# Student Handbook
# For
# Home Health Aide- Trainee

## Class - IX

**Author:**
Professor Manashi Sengupta
Dean, Faculty of Nursing
Assam down town University

**Editor:**
Ms. Deepali Borthakur
Assistant Professor
Faculty of Humanities and Social Sciences
Assam down town University

# Editorial

Many health care and support services may be provided outside of the traditional health care environment such as a hospital, skilled nursing facility, rehabilitation centre, or long-term care environment. Receiving care within the home allows individuals to remain in the comfort of their residence, surrounded by loved ones, while their health care and daily living needs are managed. Patients who receive home health care services have a team of health care workers together help patients and their families manage their needs.

Home health aides and personal care aides often spend more time with patients than any other team member. Being a home health aide is a very rewarding career as you have an opportunity to play a very important role in the home care team. You will meet many different people and work in a variety of settings. You will often have the chance to work with the same patients and families for a long period of time. You will have the chance to get to know your patients and families in a very personal and special way as you work with them to meet their health care and daily living needs.

The Home Health Aide course is designed to deliver training to students for providing individualized healthcare to the convalescents, elderly or the people with disabilities by visiting their homes. The Home Health Aide course aims at providing extensive medical/physical care to these patients than their families can provide. Under the Home Health Aide Training, students are trained to monitor as well as report changes taking place in the health status of these patients. In addition, they are also responsible for providing personal care in basic daily activities such as dressing, grooming, and bathing to these patients.

Home health aide is one of the fastest growing occupations. There is high demand for home health aide workers, with many opportunities for employment. This book will provide you with the background necessary to begin working towards a career as a home health aide/ personal care aide.

Regards,

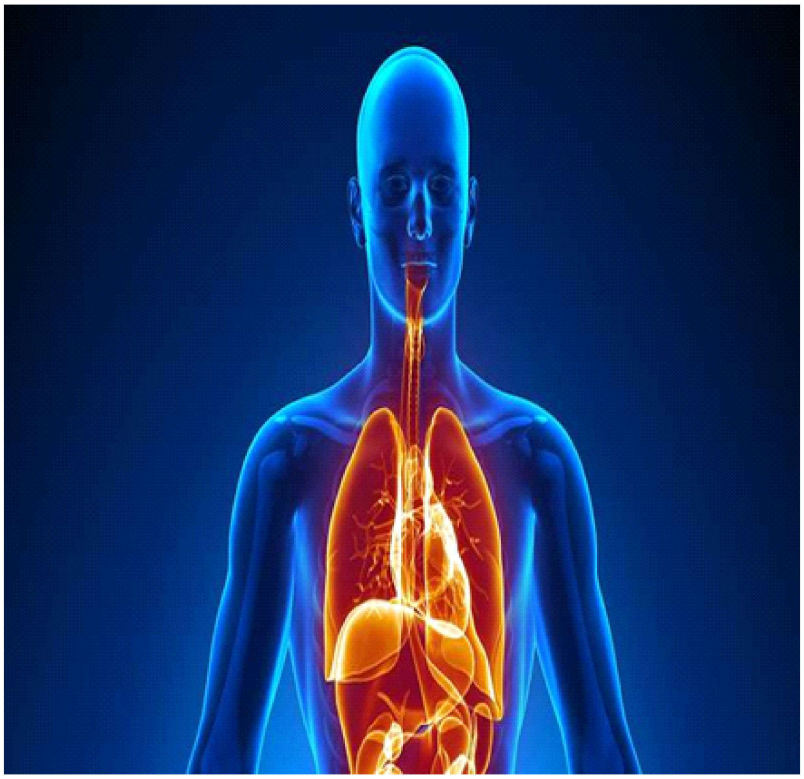
Ms. Deepali Borthakur
Assistant Professor,
Faculty of Humanities and Social Sciences
Assam down town University

# Content

# Human Body Structure and Function

**Learning outcomes of the unit:**

- ✓ **Identify the structure, bones, organs and parts of human body.**



***Unit at a glance***

- ❖ Introduction
- ❖ Commonly used terms in Anatomy and Physiology
- ❖ Skeleton
- ❖ Bones
  - ▪ Types of Bones
  - ▪ Parts of Long Bones
  - ▪ Functions of Bones
- ❖ Tissue
  - ▪ Classification of Tissue
  - ▪ Functions of Tissue
- ❖ Different parts of Human Body and its functions

## INTRODUCTION

Anatomy is one of the oldest basic medical sciences; it was first studied formally in Egypt. Human Anatomy was taught in Greece by ***Hippocrates*** (460-377 BC) who is regarded as the ***"Father of Medicine".***

Anatomy is the study of structure and function of the body. Aristotle (384-322 BC) was the first person to use the term **"anatome"** , a Greek word meaning **"cutting up or takingapart".** The Latin word **"dissecare**" has a similar meaning.

Physiology is the branch of science that deals with various functions of living organism and the processes which regulate them.

In short we can say that physiology is the study of how the human body works.

# COMMONLY USED TERMS OF ANATOMY AND PHYSIOLOGY

| Term | Meaning |
|---|---|
| Superior | Above or towards the head |
| Inferior | Below or towards the feet |
| Anterior (Ventral) | Towards the front or front surface of the body |
| Posterior (Dorsal) | Towards the back or back surface of the body |
| Median | Mid line of the body |
| Lateral | Away from the midline or towards the side |
| Distal | Further from the trunk or away from the region |
| Proximal | Nearer to the trunk or origin |
| External | Towards the exterior or outside |
| Internal | Towards the interior or inside |
| Superficial | Nearer to the surface |
| Deep | Further from the surface |
| Supine | Lying straight on the back with face directed upwards |
| Prone | Lying straight on the abdomen or belly with the face directed downwards |

**Table 1: Commonly used terms in Anatomy & Physiology**

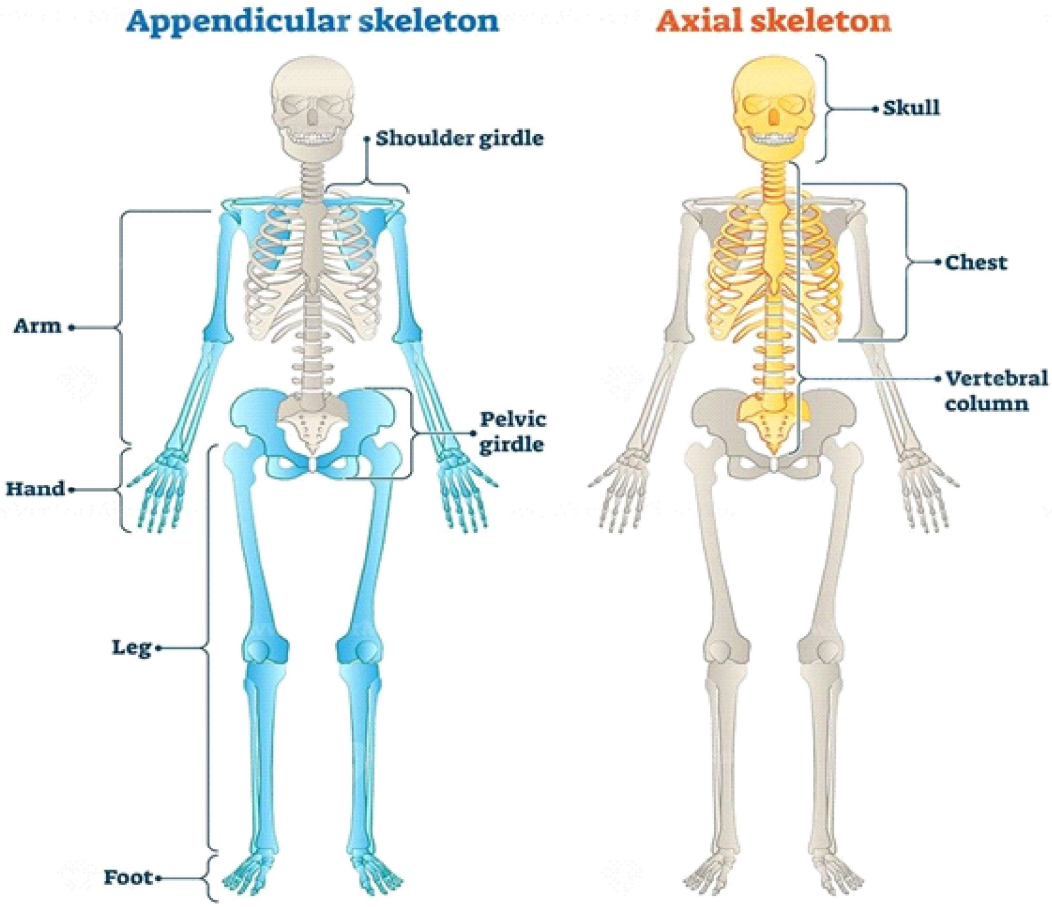
# SKELETON

The term skeleton is derived from a Greek word **"Skeletos"** meaning dried, hard parts left after parts are removed.

It forms the structural framework of the body. Skeleton includes bones, cartilages and joints. The adult human skeleton consists of **206 bones** . It can be studied in two parts.

a. The axial skeleton
b. The appendicular skeleton

# DIVISIONS OF THE SKELETAL SYSTEM




**a.** **The axial skeleton(80 bones):** It consists of bones arranged along the longitudinal axis. This includes ***skull, vertebral column, thoracic cage*** and ***hyoidbone.***

**i)** **Skull-** It is made up of 22 bones and 6 ear bones.

- ***Cranium(8 bones)***
  - Parietal-2
  - Temporal-2
  - Frontal-1
  - Occipital-1
  - Ethmoid-1
  - Sphenoid-1
- ***Face(14 bones)***
  - Maxillary-2
  - Zygomatic-2
  - Lacrimal-2
  - Nasal-2

- Inferior nasal conchae-2
- Palantine-2
- Mandible-1
- Vomer-1

❖ ***Auditory ossicles/ear bones(6 bones)***

- Malleus-2
- Incus-2
- Stapes-2

**ii)** **Vertebral column**- It is made up of 26 vertebrae, namely:

❖ Cervical vertebrae-7
❖ Thoracic vertebrae-12
❖ Lumbar vertebrae-5
❖ Sacrum-1(5 fused bones)
❖ Coccyx-1(4 fused bones)

