## **Physical & Health Education**

#### Introduction

'A sound mind is in a sound body in a sound environment.' Every person must possess a healthy mind: to have a healthy mind one must have a healthy physique. Healthy persons could alone make a healthy society. Physical Education may provide the right direction and needed actions to improve the health of members of any community, society, nation and the world too. Therefore an educational system encompassing the mental, emotional, social and physical dimensions of health becomes imperative to bring about all around development in children which, in turn, would pave way for the development of healthy society.

## **Physical Education - Meaning**

The word physical education comprises of two words Physical and Education. The plain dictionary meaning of word physical as relating to body characteristics of a person such as physical strength, physical endurance, physical fitness physical appearance or physical health. The word education may mean the systematic instructions or training or preparation for some particular task. The two words combined together stands for the systematic instructions or training related to physical activities or programme of activities necessary for development and maintenance of human body or the development of physical powers or activities for cultivating physical skills.

# **Definition of Education and Physical Education**

- 'Education is the manifestation of perfection already in man'. -Vivekananda
- 'By Education I mean an all round drawing out of the best in child and man, body, mind and spirit.' **M.K.Gandhi**
- 'Physical Education is education through physical activities to the development of total personality of the child and its fulfilment and perfection in body mind and spirit.'-

#### J.P.Thomas

'Physical education is the sum of the changes in the individual caused by experiences cantering motor activity' **–Cassidy** 

## **Aims of Physical Education**

The aim of Physical Education is the same as that of general education, because physical education is a part of general education. The primary aim of physical education is not to develop star athletes winning teams or expert performance but a national vitality with character values and physical fitness. Ministry of Education National plan of physical education and recreation expressed that the aim of physical education must be to make every child physically, mentally and emotionally fit and also to develop in him such personal and social qualities as will help him to live happily with others and build him up as a good citizen.

Butcher listed the aims of physical education as follows: Physical development, Mental balance ,Emotional adjustment, Manual training, Social adaptability.

## **Objective of Physical Education:**

The objectives of physical education are stated differently by many of Physical Educationists. The following are main objectives of physical education.

**Development of Organic Fitness**: This objectives deals with the program of activities which builds physical power in and individual through the development of the various organic systems of the body. The systems such a circulatory system, respiratory system, nervous system, muscular system and digestive systems. Physical education is related to physical activities, which create various effects on our organic systems. These systems are developed in size, shape, efficiency etc. This promotes a sound health, which enables the individual to be the valuable asset for the nation. If our systems remain in sound health, they can perform their functions in an efficiency way.

**Development of Mental health:** The mental development objective deals with the accumulation of a body of knowledge and the ability to think and to interpret their knowledge. Physical education programmers need alertness of mind, deep concentration and calculated movements. Physical activities sharpen the mind, to perform various activities. It includes rules and regulations techniques of games, anatomatical and physiological studies balanced diet, sanitation, health and

diseases personal hygiene etc. Through participation in various activities an individual learns to draw certain conclusions. He is able to understand the new situations faced in the games. He is able to take decisions independently.

**Social Development**: In the democratic society in which we live it is necessary to have all individual develop sense of group consciousness and cooperative living. Social traits are essential for better adjustment in life. The programme of physical education develops these traits. They provide leadership qualities. Through physical activities, the players come closer with each other and adjust themselves according to situations. It helps in attaining the traits like cooperation courtesy fair play, sportsmanship self control unselfishness tolerance and sympathy.

**Development of Neuro muscular co-ordination**: The nervous system is strengthened only proper physical exercise. neuro muscular coordination develops well only of various of exercises are done repeated for a long period of time. Good neuro muscular coordination helps to keep off fatigue coordination. We get accuracy and smooth function of our body. Our reaction time becomes less. Neuro muscular development helps ones be perform the daily work with proficiency develops a well poised quick and efficient movement and body graceful carriage.

# **Development of Desirable habits**

To be inculcated regular activities rest regulated diet

Maintaining cleanliness

To be disciplined in one's work

Chalking out a schedule of desirable activities that may contribute towards a healthy body and a happy mind

# **Development of Personality**

Attainment of sportsmanship

Development of leadership qualities

Development of social cooperation

Development of fearlessness

Attainment of positive qualities of self confidence

Attainment of self control

# **Providing for Mental Hygiene**

Mental Hygiene comprises those activities and techniques which promote and maintain mental health.

Development of ability to face stresses and string of like

Elimination of worry and tension through games and sports

# **Development of Functional Knowledge**

To know the rules and techniques of different games

To know and acquire knowledge, proper health procedure

To know the methods and principles of games and exercises

To know the body parts and the effects of exercise on various organs and systems.

# Development of qualities of a good citizenship

One has to abide rules and regulation

One's discipline improves the qualities of a good citizenship

# **Scope of Physical Education**

Physical Education as an integral part of general education- through activity oriented and well planned programmes they organize different physical activities like drill and marching etc which are directed towards physical, mental emotional, social, intellectual and moral development of the child. The following are the scope of physical education.

**Corrective Exercises**: Corrective exercises help to remove the deformities in the body of a child. Sometimes these defects are there because of defects in muscle development and for the we use light corrective exercises.

**Games and Sports:** various team games like hockey foot ball, cricket basketball and volley ball etc and individual events like athletics, wrestling, boxing judo and archy are included in the programmers of physical education. Swimming, diving, canoeing etc are related to water sports.

**Rhythmics:** Gymamstics, Leziums Dance, mass physical training and Dumb bell etc. are rhythmical activities necessary for rhythm and balance. Rhythmical activities are also included in the programmes of physical education.

**Self defense activities:** Hiking, Trekking, Judo, karate and self defense activities are included in the programmes of physical education.

**Recreational activities:** Recreational activities like minor games, chess, carom, horse riding, education campus, hunting, folk dance, fishing etc are included in the programems of physical education.

**Yogic activities:** Yogic activities such as Asana Pranayama Kiryas etc are included in Physical education.

On the basis of the above mentioned facts, the following activites can be included in a programme of physical education India:

Free hand exercises, Exercises with apparatus, Major games, Minor games, Gymnastics, Track and field events, Folk dances, Yoga, Rhythmic, Combative, Swimming and diving, Hiking trekking camping etc, Pyramids, Dands and baithaks.

# **Importance of Physical Education**

- > Physical education develops the alertness of mind
- > Physical education provides knowledge about health and its hazards and communicable and non communicable diseases
- > Through physical activities leisure time can be utilized properly
- > Through physical education human body can be developed in good proportion. The physical beauty also improves
- A good sports man is a good citizens He knows how to adjust with others
- ➤ Physical education helps in developing and maintaining of good relations among humans beings. It develops social traits, like cooperation, sympathy, loyalty, fraternity, courtesy and other traits of leadership.
- > Aggressiveness can be eliminated through physical activities. By participating physical activities we can overcome stress tension and sensitiveness
- > Physical education helps in creating discipline through games and sports
- > Physical education provides a numbers of opportunities to enhance the power of tolerance
- > Physical education enhances all the essential traits required for development of the personality
- ➤ Physical education leads to happiness efficiency and character building
- ➤ Physical education helps the people to become fit to develop their spiritual and more forces. It increases the scope of human abilities and enriches the life of the individual and that of the society as a whole.

### **OLYMPIC MOVEMENTS**

#### **Olympic Games**

Olympic Games is an international sports event in which intercontinental and international competitors participate in the sports competitions. Participation in sports help the peoples to know one another and also it provides opportunities to the participant to see each other

It unites countries and continents. The Olympic movement like sport in general by its very nature brings in international understanding and opposes the division of the world, rapprochement and friendship among people of all continents.

# **Objectives of Olympic Games**

- > To develop interest and competence of life time participation in games and sports and for that purpose.
- > To develop physical and motor fitness i.e strength, endurance speed agility, flexibility balance, accuracy etc.
- > To develop good body mechanics and skills in a variety of dynamic forms of movements applied in games and sports
- > To develop a fir level of skills to specific major games and track and field events Gymnastics and yoga exercises

- To develop interest for games and sports as a cultural heritage
- ➤ To develop social aim.
- > To develop social qualities such as cooperation sympathy team spirit, helpfulness, tolerance, patience and sportsmanship.
- > To develop emotional maturity mental alertness and moral goodness
- > To develop Psycho somatic unity i.e. unity of the mind and body
- ➤ To develop motor skills i.e Neuromuscular coordination

# **Ancient Olympic Games**

The Olympic Games were held once in four years on the full moon day in the month of August or September at Olympia in Greece in honour of their God Zesus. We cannot definitely state the origin of these games, but these are a few legends which show that these games were in existence from very remote times.

# **Origin**

It was believed by the Greeks that there was a wresting contest between God Zesus and God Kronos for the Possession of Earth. In the contest God Zesus won and in remembrance of the victory of Zesus, the Olympic Games were started.

Hercules it is said defeated King Augeas and in honour of his victory he instituted the Olympic games (Circa 1253 B.C)

Peoples won over king Aenomanus in a chariot race and married the latters daughter Hippodemia. As king Aenomaus died in the race itself. Peoples took his kingdom. Peoples was worshipped as a hero and behalf of his death the Olymbic games instituted (884B.C)

Another version states that Lycurqus, the Great Sparta law giver joined hands with lphitus of Elis to Urestoreu the Olympic festival in 820 B.C. The version indicates that the games had been run before.

Thus these legends clearly show that the Olymbic Games had a long past

Although the origin of the Olympic games is lost if legend and obscurity the year 776 B.C. was reckoned and recorded as the date of the first ancient Olympics thanks to the efforts taken by Cleosthenes (King Pisa) and Iphitus (Kin of Ellis) who become weary of the war over the control of Olympia made a sacred truce and revived the ancient Olympic festival.

The winner of the first Ancient Olympics in 776 B.C. was Coroebus From this date onwards the games were held regularly once in four years until 394 A.D with the games were abolished by the Roman emperor Theodosius .

