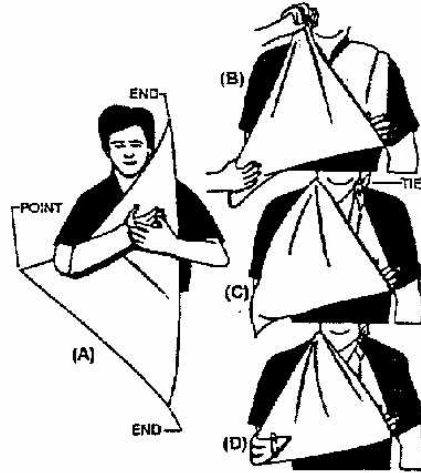
- Pillows
 - Cardboard
 - Folded newspaper, can be tied to the limbs or fingers that are not broken
- ✓ Apply ice bags to limit swelling and relieve pain.
 - ✓ Take the patient to the hospital as soon as possible.

Don't s

- ✗ Never try to place back the misplaced or broken bones back in to the body.

Fracture of Upper Limb-First Aid

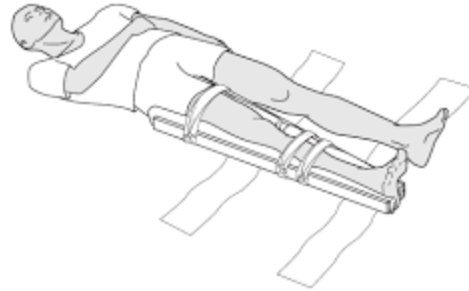
1. Advise the casualty to sit down.
2. Gently place the forearm horizontally across the body
3. Tie the arm and its padding in arm sling made from a triangular bandage to support it.



4. Secure the arm by tying a broad-fold around the chest and over the sling.
5. If these are not available, then use the victim's shirt to immobilize the fractured arm.
6. Arrange to take the victim to the hospital.

Fracture of leg-first aid

1. Help the casualty to lie down, and carefully steady the injured leg.



2. Support the injured leg with your hands to prevent any movement of the fracture site.

3. Immobilize the fractured limb by applying padded splint.

If the splint is not available, bring the uninjured limb alongside the injured one and slide bandage at the feet and ankle and at the knees. Insert padding between the lower legs. (Splint- Splint is a rigid piece of wood or plastic



material or metal applied to a fractured limb, to support it and to prevent movement of the broken bone. They should be long enough so that the joints above or below the fractured bone can be made immobile. The splints should be well padded with cotton or cloth. In an emergency, splints can be improvised with a scale, a piece of wood, a book, or even firmly folded newsprint.)

10. PRICE Method, Strain ,Sprain and Dislocation

PRICE procedure is to be applied in Sprain, Strain and Dislocation cases.

PRICE Procedures



P-Protection of the injured part from further injury, R-means Rest in this immobilize the area, I- means Ice. Application of ice pack will help to decrease pain, swelling and inflammation. C- means Compression give pressure gently and E means elevation of the injured part above the heart which helps to reduce the blood supply to the affected area.

STRAIN

A strain is an acute or chronic soft tissue injury that occurs to a muscle, tendon, or both.

Signs and symptoms

- A sudden sharp pain in the muscle.
- Swelling of muscle and feel stiff



In the case of rupture, severe pain will be there and unable to move the part.

FIRST AID

Apply PRICE procedure (Protection, Rest, Ice, Compression, Elevation)



SPRAINS

Sprains most often occur in the knee and the ankle, but can occur in any joint. It is caused by a sudden wrenching or twisting at the joint. There are different degrees of sprains (mild, moderate and severe).



Signs and symptoms

- Pain at the joint
- Swelling and bruising
- Movement of the joint is painful

FIRST AID

- Follow the PRICE procedure (Prevention, Rest, Ice (20 minutes), Compression (3 to 4 hours) and elevation)

Dislocation

Dislocation happens when there's an undesirable separation in the joint at the end of the bone; usually moved out of its normal connection with another bone. Dislocation is usually caused by sudden fall.

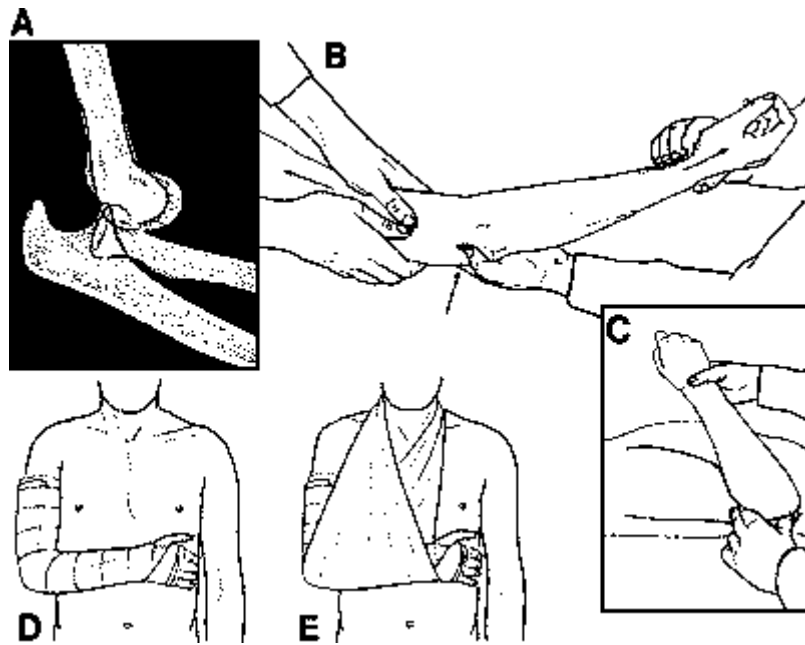
Signs and symptoms

- Severe pain and swelling at the joint
- Unable to move the joint
- The position of the limb may change with swelling

FIRST AID

- Immobilize the casualty and transport the casualty for immediate medical attention. Use a splint to stabilize the joint in the position in which it was found.

- Seek medical help before further damage



Don'ts

- Do not try to manipulate the joint because nerves and blood vessel damage could result. Seek medical care to reduce the dislocation.
- Never try to relocate the bone of a dislocated joint or attempt any strategies to get the bone to pop back again. It is easy to inflict further serious damage.

11. Electric shock

A sudden discharge of electricity through a part of the body is called electric shock. The nature of current, voltage, the path of passage of current through the body, the usual health condition of the patient, the delay for getting medical aid are the factors which either lessen or worsen the effect of electric shock.

Symptoms

Lack of sensation, numbness and unconsciousness, muscular pain, burns, suffocation, irregular heartbeat, Cardiac arrest and Epilepsy

To do immediately

First stage : Disconnect the source of electricity. The casualty is to be dragged out by means of a non-conducting material such as walking stick, dry bamboo, wooden plank or dry rope. Before cutting off the current, ensure that you stand on a dry piece of wooden board. Do not use scissors or knife.



Second stage: Deal with the burns in the same way as you do for usual kinds of burns.

Third stage : Seek emergency medical aid

12. Burns

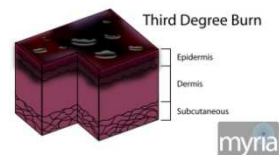
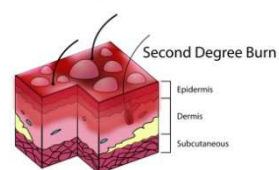
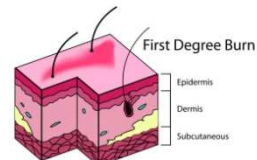
Burns are the injuries caused by extreme heat. The injuries are due to extreme heat, steam, electricity, radiation, chemicals etc.

Symptoms

- Pain
- Reddened skin
- Blistering of the skin and hotness

Degrees of burns

- The degree of burns indicates the degree of damage to the tissues.
- There are three degrees of burns.
 - First degree-When the skin only reddened
 - Second degree-When there are blisters on the skin
 - Third degree-When the destruction is deeper, damaging nerves, tissues, muscles etc.



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Do immediately

- ✓ Pour and cool the affected part using water for 10-15 minutes.
- ✓ Carefully remove clothes and ornaments from the affected body



part.