**iii)** **Thoracic cage-** It consists of 25 bones.

❖ Ribs-24(12 pairs)
❖ Sternum-1

**iv)** **Hyoid bone**- It consists of 1 bone which lies in the midline of the front portion of the neck.

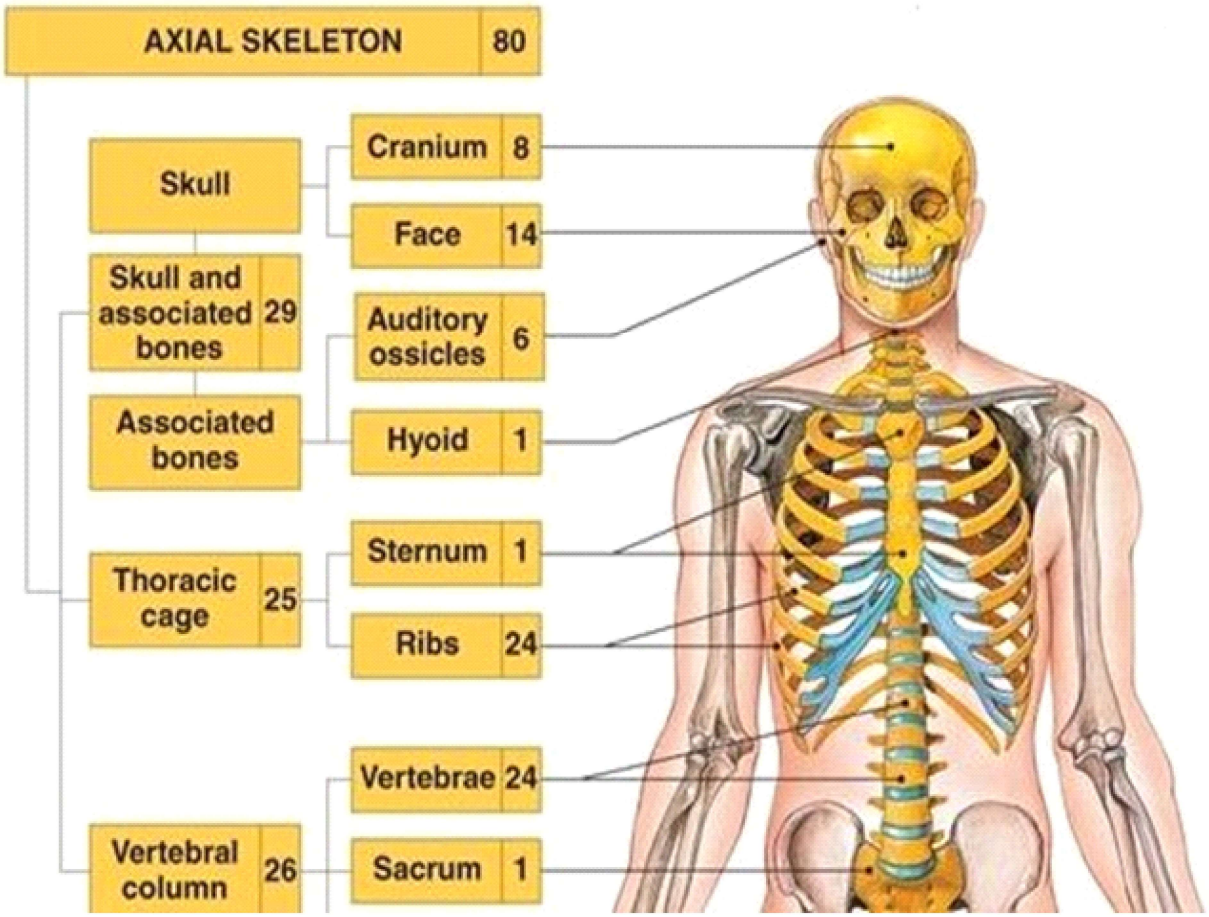



**Fig2: Axial skeleton**

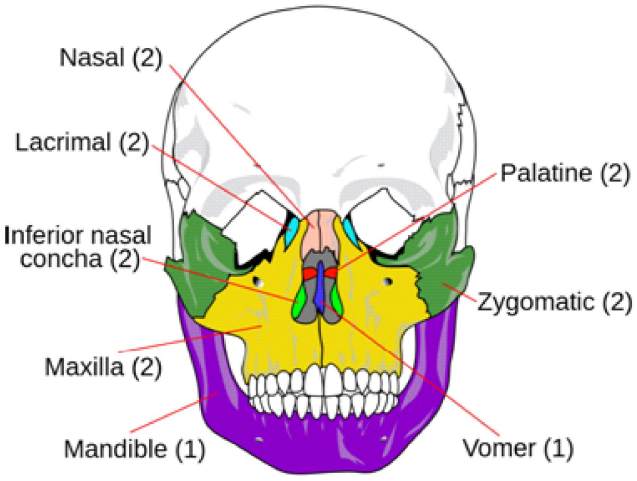



Fig 3: Face

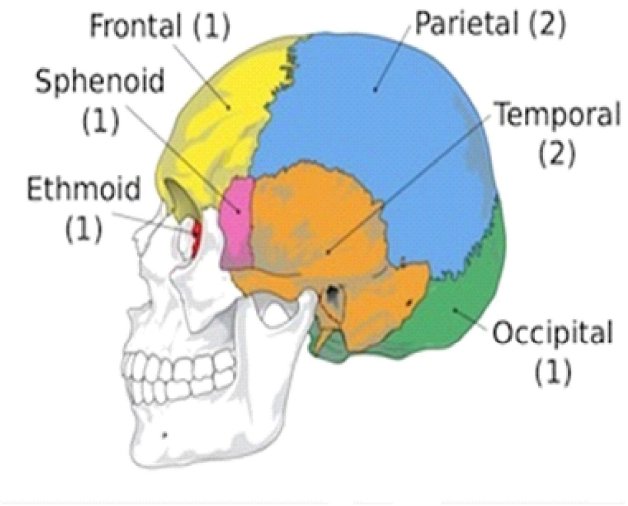



Fig 4: Cranium

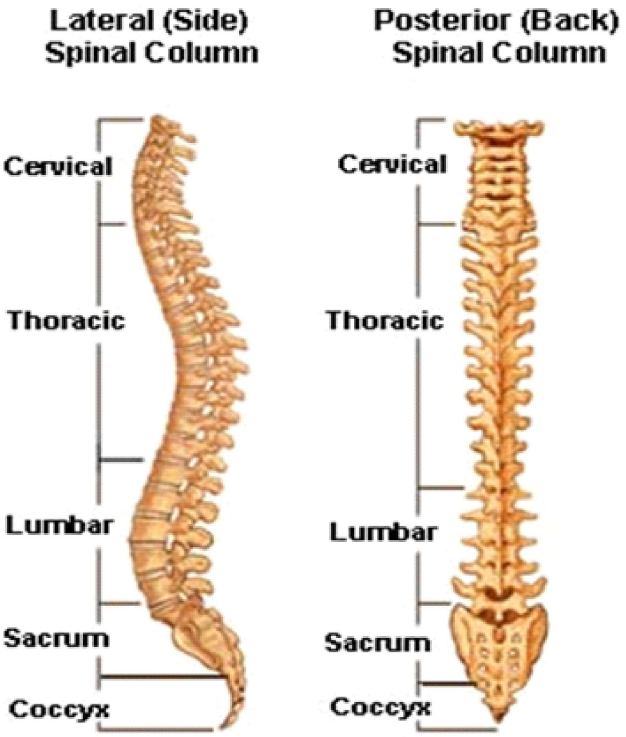



Fig5: Vertebral column

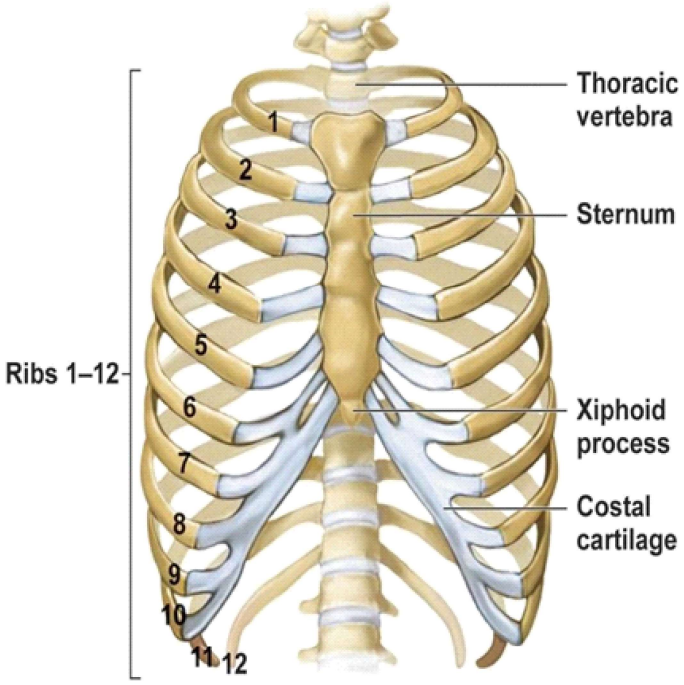



Fig6: Thoracic cage

**b.** **The appendicular skeleton(126 bones):** It consists of the bones of the upper and lower extremities.

**i) Upper extremities (64 bones)**

- Clavicle-2
- Scapula-2
- Humerus-2
- Ulna-2
- Radius-2
- Carpals(wrist)-16
- Metacarpal-10
- Phalanges-28

**ii) Lower extremities (62 bones)**

- Hip bones (Ischium, Ilium and Pubis)-2
- Femur-2
- Patella-2
- Tibia-2
- Fibula-2
- Tarsals(ankle)-14
- Metatarsal-10
- Phalanges-28