# **Rules Eligibility for Competition**

- > The participants should be free born Greeks
- > The amateurs were allowed to participate
- > The competition must have had at least 10 months of training prior to their participation in the

Olympics the final month being spend at Olympia under the control of the Hellanodikai the official judges of the games.

They should have no criminal record

## **Conduct of the Games**

Assembly: Before the start of the games the competitors their trainers their trainers their fathers their brothers and the judges assembled in the council house in front of the state of Zesus (God of oaths)

# Sacrifice: Sacrificed a pig to Zesus

Oath: All took an oath that they would not resort to any unfair means to secure victory further the competitions took the oath that they had 10 months of training as per Olympic regulations. Thereafter the Olympic judges swore that they would be honest and fait in their decisions

March Past: The march past took place in which the Trumpeter Officials and the competitors participated. In the courts of the March past as the competitors passed by the Herald announced to the spectators the name of each competitor his father's name and his city and asked whether anyone had any charge to make against him. Silence on the part of the specifications was considered as No Objection for the competitor concerned.

Opening Ceremony: Then the herald proclaimed the opening of the games. The chief judge or some distinguished person addressed the participants. Afterwards the events were conducted the sacred fire was kept burning perpetually at the altar of Zesus.

#### **Events**

Originally foot race was the only item it Ancient Olympics and it was conducted in single day. Later on other events were added and they were foot race, chariot race, horse race, pentathlon (Running, long jump, discuss throw, javelin throw and wresting) Boxing Wresting, pancratium etc. Because of the addition of more events from time to time, the duration of the games was extended to 5 days.

The first day was devoted to religious sacrifice and oath taking and no Competitions were held.

On the second day there was a march past, the introduction of the competitions to the public and the opening of the games. This was followed by chariot race horse race and pentathlon.

The third day was the day of official sacrifice of a 100 oxen in the morning at the Altar of Zesus in The afternoon footrace; wresting and boxing were conducted for the boys.

The fourth day was reserved mainly for the chief athletic events for men via three foot race and the dual combats (Wresting, boxing and pancratium). The day's programs would come to an end with the race in armour.

The fifth day was the last day which intended only for feasting and rejoicing

Originally women were not allowed to complete in the Olympics and the married women were not even allowed to witness the competitions. It is understood that women had their own festival called the heraca in honour of hera, wife of God Zesus In this festival women had athletic competitions. Later on women were allowed to Complete in the Olympics in the Chariot race.

#### **Awards**

The Olympic victor was highly honoured. It seems that tripods and other valuable objects were given as prizes to the Olympic victor till the 7<sup>th</sup> Olympiad.

Later on the only reward from the judges at the Olympic stadium was a wreath made out of Olive leaves plucked from the sacred Olive tree in the temple of Zesus.

Poets immortalized his name in poems and sculptors carved his figure in stones. The concerned Olympiad was named after the name of the victor of the state race i.e. 200 yards race.

The winners were escorted home in triumph by their fellowmen and loaded with honour, gifts and privileges. We even come to know that they were received in their cities not through the ordinary gates but through a breach made in the walls of the city. They were even considered as demo gods. To be crowned a victory in the Olympics was the highest honour to every Greek.

# Modern Olympic Games (From 1896 AD onwards)

For nearly 1500 years since 394 A.D. there were no Olympics. The first efforts towards renaissance of the Olympics in modern times were made by the Greek in 1859 and 1870. The Greeks and Evangelos Zappas a Greek living in Rumania, began working towards the revival of the Olympics long before Coubertin the Frenchman succeeded. Two Olympic games organsied by the Greeks in 1859 and 1870 were unsuccessful In 1894 A.D.

Baron Pierre De Coubertin a Frechman revived the Olympic games. He felt that international unity and brotherhood can be achieved through competitions in sport and games among the youth of the various countries at one place similar to the ancient Olympic Games. He visited various countries and put forth his ideas. His ideas were welcomed and it was decided to hold the first Olympics in Greece. As the ancient site at Olympia was not suitable to conduct the games. Athens in Greece was selected.

The sponsors of the Modern Olympics were hard pressed for money. The Greek Government gave about 2 ½ lakhs of drachmae in addition to the money bequeathed by Zappas. Even this amount was not enough. Fortunately one George Averoff a merchant of Alexandria gave a princely gift of million drachmae for restoring the Pan Athenian stadium and conducting the games.

Modern Olympics is held once in four years But during the times of world wars, the Olympic games (i.e VI, XII and XIII Olympiads respectively in the years 1916, 1940 and 1944) were and held in the days of Ancient Olympics such sanctity was attached to the games that wars were stopped for the conduct of the Olympics whereas in the days of Modern Olympics. We have witnessed that Olympic Games had to be stopped for the conduct of the wars.

## **Governing Body**

The international Olympic Committee is the controlling body for the Modern Olympic Games. The I.O.C. is a permanent and self elected body which has at least one member from a country where there is a National Olympic committee.

The members shall elect a president for eight years and he is eligible for reelection Two Vice presidents shall also be elected for a period of four years who are also eligible for reelection

A small Executive board shall be formed which shall include the president the two Vice presidents and four other members elected for a period of 4 years who shall retire by rotation The I.O.C fixes the venue for competition draws the rules for competition and the general programme for Olympics

## **Rules of Eligibility of Competition**

One who is a native or naturalized subject of a member country can alone participate One who has competed already in the Olympic games for a nation cannot compete in future Olympic games for another nation even if he has become a naturalized subject of that nation except in the case of conquest or the creation of a new state ratified by a treaty.

Every competitor must be an amateur This must be certified by the national body controlled that activity and countersigned by the National Olympic committee. In addition each competitor must give a personal declaration that he is an amateur. There is no age limit for a competitor.

## **Organization and conduct of the Games**

The Olympic Games should be held in the first years of the Olympiad. The games under no pretext can be adjourned to another year. The period of the games shall not exceed 16 days **Venue** 

The venue for the Olympic competitions will be fixed by a majority of votes among the members of the international Olympic committee, taking into consideration the claims made by the cities opting to stage the games. Committee from the I.O.C and the respective NOC's (National Olympic Committees) along with the respective international sports federations visits the cities aspiring to hold the games to determine its suitability.

After various committees submit their respective reports to the IOC it takes the final decision through a ballot at a session held in a country, no city of which was a candidate. The selection unless in exceptional circumstances, is made at least six years in advances.

When the venue is fixed the mayor of that city will be informed about the decision of IOC. The Mayor in turn will inform the National Olympic Committee and this committee will take up the responsibility of Organizing and conducting the games.

#### **Events**

The events are fixed by the organizing committee in consultation with international Olympic Committee. The usual events are track and field sports, Gymnastics, Boxing, Fencing Wresting Shooting, Rowing Swimming and Diving Equestrian Sports (Horse riding) Football, water polo, Hockey, Cycling, Weightlifting yachting (Sailing, Ship racing) Basket ball, Volleyball etc.

## **Olympic -Opening Ceremony**

For opening of the games, usually the President, King or any other head of the State will be asked to preside and declare the games open. The president will then mount up the Tribune of Honour and the National Anthem of the host country will be played.

The march past of the athletes and the officials will take place according to the alphabetical order of the countries. In the march past the Greek contingent will always take the lead while

the host country will be at the end. The president of the games will declare open the Olympiad of the modern era

Hoisting of the Olympic flag with fanfare of trumpets followed by a salute of gun fire and pigeons release The Olympic torch will be brought into the stadium and the Olympic flames will be lit in the bowl constructed for this purpose. The flames will be burning throughout the period of the Olympic Games.

All the bearers will move forward to the Rostrum and stand in a semi circular fashion facing the Tribune of Honour.

The Olympic oath will be taken by a representative of the athletes usually an athlete of the host country who will take the following oath.

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We swear that we will take part in the Olympic games in loyal competition respecting the regulations which govern them and desirous of participating in them in the true spirit of sportsmanship for the honour of our country and for the glory of sports

Presently this oath has been revised a sunder and given effect from Sydney Olympics 2002.

In the name of all competitors I promise that we shall take part in this Olympic game respecting and abiding by the rules which govern them without the use of doping and drugs in the true spirit of sportsmanship for the glory of sports and the honour of our teams.

After the Oath the National Anthem of the host country will be played. The athletes and the Officials shall march out of the stadium. The games shall then begin.

#### Awards

Those who get the first three places will mount the Victory stand. The first place winner will be at the centre at a higher level.

The second place winners will be on his right and the third place winners on his left. As soon as they have mounted the victory stand the national flags of the winners will go up the masts. The National Anthem of the winner will be briefly played.

The victors will be crowned with Olive Wreaths. The President of the International Olympic committee or his representatives will give away medals and diplomas (Gold Medal for I place, Silver Medal for II place and Bronze medal for III place)

The banes of the victors will be inscribed on the walls of the stadium where the Olympics games are conducted. In addition a Roll of honour is keep with the international Olympic Committee in which the names of the first six competitions are entered. Competitors who have secured IV, V and VI places in each event are awarded only Diplomas. Souvenir medals are given to all participants.

## **Closing of the Games**

The closing of the games will take place in a solemn manner. The president of the International Olympic Committee will express his gratitude to the organizers. He will then declare the games closed and will call upon the youth of the various countries to assemble again after four years at the next venue of the games.

Immediately after his declaration the ceremonial Olympic flag (not the one that was hoisted on the flag mast) will be handed over to the Mayor of the city, so that he can keep the flag

safety till the next Olympic Games. Then trumpets will be sounded, the Olympic flames will be extinguished and the Olympic flag will be lowered. Thus the games come to a close.