- ✓ Apply antiseptic in the affected area.
- ✓ Use a sterile bandage to cover burns
- ✓ Clean well the burns with water that are caused by chemicals. If the chemical is in powdered form, clean the burn only after removing it.

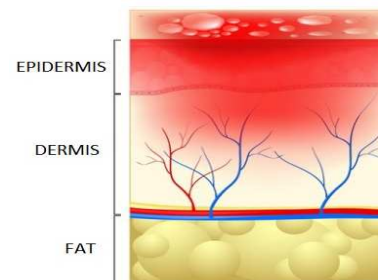
Don'ts

- ✗ Don't apply oil, egg white, butter, honey paste, ink on the burn.
- ✗ Don't prick the scalds
- ✗ Don't swipe the affected part forcefully

Second Degree Burns

For second degree burns the following measures are to be considered besides the above said general first aid

1. Gently dry
2. Make the patient lie down
3. Keep burnt body part at a raised level
4. Splints may be used to rest the affected joints
5. Hospitalization is essential

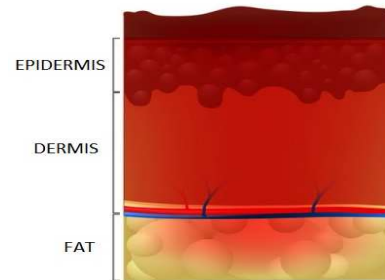


Second-degree burn

Third degree burns

In the case of third degree burns, Immediate hospital care is very essential. First aid is to be given in the following way

- a. Dehydration treated through intravenous fluid supply
- b. Periodically run clean cool water over burns
- c. Give nutritious diet to heal the burns quickly



Third-degree burn

13. Sun burn

The burns because of the exposure of the skin to sunrays during sunny days in particular season. This burning lead to blisters or scars on the skin. It may vary from superficial burn to painful blisters.

Signs and symptoms

- Skin is red, swollen and painful
- Itching over the burn
- Affected skin will become hot.

First aid

- ✓ Move the patient immediately to a cooling space.
- ✓ Cover the patient with wet clothes. Then slowly run water on the cloth. If the patient feels headache, then fan him with a paper.
- ✓ Give water or boiled milk cold or other cool eatables to the patient.



14. Poisoning

Poisoning is ingestion or in taking of some substances called poisons which are dangerous to health and may be leading to death. This happens intentionally or unintentionally.



Symptoms

- Burns or color change on the lips or around the mouth.
- Foul smelling breath
- Shows symptoms like vomiting sensation, difficulty in breathing and feeling sleepy
- Finding of used poisons near by

Do immediately

- ✓ Let the person to breathe fresh air.
- ✓ If noticed the poison in the body, remove the poison by cleaning.
- ✓ After removing the cloths affected by poison drops thoroughly clean the body parts using water
- ✓ Seek emergency medical aid.

Don'ts:

- ✗ Never force the person to vomit.
- ✗ If found sleepy, don't give food or water.

Food Poisoning

Food poisoning is caused due to the consumption of food or water affected with virus or bacteria.

Symptoms

- Nausea
- vomiting
- Stomach pain
- Dysentery

First aid

- ✓ Take rest
- ✓ Give enough water to drink.
- ✓ Give medical aid immediately



15. Bites and Stings

Snake bite

Bites by poisonous snakes. Snake bite may lead to death of the victim



Signs and symptoms

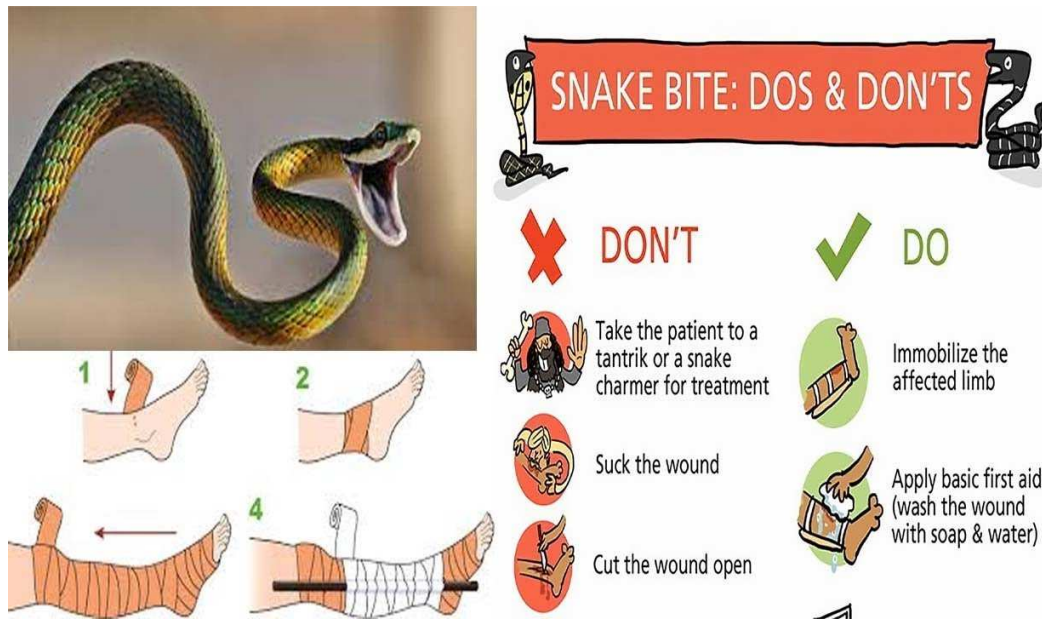
- Pain and numbness at the site of bite
- Burning pain at the site
- Drowsiness
- Swelling
- Dim vision
- Difficulty in breathing and speech
- Area becomes bluish purple after the bite
- Dribbling of saliva, paralysis
- Convulsions then lead to coma.

Do immediately;

- ✓ Ask to remain peaceful
- ✓ Remove bangles, rings from the affected part
- ✓ If possible, keep the effected part in a lower position of the heart
- ✓ Tie the affected part still on to a rigid material
- ✓ Clean the wound thoroughly
- ✓ Seek emergency medical aid

Don'ts

- ✗ Do not tie tightly above the wound
- ✗ Do not try to enlarge the wound or force bleed out of it.



Animal bite

The bites of animal (Dog or any other) is common now a days. The fear generated at the moment is to be attended first. In the case of dog bite the condition is known as hydrophobia, if the animal is suffering from rabies.

Do immediately:

- ✓ Clean the affected part thoroughly for 10 to 15 minutes using enough soap and water.
- ✓ Must get medical treatment and use the prescribed vaccines.



Insect bite

Bites of some insects (Bees, Wasp etc.) are maybe painful to the victim.

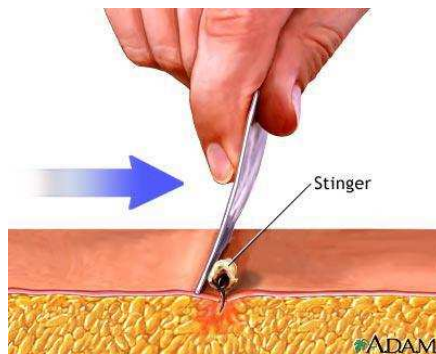
First aid is essential to the victim in such cases.

Signs and symptoms

- Sharp pain
- Swelling around the affected area with the central reddened puncture point
- Sting may be there in the wound
- Shock
- Stings in the mouth and throat may cause swelling leading to asphyxia

First aid

- ✓ The sting should be removed with forceps or with the tip of a sterilized needle.
- ✓ Apply weak ammonia or bicarbonate of soda or antihistamine ointment to the area. This will relieve the pain.
- ✓ Give medical help if necessary.