**Added information:**

***Femur Bone*** **is the longest bone in our body and** ***Stapes*** **Bone is the smallest bone.**

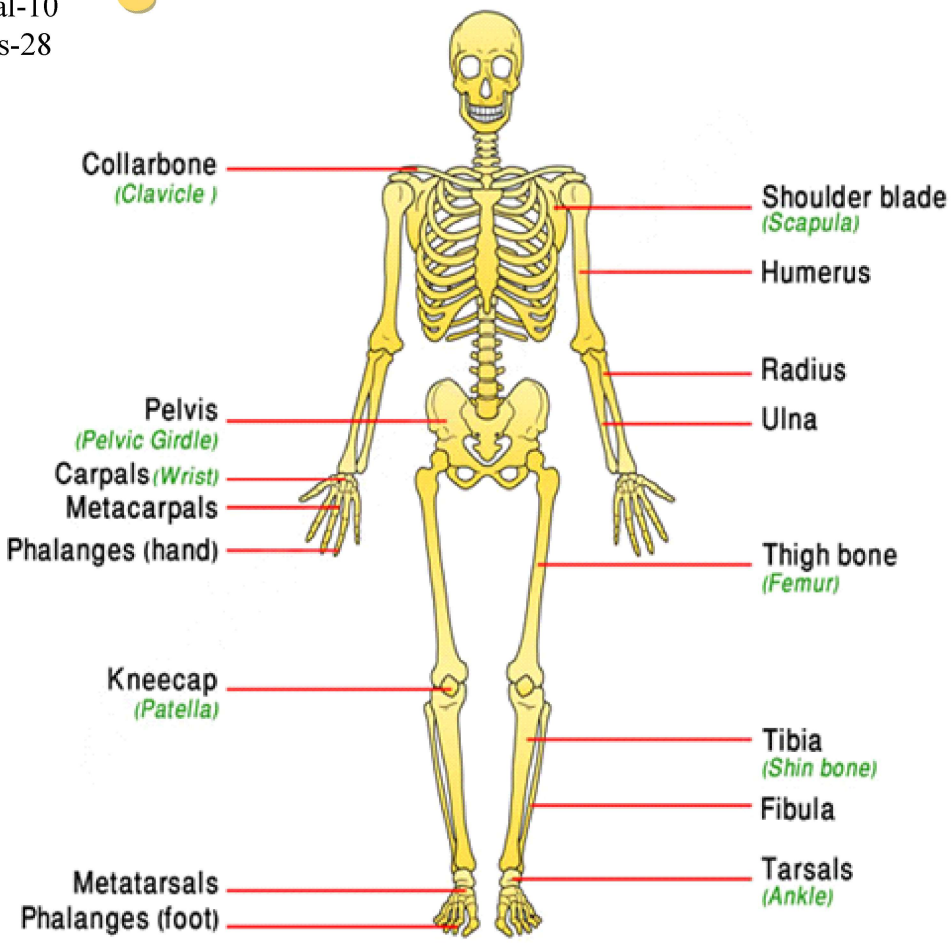



**Fig7: Parts of Appendicular Skeleton**

# BONE

Bone means any of the hard pieces that form the skeleton (frame) of a human or animal body. Bones are made up of salts, water and tissue. They are hard, resilient and have enormous regenerative capacity.

**Added information:**

**Study of bones is called osteology.**

## Types of Bones

Classification of Bones according to the shape:

1. **Long Bones:** Long bones are those bones in which the length exceeds the breadth eg: Humerus, Femur etc.
2. **Short Bones:** Short bones are cubical in shape and short in posture eg: Carpal Bones and Tarsal Bones.
3. **Flat Bones:** These bones are flat in appearance eg: Scapula, Ribs, Sternum etc.
4. **Irregular Bones**: These bones are completely irregular in shape eg: Vertebrae, Hip etc.
5. **Pneumatic Bones:** These are similar to irregular bones and have air filled cavities in them eg: Maxilla, Sphenoid etc.
6. **Sesamoid Bones:** These bones develop in the tendon of a muscle. Periosteum is absent in these bones eg: Patella etc.

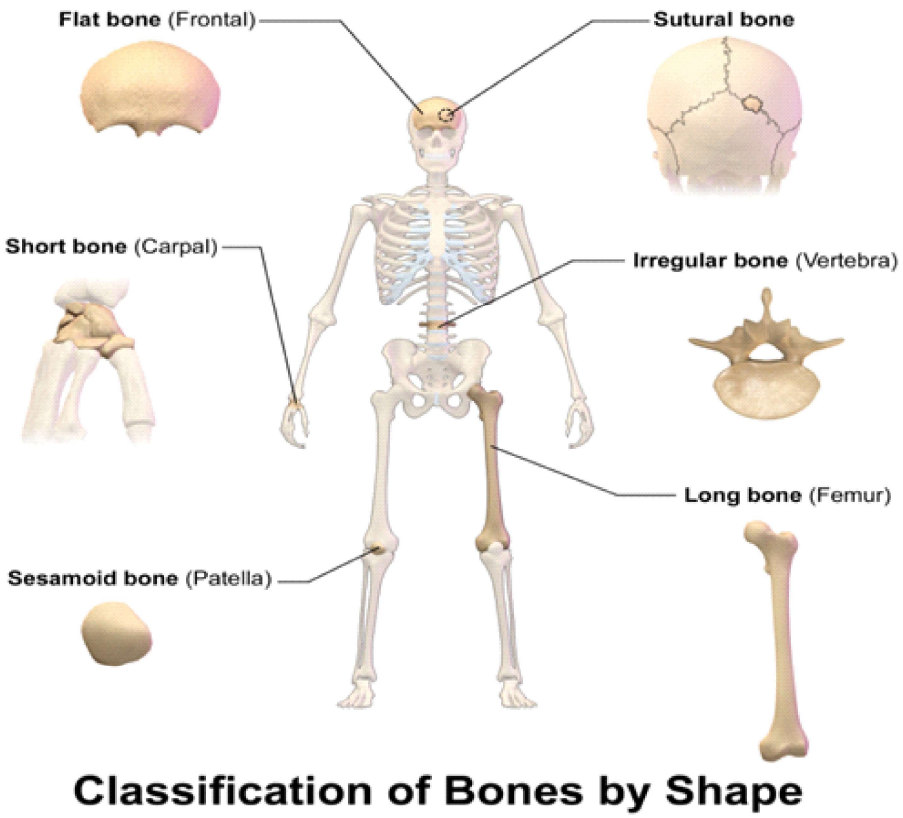



**Fig 8: Classification of Bones**

## Parts of Long Bones

A young long bone consists of:

a. **Diaphysis(growing between):** It is the body or shaft of the bone which is long and cylindrical.
b. **Epiphysis(growing over):** These are the distal and proximal ends of the bones.
c. **Metaphysis(between):** The end of diaphysis facing towards the epiphyseal cartilage is known as metaphysis.
d. **Epiphyseal cartilage:** It is a plate of cartilage which intervenes between the epiphysis and diaphysis of a growing bone. Epiphyseal cartilage persists till the bone is growing. When the full length is achieved, epiphyseal cartilage is replaced by bone and further growth stops.
e. **Periosteum:** It is a tough sheath of dense irregular connective tissue that covers the surfaces of the bones.
f. **Medullary cavity(marrow cavity):** It is the space within the diaphysis that contains fatty yellow bone marrow in adults.
g. **Endosteum:** It is the thin membrane that lines the medullary cavity.