# **Olympic Flag**

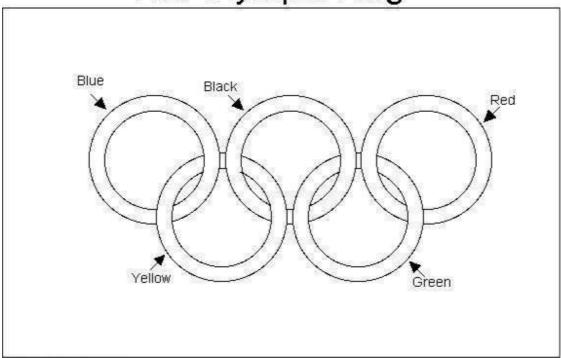
There are two kinds of flags used by the International Olympics Committee

1. Olympic flag for hoisting purpose during Olympic

Ceremonial Olympic flag

## Olympic flag

# The Olympic Flag



This Olympic flag is based on a model design by Braon de Coubertin in 1914 It was first hoisted in 1920 at Antwerp (Beigium) Olympics

The Olympic flag is made of white silk without any borders. In the centre, there are five interacted rings in the colours of Blue, Yellow, Black, Green and Red representing the five continents viz. America, Asia, Africa, Europe and Australia.

The five rings are arranged in the shape of a W

The blue ring shall be high on the left nearer the flag pole.

Below the rings appears the Olympic Motto Citius Altius Fortius which means ever faster, higher, stronger.

Those rings together with the motto constitute the Olympic emblem which is the exclusive properly of the International Olympic committee.

Only the flag is hoisted during the Olympic Games

## (ii) Ceremonial Olympic flag

This flag is made of silk and this is borded with the colours of the rings (blue, yellow, black, green and red)

This flag is not intended for hoisting purpose

The flag is handed over to the Mayor of the city conducting the concerned Olympics by the president of I.O.C at the time of the closing ceremony. This shall be under the custody of the Mayor of the city till the next Olympics

# Motto of the modern Olympic games

The Olympic Games had come to stay in 1897. The international Olympic games committee adopted a Dominican monks worlds. Citius Aitius, Fortius Ever (fastest, highest, strongest) as the Olympic motto to embody the spirit of the games.

The most important thing in the game is not to win but to take part just as the most important thing in life is not the triumph but the struggle. The essential thing is not to have conquered but to have fought well.

# **Olympic Torch**

The ritual flame lighting ceremony takes place at the temples of Hera, near the stadium where the ancient Olympics were held. An actress from the Greek national theatre, portraying a priest-ess, uses a concave mirror to catch the sun's rays to ignite the torch which is then handed over to young athletes who carry it for one kilometer each (if it has to be flown, the flame is kept in specially made lanterns while it is being transported to the hot nation).

This torch shall then be relayed on foot (as for as possible) by runners until it is finally taken to the city where the games are to be conducted.

On its way as it passes through various countries the particular country through which it passes shall arrange for the relay of runners to bear the torch. The last runners shall be an athlete from the host country and his arrival with the torch will be synchronized with the opening of the games.

This was first initiated by the Germans while they organsied the Berlin Olympic Games in the year 1936. From bertin Olympic onwards this practice is continued. Now a day's torch is also carried in aero planes from one country to another where it is not possible to carry it by a relay of runners.

# 1.17 Ancient And modern Olympics (Comparison)

S.No	Ancient Olympics	Modern Olympics
1.	The ancient Olympics were conducted once in four years	The modern Olympics are conducted once in four years
2.	There was the march past of the participants	There is the march past of the participants
3.	In ancient Olympics Oath was taken by all competitors	In modern Olympics a leading Athlete of the Host country takes the oath on behalf of the competitors of all nations at the Olympics

		stadium in front of the Tribune of honour
4.	The competitors who wished to participate in ancient Olympics must be free born Greeks. They should have neither committed any sacrilege against gods nor have any criminal record	The competitors who wish to participate in modern Olympics shall be the natives or naturalized subjected of a member country
5.	Only Amateurs were allowed to participate	Only Amateurs are allowed to participate
6.	The ancient Olympics were held only at Olympia in Greece	The modern Olympics are not held at Olympia but at different cities of the world
7.	In the earlier Olympics married women were not allowed even to witness the games and later on they were allowed not only to witness but also to participate in the games	In the modern Olympics women were allowed to take part from 1900 onwards
8.	In the earlier Olympics men and boys participated in competitions in naked form	In modern Olympics competitor have to wear a decent sports costume
9.	The ancient Olympic games were a religious festival for the Greeks being held in honour God Zeus	The modern Olympic games are an international sports gathering with a zeal of patriotism
10.	Sacred fires were burning perpetually in the temple of God Zeus at Olympics	The Olympic fire is lit and kept burring at the stadium till the close o the games

11.	In ancient times the Olympic games were held to maintain unity among Greeks	In modern times the Olympic games are held for the international understanding and brother hood
12.	Ancient Olympics were conducted for 5 days	Modern Olympics are conducted for 16 days
13.	In ancient Olympics the items were individualistic	In modern Olympics both individual and team events are conducted
14.	In Ancient Olympics the victors were crowned with sacred olive wreaths. The poets immortalized their names in poems and sculptors made statues for them	In present days the victors are normally crowned with olive wreaths. They are awarded medals and diplomas. Their names are inscribed of the walls of the stadium. A roll of honour or the first six competitors in each event is

		kept with the I.O.C
15.	Each Olympiad was named after the victor of the strade race. For example the Corbus Olympiad (from 776 BC to 772 BC) was named after corneous the winner of the strade race in 776 B.C.	Each Olympics is called in its serial order. For examples XIV Olympiad (1948 to 1952) XV Olympiad(1952-1956)etc.
16.	Wars were stopped for the conduct of ancient Olympic games	Games has to be stopped because of wars

#### INTRAMURAL COMPETITIONS

It is a phase of a physical education programme in a school college university or any other organization geared to the abilities and skills of the entire student body or the members of the organization.

# **Meaning of Intramural Competition**

The word "Intramural" is the combination of two Latin words "Intra plus 'Mural.' 'Intra' means 'inside' and 'Mural' means 'wall'. Thus, 'intramural' means 'inside the wall'.

Organization of physical activities within the four walls of an institution for the students of that every institution is 'Intramural Meet'.

This 'Meet' is organized by dividing the students of the school concerned into various groups. Because this 'Meet' is only held for the students of a particualt school, therefore, students of other schools are not allowed to participate in it. For the successful organization of

'Intramural Meet' all the students of the school are divided into various 'Houses' / 'groups'.

# **Objectives of Intramural Competition**

- > Providing equal opportunity to every student to participate in one or more activity
- > Providing opportunity to learn basic skills of different games and sport
- > Creating the spirit of sportsmanship among students
- ➤ Providing practical knowledge on planning, organizing and administering play programmes.
- > Developing leadership and followership qualities in students.
- > Developing qualities like co-operation and term cohesion etc
- Constructive leisure activity and a good entertainment which provides more fun and joy.
- ➤ Helps in identifying and selection of talented players for school teams.
- > Created oneness among students leaving society and economical disparities
- Makes students more disciplined and law abiding

### **Conduct of Intramural competition**

- > Before conducting the intramural competitions, the following factors have to be taken
- into account for achieving the desired results.
- > Type of the institution i.e. residential, partially residential, non residential and so-on.
- ➤ Geographical and Climatic conditions
- > Infrastructure/facilities available (play-grounds, track, equipment, leadership etc.)
- ➤ Availability of estimated finances
- > Availability of time
- > Identification of activities in which students take keen interest.
- ➤ Cooperation and help from administration and fellow teachers.

### INTRAMURAL COMPETITION COMMITTEE

The intramural competitions are conducted by the intramural committee which is headed by the headmaster of the school concerned. This committee usually comprises of the following:

### The intramural Director

He will always be the senor most teacher of physical education faculty of an institution.

### **Assistant Director**

One among the remaining teachers of physical education who are assisting the director is appointed Assistant Director.

# **Intramural Committee/Council**

(Headed by the Headmaster of the school concerned)

The Intramural Director

(Head/Senor Teacher of Physical Education Dept.)

**Assistant Directors** 

(Other Physical Education Teachers)

Assistant Teachers

(Class-room Teachers)

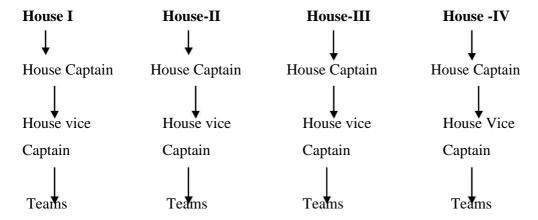
A secretary

(Selected/elected from among the vice captains of the units)



## Joint secretary

(Selected/Elected from among the vice Captains of the units)



#### **Assistant Teachers**

The Director and Assistant Director are further assisted by the class-room teachers when competitions are held.

# A secretary

A secretary of the Intramural Committee is either selected or elected from among the captains of the units (Houses)

It is the duty of the Secretary to keep a record of the meetings held, the results of the competitions and the score sheets. To develop the leadership qualities to develop the organizing and conducting ability, to develop the decision making ability, to develop the habit of sharing responsibility, and so develop/create interest in students in the intramural competitions, their involvement should be maximum at all the levels.

## **Joint Secretary**

A joint secretary of the intramural committee is either selected or elected from among the vice-captains of the units (Houses)

## **Selection of events/competitions for the Intramural Competition**

While selecting the competitions for intramurals, three items need to be kept in mind; the facilities, time and finances available. The interest of the students shall also be taken into consideration while deciding activities for competition.

It is the responsibility of the Intramural committee to frame rules and regulations for the competitions. While framing rules for the competition of a particular game/spot, standard rules as well as prevailing condition on campus 'must be kept in mind. If there is any deviation from the standard rules, participants must be informed protests, if any, are to be decided by the committee.

## **Time and Type of Competition**

The type of competition depends upon the number of teams and number of play fields available, and the time availability. The time best suited for conducting competition is after teaching hours. The ideals months to organize the intramural competitions are the first three to four months from the commencement of the academic year. Sometimes the Intramural

competition shall be conducted throughout the year. Light programme shall be conducted at the end of the year due to the forthcoming examinations. Further the competitions may be conducted either on knock out or league basis.