16. Drowning

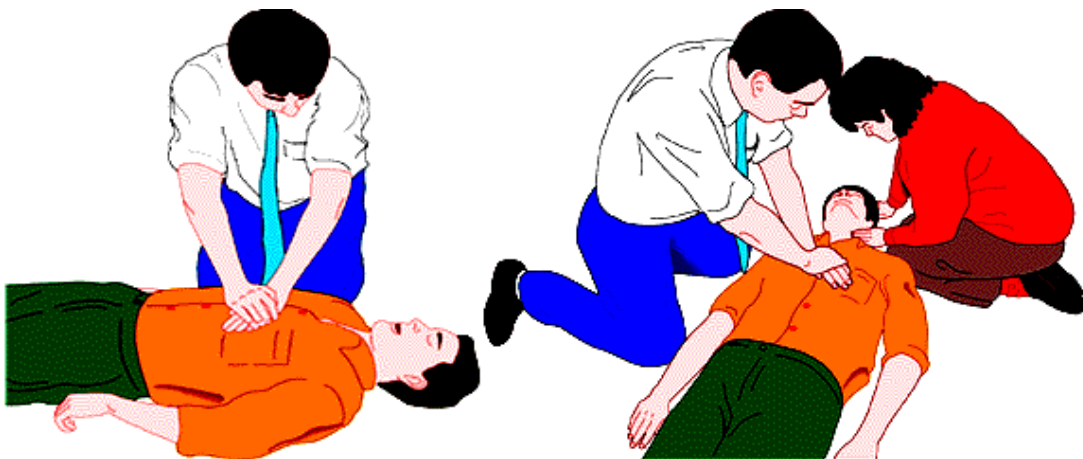
Drowning is the incident around water. People at different ages may involve in such accidents.

Causes

In accidents natural causes are there. Besides the natural causes intentional cases are there. For example in boat accidents, boating after drinking alcohol, swimming etc.

Do immediately

- ✓ Bring the person or casualty to the dry land. Remove the wet and wear dry cloths. Then after laying on the ground, do chest compressions.
- ✓ If breathing is not there give rescue breathing.
- ✓ Immediately take the person to hospital

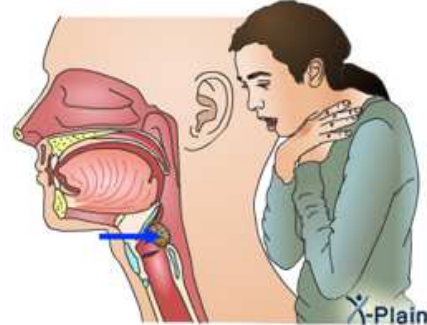


Don'ts

- ✗ Don'ts try to force the water out of the mouth by pressing on the stomach.

17. Choking

Choking is the inability to breathe because the trachea is blocked, constricted, or obstructed. This is caused also by lack of air. It is a common cause of an accident to young children that may lead to death.



Symptoms

- Shows difficulty in breathing by holding the neck using both the hands
- Eyes bulge out
- Show wild frenziness
- Bluish color spreads on face
- Unable to speak

Causes

The cause is a blockage of the airway because of small objects or food etc.

First aid (Heimlich maneuver)

- ✓ Stand behind the person
- ✓ Make a fist with one hand and position it slightly above the person's navel.



Appendices

- ✓ Grasp the fist with the other hand and press hard into the abdomen with a quick, upward thrust-as if trying to lift the person up.
- ✓ Perform between six and ten abdominal thrusts until the blockage is dislodged.
- ✓ If the person becomes unconscious, perform standard cardiopulmonary resuscitation (CPR) with chest compressions and rescue breaths.

18. Epilepsy

Epilepsy consists of involuntary contractions of the muscles in the body due to a disturbance in the electrical activity of the brain. It is also known as fits.

Symptoms

- Loss of consciousness
- Loss of memory
- Repeatedly twitch the limbs
- Problems in breathing
- Abnormal shivering or shaking
- Casualty may be unaware of actions
- Fading of vision
- Foam and froth from mouth

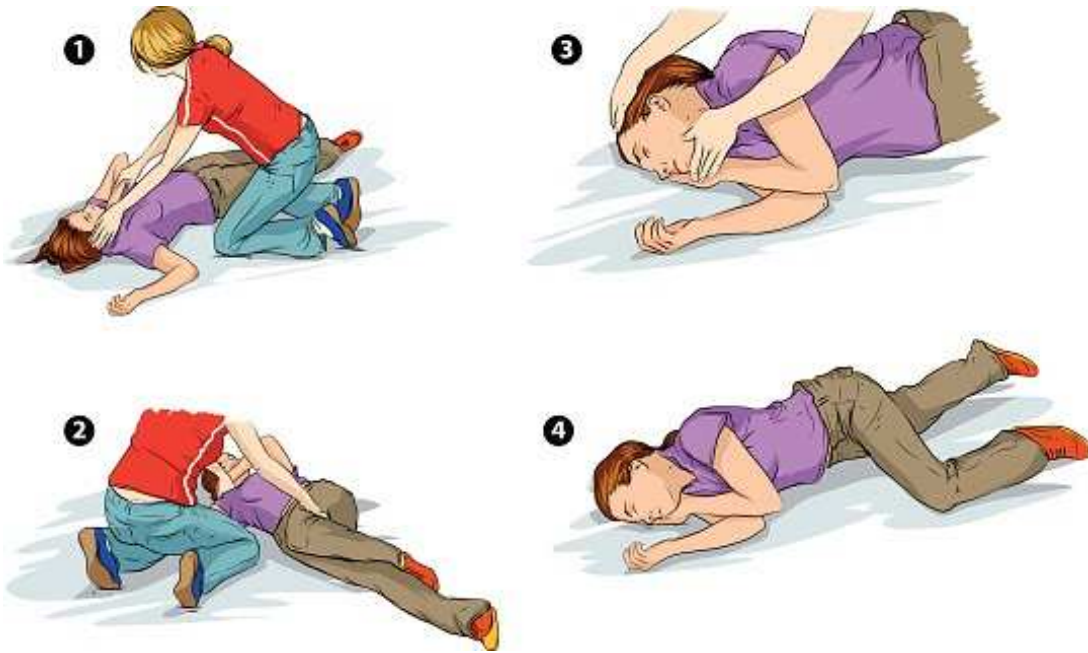
Causes

- Head injury
- Some brain damaging diseases
- Shortage of oxygen in the brain etc.

Do immediately

- ✓ Physical support to the person and lay down in a safe place (Recovery position)
- ✓ Help the person rest on his side with his head tilted back
- ✓ Help the patient to breath

- ✓ Epilepsy symptoms are sometimes found along with fever in children between the age of 6 months to 6 years. If so, keep on placing a wet cloth now and then on the forehead and other parts of the child's body.
- ✓ Take the patient to the hospital even if the symptoms stop



Don'ts

- ✗ Don't give pills during unconsciousness
- ✗ It is harmful to keep mental or wooden materials in the mouth for avoiding the bite on the tongue. Giving metal pieces or key to the patient is no use.
- ✗ Don't move or lift the casualty unless in danger.
- ✗ Don't forcibly restrain him
- ✗ Don't try to wake the casualty
- ✗ Don't give the casualty anything to drink

19. Foreign Bodies in the Eyes, Ear and Nose

Some times foreign bodies may enter in the sense organs eyes, ears and nose which may cause trouble to the victim.

Foreign bodies in the eyes

Foreign bodies in the eyes cause irritation, pain, redness etc to the affected.

Do immediately

- ✓ Clean the eyes thoroughly using clean water for 15-20 minutes
- ✓ If the particle is shown moving in the eyes, remove it with sterilized cloth.
- ✓ In the case of persons with contact lens remove it then do's the first aid.
- ✓ Seek medical help



Don'ts

- ✗ Do not rub the eyes
- ✗ Do not cover the eyes tightly

Foreign bodies in ears

Foreign bodies or insects can fly into fly or crawl in to the ear and may cause disturbance to the person. Young children may push into their ear. This leads to swelling, pain or some discharges from the ear.

Do Immediately

- ✓ Try to get the material out by lowering the affected ear
- ✓ In the case of a live fly trapped in the ear, tilt the head sideways, by keeping the affected ear up and wait for 10 minutes after applying slightly warm water
- ✓ Seek medical aid



Don'ts

- ✗ Never put sharp objects into the ear and try to take the trapped material out.

Things Getting Trapped in the Nose

Children may push some objects in their noses . This may lead to infection in the nose.

Do immediately

- ✓ Keep the casualty calm

- ✓ Breathe through the mouth.
- ✓ Seek medical help.

Don'ts

- ✗ Never put sharp objects into the nose and try to take the trapped material out.

20. Fainting

Fainting is the condition of becoming unconscious due to the lack of proper blood flow to the brain.