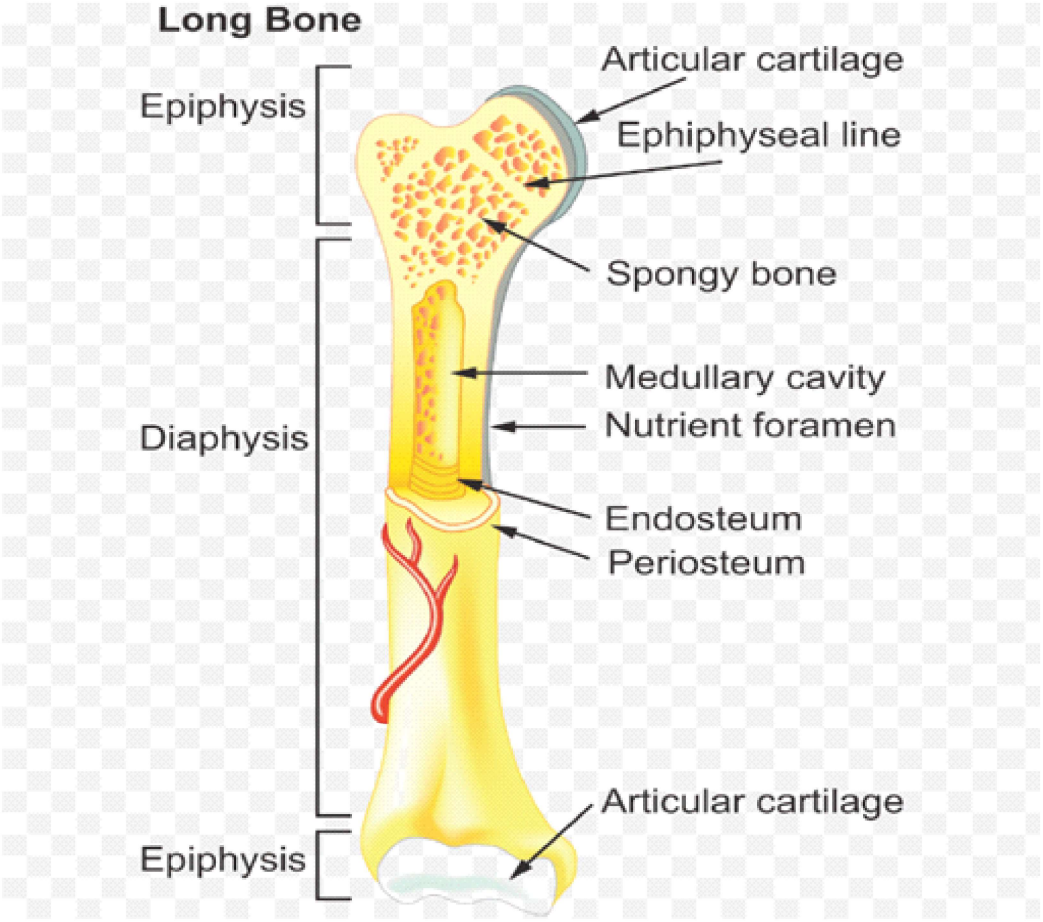



**Fig 9: Parts of Long Bone**

## Functions of Bones

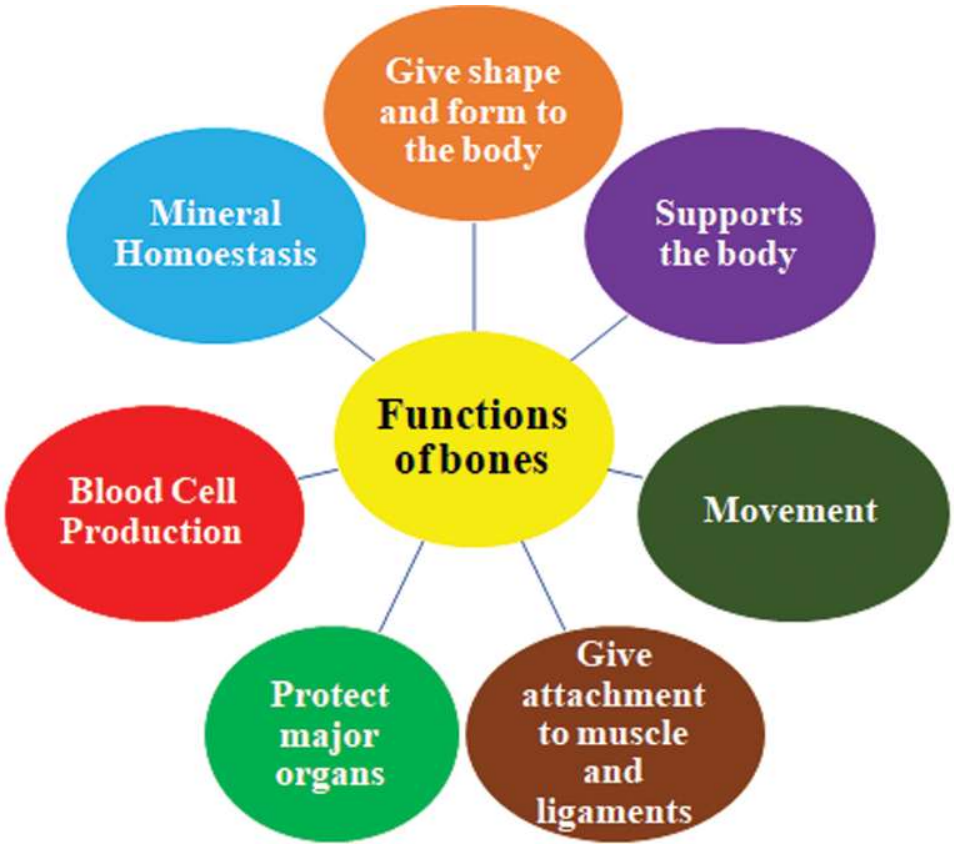



**Fig 10: Functions of bone**

- Constitutes the framework of body; give shape and form to the body.
- Supports: It serves as the structural framework and supports the body.
- Movement: Limb movements, breathing and other movements are produced by the action of muscles on the bones.
- Give attachment to muscles and ligaments.
- Protect major organs such as brain, heart and lungs.
- Formation of RBCs, WBCs and Platelets in the bone marrow.
- Mineral Homoestasis: Bones store several minerals, especially calcium and phosphorous which strengthen the bone.

# TISSUE

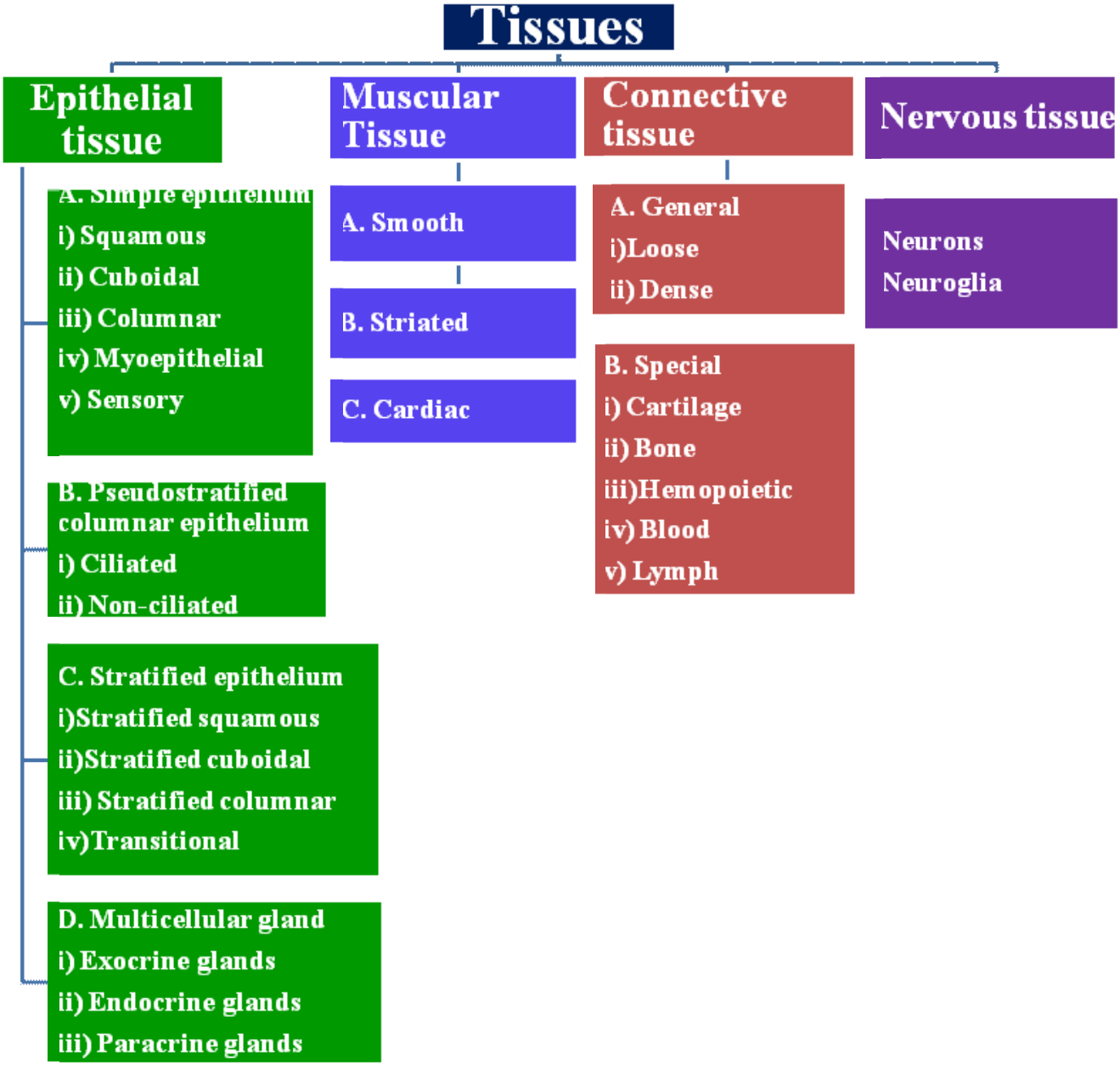
A tissue is defined as a collection of cells and associated intercellular materials specialized for a particular function or functions.

## Classification

There are four primary tissues in the body

- Epithelial tissue
- Connective tissue
- Muscular tissue
- Nervous tissue

According to structure and function they are classified into subdivisions



## Functions of various tissues

- **Epithelial tissue:** Epithelial tissue lines the external and internal surfaces of our body. Functions are:
  - ✓ Protection
  - ✓ Secretion
  - ✓ Absorption
  - ✓ Forms glands and ducts
- **Muscular tissue:** The muscular tissue is organized to form the musculature of the body. Functions are:
  - ✓ Skeletal muscle-Helps in locomotion
  - ✓ Smooth muscle-They are present in the viscera of our body and serves variety of functions like digestion and nutrient collection etc. It also has the ability to be contracted and controlled involuntarily.
  - ✓ Cardiac muscle-It is seen only in the heart. Contraction of this muscles helps in pumping of blood throughout our body.
- **Connective tissue:** As the name suggest, it connects different components of our body. It is made up of cells, fibres and matrix. Functions are:
  - ✓ Providing support to different parts of our body.
  - ✓ Protection of organs
  - ✓ Connection of body tissues, e.g. muscles to bones
  - ✓ Connecion of epithelial tissues to muscle fibers
  - ✓ Nutritional support to epithelium
  - ✓ Helps in repair of injuries
- **Nervous tissue:** It is composed of neurons and neuroglia. Functions are:
  - ✓ It helps in sending different kinds of information to the brain and bringing its responses back from brain to the effector organ.

# PRACTICAL

## DIFFERENT PARTS OF THE HUMAN BODY

### Organs systems of body

The human body has several organ systems that work independently and carry out specific functions. These systems influence each other and work together to maintain health, provide protection from disease, and allow for reproduction of the human species. The various structures constituting these body systems and their functions are discussed below:

### 1. Digestive system

**Constituents**

- Mouth
- Pharynx
- Esophagus
- Stomach
- Small and large intestines
- Salivary glands
- Liver and Gallbladder
- Pancreas

**Functions**

- Digestion of food
- Absorption of nutrients
- Elimination of wastes

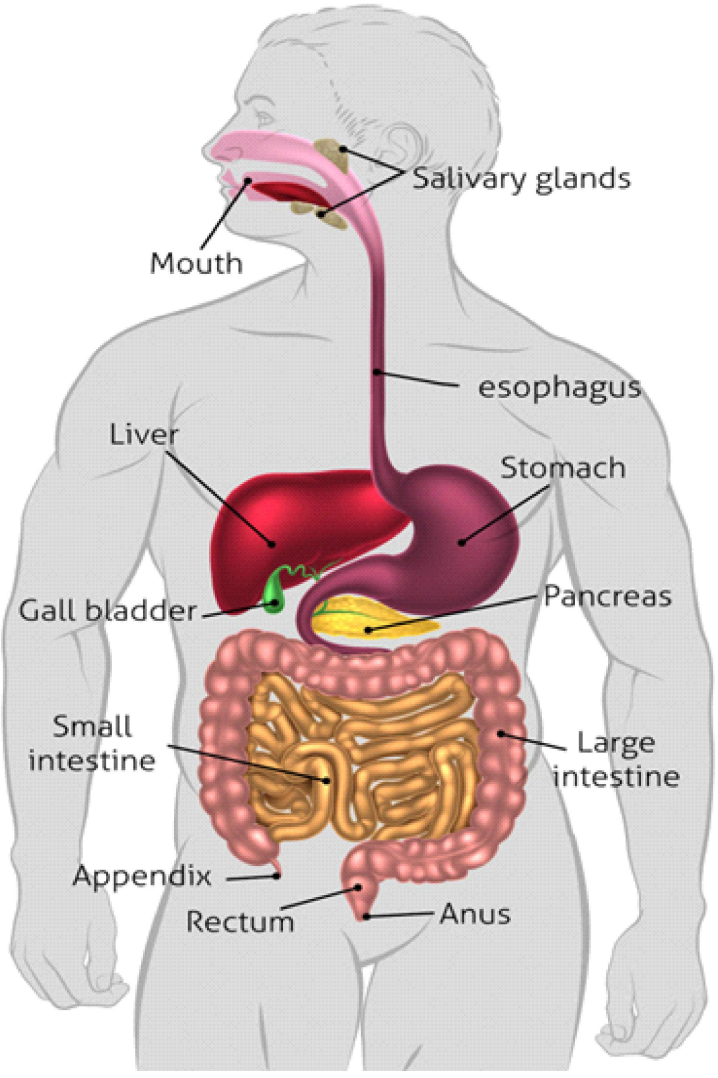



**Fig11: Digestive System**

## 2. Respiratory system

**Constituents**

- Nose
- Pharynx
- Larynx
- Trachea
- Bronchial tubes
- Bronchioles
- Lungs

**Functions**

- Gas exchange-oxygen and carbondioxide
- Regulation of acid base balance of body fluids
- Olfactory assistance-sense of smell
- Protection from dust and microbes entering body through mucus production, cilia and coughing.