#### **Officials**

Qualified and compete tent officials are necessary for as sound intramural programme. Officials should be well-versed with rules of the game/sport and should process a complete understanding on the level of participants, the objectives of the programme, and the organization philosophy of competition. They should be fair and transparent in their decisions.

# **Point system and scoring Procedure**

A point system shall be developed in such a way, that it stimulates healthy competition, maintains continued interest and should be in conformance with the objectives of total programme. The point system should **readily** understood by all and easy to administer. Under such conditions, points should be awarded on the basis of contests won, championships gained, standing in a league or order of finishing, unit participation, and so on. The point system is decided by the Intramural Committee before the commencement of intramural programme in the beginning of the session. The point systems may be developed as given below and required

The points gained by a team/an individual should be credited to the unit. There shall be two score sheets, one to enter the points scored by each team in day to day competitions and the other a consolidated score-sheet showing the points gained by each unit. The total points scored by each unit at the end of the intramural competitions will be taken for deciding the intramural championship.

#### **Awards**

Some kind of recognition must be given to the winners of intramural competitions and to the intramural champions and it can be done in the following ways.

Inscribing the names of the writing House Unit along with its captain on the intramural Honor board.

Displaying the photograph of the school champion on the student notice board.

## **EXTRAMURALS COMPETITION**

# **Meaning of Extra murals**

Extramural competitions are conducted between the player of two or more institutions. In such competitions selected players represent their institution in a particular game or sport in order to show their skill and being honor to their institution, examples for such competition are inter college, inter university etc.

## **Conduct of Extramural Competitions**

To have better and result oriented extramural competition from the conduct and organizing point of view they may be categorized and studied under three main heads.

- Practice Matches
- Closed Competitions

## Open Competitions

### **Practice Matches**

Before the official scheduled competition, practice matches are arranged with the neighboring institutions clubs of a given locality and played for the training purposes. These matches help both the teams to look into their weaknesses and follow the remedial measures. It provides competition experience and also helps both the teams to develop socialization. These matched are fixed before hand with the understanding of both the teams and institutions.

## **Closed Competitions**

The name of the competition is self explanatory. These competitions are limited to particular types of institution. For instance inter school competition, inter college competition, and inter university competition and so on. Generally these competitions are conducted by their respective sports departments or sports boards/committees. To have better control and achieve desired result the entire jurisdiction of competing institution is divided into different zones. After the completion of the competitions in each zone, winners will meet in the inter zonal competition for the institutional championship.

# **Open Competitions**

In the open competition anybody can participate through their respective affiliated units. It is not confined to any one category of people. In the open competition any institution, department, or private agency is eligible to field a team.

## CONCEPT OF HEALTH EDUCATION

#### Introduction

Any system of Physical education without the support of health education cannot possible accomplish the best rules. The mutual coordination of physical and health education is a matter of fundamental importance in any system.

Identify the concept of safety education with reference to home, school and environment

Apply the skills of first aid to athletic injuries

### **Meaning**

Health Education is concerned with promoting health as well as reducing behavior induced diseases. In other words health education is concerned with establishing or inducing changes in personal and groups attitudes and behavior that promote healthier living.

### **Definitions of Health Education**

Health education as the sum of experiences, which favorably influence habits attitudes and knowledge relating o the individual community and social health.

-Thomas wood

Health education like general education is concerned with changes in knowledge, feelings and behaviour of people. In its most usual form it concentrates on developing such health practices as are believed to bring about the best possible state of well being.

#### **Aims of Health Education**

The following are the some of the main aims of health education

- ➤ To provide information about health and its value as community asset Health education aims at acquainting the etchers with the rules of health and hygiene. Functioning of Precautionary measures to ward off diseases and to provide good disease free working conditions.
- > To maintain norms of good health: The authorities should provide hygienic environment in the form of adequate ventilation proper temperature, good sanitation and all round cleanliness. It helps the authorities to keep certain norms of health.
- > To take precautionary and preventive measures against communicable diseases. Its aim is to take adequate precautions against contamination and spread of diseases. Thus good sanitary arrangements are made. Precautionary and preventive measures. If they are properly adopted can help in improving the health standards of society.
- ➤ To render assistance to the school going children an understanding of the nature and purpose of health services and facilities It aims at discovering physical defects and other abnormalities in the child and promoting their reduction if they are easily curable.
- ➤ To develop and promote mental and emotional health mental and emotional health are also equally important along with physical health. While physically health makes a pupil physically fit mental and emotional health enables him to maintain an even temper and a happy disposition
  - > To develop a sense of civic responsibility. School is a miniature society Responsibility of skill health does not lie on any one's shoulders. Even some cause of skill health has their origin in social conditions which require action on the part of community as a whole in order to eradicate them. It aims at realizing the people to make combined efforts and work for community health.

### **Objectives of health Education**

The following are the comprehensive list of functional objectives of health education to be adopted in schools

- > To enable the students to develop a scientific point of view of health with reference to traditional and modern concept of health.
- > To enable the students to identify health problems and understand their own role on health and to medical agencies in meeting those problems
- > To enable the student to take interest in current events related to health
- > To enable the students to arrive at suitable conclusions based on scientific knowledge and take action as an individual member of the family and community for protecting maintaining and promoting individual and community health.
- > To enable the students to set an example of desirable health behaviour
- > To enable the student to understand the causes of the pollution of air water, soil and food as well as their ways and means of prevention
- > To enable the students to gain sufficient knowledge of first aid

- > To provide desirable knowledge about marriage sex and family planning to the students
- > To help students to understand the importance of Physical training sports, games, yogic exercises as well as their relationship with health education programme.
- > The emphasize students on the bad effects of smoking and taking alcohol etc
- > The acquaint students with the functioning of various organizations working for the maintenance of health.
- > To help students understand how the present day rapid development of science and technology as increased the hazards of life and health problems and also how to face and prevent them.

## **Importance of Health Education**

"This atma is not attainable by a week man." -SWAMI VIVEKANANDA

"The first wealth is health." – *Emerson* 

If health is so precious asset then education of health is indeed, more important. Health education helps us in following ways

- ➤ Health education provides information to the students and the teachers about the function of the body the rule of health and hygiene and precautionary measures for keeping of diseases.
- ➤ Health education helps in discovering physical defects of children and discovering various types of abnormalities of children
- ➤ Health education develops health habits like need of fresh air, hygienic feeding and various class room habits
- ➤ Health education provided knowledge regarding good health habits
- ➤ Health education develops better human relations between school home community
- ➤ Health education provides knowledge regarding prevention and control of various diseases
- ➤ Health education proving first aid training essential for everyone a emergency may come to any one and at anytime.

#### **Health Education in Schools**

Programme of health education should not confine itself to personal hygiene of pupils only. It should include all aspects which may help in promoting health of the community as a whole. A school programme is twofold.

- (i) Prevention of the development of poor health
- (ii) Preservation of good health

The school health program is divided in to three parts

- ➤ Health instruction
- ➤ Health service

## ➤ Health supervision

### **HEALTH INSTRUCTION**

#### Introduction

The school has major responsibility in the area of health instruction. It should instruct youth in such things as the structures and functioning of their bodies the causes and methods of preventing certain diseases, the factors that contribute to and maintain good health, and the role of the community in the health program. Such an instructional program if planned wisely and taught intelligently will contribute to good health habits and attitudes on the part of the student.

Health instruction should avoid too much stress on the field of diseases and medicine. This is pointed out by Dr. Baue health authority in an article entitled Teach health Not Disease. He says that teachers should primarily teach health how to live correctly and how to protect one's body against infection rather that teaches diseases and medicine. Proper health instruction should impress upon each individual his responsibility of his own health and as a member of a community for the health of others

#### **Definition**

Health instruction is that organization of learning experience directed towards development of favourable health knowledge attitude and practice. - **D. K. Barle** 

#### Aim

The aim of health instruction is to acquaint pupils about the functioning of the various organs of the body the rules of health and hygiene and methods for curing diseases.

#### **Methods of imparting health instructions**

There is nothing very special about the methods of imparting health Education. Health Education forma an essential part of total education. As such all aspects of health education should be carried on at all stages of the educational process according to the age and maturity. The following are some of the important ways and means through which health education and its instruction can be imparted effectively in institutions.

## 1. Healthful Environment of the institution

Environment is the most important of all educational media. Any scheme of health education must receive top priority to the improvement of physical and human environment. Neat clean attractive and well maintained institutional building, classrooms, equipments and plays fields, sympathetic and affectionate teachers contribute greatly to inculcate healthful living, health habits and conditions of work and health notions about work and life. As is the environment. So is the individual therefore healthful environment of the institution plays key role in achieving success.

## 2. Systematic Health Instructions

Direct health instruction should be provided through subjects like hygiene, physiology, general science physical education home science social studies etc. This will enable students to understand the structures and function of human body realize the need for keeping physically fit and take precautionary and remedial measures in case of illness and diseases. Such instruction will also lay emphasis on physical exercises, sports, games and nutritional value of different kinds of food and diet.

### 3. Incidental Teaching

At the school stage the teacher can give health instruction in the class room situation when there is any incident of communicable disease in the school. In this way such incidental teaching may benefit the individual or the entire class. Similarly teachers have opportunities to give instruction off and on, on personal hygiene in a simple language which is benefit at for the school and community as a whole.

# 4. Lectures on health by experts

The school authorities should make arrangement on certain occasions to request medical officer or physical instructor and other experts on health to visits the school and to deliver a lecture on various items o health and hygiene. However emphasis should be laid on the fact that talks should be supplemented by illustrative aids and material. At the end of the talk the pupils must be given opportunities to ask any questions concerning the topic to get their doubts cleared.

#### 5. Printed Material

The school can accumulate printed material on health and hygiene such as short leaflets, pamphlets posters and standard books. Even the school authority can have the material from the local health department to highlight certain diseases, their causes and cures.