Signs and symptoms

- Slow and weak pulse
- Casualty looks pale
- Giddiness

Causes

- Problems in the flow of blood to the brain
- Lack of food
- Emotional stress
- Continuous physical activity

First aid

- ✓ Lay down the person
- ✓ Keep the legs in a raised position for about 10 minutes. This helps increase the blood flow to the brain.
- ✓ Loosen the tight dresses
- ✓ Let the patient to breath fresh air
- ✓ When the person gains back consciousness, slowly let him sit. Give fresh water to drink



21. Road accidents

Road accident is a man-made disaster. Accidents are the greatest killers of students of secondary school age. So strong emphasis should be placed on safety education programmes.

Causes

Lack of proper roads, rash and negligent driving and the apathy of pedestrians can partly be blamed for high number of accidents. A large portion of these deaths can be attributed to the fact that most accident victims do not get proper medical attention and first aid on time.



The way to take the accident victim to the hospital

First aid

- ✓ In the case of accidents observe the casualty first.
- ✓ Then first aider should be careful in placing the casualty

- ✓ Move the person only in such a way that head, chest and stomach of the victim moves along together. For this seek help of at least four people.
- ✓ If the person with helmet, one person should fix the jaw bone using his fingers by placing both hands on each side of neck. The other person should slowly remove the strap of the helmet.
- ✓ Immediately handover the casualty to the medical expert.



Don't

- ✗ Never move the victim by dragging the legs. Take care not to let head and neck sway from the body.

Conclusion

Emergency cases which need first aid is more among students at secondary level. Studies found that injuries are more among students during sports and such activities. Hence knowledge in First Aid among students is to be improved. It is hoped that this First Aid Intervention Programme with the aim of enhancing awareness on First aid among students at secondary level will be useful to the target population.

References

British Red Cross Society. (2011). *First aid manual*. Dorling Kindersley Ltd.

St. John Ambulance (2006) First Aid Training: First on the Scene. Student Reference Guide Activity Book.

APPENDIX XI
LESSON TRANSCRIPTS

Name of the Topic: Fundamentals of First aid

Objectives

1. To recognize what is first aid
2. To understand the aim and principles of first aid
3. To understand the role and responsibilities of first aider

Concept

First aid-fundamentals

Learning aids

Videos and charts

Activity	Topic	Methodology	Duration
1	Importance of first aid	Individual presentation, video presentation	10 minutes
2	aims of first aid, principles etc.	Lecture with Power point presentation, chart presentation	15 minutes
3	Discussion about the qualities and responsibilities of the first aid	Group discussion, individual presentation followed by class and power point presentation	15 minutes

Activity 1

The teacher entered the classroom and writes about first aid on the black board. Asks the students to share their experiences in the cases, they are in need of first aid measures at home, school etc . After the individual presentation of cases, the teacher showed some videos of emergency cases with the first aid given.

Activity II

After the presentation, the aims and principles of first aid is given by the teachers to the students with the assistance of power point.

Activity III

After this, through group discussion the students find out the duties of a first aider and the qualities of a first aider. Then the individual presentation of students which was followed by powerpoint presentation of teacher.

Response

The students shared their daily life experiences regarding first aid.They attend the class about first aid very enthusiastically because they don't know much about first aid. They conducted discussions on the qualities a first aider and also about their responsibilities. They understood the importance of first aid with the help of the power point presentation.

Follow up activity

1. Prepare a write up on the importance of first aid in daily life.
2. List the situations in daily life in which First aid becomes necessary.

Name of the Topic: First aid kit

Objectives

1. To introduce the first aid kit
2. To have an understanding about each of the items in the first aid box
3. To identify the use of first aid kit in the school

Concept

First aid kit

Learning aid

Power point, first aid kit

Activity	Topic	Methodology	Duration
1	Introduces the first aid kit to the student	PPT, BB work	10
2	Introduces the uses of each item in the first aid box	Discussion, PPT, Chart, Lecture, Demonstration	20
3	Importance of first aid kit in the school	Shared experiences, Discussion	10

Activity 1

The first aid kit is introduced in the class. It is followed by making a list of contents in the first aid box by the students.

Activity 2

The first aid kit is introduced and a power point presentation related to it is shown. The teacher demonstrates each item of the first aid kit with its use.

Activity 3

Listing of first aid situations among the students in the class. The use of items of first aid kit for the emergency situations the students experienced in the school is shared in the class.

Response

The students responded to the question asked by teacher about each item of the kit. They participated in the related discussion and thus experienced the items and its use in the first aid kit.

Follow up activity

1. Collect the possible items necessary in the first aid kit for home.

Name of the Topic: Agencies of first aid

Objective

1. To make the students aware about the different agencies involved in first aid.

Concept

Agencies of first aid and their activities

Learning aid

Chart

Activity	Topic	Methodology	Discussion
1	The organizations in the field of first aid RED CROSS, St.John ambulance, JRC	Discussion	10
2	The activities of the different organizations in the field of first aid	Shared experience, individual presentation	30

Activity 1

The teacher gives time to discuss about the different organizations that work in the field of first aid, and asked to prepare a write up. The names of RED Cross , JRC, St.John ambulance these organization are written on a chart and exhibited in the class. Based on the discussions teacher selected the members of JRC.

Activity 2

The JRC members shared their experience related to their activities in the school. The JRC team of the school briefed training procedure of RED CROSS and St. John ambulance on first aid.

Response

The students make notes about the activities of RED CROSS, JRC, St. John ambulance, Scout and Guides. All students participated well.

Follow up activity

1. Describe the role of JRC in the school

Name of the Topic: CPR

Objectives

1. To understand the situation in which CPR is to be given
2. To understand what ABC is
3. To learn the method to give CPR

Concept

CPR

Learning Aid

PPT, Video Presentation

Activity	Topic	Methodology	Duration
1	The circumstance at which CPR is to be given to an unconscious person, how to lay him	Demonstration, Lecture, PPT	15
2	Give an idea about ABC	Lecture	10
3	Artificial ventilation, chest compression	Demonstration, PPT, Video Presentation	15

Activity 1

The teacher calls a student and asks to lie down on the table in the instructed way and demonstrates the method, place and condition of giving CPR to an unconscious person

Activity 2

The students are given awareness about ABC. Also tells the necessity of checking ABC (Airway, Breathing, circulation) in CPR

Activity 3

Teacher demonstrate CPR with artificial ventilation and chest compression

Response

The students showed much enthusiasm to know more about life saving procedure CPR. The student who came forward for the CPR demonstration, cooperated well. The rest of the students carefully listened the class. They understood the importance of **CPR** for saving life.

Follow up activity

1. Describe the importance of basic life support?

Name of the topic – Recovery Position (Unconsciousness)

Objectives

1. To makes the students understand what recovery position is.
2. To observe the patient in a recovery position (Mock situation)

Concept

Recovery position

Learning aids

Paper cuttings

Activity	Topic	Methodology	Duration
1	Explain the process of recovery position	Lectures	20 Minutes
2	Explain the condition when recovery position is required and also, how to lay patient in the recovery position	Demonstration (Mock drill)	20 Minutes

Activity 1

The students understand what recovery position is. The teacher explains the importance of recovery position.

Activity 2

A Mock drill is done with the help of which the teacher demonstrates the ‘recovery position’

Response

The students participate in the mock drill very actively. They remarked that the 'recovery position' for an unconscious person who breathes normally, is a new knowledge to them.

Follow up activity

1. Explain the significance of recovery position as a basic life support?

Name of the Topic: Heart attack

Objectives

1. To identify symptoms, reasons and after effects of heart attack.
2. To understand the first aid of heart attack

Concept

Heart attack

Learning aids

Video presentation

Activity	Topic	Methodology	Duration
1	The symptoms, reasons and after effects of heart attack	Mock situation/ Dramatization method/ discussion, Lecture	20
2	The first aid for heart attack	Video presentation, Lecture	20

Activity 1

A student is asked to pretend like a person having a heart attack. After this the teacher explains the symptoms, causes and after effects of heart attack. The students are asked to make discussion on the topic “heart attack”

Activity 2

Then, the first aid of heart attack is shown as a video presentation and is explained by the teacher.