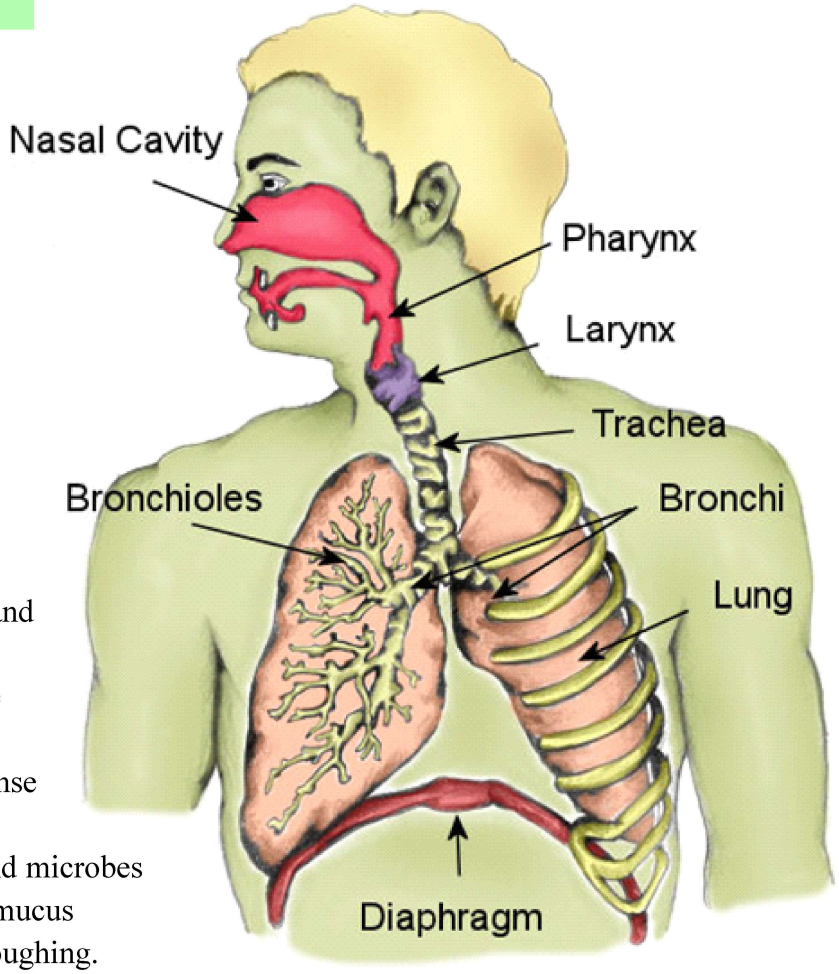



**Fig12: Respiratory System**

## 3. Urinary system

**Constituents**

- Kidneys
- Ureters
- Urinary bladder
- Urethra

**Functions**

- Production, storage and elimination of urine
- Regulation of volume and chemical composition of blood
- Maintenance of acid-base balance of the body.

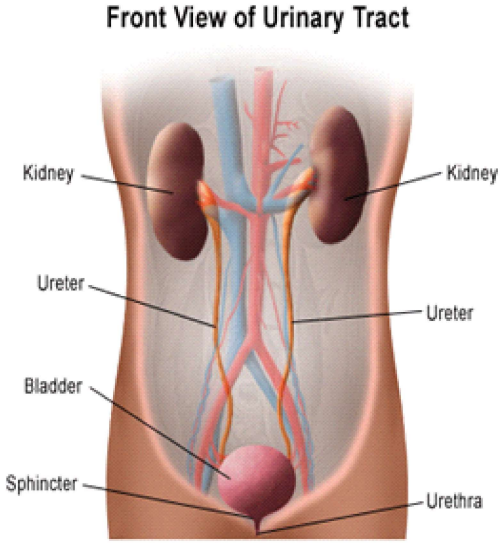



**Fig13: Urinary System**

## 4. Cardiovascular system

**Constituents**

- Heart
- Blood vessels-arteries and veins
- Blood

**Functions**

- Heart pumps the blood through the blood vessels.
- Blood carries oxygen and nutrients to the cells and takes away the wastes and carbondioxide from the cells.

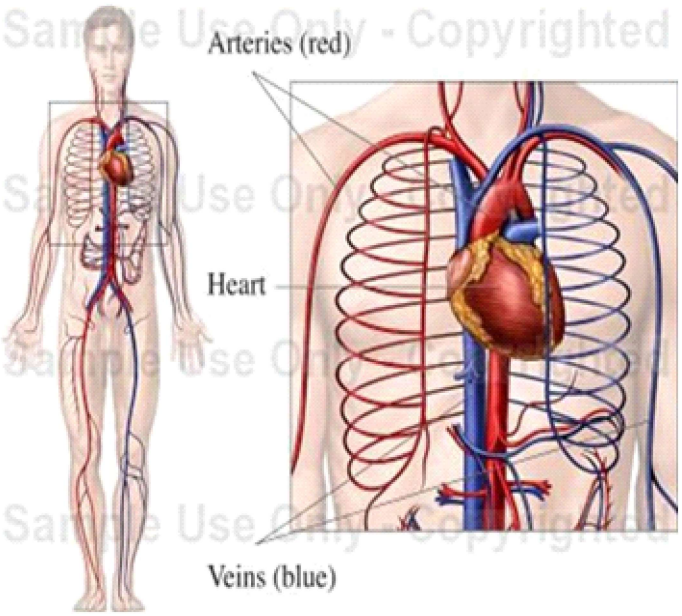



**Fig14:Cardiovascular System**

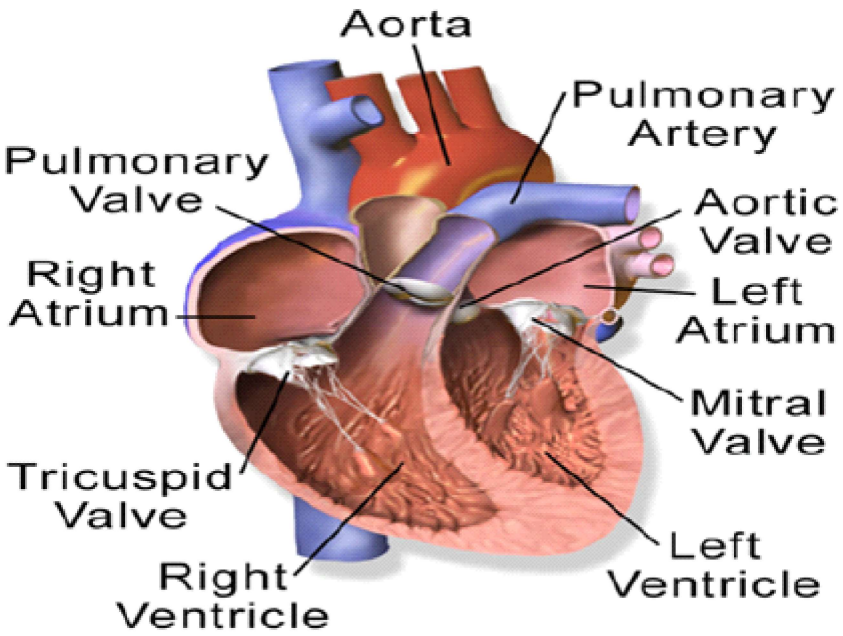



**Fig15: Anatomy of Heart**

## 5. Skeletal system

**Constituents**

- Bones
- Joints
- Associated cartilages

**Functions**

- Provides support and protection to the body
- Helps in body movements

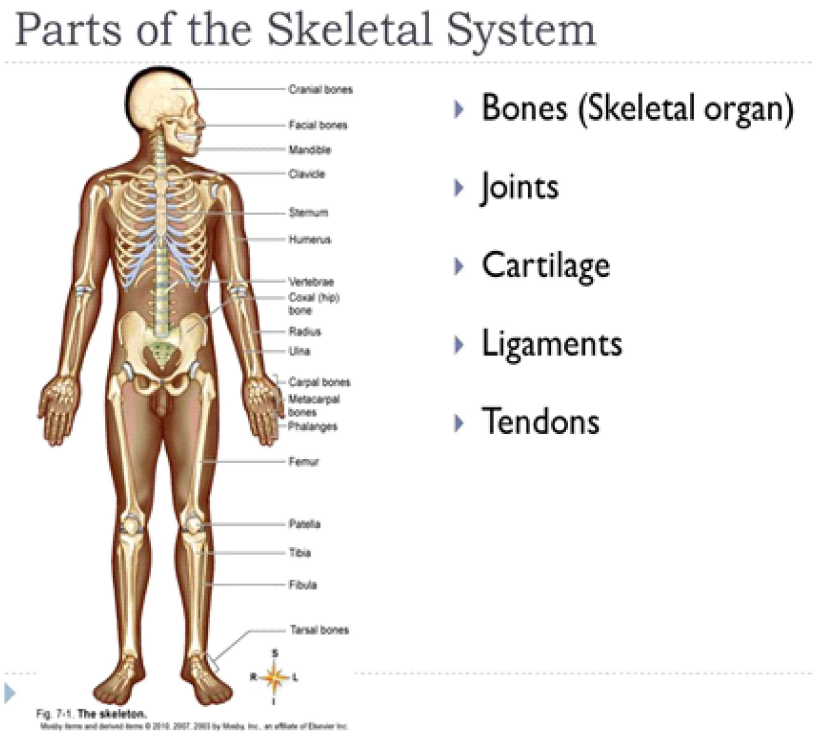



**Fig16: Skeletal System**

## 6. Muscular system

**Constituents**

- Skeletal muscles
- Smooth muscles
- Cardiac muscle

**Functions**

- Skeletal muscle help in body movements
- Maintenance of posture
- Production of heat

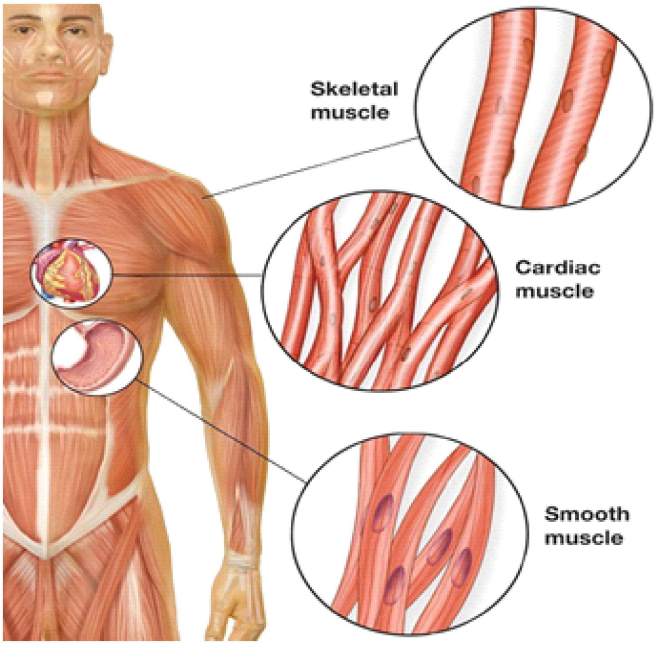



**Fig17: Muscular System**

## 7. Nervous system

**Constituents**

- Brain
- Spinal cord
- Nerves
- Special sense organs like eyes, ears

**Functions**

- Regulation of body activities and body's internal and external environment by nerve impulses.