# 6. Films and Film Strips

The school can arrange documentary film from various sources which generally displayed the various diseases and how to prevent ourselves from these. They also stress the importance of personal habits like cleanliness. Similarly film strips accompanied by talks or commentary by experts can be displayed and may be retained on the screen as long as wishes.

## 7. School broadcast and radio talks

Radio talks are a powerful medium for giving health instruction to the young pupil and reaching a wide public at the same time. Radio talks can be delivered on problem of health and hygiene by way of songs or play. In this way the children not only get entertainment but useful instruction also similarly the school broadcast programme does include items of health and hygiene.

# 8. Educational field trips

Actual field trips provide learning situation for the children and they can get firsthand experience. Such trips include visit to red cross hospitals. Clinics, fairs exhibitions, yogic centre public health centre and water supply centres etc. however each visits needs proper planning and advance class room discussion to motivate young children. At the end of visit if the teacher clarifies the doubts of the students it will be more beneficial for the children.

### 9. Health Weeks

It is a good method of imparting health instruction to the young pupils. Health week may be celebrated in the school every year in which emphasis is laid on personal hygiene and upkeep of the school campus. Special talks by the expert may be arranged on personal hygiene and sanitation.

#### 10. Health Club

Each institution should organize a health club as self governing unit. Through this club the students can be associated with institution health laws and their administration. They can also be encouraged to practice health rules in their daily lives. These clubs in co-operation with the

institutions Red Cross society should arrange debates declamations plays and dreams on makers concerning health.

## 11. Health Scrap Books

Students should be encouraged to maintain scrap books on health on the top of every page one important health rule should be written or pasted. Pictures illustrating important health rules, causes and prevention of various disease neat and healthy living functions of various organs in human body should be collected this book should contain the records concerned with the students.

#### **HEALTH SERVICE**

The health service programme includes different protective measures to maintain and improve health. Ultimate goal of the institutional health services programme is the attainment of physical mental and emotional health of every students to the optimum experience for students leading them to adopt desirable health habits.

The quality and the quantity of mental work depends upon the conditions of human body. It is not in proper order, optimum output cannot be expected.

### Aim

Health services aim of the locating ill health and provide medical care after proper medical checkup.

Agencies of school health services

- a. School Medical Department under the charge of a school Doctor
- b. School health Educator
- c. School Dispensary
- d. Red Cross unit of the School
- e. Sports Department under the charge of a qualified physical education instructor

# **Programme of health Services**

In order to ensure normal and sound physical condition of the students, the institutions should establish certain organized services and the programme should constitute.

# **Medical Inspection and maintaining Records**

- > Proper arrangements in the school to get every student medically examined at the time of his first admission to the institution and in subsequent years
- ➤ Periodically arrange for health inspection of the pupils with regard to vision hearing dental health and personal hygiene.
- Maintain the records of medical inspection and health status of the children
- > Promote the importance of vaccination and immunization to parents of words.

➤ If any dangerous disease is identified the school authorities should proper steps and suggest the parents of wards to consult the experts in the hospital.

### **Duties of teachers**

Observation by the teacher and experts to locate defects and disease if any especially of skin, eyes, ears, teeth etc in the wards inform in the parents for speed recoveries.

In addition teachers should look at the child's posture. Cleanliness and hygienic conditions. If they observe any deformity or diseases in the pupils they must inform the school doctor and check that the treatment at the clinic is carried out whole time dispenser should be appointed for the school clinic of dispensary where children may be given proper first aid and medicines for small diseases and for some ailments.

#### To maintain sound health condition

Maintain proper sanitation conditions of the school

Highlight the importance of sanitation to children

An arrangement in the school for first aid emergency treatment when he child receives injuries while playing or is suddenly ill.

Record the history and defects of special cases

## **School clinic**

A school clinic or dispensary needs proper care and should be equipped with medicines for ordinary aliment dispensary tables, chairs, charts and models concerning health, bed for the sick of patients, scale for measuring height, covered dustbin, heater and first aid boxes etc.

A school clinic helps in looking after the health of the pupils and for the systematic treatment of small diseases. There should be at least two rooms for school clinics or dispensary out of which one should be reserved for the school doctor were the pupils consult the doctor about their personal problems

## Follow up work

Head of the institutions may arrange for timely vaccination against small box and typhoid so as to reduce outbreak of this infectious diseases.

If some students have some contagious disease like ring worm eczema or leprosy precautionary measures should be adopted till they cured of such diseases

The health status of the students reading in the school be appraised annually

The physical defects of the children should be corrected All the students of the school should get the benefit school health counseling

The guidance personnel physicians school health educators and the teachers should interpret to student and their parents the nature and significance of health problems and

help them in formulating plans of action leading to the solution of the problems of the students.

Should be provided for a single of a system (group) of schools.

# **Check your progress**

#### ATHLETIC INJURIES AND FIRST AIDS

### **Athletic Injuries**

#### Introduction

Every day millions of people (of all age) in the world participate in games and sports activities. Participation in sports improves physical fitness coordination and self discipline and gives children and adults valuables opportunities to learn team work, Games and sports sometimes may also result in injures some of which are minor some are serious and some other are so serious which may require lifelong medication.

The common types of sports injuries are

Exposed injuries or open wounds

Unexposed injuries or Internal injuries Conveniently injuries may be further classified into

Soft tissue injuries Skin muscle and fascia

Bone injuries -Fracture

Joint injuries –Dislocation

## **Exposed Injury**

Any injury that is external in nature and visible to the naked eyes is known as exposed wounds.

**Eg:** Abrasion, Laceration, Punctured wounds

### **Definition:**

An abrasion is a scarping injury to the skin by which a loss of epidermis and dermis in the skin takes place

**Causation:** A sudden fall on the hard surface and slide

### **Signs and Symptoms**

It is extremely painful and blood may ooze from injured capillary vessels to the surface. The wound does not penetrate completely through the skin

#### **Treatment**

Clean the skin with soap and water .The soap acts as solvent for grease and embedded dirt. Washing can be done with a soft brush to remove the ground dirt and any other foreign material.

Tincture of benzoin may be applied to reduce pain.

An antibiotic ointment like furacin may be used.

A suitable dressing and gauze with adhesive tape to prevent reinjure must be done.

#### 2. Lacertion

#### **Definition**

Laceration is a separation of the skin an irregularly torn wound with sharp edges of objects. The wound may occur to the skin subcutaneous tissue the underlying muscles and associated nerves and blood vessels

#### Causation

A direct contact of sharp instrument or implement.

Signs, symptoms and damage.

The word may only the tearing of the skin or damage subcutaneous tissues, the under lying muscles and associated nerves and blood vessels. Pain and bleeding take place.

#### **Treatment**

Clean the area with soap and water

Remove the pieces of torn tissue from the wound

Clean with antiseptic (Dettol) If cut is deep suture the wound

Apply hydrotherapy once daily a week

Do not use adhesive tape to bring edges of the wound together

## **Punctured Wounds**

Usually it occurs while playing or doing physical activities. This is caused by projectiles or pointed objects like spikes splints studs (football shoe) javelin etc. Direct penetration of tissues by these types of pointed objects is called punctuated wounds. There is a possibility of the tetanus bacillus infection. When left careless it makes the athlete or individual to be a victim or lock jaw.

## **Treatment**

Dieppe lacerations and punctured wounds are to be referred to the physician immediately Using a ring pad put a bandage around the wound and take the injure to the nearby physician. If any implement or piece is left inside the wound do not try to remove it.

## **Unexposed Injury**

Even though the injury is factored by an external force which does not affect the epidermis but causing internal injury. This is known as unexposed injury Eg: Sprain, strain fracture.

# (i) Sprain

#### **Definition**

Sprain is an injury to a ligament resulting from over stress. A sprain is usually produced by twisting or stretching it beyond its normal range of motion stretching or tearing some of the supporting capsule and ligaments. Sprain is a partial dislocation. Sprain is a muscular skeletal injury.

### **Categories of Sprain causation**

According to the severity of injury there are three types of sprain

## Mild (First degree)

This is a sprain in which some fibers of alignment are torn with little hemorrhage. There is no functional loss and the ligament is not weakened.

## **Moderate (Second Degree)**

A moderate sprain is one in which some portion of the ligament is torn and some of functional loss is present. There may be tearing of small portion of ligament. There may be mild functional loss or severe complete functional loss of ligament.

## **Severe (third Degree)**

In severe sprain the ligament is completely torn from one or the other of its attachments with separation of end or pulls it apart within its substances.

## **Signs and Symptoms**

Pain and tenderness around the joint increased by movement

Swelling around the joint followed later by bruising and later discoloration

The joints lose power of movement

Severe pain is experienced in that part

The colour of the skin changes

Inflammation appears on the affected part

#### **Treatment**

The affected parts should be given complete rest and movements should be stopped for some days.

The affected part should be thoroughly massaged with mustard oil.

The affected part should be tightly bandaged and put in ice water.

If the above treatments do not relieve pain the sprained part should be washed with hot water. This is likely to reduce the pain.

Rest and support the injured part in the most comfortable position for the causality elevate an injured limb.

Carefully expose the joint and if sprain is of recent origin apply a cold compress to reduce swelling and pain.

If the patient has no relief the bandage should be removed and retied.

The sprained part should be given complete rest.

In doubtful cases treatment should be as for features.

If it is a ligament of the arm the arm should be carried in a sling.

### (ii) Strain

A strain is a sudden twist pull or tear of a muscle or tendon.

# **Signs and Symptoms**

Severe pain bruising and inflammation.

Non functionality of the joints.

Swelling discoloration of the injured place.

One may hear snap sound when the tissue tea.

Loss of function of the part affected.

A sharp pain at the moment of injury is felt.

Raise in the temperature.

#### **Treatment**

Take complete rest.

Apply cold compression bandage and ice pack around the injured place for about 24 hours.

Apply hot water fomentation or contrast bath.

Call physician help if pain persists.

Contusions

Contusions are actually brushing of the tissues and are caused by a direct blow by a blunt instrument or by crushing.