Response

This class about heart attack and its first aid really helped the children gain much awareness about this commonly occurring disease condition as they didn't know what to do in such difficult situations. They remarked that such classes are very essential to everyone.

Follow up activity

1. Explain what are the things to be taken care of in order to avoid the risk of heart attack?

Name of the Topic: Bleeding

Objectives

1. To understand what is bleeding, symptoms and types
2. To learn the first aid for bleeding

Concept

Bleeding from nose, ear, internal bleeding

Learning Aid

Video, PPT

Activity	Topic	Methodology	Duration
1	Bleeding-symptoms and types	Lecture, PPT Sharing of experiences	15
2	First aid for bleeding	PPT, Video	15
3	Nose bleeding –First aid	Mock situation	10

Activity 1

Teacher discuss about bleeding, symptoms and types. A power point presentation is shown. The teacher consolidates the results of the discussion

Activity 2

The teacher explains the first aid for bleeding with the help of video and power point presentation

Activity 3

One student created a mock situation in nose bleeding

Response

Students explain the number of cases where bleeding happened in the school while participating sports and such activities. They participated in the discussion and from the response they were interested in the first aid for bleeding except the common measures they have taken usually.

Follow up activity

1. Prepare and present a write up on the usual measures taken as first aid for bleeding while in home.

Name of the Topic: Wounds

Objectives

1. To make the students aware of wounds, types and symptoms
2. To understand the first aid for wounds.

Concept

Wounds

Learning Aid

Photos, chart

Activity	Topic	Methodology	Duration
1	Introduces the different types of wounds	Discussion Pictures, Lecture	20
2	Describes the first aid for injuries	Chart / Lecture	20

Activity 1

By showing pictures, the different types of injuries are introduced to the students. Teacher shared the experience of students in class about injuries happened in their life. Make discussion on the things to be taken care of before dressing a wound.

Activity 2

The teacher explains the first aid for injuries. The related information is exhibited on a chart. Students are involved in a group discussion based on this and finally the teacher consolidates their findings.

Response

The students recognizes different types of wounds by explaining the incidences in their life.

Follow up activity

Ask your family members about first aid usually applied in the case of wounds and submit a report.

Name of the Topic: Fracture and immobilization

Objectives

1. To know what is fracture and its symptoms
2. To identify different kinds of fractures
3. To learn how to deal with the fractured part

Concept

Fracture

Learning aid

Chart, PPT, Splint

Activity	Topic	Methodology	Duration
1	The symptoms of fractures	Chart, discussion, Lecture	10
2	Different kinds of fractures	Chart, Lecture	10
3	First aid for fractures, Immobilization	Demonstration Lecture, PPT	20

Activity 1

First of all, the teacher asks the students who already had an experience of getting fractures. The symptoms of fracture are discussed. The teacher explains the points obtained from the discussions with the help of the chart .

Activity 2

They are asked to make discussions on the different kinds of fractures. The chart showing simple and compound fractures are shown. The students get more knowledge from the chart, the teacher helps them to consolidate what they have found out from the discussion

Activity 3

Teacher explained first aid measures for fracture. A student is called and teacher demonstrates the first aid. In the case of fracture on limbs and legs the demonstration continues.

Response

The students shared their experience related to having fracture. When they were called to show the first aid measures, they came forward eagerly. They didn't have any idea about the immobilization of the broken bone using a splint. They understood the care should be taken while dealing with fracture.

Follow up activity

1. Make a list of materials that can be used as splints.?

Name of the Topic: PRICE method, Dislocation, sprain & strain

Objectives

1. To have awareness about the PRICE Method
2. To identify the situation in which sprain, strain and dislocation happen
3. To learn about the first aid measures for sprain, and strain

Concept

PRICE Method, Dislocation, sprain & Strain

Learning aid

Chart, PPT

Activity	Topic	Methodology	duration
1	PRICE method	Sharing of experiences, Discussion ,chart presentation	10
2	Sprain, strain and dislocation occurs.	Sharing of experience, individual Presentation	10
3	First aid for dislocation, sprain and strain	PPT, Lecture ,video	20

Activity 1

Teacher gives some examples to apply PRICE method. The PRICE method is introduced to the students. The students are then asked to share their experiences. The information is consolidated with the help of a chart

Activity2

The students are asked to find out the situations in which dislocation, sprain and strain occurs. They share their experiences also related to this

Activity 3

The first aid for Dislocation, Sprain and Strain are introduced with the help of power point presentation and video.

Response

Many of the students have experience of sprain, strain and dislocation. Individually they shared what they have done as first aid in such cases.

Follow up activity

1. Give a short note on ways and means to deal with sprain, strain and dislocation.

Name of the Topic: Electric Shock

Objectives

1. To identify the symptoms of electrical shock
2. To know what is the first aid to be given in the case of electric shock

Concept

Electric shock

Learning aids

Video presentation, Chart

Activity	Topic	Methodology	Duration
1	Identification of the symptoms of electrical shock	Chart/video presentation, Shared experience, discussion	10 minutes
2	Measures to be taken immediately when a person gets an electric shock	Discussion	15 minutes
3	Discussion on the first aid for electrical shock	Discussion/Video presentation	15 minutes

Activity I

Make discussion on the symptoms of getting electric shock. Shows video related to this. Teacher shared the experience of students with respect to electric shock.

Activity II

Considering the different views of students teacher comes to the do's and don'ts of first aid to electric shock.

Activity III

With the help of video presentation students make aware of first aid to electric shock.

Response

The students responded that they got much awareness about the symptoms and first aid measures to be taken in the case of getting electric shock.

Follow up activity

Write down the different safety measures we must take in order to avoid the risk of getting electric shock.

Name of the Topic: Burns

Objectives

1. To understand burns, symptoms and types
2. To make awareness about the first aid measures taken in the case of burns

Concept

Burns

Learning aid

Video presentation and charts

Activity	Topic	Methodology	Duration
1	Burns and symptoms	Video, Discussion, presentation in group	10
2	First aid of burns	Video, lecture, discussion	15
3	Types of burns 1. First degree 2. Second degree 3. Third degree	Lecture Charts Discussion	15

Activity 1

The class begins by showing the video about a person getting burnt due to an accident at home. The teacher asks the students to guess what that situation is. The students make a group discussion. From the video the students understand the situation burns and its symptoms.

Activity 2

The rest of the video is shown. The teacher asks the students to write down the do's and don'ts while dealing with a person suffering from burns. They make discussions. The teacher helps them tabulate the inferences. They understand the first aid for burns.

Activity 3

A chart which shows different kinds of burns is presented to the students. The children identifies the first degree , second and third degree burns from the chart and also understand the different situations given to them. Students identified the first aid at three levels of burns.

Response

Students explained the usually applied procedures for burns in their home. From the video students understood the correct procedures. After the class about burns and the first aid for burns, the students are able to distinguish between the first, second and third degree burns and also have the awareness about the first aid for the same.

Follow up activity

Write down the correct first aid measures for burns and also write down the wrong practices among people to deal with burns.

Name of the topic: Sun burn

Objectives

1. To identifying the symptoms of sun burn
2. To understand the first aid measures for sun burn

Concept

Sun burn

Learning Aid

Chart, Paper cutting, PPT

Activity	Topic	Methodology	duration
1	Sun burn-Symptoms	Paper cutting, Discussion, individual presentation PPT	20
2	The first aid measures taken in the case of Sun burn	Chart / PPT	20

Activity1

The teacher begins the class by showing a paper cutting about sun burn. The students make discussion on sun burn and present their findings. Discussion is done on the symptoms of sun burn. Teacher tabulates the findings with the help of power point presentation

Activity 2

The teacher explains the first aid measures for sun burn with the help of power point presentation.

Response

The students have the opinion that sun burn happens mainly during the summer season and the commonly affected people are farmers, labours who are in direct contact with rays of sun.

Follow up activity

1. Suggest some measures to be taken to prevent sun burn during sunny days.

Name of the topic: Poisons

Objectives

1. To identify what is poisoning and types
2. To understand first aid in the case of poisoning

Concept

Poisoning

Learning aid

Power point

Activity	Topic	Methodology	Duration
1	Poisoning	Discussion, Sharing of experiences	10
2	The symptoms of poisoning	Power point	10
3	First aid measures adopted in the case of getting poisoned	Discussion power point	10
4	The don'ts to be taken care of in the case of getting poisoned	Discussion	10

Activity 1

The teacher asked students to share their experience about poisoning.