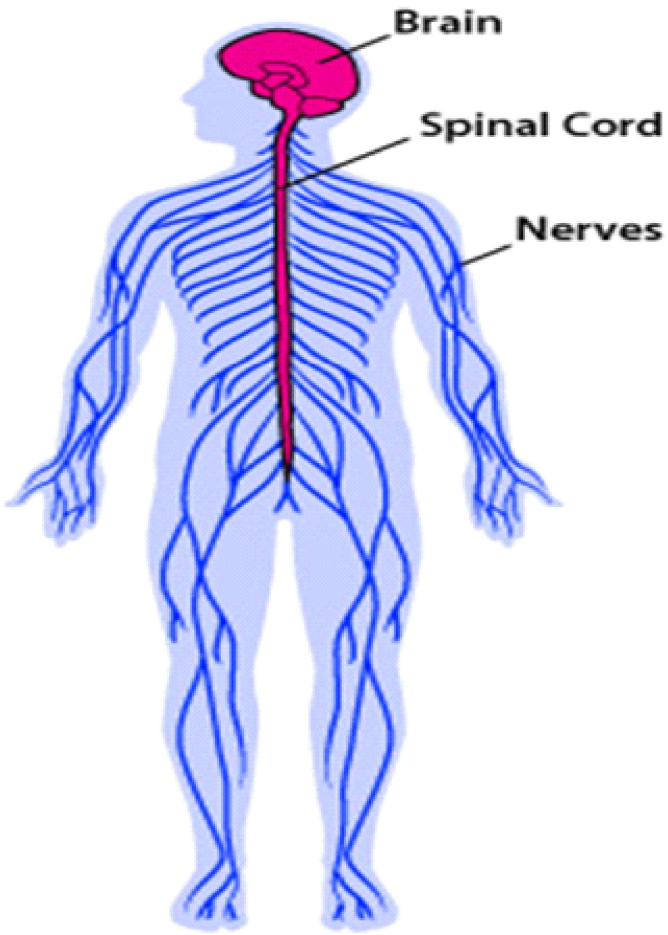



**Fig18:Nervous System**

## 8. Endocrine system

**Constituents**

- Hypothalamus
- Pituitary gland
- Thyroid gland
- Pineal gland
- Parathyroid gland
- Pancreas
- Ovaries/Testes
- Adrenal glands

**Functions**

- Regulation of body activities by releasing hormones

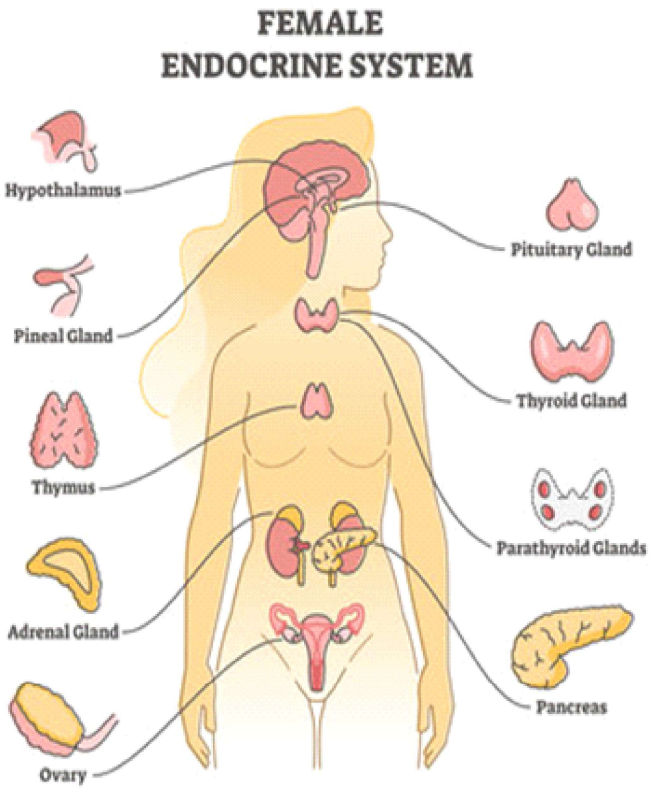



Fig19(a): Female endocrine system

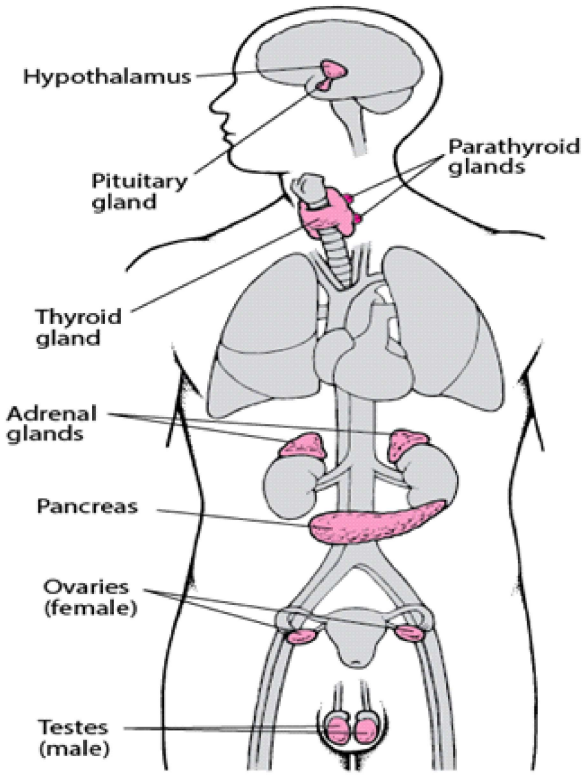



Fig19(b): Male Endocrine system

## 9. Lymphatic system

**Constituents**

- Spleen
- Thymus
- Tonsils
- Lymph nodes
- Lymphatic vessels

**Functions**

- Return proteins and fluids to the blood
- Removes bacteria, toxins and other foreign bodies from tissue
- Lymph serves as an important route for intestinal fat absorption

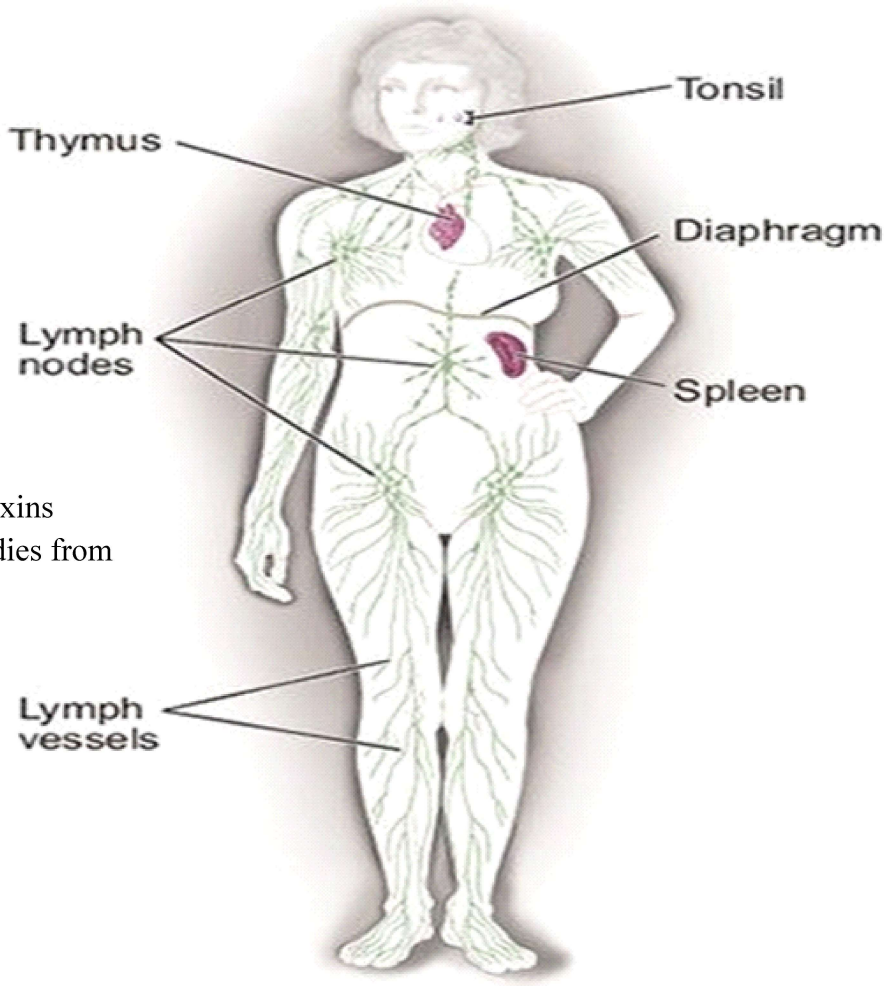



**Fig20: Lymphatic system**

## 10. Integumentary system

**Constituents**

- Skin
- Hair
- Nails

**Functions**

Skin is major sensory organ responsible for:

- Protection of body
- Regulation of body temperature
- Elimination of wastes

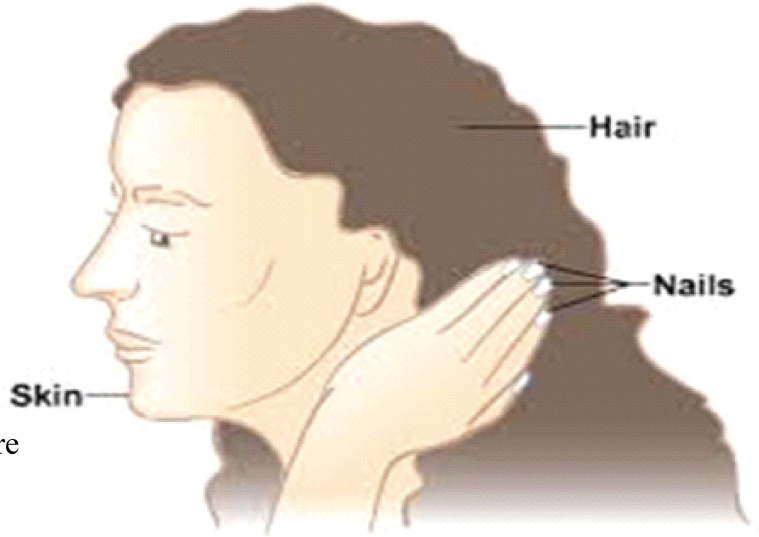



**Fig21: Integumentary system**

## 11. Female reproductive system

**Constituents**

- Ovaries
- Uterine tubes
- Uterus
- Vagina
- Mammary glands

**Functions**

- Production of gametes
- Release of hormones that regulate reproduction and help in development of secondary sexual characteristics
- Mammary glands are for lactation

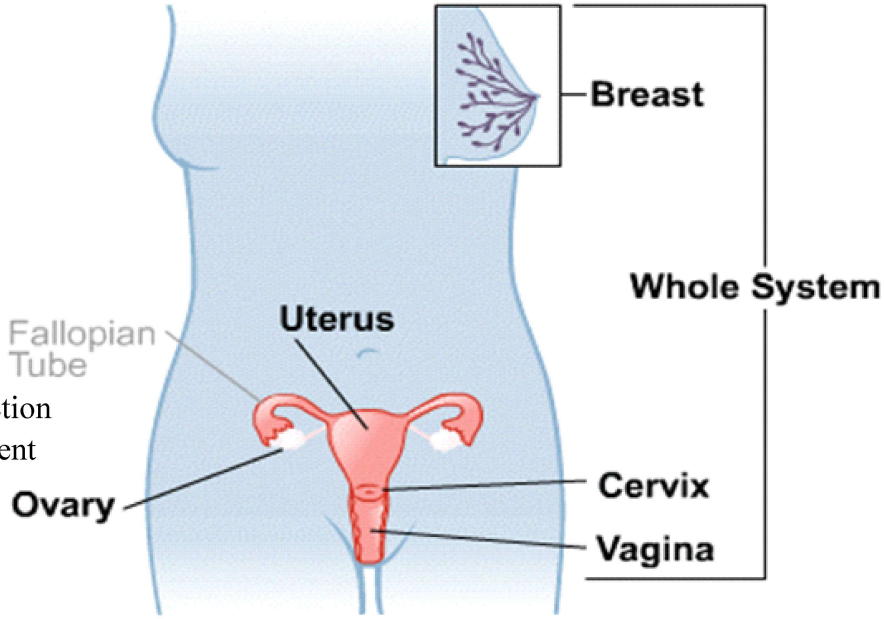



**Fig22: Female Reproductive System**

## 12. Male reproductive system

**Constituents**

- Testes
- Vas deferens
- Seminal vesicles
- Prostrate gland
- Penis

**Functions**

- Production of gametes
- Release of hormones that regulate reproduction and help in development of secondary sexual characteristics
- Penis is the main copulatory organ

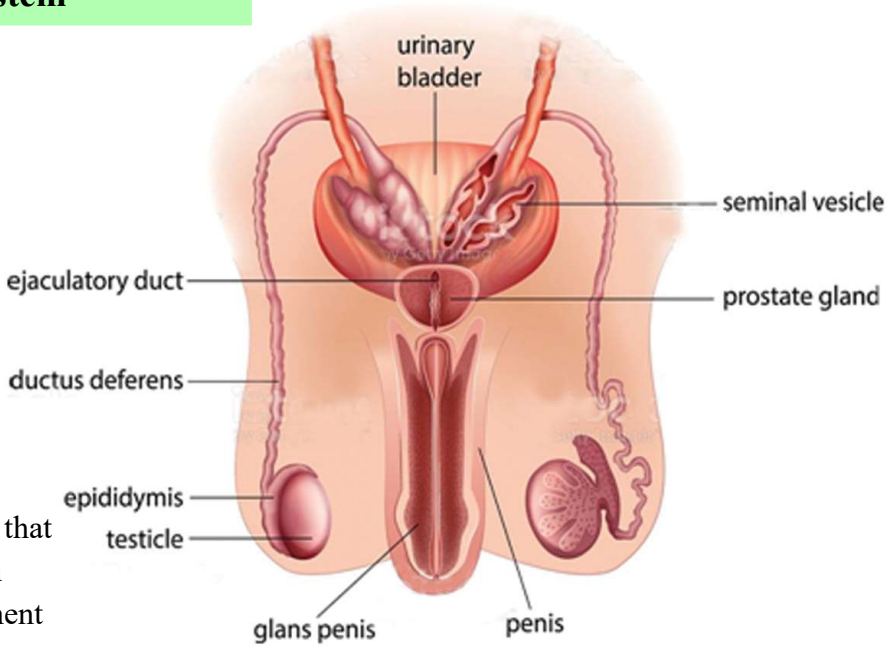



**Fig23: Male Reproductive system**

# INTERNAL ASSESSMENT

a) Draw the diagram of Axial and Appendicular Skeleton and label it.
b) Classify the bone based on their shape.
c) Write the functions of bones.
d) Write about the classification of tissue and its functions.
e) Draw and label the digestive system, respiratory system and urinary system.

# HEALTHCARE DELIVERY SYSTEMS

## Learning Outcomes

| HEALTHCARE Delivery Systems | | | | |
|---|---|---|---|---|
| **Location** Classroom/ Hospital/ Clinic. | **Learning Outcome** | **Knowledge Evaluation** | **Performance Evaluation** | **Teaching and Training Method** |
| | • Understand healthcare delivery systems. | • Describe the different types of healthcare delivery system.<br>• Describe the role of Voluntary HealthSector. | • Identify different of healthcare delivery system followed inIndia. | **Interactive Lecture:**<br>• Healthcare DeliverySystem.<br><br>**Activity:**<br>• Visit a Hospital and Clinic and enlist all the services and the equipment used in the Hospital andClinic. |
| | • Identify the components and activities ofhospital. | • State the function of a hospital in patientcare.<br>• Enlist the services provided by the hospital to patients. | • Identify the various components of a HospitalSystem.<br>• Identify the various equipment used in Hospital. | **Interactive Lecture:**<br>• Role and Functions ofHospital.<br><br>**Activity:**<br>• VisitaHospitalto to study the role and functions. Prepare report for the Student Portfolio. |
| | • Understand role and functions ofclinics. | • Describe the role and function of a clinic.<br>• Describe the preventative care provided at the Doctor'sclinic.<br>• Prepare a chart for basic preventativecare . | • Enlist the requirements for patient safety at Doctor's clinic. | **Interactive Lecture:**<br>• Preventative care and Maintenance.<br><br>**Activity:**<br>• Visit to two Clinic or Doctor's Office and observethe available preventative care being administered in those clinic and prepare a report highlighting the services provided in the two Clinics. |

| | Learning Outcome | Knowledge Evaluation | Performance Evaluation | Teaching and Training Method |
|---|---|---|---|---|
| | • Describe the function of rehabilitation center. | • Describe the role of rehabilitation facility in patientrecovery.<br>• Differentiate between services provided at various Rehabilitation/ Convalescent Centre. | • Identify the facilities at the rehabilitation center. | **Interactive Lecture:**<br>• Role and Function of RehabilitationCentre.<br><br>**Activity:**<br>• Visit a doctor's office and clinic and enlist all the services and equipment. |
| | • Describe the the treatment and services provided at the Long Term CareFacilities. | • Describe the role of Long Term Care Facilities in patientcare.<br>• Enlist the facilities/ treatment provided by Long Term Care Facilities. | • Identify the equipment and materials that are used at Long Term CareFacility. | **Interactive Lecture:**<br>• Long Term Care Facility.<br><br>**Activity:**<br>• Visit to Old Day Care Facility/ Centre to study the services and materialsused. |
| | • Demonstrate the knowledge of Hospice Care. | • Describe the facilities available at Hospital/Home for HospiceCare. | • Assess the need for hospice in treatment of patients.<br>• Identify the facilities extended by the HospitalforHospice Care.<br>• Identify the services provided as part of the HospiceCare. | **Interactive Lecture:**<br>• HospiceCare.<br><br>**Activity:**<br>• Visit a doctor's office/clinic in your neighborhood and enlist all the services provided there and the equipment required for HospiceCare. |

# Session 1: Describe Healthcare Delivery Systems

## Relevant Knowledge

A number of factors, like food, housing, clothing, hygiene, sanitation, lifestyle, pollution, climate, etc. can influence the health of an individual and population. Healthcare includes all the services provided to a person / population by various agencies related to health and related services. Healthcare services are the services designed to fulfill health based needs of people / community / population, through various resources available. These are delivered by healthcare system that includes the management of health sector and its organizationalstructure.

The healthcare services shouldbe comprehensive and should bepreventive,curative and rehabilitative. These services are provided through a network of various primary, private and community health centers inIndia.

## Healthcare Systems

The World Health Organization (WHO) defines health system as follows: “A health system consists of all organizations, people and actions whose primary intent is to promote, restore or maintain health. This includes efforts to influence determinants of health as well as more direct health-improving activities. A health system is therefore more than the pyramid of publicly owned facilities that deliver personal health services. It includes, for example, a mother caring for a sick child at home; private providers; behavior change programmes; vector-control campaigns; health insurance organizations; occupational health and safety legislation. It includes inter- sectorial action by health staff, for example, encouraging the ministry of education to promote female education, awell-known determinant of better health”.

Provision of healthcare in India is a state subject. Healthcare in India is delivered by institutions owned by state government, local bodies and the central government. The center is mainly responsible for developing and monitoring national standards and regulations, linking the states with funding agencies, and sponsoring numerous schemes for effective implementation. The majority of healthcare services in India are provided by the private sector. The government and the private sector are helping in making health care accessible in all areas of India; both rural and urban.

The healthcare system is composed of different partsdesigned towork together to make healthcare accessible to everyone. It consists of hospitals, dispensaries, laboratories and health department for the common objective of maintaining good health for the community. The various features of a healthcare system are as follows:

- It has a structure, a set of goals, input, transformation process, output and feedback;
- It is a continuous process and is composed of sub-systems;and
- It is an open system, where a number of external factors influence its functioning.

A number of health care delivery models have been developed for the delivery of health care services.The health care system/models in India can be categorized under the following sectors or programme:

## 1. Public Health Sector: It includes thefollowing:

### a) Primary Health care

- Village level Accredited Social Health Activist
- Village level ANM (Auxiliary Nurse Midwife is a village-level female health worker in India who is known as the first contact person between the community and the health services).
- Subcenters.
- Primary HealthCentre.