# **Definition**

An injury pressure or a fall causes the blood vessels beneath the skin to break as the result of which the injured part turns blue.

## **Signs and Symptoms**

Blood vassals in the underlying tissues are torn and bleeding take place.

Swelling and pain develop in the area which may be superficial or deep depending upon the type of object striking the blow.

The blood gradually moves towards the skin and causes discoloration with black and blue mark.

If more damage is caused in the tissue and large blood vessels are damaged more blood is collected at the site of confusion and it is called hematoma or blood donor.

When fracture of a large bone like femur happens more than a liters of blood collects.

#### **Treatment**

Arrest bleeding by the application of cod and pressure bandage in the early stage for 12 hours. Immobilize the part and protect of prevent further injury.

If the damage is serious with a fracture splinting is needed to control bone injury.

Fomentation is also beneficial.

The injured part should be given sufficient rest.

### **Classification of Contusions**

Simple or superficial confusion

Muscle contusions

Joint contusions

Visceral Contusions

# **Simple Contusion**

In simple or superficial contusions may not cause much damage. But the loss of function is felt in all contusions of joints muscles and visceral which may need immediate attention. Immediately following the trauma there is acute pain and loss of function of the part affected. If the contusions is not severe in degree there may be partial recovery of function in a few moments but this is followed shortly by more pain and further loss of function. In the course of few minutes swelling appears and results in the hemorrhage of the ruptured capillaries.

### **Muscle Contusion**

In simple muscle contusion there is collection of blood between the two layers of skin.

**Signs and Symptoms :** Swelling, Pain, Discoloration of blood from red to bluish black, Tenderness

Complications of Muscle contusion are mysoites ossificans traumatic caused by deep muscle contusions. Several periosteam cells are loosened by trauma and clot with the hematoma. Eventually during the process of repair, these cells lay down clarification in the hematoma. Most confusion that fail to be healed in a normal period of time many give indications that the part is affected. It will occur in the origin of insertion of the muscles about joints.

#### **Joint contusions**

Contusions to a joint are possible in all sports activities which consist of pathologically brusihed joint capsule with a tissue response to the injury of hemorrhage often from results within the capsule well bleeding internally into the joint as well as in to the particular tissues.

## **Bone contusions**

In the type of contusions severely depends upon the intensity of the blow. Blood and lymph collect between periosteam and the bone marrow.

## **Treatment**

Control hemorrhage by the applications of cold and compression bandage

Apply massage up to 36 hours and continue until the function of the muscle of joint return to normal

In case of severe bone contusion x-ray conforms the diagnosis. In the case physo therapy and massage should be applied.

Since sports activity may stimulate additional complications rest should be given

Heat is applied to the site in most cases.

#### **CAUSES AND PREVENTION OF DISEASES**

### Introduction

The prime aim of life is to have healthy life. Due to modernization, the life style gets affected and paves ways for the unhealthy life styles. The main aim of this unit is to make you to understand the concept of causes and preventive measures to a few threatening diseases. Let us see the objectives first and move to the concept gradually

#### **HIV/AIDS**

HIV/AIDS the Acquired Immuno-Deficiency Syndrome (some times called "slim disease") is a newly described, usually fatal illness caused by a retrovirus of the **lent virus** group known as the **Human Immuno Deficiency Virus** (**HIV**) which breaks down the body's immune system, leaving the victim vulnerable to subsequent development of persistent constitutional symptoms or diseases such as secondary infections, neoplasm and, neurological disorders. AIDS can be called our modern pandemic, affecting both industrialized and developing countries.

# AIDS stands Acquired Immuno Deficiency Syndrome.

- A-Means acquired from outside
- I- Refers to body immune system (defense mechanism of the human body)
- D- Indicates the weakening of the immune system
- S- Refers to the presence of signs and symptoms

AIDS is a serious disorder of the immune system. AIDS was first recognized in USA in 1981. First confirmed evidence of AIDS infection in India came in April 1986. Sexual contact is the major mode of transmission of HIV worldwide.

The virus can be transmitted by infected blood or blood products, both in individuals who share contaminated needles and those who receive transfusions of blood or blood products. Infected mother transmit the virus to the infants. The incubation period for adults is approximately 8-10 years, whereas children under 5 years of age generally develop symptoms within 2 years.

## Signs and Symptoms

Majority experience no recognizable signs or symptoms, but some develop acute illness showing-fevers, rigors, arthragis, abdominal cramps, diarrhoea, aseptic meningitis etc.

Fever persisting for more than one month.

Weight loss of greater than 10% of baseline.

Diarrhea persisting for more than one month.

Persistent cough for a period longer than one month.

General itching dermatitis.

Recurrent Herpes Zoster

Oropharagyal candidiatsis-fungal infection in mouth and throat.

Swelling in lymph glands-Lymphaenopathy

### **Prevention and Treatment**

Prevention of sexual transmission is an immediate priority education, counseling and behavior modification in sexual contacts and –safe sex assume importance.

Screening of blood and blood products for HIV antibodies by through testing of blood samples sometimes blood screening will be a failure during window period of an infected HIV patient and universal precautions while handling blood and body fluids.

Prevent blood borne transmission of HIV by using disposable syringe, properly boiled needles. Avoid sharing of injection, equipments and follow reduction in drug usage.

To avoid transplacental or prenatal transmission of HIV, HIV infected women should avoid pregnancy

Counseling and contraceptive service should be made available to HIV infected persons.

#### **COMMUNICABLE DISEASE**

In ancient time, people were not sufficiently aware of diseases. Hippocrates the father of medicine was the first physician of Greece, who described the symptoms of diseases in detail. After a long gap, Robert Koch a German scientist, studied the various causes of diseases and concluded that diseases spread through germs. Since then medical scientists are engaged in research work but we are still often attacked by new diseases.

The environment in which we live has a vital influence on us in spite of many scientific achievements. We live in a highly competitive world where struggle for survival is acute. Our internal environment is persistently under the influence of external forces of nature.

Diseases that can be passed or transmitted from one person to another are called-infectious or contagious disease.

Infectious disease-is a "disease of man resulting from an infection".

Contagious disease: is "one that is transmitted through direct contact".

A disease of infectious nature can be transmitted from one person to another or from a reservoir to a susceptible host, directly (or) indirectly is called as a **communicable disease.** 

### **Incubation period**

The time period required for the transmission of infectious agent from a reservoir to a susceptible host is to, because the disease is known as communicable period or incubation period.

The infectious agents may be virus, bacteria, protozoa, fungi, rickets etc. this disease may be directly or indirectly transmitted from man to man, animal to animal, from the environment like through air, dust, soil water, food, insects etc to man and to animal.

Air borne Diseases-Tuberculosis, whooping cough, small pox.

Water & food borne diseases-Typhoid, Cholera, Dysentery, diarrhea.

Through Direct contact-sexual disease AIDS. Through insects- Malaria.

#### AIR BORNE DISEASES

# **Whooping Cough**

Whooping cough (Pertusis) is highly infectious disease of young children which causes inflammation of the respiratory tract with severe attacks of cough. It is airborne in nature.

# **Symptoms**

Onset is sudden cold and in the beginning simple mild cough with fever.

Severe running of nose and sneezing

Later sever bouts of coughing and that will become more severe at late night ending in deep inspiration during which the characteristic whoop occurs.

Face turns red and eyes bulges with tears and ends with vomiting.

Lungs severely affected.

#### **Treatment and Prevention**

Keep the child in a warm and ventilated room'

Keep the infected child in a separate room

Discharges from nose and throat should be disposed immediately and disinfection should be done.

Give light food to the infected.

In early stage itself the child need to be immunized against whooping cough with DPT vaccine at  $2^{nd}$ ,  $3^{rd}$ ,  $4^{th}$  months,  $1^{1/2}$  and 5 years.

As a treatment, erythromycin may be injected in consultation with a physician to reduce the severity of the infection

## **Small-Pox**

It is knows as a serious infectious disease. Even the grown up people also come under the grip of this infection. This infection is caused by **Typical Viruses.** However, the spread of infection is also caused by droplets and scabs floating in the air.

# **Symptoms**

There is chill and headache in the beginning

Server pain in the back and limbs of the body

Sometimes face becomes red.

After three or four days eruptions appear on the forehead. Then they spread throughout the body and become watery blisters, diminishing, eruption becomes dry and at last crust starts falling.

Itching feeling is also there is a eruption.

Fever remains high for eight to nine days.

#### **Precautions and Treatment**

A child suffering from this disease should be segregated from others.

Child should be got vaccinated against small pox

Patient should be kept in a clean place.

No medicine should be given except proper nursing.

Patient should not be given salt.

#### **Treatment**

The stomach should be clean. Use soap water enemas as a purgative

When temperature goes above 103<sup>0</sup> F, place cold compress or ice bad over the head.

Give light easily digestible food

Use boric lotion for reducing pain in the eyes.

Used greasy substance for removing scabs.

# WATER & FOOD BRONE DISEASES

#### **TYPHOID**

Typhoid is an acute infectious disease that affects the gastrointestinal tract. In countries where sanitation is poor and sub-standard, typhoid and paratyphoid may occur. The term enteric fever includes both typhoid and paratyphoid.

It caused by **Salmonella typhii.** Incubation period is 10-15 days. It spreads through faecal-oral route. Contamination of drinking water by way of sewage and food by way of flies are the main reasons for the spread of this disease. It affects almost all age category.

# Signs and Symptoms

Onset of sudden fever of moderate to high degree with rigors and chills.

Fever rises in step ladder fashion.

Malaise with headache and pain in the limbs

Tongue will be centrally coated

Low pulse

Diarrhea occurs

Constipation and retention of urine will occur because the germs attack intestine and cause ulcers.

Small rose coloured spots will be seen in the middle part of the body and these spots fade away later.

If the patient has a relapse of typhoid, the same symptoms reappear.

#### **Prevention and Treatment**

Early detection and notification, to health authority

Active immunization by vaccines and inject other children with anti-typhoid injections.