Activity 2

The teacher explains the symptoms of poisoning with the help of power point presentation

Activity 3

With the help of the power point presentation the teacher discusses with the students what is poison and the first aid for poisoning

Activity 4

Make discussions on the things which are not to be done while taking care of a person who got poisoned

Response

When they are asked to make discussion about the instances of getting poisoned, they tell about such instances in school and outside. Rat poison, poisons from food items and some fruits and nuts grown wild etc are the example they put forward. They told that the symptoms are vomiting and falling unconscious.

Follow up activity

1. Prepare a write up on the topic value of life with examples.

Name of the Topic: Bites & stings

Objectives

1. To make aware of first aid for snake bite.
2. To make aware of about the first aid for animal bites.
3. To know the first aid for insect bites

Concept

- First aid for snake bite
- First aid for animal bite
- First aid for insect bite

Learning aids

Chart, black board

Activity	Topic	Methodology	Duration
1	Snake bite-First aid	Chart exhibition, discussion, sharing of experiences	15
2	Animal bite- First aid	Sharing of experiences, Group discussion, presentation	15
3	Insect bite- First aid	Discussion, Sharing of experience	10

Activity 1

The teacher asked about the students experiences on snakebite. Teacher shows a chart that depicts the first aid measures taken in the case of snake bite. The teacher and students discuss the do's and don'ts of snake bite. After the discussion, students write down the things they understood from it. Along with this, as asked

to do earlier, the students exhibit charts showing the effects of venom of different snakes.

Activity 2

Students shared the instances in their life when they happened to get some animal(dog) bites. They make group discussions on the first aid for animal bite. The teacher consolidates the results of this discussion.

Activity 3

Teacher asked any kind of insect bite among students in the class. Also asked the common first aid applied for insect bite. Discussion is made on the first aid for insect bite. The teacher consolidates the points discussed related to insect bite.

Response

The students actively participated in the chart exhibition related to the topic. It was a new experience for them. They actively participated in the discussion and shared their experiences in the case of snake bite, insect bite and dog bite.

Follow up activity

1. Write down the natural measures adopted among people for bites of insects and snakes?

Name of the topic – Drowning

Objective

1. The give awareness about the first aid given to drowning

Concept

Drowning

Learning aids

PPT, Video

Activity	Topic	Methodology	Duration
1	Causes of Drowning	Shared experience	10
2	The first aid provided to a person rescued from drowning	PPT, Video, lecture ,Shared experience	15
3	The don'ts of rescue or escape attempts of drowning	PPT, lecture	15

Activity 1

The teacher asks about the causes of Drowning.

Activity 2

With the help of the information obtained from the video about a drowning instance, the students write down the first aid given to a person rescued from drowning. Teacher helps them to add necessary points to their findings.

Activity 3

Make the students discuss the don'ts in the case of drowning.

Response

The students participated in the discussions very actively. They didn't have much awareness about the rescue attempts and first aid measures to be provided to a person saved from drowning

Before watching the video, what they knew were some unscientific ways of rescue attempts like dragging the hair, pressing immediately on the persons stomach, getting immediate medical help etc. Later the teacher taught them the proper do's and don't of the case and the students correctly answered the questions asked by the teacher following the discussion.

Follow up activity

1. List out the causes of drowning and measures to prevent it?

Name of the Topic: Choking

Objectives

1. To make them aware of choking ,symptoms and causes
2. To make them understand the first aid measures to be given for choking

Concept

Choking

Learning aids

Chart,Powerpoint presentation,Video presentation

Activity	Topic	Methodology	Duration
1	Choking - symptoms and causes	Group discussion Video	5 minutes
2	Choking	Sharing of experience	10 minutes
3	Choking-First aid	Lecture with PowerPoint presentation, Video presentation, Chart	15 minutes
4	A student is asked to show the demonstration of the same	Demonstration	10 minutes

Activity I

The class begins by showing the first part of a video that shows choking condition. The students sit in groups and make discussions and try to understand what choking and its symptoms are.

Activity II

After the group discussion the students share their experiences where in there were situations of choking or related troubles in their life or others.

Activity III

Shows the full video of choking. The students watch it with enthusiasm. With the help of this video and power point presentation, the students understand the condition called Choking. The teacher explains in detail, the do's and don'ts of things to be done to overcome the choking condition.

After this, teacher shows the chart with different stages of the first aid measures for choking and the students get a better understanding about it.

Activity IV

With the help of one student,teacher demonstrates the process of Heimlich manure.

Responses

It was with much enthusiasm the students watched the video about choking. It was a new experience for them. At the beginning itself they identified that the shown situation is similar to the condition of food items being blocked in the throat. After watching the video,they became more aware about the first aid measures to be taken care of in such situation.

Follow up activity

1. Prepare a chart explaining the different stages involved in the first aid of choking.

Name of the topic: Epilepsy

Objectives

1. To identify the symptoms of epilepsy
2. To make aware the students the do's and don'ts for a person suffering from Epilepsy

Concept

Epilepsy

Learning aids

Video presentation, power point presentation

Activity	Topic	Methodology	Duration
1	Epilepsy- symptoms	Video, Sharing of experiences, paper cutting, group discussion, chart presentation	20
2	Do's and don'ts of Epilepsy	Power point presentation, video presentation	20

Activity 1

Teacher shows a video and paper cutting about Epilepsy. The students shared their experience in the class. A chart that shows the symptoms of Epilepsy is exhibited in the class. With the help of this chart students make further discussion on the topic.

Activity 2

The students are given enough awareness about the do's and don'ts to be taken care of while dealing with a person suffering from Epilepsy. For this the video presentation is continued. And a power point presentation related to this is shown.

Response

Students shared their experiences about epilepsy with the usual procedures they have followed in the home. This includes some misconceptions about first aid of Epilepsy.

Follow up activity

1. Prepare a chart showing do's and don'ts of Epilepsy

Name of the Topic: Foreign bodies in the Eye, Ear and Nose

Objects

1. To make awareness about the first aid measures adopted to foreign bodies in the sense organ eye.
2. To create awareness about the first aid for the foreign objects in the ear
3. To make aware of about the first aid measures in the case of foreign bodies in the nose.

Concept

Foreign bodies in the eye, ear and nose

Learning Aid

Paper cuttings, chart

Activity	Topic	Methodology	Duration
1	The do's and don'ts while foreign bodies appear in the eyes.	Sharing of experience, lecture, chart	15
2	First aid for foreign bodies in ear	Sharing of experience, Discussion, lecture	10
3	First aid for foreign bodies in the nose	Sharing of experience, Discussion	15

Activity 1

Teacher shared experience of the students. The teacher explains the first aid for foreign bodies in eyes. A chart that shows this information is shown to the

students and they discuss the do's and don'ts to be kept in mind while removing the foreign bodies from eyes.

Activity 2

Discussion is continued the first aid for foreign bodies in the ear also. With the help of a chart, the obtained information is consolidated.

Activity 3

Teacher shared experiences of students. The teacher introduces the first aid measures for foreign bodies in the nose. Teacher highlighted the don'ts in the case of foreign bodies in the ear, nose and eye.

Responses

The students shared the conventional methods for the removal of foreign bodies from eyes. Many of them also know that the eyes should be cleaned well using clean water, but not more than these. They understood the importance of the sensitive organs, eye, ear and nose and how to protect them.

Follow up activity

1. Write a report on importance of sense organs eye, ear and nose.

Name of the Topic: Fainting

Objectives

1. To know about the main causes and symptoms of fainting
2. To learn the first aid for fainting

Concept

Fainting – first aid

Learning aid

Picture , PPT

Activity	Topic	Methodology	duration
1	The causes of fainting	Shared experience and group discussion	10
2	First aid of fainting	Picture ,PPT	15

Activity 1

Students shared their experience about fainting. Students make a group discussion on the causes of fainting.

Activity 2

With the help of a picture, the teacher explains the first aid given to fainting. The stages and first aid of fainting are explained by the teacher with the help of a power point presentation.

Response

Students shared their experiences of fainting especially when standing in the assembly, then attending sports activities.. etc.