Isolation of the infected

Proper disinfection of urine and stools is necessary and even burning after disinfection all excreta will be the right choice.

Boiled water and ensures safe water for drinking and administer light liquid food.

If fever rises beyond 103<sup>0</sup> F, apply cold compression to the head.

Complete bed rest is recommended for the infected persons.

Specific drugs on consultation with physician such as ciprofloxacin, choloromycetin should be administered.

#### **CHOLERA**

It is an acute gastro-intestinal infection. It is epidemic as well endemic disease. The disease is caused by a germ called 'Vibrio cholera'. It spreads through contaminated drinking water, by files, insects and improper storage. It also spreads from infected patients to others. It affects all age group. Incubation period is generally ranging from few hours to 5 days.

# Signs and Symptoms

It starts with diarrhea and the watery stools and vomiting leading to dehydration

Pain in the muscles of hands and feet is observed and it causes muscle cramps.

Too much thirst is felt

Urine output is suppressed

Fluid and electrolyte imbalance may occur

Fatal death occurs, if left uncared.

## **Prevention and Treatment**

Strict personal hygiene.

Boil water and safe water for drinking.

Early detection may be made by testing stools and immediately it should be reported to health authority.

Disinfection of clothing is recommended.

Disinfect surroundings with DDT and make it flies free.

Cholera vaccination

Adequate compensation of electrolytes and water by intravenous fluids and CRS solutions should be undertaken.

Provide antibiotics such as **Tetracycline**, and **Fuazolidone** in consultation with physician.

#### **DIARRHOEA**

People suffer from this disease mostly in summer and rainy season. It is spread by flies. If it is allowed to continue it may take the shape of dysentery.

#### Causes:

It is caused due to the spread of bacteria by flies.

It is caused by the presence of bacteria in unripe food.

It may be caused due to taking of infected food, water and other drinks.

# **Symptoms**

There is frequent movement of bowels

#### Remedies

Food should be protected from flies.

Water should be disinfected before it is used.

A person suffering from disease should take only very light food. During rainy or summer season.

During rainy or summer season light diet should be taken.

### THROUGH INSECT VECTORS

#### **MALARIA**

Malaria is a common disease found in most of the tropical regions of the world. It is a protozoan disease transmitted by the bite of anopheles mosquitoes. It is the most important parasitic disease of the human beings. Mode of transmission is by two means.

Mosquito transmission (Asexual) - An infected female anopheles mosquito may infect several persons. The mosquito is not infective unless the sporozoites are present in its salivary.

Human transmission (Asexual) – may be transmitted directly by injections of infected blood or plasma.-Eg. Blood transfusion, drug addicts using same syringe.

# **Symptoms**

There are three stages in the infection process:

**Cold stage-** A sudden onset of fever with rigors and chills and sensation of extreme cold & shivering which lasts about 15 minutes to one hour.

**Hot stage-** Temperature rises up to  $100^0$  F with intense head ache and the patient feels burning hot and casts of his clothes. This stage lasts for 2-6 hours.

**Sweating stage-** Fever decreases with profuse sweating. This is stage lasts for 2-4 hours.

In some cases, nausea, vomiting and delirium are common.

Mild anemia and a palpable spleen are also observed.

## **Prevention and Treatment**

Protection against mosquito by using repellants, protective clothing, bed nets and screening.

Control of adult infected mosquito/larvae-intermittent drying water containers and using larvicides to kill the mosquito larva sides. Spraying of insecticides will control also the mosquito.

To control human reservoir, mass drug administration should be undertaken in highly endemic areas.

Management of environmental sanitation, water and drainage will reduce the source of infection.

## Keep the patient warm during the shivering stage

Rub him down with a towel, sponge with weak vinegar and change his clothes when he has perspired.

Even after perspiration, if he temperature stays high, sponge the patient with cold water or apply cold packs.

If he feels headache, keep a cold wet cloth on the forehead. Give enough water to drink.

Give a very light diet and during the attacks only provide liquids dirts.

Treat with quinine or other drug on doctor's advice.

#### **Precautions to be taken School**

Malaria spreads during the spring and autumn hence see that no water collects in the school premises, or gardens, or about the compounds, which are breading places for mosquitoes.

Destroy the mosquito by sprinkling kerosene on stagnant drains.

Advice parents not to have cesspits or cesspools near their houses.

Sprinkle DDT, or BHC to control mosquitoes which may breed in the walls and the corners.

#### FIRST AID -PRINCIPLES AND USES

### 1Introduction

First aid is the immediate treatment given to the victim of the accident or sudden illness before medical help is obtained. In this unit we are going to learn about the concept of first aid and its principles in life related situations.

## The aims and scope of first aid

First aid has three main aims

To preserve life

To promote recovery and

To prevent worsening of the causality's conditions until the victim receives the services of a doctor or arrangement transportation to hospital

First aid is based on scientific medicine and surgery it is skilled assistance But the first need not be a doctor. After the doctor takes charge the first aiders responsibility ends. He can then stand by to help the doctor.

The first aider should observer carefully think clearly and acts quickly. He should be calm cool and confident. He should not get excited. He should ask someone to call a doctor/inform hospital immediately by giving details about victim. While waiting for the doctor he should give first aid methodically.

# The scope of first aid

The First aider should examine the causality to know the details of injuries and their nature. This is known as diagnosis

The diagnosis will give him an idea of the treatment to be given until the doctor takes charge

The next step is to send the causality to his house or to be hospital as the case may be in a suitable atmosphere.

### **Diagnosis**

Diagnosis of a case based on its history signals and symptoms.

History of the case is the study of the accident namely how the accident actually occurred. The causality will give history. If he is unconscious someone who saw the accident will help. The surroundings will add to the information like an abandoned scooter or a broken pillar near the place and its condition.

Symptoms are what the causality tells the first aider like pain shivering fairness etc. pain described by the causality will lead the first aider to the region of injury without waste of time.

Signs are what the first aider feels and finds out for himself like paleness swelling of parts injured bleeding deformity of the limbs etc. The training the first aider has undergone will help him make these observations correctly.

### **Treatment**

It is in treating the causality that the first aiders training will come into use. The first aider should read his book again and again otherwise he may forget the principles of treatment. The main ideas are

If the cause of the accident is still there remove it e.g. A live electric wire pillars or logs on body etc or remove the causality from the danger e.g. a burning house a room with poisonous gases etc.

The following conditions require the first aiders prompt attention to failure of breathing stoppage of heart severe bleeding and shock poisoning major burns, head injuries and fractures.

Continue the treatment until the doctor takes change

## **Disposal**

The earlier the doctor takes charge the greater the chances of recovery. First take the casually to the nearest shelter. The best of course is to the hospital or else it can be his house of the nearest clinic. The quickest means of transport should be made use of. A carefully worded message to the relatives as to his condition and also to what place he is being taken must be sent someone in the crowd will generally help in this It is of course the duty of police and they are most reliable.

# Qualities of the first aider

The following are the qualities that a trained first aider should possess

Prompt and quick.

As soon as an accident or injury takes place the first aider should be prompt and quick to render help to victim without delay.

Calm and controlled.

He should be a clam and controlled sort of man because he has to take immediate action without any fuss or panic.

Wise and intelligent.

He should be intelligent and wise enough to decide what immediate treatment is essential even before a complete diagnosis especially in case of serious injuries and severe bleeding.

Resourceful.

He should be resourceful enough to make available his first aid material at once or get the required things on the spot for giving immediate relief to the victim.

## Sweet tempered and sympathetic

The first Aider should use sweet and encouraging words to lessen the victim's distress.

He should keep the victim as comfortable as possible. With sympathy he should be able to calm the victim's fears.

#### Skilful and tactful

He should be skilful and tactful to know the symptoms and history of the case without any wasting the time. He must also be skillful to secure the confidence of the injured. If there is any crowd around the victim he should be tactful to control it. If needed he should get the assistance of one or more by standard to the best advantage of the injured.

#### **Dexterous and Clever**

He should be clever enough to handle the patient without giving unnecessary pain and use the applications efficiency.

# Faith and preservance

He should have full faith in himself and in the success of its efforts. He should continue his efforts even if he was to handle all serious and non serious situations until proper medical aid is received.

## **Principles of First aid**

The following are the importance principles of first aid.

Remove the cause of injury or the patient from the cause as early as possible. He should then render such help that may prevent further injury.

The bleeding should be stopped immediately irrespective of other injuries.

Keep the patient warm by wrapping him in clothes rugs or blankets and sheets as the cause may be.

Remove the clothes of the patient only when essential such removal of clothes must not cause pain or discomfort to the patient. He should very softly study the ankle and then undo the laces of shoes and cut off the socks if needed.

The wound should be covered at once with a clean dressing In case of a fracture the injured limb should be supported and placed in natural position as far as possible with splints and bandages.

Make immediate proper arrangements to transport the patient to a hospital or to a qualified doctor are the vicinity It should however be remembered that the first aider need not to be a doctor. So he should never take upon himself the duties and responsibilities of a doctor. His responsibilities are over as soon as proper medical aid is available.

The injured should be given as much rest as possible and his body should be kept in a restful position.

In case to take out poison first.

In case of fracture the broken part should be saved from movement till proper medical aid is available.

Offer warm milk or tea if the patient is in senses he may be given a cup of a warm milk or tea.

Full knowledge of anatomy is essential for giving first aid. The first aider must have complete knowledge of antinomy and physiology. It will enable him to render proper first aid to the injured.

Do no assume the role of doctor. The first aider should remember that he is not a doctor So he should never take upon himself the duties and responsibilities of a doctor.

#### Contents of a first aid box

The first aid box should contain the following equipments and medicines to enable the first aider to render effective timely appropriate aid.