Follow up activity

1. Write down healthy practices for healthy living.

Name of the Topic: Road Accidents

Objective

1. To know the first aid given in the case of accidents

Concept

Road accident

Learning Aid

PPT

Activity	Topic	Methodology	Duration
1	The cases of accidents	Chart / PPT, Shared experience, Discussion, Lecture	15
2	The role of a first aider in an accident	Lecture, Demonstration	25

Activity 1

Teacher present the cases of accidents and invite the opinion of students.

Activity 2

Teacher explains the first aid given in the case of accidents. The position of the casualty and movement of the casualty explained by the teacher. Demonstration is also shown by the teacher.

Response

The students are afraid of dealing with accident cases but they understood the importance of first aid in the case of accidents to save the life.

Follow up activity

1. Suggest measures to reduce road accidents.

Appendix XII
CONTENT ANALYSIS
ANALYSIS OF TEXT BOOK OF STANDARD VIII

Chapter-1 . LIFE'S MYSTERIES IN LITTLE CHAMBERS

Major concept- *Life's mysteries in little chambers*

	Minor concepts	First aid content identified
1	Introduction	Nil
2	Preparation of observation material	Nil
3	Discovering the cell	Nil
4	Mile stones in the history of cell biology	Nil
5	Cell theory	Nil
6	Cell and cell originals	Nil
7	Stages of development	Nil
8	Nucleus the regulatory centre of the cell	Nil
9	Prokaryotes and eukaryotes	Nil
10	Differentiate between Plant cell and Animal cell	Nil

CHAPTER-2 .CELL CLUSTERS

Major concept- *Cell clusters*

	Minor concepts	First aid content identified
1	Introduction	Nil
2	Tissues	Nil
3	Animal tissues	Nil
4	Meristematic tissues	Nil
5	Plant tissues	Nil
6	Vascular tissues	Nil

CHAPTER-3 .LET’S REGAIN OUR FIELDS

Major concept- *Let’s regain our fields*

	Minor concepts	First aid content identified
1	Introduction	Nil
2	For a prosperous future	Nil
3	Crisis in the agricultural sector	Nil
6	To control pests	Nil
7	Waste management and sustainable agriculture	Nil
8	Reaping diversity	Nil
9	Medicinal plant cultivation	Nil
10	Polyhouse farming	Nil
11	Precision farming	Nil
12	Cultivation without soil	Nil
13	Native varieties for tomorrow	Nil

CHAPTER 4.WHY CLASSIFICATION?

Major concept-*Why classification?*

	Minor concepts	First aid content identified
1	Introduction	Nil
2	Lets classify and learn	Nil
3	Taxonomy	Nil
4	Taxonomic hierarchy proposed by Linnaeus	Nil
5	Taxonomic hierarchy of plants	Nil
6	Diversity in names	Nil
7	Binomial nomenclature	Nil
8	Towards more precision	Nil
9	Modern trends in taxonomy	Nil

CHAPTER 5.DIVERSITY FOR SUSTENANCE

Major concept- *Diversity for sustenance*

	Minor concepts	First aid content identified
1	Introduction	Nil
2	Trophic level	Nil
3	Ecological interactions	Nil
4	Biodiversity	Nil
5	Biodiversity depletion	Nil
6	Red Data Book	Nil
7	Let us preserve diversity	Nil
8	In-situ conservation	Nil
9	Ex-situ conservation	Nil

CHAPTER 6.FOR THE CONTINUITY OF GENERATIONS

Major concept- *For the continuity of generations*

	Minor concepts	First aid content identified
1	Introduction	Nil
2	Pollination and floral diversity	Nil
3	Fertilization	Nil
4	Reproduction in human beings	Nil
5	Adolescence-a special phase in life	Nil
6	Personality development programmes	Yes

Agency of first aid-Red cross(picture only)

ANALYSIS OF TEXT BOOK OF STANDARD IX-2015

CHAPTER-1 .THE SIGN OF LIFE

Major concept- *The sign of life*

	Minor concepts	First aid content identified
1	Introduction	Nil
2	Life-The miracle on the green earth	Nil
3	The greenness of leaves	Nil
4	Soliloquy of the sun	Nil
5	The phase which requires sunlight (Light reaction)	Nil
6	The phase which does not require sunlight (Dark reaction)	Nil

CHAPTER-2 .THE CHEMICAL CHANGES OF FOOD

Major concept- *The chemical changes of food*

	Minor concepts	First aid content identified
1	Introduction	Nil
2	What are nutrients? What purpose do they serve?	Nil
3	The passage of food	Nil
4	Digestion-mechanical and chemical	Nil
5	Organs of digestion in the mouth	Nil
6	Traditional food and fast food	Nil
7	Nutrition in other organisms	Nil

CHAPTER-3 .CIRCULATORY PATHWAYS

Major concept- *Circulatory pathways*

	Minor concepts	First aid content identified
1	Introduction	Nil
2	To the interior of small intestine	Nil
3	Villi and absorption	Nil
4	Blood	Nil
5	The heart	Nil
6	Blood pressure	Nil
7	Transport of nutrients in other organisms	Nil
8	Transport in plants	Nil

CHAPTER-4 .FOR OBTAINING ENERGY

Major concept- *For obtaining energy*

	Minor concepts	First aid content identified
1	Introduction	Nil
2	Oxygen in to the blood	Nil
3	Energy releasing pathways	Nil
4	Respiration in other organisms	Nil
5	Do plants breath?	Nil
6	From food to energy	Nil

CHAPTER-5 .MOVEMENT AND LOCOMOTION

Major concept- *Movement and locomotion*

	Minor concepts	First aid content identified
1	Introduction	Nil
2	Movement-voluntary and involuntary	Nil
3	Skeletons-inside and outside the muscle	Nil
4	Those who move in the air	Nil
5	Locomotion-various types	Nil
6	Wonders of locomotion in the microscopic world	Nil
7	Movement in plants	Nil

CHAPTER-6 .THE MYSTERY OF GROWTH

Major concept- *The mystery of growth*

	Minor concepts	First aid content identified
1	Introduction	Nil
2	Caskets of life to grow and multiply	Nil
3	Adolescence-a period of specialities	Nil
4	How do plants grow? Growth in microorganisms	Nil

CHAPTER-7 .THE CONTINUITY OF LIFE

Major concept- *The continuity of life*

	Minor concepts	First aid content identified
1	Introduction	Nil
2	Male and female sex organs	Nil
3	Meiosis	Nil
4	Menstruation	Nil
5	Sterility	Nil
6	Test tube babies	Nil
7	Twins	Nil
8	Reproduction in other organisms	Nil
9	Reproduction in plants	Nil

CHAPTER-8 .TOWARDS A HEALTHY LIFE

Major concept- *Towards a healthy life*

	Minor concepts	First aid content identified
1	Introduction	Nil
2	Synthetic additives in food	Nil
3	Exercise for well-being	Nil
4	Water for sustaining life	Nil
5	Nutritional deficiencies	Nil
6	A healthy mind in a healthy body	Nil
7	Cleanliness for health	Nil

**ANALYSIS OF TEXT BOOK OF STANDARD IX, PART I
CHAPTER-1 .FOOD FOR THE LIVING**

Major concept- *Food for the Living*

	Minor concepts	First aid content identified
1	Introduction	Nil
2	Structure of the chloroplast	Nil
3	The chemistry of photosynthesis Light and dark reaction	Nil
4	Chemical changes of Glucose	Nil
5	Plants-the lungs of the Earth	Nil

CHAPTER-2 .BEYOND THE SENSE OF TASTE

Major concept-*Beyond the sense of Taste*

	Minor concepts	First aid content identified
1	Introduction	Nil
2	Forming into bit	Nil
3	In to the food pipe	Nil
4	Through the process of Absorption	Nil

CHAPTER-2 .TISSUE TO TISSUE

Major concept-Tissue to tissue

	Minor concepts	First aid content identified
1	Introduction	Nil
2	Blood	Nil
3	Heart	Nil
4	Transportation in plants	Nil
5	Conduction through xylem	Nil
6	Phloem	Nil