# First aid Equipment or apparatus

- 1. Clean cotton wool
- 2. Needle
- 3. Bandages
- 4. Tweezers
- 5. Safety pin
- 6. Measuring tape
- 7. Thermometer
- 8. Scissors
- 9. Camel hair brush
- 10. Pads of various sizes
- 11. Tourniquet
- 12. Adhesive dressings
- 13. Spoon
- 14. Graduated glass

# FRACTURE -causes and remedy

Fractures are the commonest injuries involving the bones. A fracture is a break in the normal continuity of a bone. There are several types of fractures but they are generally classified

Simple or closed: A simple fracture is a clean break in the bone without the ends puncturing through the skin

Compound or open: A compound fracture is one in which the broken ends of bones are fragmented or shattered into many pieces. This may be simple or compound

Communicated: A bone is broken into several pieces

Impacted: The broken ends of the bones are driven into one another and it is called as impacted

Greenstick: A greenstick fracture occurs mostly in young children. The bone may be cracked and bent without breaking completely across

Depressed In a depressed fracture the upper parts or sides of the skull or broken part f the bone is driven inwards

Spiral fracture It results when a bone is broken by twisting force

Multiple fracture multiple fracture means a bone is broken in more than one place

# **Symptoms of Fractures**

Pain at or near the seat of fracture

Swelling around the seat of fracture

Limitation of normal movement

Deformity of the limb

Irregularity of the bone

Crepitus (body grating) may be heard or felt

Unnatural movement at the seat of the fracture

### **Treatment of fractures**

Immobilize the injured part to prevent further damage

Use the uninjured part of the patient's body as splint

Place thick padding using sterile cotton, folded towels, scarves socks and to fill spaces between two parts of the paddy.

Avoid having a bandage directly over a fractured part

Bandages and signs should not be tight that they cut off the blood circulation

Hospitalize the injured individual

# **Splinting Prevents**

Motions of fractured fragments thus reducing pain

Further damage of muscle nerves blood vessels by broken ends

Laceration of skin broken bones

Restriction of excessive blood flow at the site of fracture

A splint is a device to prevent the injured part from moving

The following are the rules of splinting

Remove clothing form the area of suited fracture or dislocation

Infrastructure the splint should immobilize the bone above or the bone below the injured fracture

In dislocation or sprain the splint should immobile the bone above or the bone below the injured joint

During splint application move the limb as little as possible

Straighten a severely deformed limb with constant gentle, manual traction so that the limb can be incorporated into a splint

If gentle traction increases the injured athletics pain apply splint only in the position of deformity

In neck and spine injuries correct deformity only as much as necessary. Avoid airway obstruction

Cover all wound with a dry sterile dressing before applying splint

Pad a splint to prevent local pressure

When in doubt Splint

The manage skeletal injury Traction may be given

### **Traction**

Traction is defined as the action of drawing or pulling on an object. Traction if excessive can be very harmful to the injured limb. When applied correctly traction stabilizes the bone fragments and improves overall alignment. Do not attempt to reduce fracture

When applied if the athlete resists the traction of if it causes more pain top the traction and apply splint to the injured limb.

### **Dislocation**

Definitions: dislocation is displacement of the ends of two bones at their joint so that the joint surfaces are not in proper contact generally knee elbow shoulder lower jaw get dislocated.

#### **Causation**

A forcible extension at a joint cause dislocation. A sudden fall may also cause dislocation.

# **Symptoms**

Dislocation of bone causes severe pain The affected part gets swollen . The affected part loses its power of functioning. The part is deformed. The part becomes motionless Injuries to the capsules and ligaments a joint place sometimes tearing of muscles and tendons occurs.

#### **Treatment**

This part should be tightened with a cold water soaked bandage.

If the coldwater soaked bandage does not relieve the pain the affected part should be fomented.

If even the fomentation does not prove of any use in reliving the pain a doctor should be

consulted.

#### FIRST AID RELATED TO...

### **Burns and Scalds**

Remove the brunt clothes carefully Do not remove clothes from above the vesicles formed due to burns

Don't disturb vesicles

Cover the burnt part of the body with clean cloth

Keep the patient warm with blanket

Use splints and slings to support the burnt part of the body

Treat the shock

Call the doctor for help

If the child has burnt with acids was the burnt part with water o water mixed with soda. If it is burnt by alkali (lime) cleanse the part burnt wash it with water mixed with lemon or with warm water

# **Fainting**

Symptoms of fainting

The patient becomes pale

Skin becomes cool

There will be sweating of the forehead

Respiration becomes weak

The patient may become unconscious

Pulse becomes weak

### **Treatment**

Lay down the patient on the floor and keep his feet raised so that more blood may enter the head

Give fresh air by open doors and windows do not let other children crowd around him

Take the child to a cool place

Keep hands and feet of the fainted child warm

Give smelling salt

Stop bleeding if any

Do not give any stimulant

#### **Snake Bite**

### First Aid

Call the doctor at once

Recognize the kind of the snake that has bitten

If the snake is poisonous make every effort to avoid from position entering into the body. For example if the snake has bitten in the leg or arm stop the flow blood by means of tourniquet The tourniquet should be between the wound and heart . take a rubber pipe or an extensible lace or handkerchief and prepare the tourniquets Keep this at its place for 20 minutes and then loosen it and again fasten it strongly Do this till the doctor arrives

Apply potassium Permanganate on the wound. Make wound of ¾ inches deep in the spot of bite with a sharp knife or blade and rub the particles of potassium permanganate.

Give strong coffee tea or hot milk if patient can swallow it

Give him courage so that he may not fear the snake bite

#### **Rabies**

# First aid for dog bite

Call for the doctor

Wash the wound with water and soap

Apply carbolic acid with a match stick at ever place of bite inside and outside the wound

Burn the wound with hot iron or knitting needle apply potassium permanganates silver Nitrate or strong Nitric Acid

Get all information about the bite and the dog

Find out whether the dog has bitten of its own accord or when it was troubled

I the dog belongs to some person ask him to keep it tied so that it may be inspected by the doctor

Get anti rabbis treatment with Anti Rabbis vaccine (ARV)

# **Electric Shock**

#### First Aid

Do not allow persons to crowd around the victim

Lay him down on a blanket in a cool place

If he becomes unconscious place his head between his knees

Raise the feet loosen the light clothing around the neck in the loins and at the chest

Put cold water drop by drop in his mouth

Call for the doctor at once

Try to keep the patient vigilant

Protect him from anxiety and provide encouragement and comfort

Give artificial respiration if needed

Treat the burns

#### **Precautions**

As electric shocks take place in houses general hence the parents should be properly trained. They should stop the flow of electric current by switching off the main. It is not possible put on dry rubber gloves coat or cloth and then with the help of bent stick or dry rope remove the child caught by electricity. Remove the plug or break the electricity. Remove the plug or break the electric wire by drawing it out. Do not cut it with a knife

# **Bleeding**

Arteries veins and capabilities are the vessels that carry blood Arteries carry blood from heart to the various organs of body. Capabilities are the vessels that connect arteries and veins. These are so small that they cannot be seen by naked eye, except under a microscope. Veins are the vessels that carry blood from various organs to the heart. Bleeding occurs when any of these vessels is cut. Bleeding therefore if of three kinds.

Arterial Bleeding

Capillary bleeding

Venous bleeding

In the arterial bleeding the blood that oozes out with the heart beat is of bright red colour. But in the capillary bleeding it is in dark purple and takes place slowly. In the case venous bleeding blood is dark purple but comes out in a fast flow.

The blood is dark purple because of the ate products that have been collected in it. Arterial bleeding is hard to control and very serious and needs also immediate first aid and treatment.

### First aid for capillary bleeding

Dip the part of the body in cold water.

Tie the wound with wet clean cloth.

# First aid for venous bleeding

Lower the wounded part of the body.

Apply tourniquet on the wound in the direction opposite to heart.

Tie a clean cloth dipped in antiseptic solution.

## First aid for Arterial Bleeding

Place a compress over the wound and apply direct pressure with both the thumbs.

If blood does not stop oozing out, apply pressure at the pressure point nearest to the heart use tourniquet.

Raise the wounded part above so that less blood may come out.

## The pressure points are

Carotid pressure point-Where the branches of aorta on the both sides of the windpipe send blood to the head.

Sub lavation pressure point – Where the branches of Aorta come out of the collar bone cross the first rib and reach the attempt.

Brachial Pressure point The arteries of the arm line lie on the inner idea of the biceps and they carry blood to upper extremities.

Femoral pressure point –It lies on the lilac artery which is a branch of abdominal aorta. It is just in the middle of the bend of the thigh.

# First aid for bleeding from the nose

Bleeding from the nose is caused by heat or injury on the nose. The following points should be kept in mind while giving first aid for bleeding nose.

Seat the child in front of an open window and bend his head backwards with his hand raised up.

Loosen the tight clothing around the neck and chest.

Ask the child not to breathe through nose but through the mouth.

Place the feet in warm water.

Apply cold compress over the neck.

Do not allow the child to sneeze.

## First aid related hemorrhage:

Bleeding is the name commonly used to describe blood loss. It can refer to blood loss inside the body (internal bleeding) or blood loss outside of the body (external bleeding). Blood loss can occur in almost any area of the body.

## **Prevention:**

Maintain blood pressure as low in the normal range as possible

Avoid blood thinning or anti-clot medications including aspirin, when possible. This is especially critical for patients with recent growth or hemorrhage.

Stay away from roller coasters or any activity inducing strong gravitational force.

Stay stress free.

## **Treatment:**

Place pressure directly on the wound. This can be accomplished by placing a sterile gauze dressing or a clean handkerchief on the bleeding points and pressing firmly with the flat of one's hand or with one's fingers. If the bleeding is secondary to a very severe laceration in the arm or in the leg, a tourniquet may be required. This should be applied only as a last resort if the bleeding cannot be controlled by direct pressure.

Treatments of external bleeding

Direct pressure on wound

Direct pressure on artery or vein

Elevating bleeding limb

Styptics

Ice cold water

# Treatments for internal bleeding

Patient lying down

Intravenous morphine

Emergency treatment

Emergency hospitalization