CHAPTER-4 .TO RELEASE ENERGY

Major concept-*Tissue to tissue*

	Minor concepts	First aid content identified
1	Introduction	Nil
2	Human respiratory system	Nil
3	Atmospheric air in to the lungs	Nil
4	Respiratory gases in to plants	Nil

PART II

CHAPTER-5 .TO MAINTAIN HOMEOSTASIS

Major concept- *To Maintain Homeostasis*

	Minor concepts	First aid content identified
1	Introduction	Nil
2	Synthesis of Urea	Nil
3	Kidneys	Nil
4	Liver	Nil
5	Skin	Nil
6	Excretion in other animals	Nil
7	Excretion in plants	Nil

CHAPTER-6 .THE BIOLOGY OF MOVEMENT

Major concept- *The Biology of movement*

	Minor concepts	First aid content identified
1	Introduction	Nil
2	Importance of exercise	Nil
3	Involuntary movement	Nil
4	Types of Muscles	Nil
5	Muscle fatigue	Nil
6	Bones and movement	Nil
7	Joints and movement	Nil
8	Movement and locomotion in other animals	Nil
9	Movement in plants too	Nil

CHAPTER-7 .DIVISION .FOR GROWTH AND REPRODUCTION

Major concept- *Division for Growth and Reproduction*

	Minor concepts	First aid content identified
1	Introduction	Nil
2	Mitosis	Nil
3	Meiosis	Nil

**ANALYSIS OF TEXT BOOK OF STANDARD X
CHAPTER-1.BEYOND THE SENSES**

Major concept-*Beyond the senses*

	Minor concepts	First aid content identified
1	Introduction	Nil
2	Eye	Nil
3	Neuron and nerves	Nil
4	Brain- the centre of wonders	Nil
5	Behind hearing	Nil
6	The sense of taste	Nil
7	To Detect smell	Nil
8	Skin-the largest sense organ	Nil

CHAPTER-2.RESPONSES LIKE THESE TOO

Major concept- *Responses like these too*

	Minor concepts	First aid content identified
1	Introduction	Nil
2	Reflexes-What? How?	Nil
3	Sympathetic and Para sympathetic system	Nil
4	Alzheimer disease	Nil
5	Parkinson disease	Nil
6	Epilepsy	Nil
7	Description about other living beings body systems	Nil

CHAPTER-3.THE CHEMISTRY BEHIND RESPONSES

Major concept- *The chemistry behind responses*

	Minor concepts	First aid content identified
1	Introduction	Nil
2	Chemical messengers	Nil
3	Pheromones	Nil
4	Messengers in plants	Nil

CHAPTER-4.AFTER METABOLISM

Major concept- *After metabolism*

	Minor concepts	First aid content identified
1	Introduction	Nil
2	Synthesis of Urea	Nil
3	Kidneys	Nil
4	Other excretory organs in the body	Nil
5	Excretion in other organisms	Nil
6	Excretion in plants	Nil

CHAPTER-5.WHEN EQUILIBRIUM DISRUPTS

Major concept- *When equilibrium disrupts*

	Minor concepts	First aid content identified
1	Introduction	Nil
2	Virus,bacteria,protozoa,fungus	Nil
3	Bad habits and diseases	Nil
4	Alcohol and drugs	Nil
5	Cancer	Nil
6	Genetic diseases	Nil
7	Animal diseases	Nil
8	Patients among plants too	Nil

CHAPTER-6.THE STRATEGY OF DEFENCE AND TREATMENT

Major concept- *The strategy of defense and treatment*

	Minor concepts	First aid content identified
1	Introduction	Nil
2	Defense mechanisms in the human body	Nil
3	Blood clotting too-a defence mechanism	Nil
4	Vaccines	Nil
5	Immune disorders	Nil
6	Treatment-the ultimate defence strategy	Nil
7	Diagnostic tool	Nil
8	Medicines	Fracture, immobilization, Road accidents and CPR
9	Blood Transfusion	Bleeding
10	Defence mechanisms in plants	: Nil

CHAPTER-6.HOW WE BECAME WHAT WE ARE

Major concept- *How we became what we are*

	Minor concepts	First aid content identified
1	Introduction	Nil
2	Gregor Mendel-The father of genetics	Nil
3	Law of Dominance	Nil
4	Law of segregation	Nil
5	Law of independent assortment	Nil
6	Milestones in the history of genetics	Nil
7	Gene action	Nil
8	The branch of science that transforms the living world	Nil

CHAPTER-8.THE STORY OF LIFE...AND ORGANISMS

Major concept- *The story of life...and organisms*

	Minor concepts	First aid content identified
1	Introduction	Nil
2	Oparin-Haldane hypothesis	Nil
3	Galapagos Finches	Nil
4	Darwin's Inference	Nil
5	Evolutionary history of elephant	Nil
6	Molecular biology and evolution	Nil
7	In search of the origin of man	Nil
8	Where are we moving to?	Nil

ANALYSIS OF TEXT BOOK OF STANDARD X

CHAPTER-1 .SENSATIONS AND RESPONSES

1	Introduction	Nil
2	Neuron	Nil
3	Brain-centre of the nervous system	Nil
4	Spinal cord	Nil

CHAPTER-2 .WINDOWS OF KNOWLEDGE

Major concept- *Windows of knowledge*

	Minor concepts	First aid content identified
1	Introduction	Nil
2	Eye	Nil
3	Ear	Nil
4	To detect taste	Nil
5	To detect smell	Nil
6	Sense through skin	Nil
7	Receptors in organisms snake, house fly	Nil

CHAPTER-3 .CHEMICAL MESSAGES FOR HOMEOSTASIS

Major concept- *Chemical messages for Homeostasis*

	Minor concepts	First aid content identified
1	Introduction	Nil
2	Endocrine system of humans	Nil
3	Exchange of chemical messages outside the body	Nil
4	Plant hormones	Nil
5	Artificial plant hormones	Nil

CHAPTER-4 .KEEPING DISEASES AWAY

Major concept- *Keeping diseases away*

	Minor concepts	First aid content identified
1	Introduction	Nil
2	Some viral diseases	Nil
4	Certain bacterial diseases	Nil
5	Fungal diseases	Nil
6	Diseases caused by protozoa	Nil
7	Non pathogenic diseases	Nil
8	Genetic diseases	Nil
9	Cancer	Nil
10	Life style diseases	Nil
11	Animal diseases	Nil
12	Plant diseases	Nil

PART II
CHAPTER-5 .SOLDIERS OF DEFENSE

Major concept- *Soldiers of Defense*

	Minor concepts	First aid content identified
1	Introduction	Nil
2	Defense mechanism	Nil
3	Warriors	Nil
4	Phagocytosis	Nil
5	Blood clotting	Nil
6	Healing of wound	Nil
7	Fever, a defense mechanism	Nil
8	Specific defense	Nil
9	Diseases – inspite of all these	Nil
10	Therapy	Nil
11	Antibiotics	Nil
12	Blood transfusion	Nil
13	Induced immunity	Nil
14	Defense mechanism in plants	Nil

CHAPTER-6 .UNRAVELING GENETIC MYSTERIOUS

Major concept- *Unraveling genetic mysterious*

	Minor concepts	First aid content identified
1	Introduction	Nil
2	Emergence of genetics	Nil
3	Experiments of mendel	Nil
4	The structure of DNA	Nil
5	Nitrogen bases and nucleotides	Nil
6	How to genes act?	Nil
7	Child-male or female	Nil

CHAPTER-7 .GENETICS FOR THE FUTURE

Major concept- *Genetics for the future*

	Minor concepts	First aid content identified
1	Introduction	Nil
2	Genetics and microorganisms	Nil
4	DNA finger printing	Nil
5	Medicine from animals	Nil
6	In search of the mysterious of genome	Nil

CHAPTER-8 .THE PATHS TRAVERSED BY LIFE

Major concept- *The paths traversed by life*

	Minor concepts	First aid content identified
1	Introduction	Nil
2	Urey-miller experiment	Nil
3	Origin of biodiversity	Nil
4	Darwinians	Nil
5	The theory of natural selection	Nil
6	Neo Darwinism	Nil
7	Mutation Theory	Nil
8	Evidence of evolution	Nil
10	Comparative morphological studies	Nil
11	Biochemistry and physiology	Nil
12	Molecular biology	Nil
13	Evolution of human being	Nil