### b) Hospitals/ Health Centers

- Community Health Centers.
- Rural Hospital.
- District Hospital/ Health Centers.
- Specialty Hospitals.
- Teaching Hospitals.

### c) Health InsuranceSchemes

- Universal Health Insurance programmes.
- Employee State Insurance Scheme.
- Central Government Health Scheme.
- Various schemes of contributory third party payment mechanism, e.g., Yashaswini Scheme, Arogya Bhadratha Scheme,etc.
- Employee Health Insurance Programme sponsored by employer and provided by General Insurance Companies.
- Health Insurance Programmed (Medicaid).

### d) OtherAgencies

- Defense Services.
- Railways.
- Public Sector Companies.
- Private Companies providing healthcare facilities to their employee sthrough their network.

## 2. Private Sector: It Includes thefollowing:

- Private Hospitals, Polyclinics, Nursing Homes andDispensaries.
- General Practitioners and Clinics.

## 3. Indian Systems of Medicine and Homeopathy

**a) Ayurveda :** A system of medicine which utilizes herbs as medicine.

b) **Unani :** Unani medicine has similarities to Ayurveda, as both are based on theory of the presence of the elements (fire, water, earth and air) in the human body. Tibbis the science through which we learn the various states of body. 'Tibb' means the knowledge of the states of the human body in health and decline of health, or in other words, medicine. 'Tibb-E-Unani', is an age old system of medicine, dating back 5000 years to Greece.

c) **Homeopathy :** Homeopathy is a system of natural medicine introduced and developed by a German physician, Samuel Hahnemann, at the end of the 18th century. It recognizes that the person's mind, body, spirit is affected when there is illness and therefore, seeks to treat that whole person. It treats diseases with remedies prescribed in minutedoses.

d) **Naturopathy :** Naturopathy deals with the healing power of nature since it believes that all healing powers are within your body. It works on the constructive principles of nature.

e) **Siddha :** In Siddha system, thousands of raw drugs are used. These drugs are categorized in to three groups, namely herbal products, metal, mineral products and animal products. Siddhars were saintly persons who achieved results in medicines.

## 4. Voluntary Health Sector and Non-Government Organizations

**The Voluntary Health Sector can be Broadly Classified as Follows:**

- **Campaign Groups:** These groups are working on specific health issues, such as a rational drug policy and amniocentesis, among others.
- **Government Voluntary Organization:** These are voluntary organizations which play the role of implementing government programs like Family Planning and Integrated Child Development Services.
- **Healthcare for Special Groupsof People:**This includes education, rehabilitation and care of the handicapped.
- **Health Researchers and Activists:** The efforts of these groups are usually directed towards writing occasional papers, organizing meetings on conceptual aspects of health care and critiquing government policy through their journals.
- **Health Work Sponsored by Rotary Clubs, Lions Clubs and Chambers of Commerce:** They usually concentrate on eye camps – conducting cataract operations in the rural areas on a large scale with the help of various specialists, etc.
- **Integrated Development Programs:** In these programs, health is a part of integrated development activities. Consequently, their emphasis on health care may not be as systematic or as effective as that of the previous group.
- **Specialized Community Health Programs:** They include income generating schemes for the poorer communities so that they can meet their basic nutritional needs.

## 5. National HealthProgramme

The simple model of healthcare delivery system with input/ output can be represented as below, is generally followed by Indian government and private systems provider.

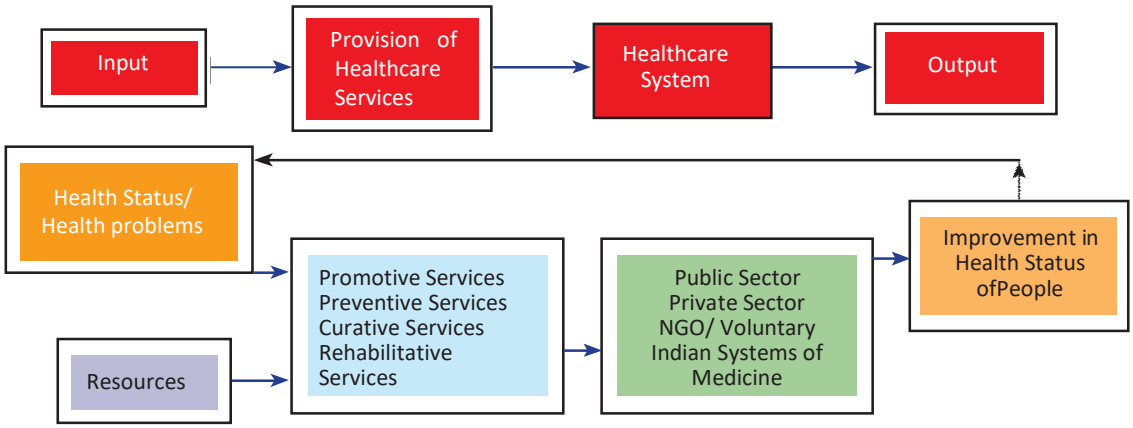



**Figure: 1 A Simple Model of Healthcare Delivery System**


Further, in this session we will discuss the various healthcare delivery systems practiced in India, especially laying emphasis on Hospital and allied services.

# Session 2 : Identify Components and Activities of Hospital

## Relevant Knowledge

The term Hospital is derived from the Latin Word Hospes meaning host, which is the root word for English words like hotel, hostel and hospitality. The place where a guest is received is called hospitium or hospitale. Thus, taking it further a hospital is an institution for healthcare. Hospitals are an important and integral part of our healthcare delivery system. Ingeneralterms, hospitals provideacutec are (treatment for illnesses which come on suddenly and are usually of short duration) and either general or specialized care (Children's, Cancer, Psychiatric, Acquired Immune Deficiency Syndrome) (AIDS).

## Meaning of Hospital

According to World Health Organization (WHO), a hospital is defined as an integral part of social and medical organization, the function of which is to provide for the population a complete healthcare, both preventive and curative. The outpatient services of the hospital reach out to the family and its home environment. The hospital is also a center for the training of health workers and bio-social research.

## Hospital Set Up

A hospital is an open system with various components that are integrated by common purpose of achieving a set of objectives. The various system and subsystems of a hospital can be schematically represented as follows :

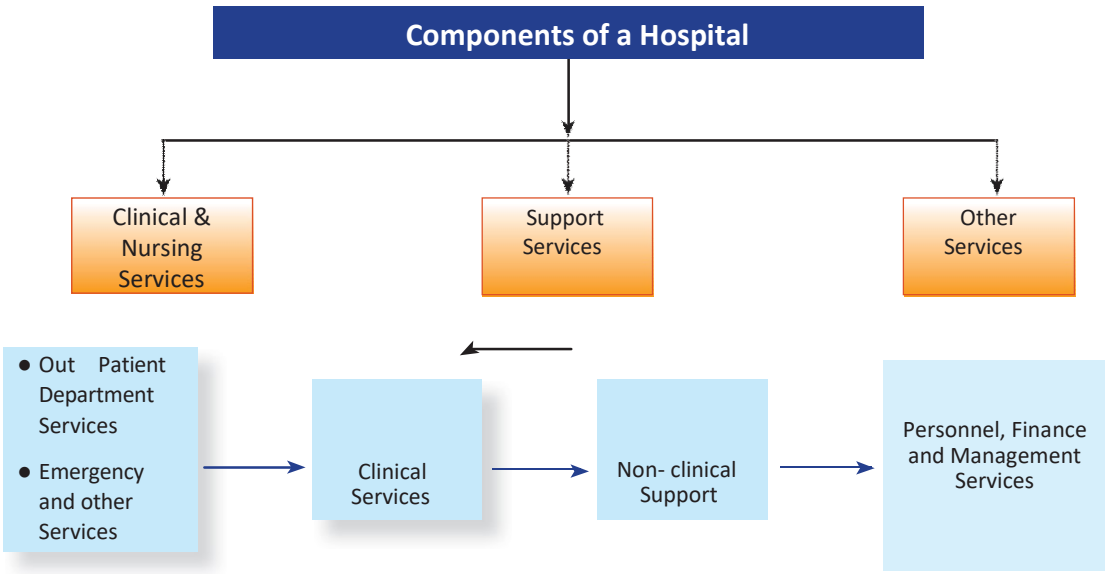



**Figure: 2**

The performance of all these services is dependent on the cooperation and coordination of various components within the system. The individual sub-systems have their independent goals for providing best patient care. It is can be inferred that hospitals are highly complex, social, economic and scientific organization whose function is to provide comprehensive health care.

## Functions of Hospital

The purpose of healthcare services is to effectively meet the total health needs of community. The hospitals play a major role in maintaining and restoring the health of the community. The main functions of the hospitals can be listed as follows:

- Restorative Functions
- Preventive Functions
- Training and Research in health and medicine

The above functions can be further described as below:

### 1. RestorativeFunctions

The various restorative functions of a hospital include:

- Diagnostic Activity: It includes the inpatient services involving medical, surgical and other specialties and specific diagnostic procedures.
- Curative Activities: It includes treatment of allailments/diseases.
- Rehabilitative Activities:Those activities include physical, mental and social rehabilitation.
- Emergency Services: It includes emergency services required for dealing with accidents, natural disasters, epidemics, etc.

### 2. PreventiveFunctions

The hospitals also carry out various preventive functions which include the following:

- Supervision of normal pregnancies and child birth
- Supervision of normal growth and development ofchildren
- Control of communicable diseases
- Prevention of prolongedillness
- Provision of health educationservices
- Occupational health services
- Preventive health checkup

### 3. Training and Research Activities

The training activities of the hospitals generally refers to the training of medical, paramedical and other support staff (Clinical/Non-clinical) required and working in the facility. The training is generally provided to:

- Medical under graduates
- Nurses and Midwives
- Specialists and postgraduates
- Medical socialworkers
- Paramedical staff

The research activities carried out by the hospitals are generally for the enhancement of medical technology and services in the following areas:

- Physical, psychological and social aspects of health anddiseases
- Clinical medicine
- Hospital practices and administration.

# Session 3 : Describe Role and Functions of Clinic

## Relevant Knowledge

**Aclinic (or an out patient clinic or an ambulatory care clinic)** is a health care facility that primarily provides maintenance or preventative care to the outpatients. The word clinic is derived from the Greek word klinein meaning to slope, lean or recline. Hence kline is acouchorbed, klinikos is sloping or reclining and Latin is clinicus. An earlyuse of the word clinic was referred to the person 'one who receives baptis monasickbed'.

Clinics can be privately operated or publicly managed and funded, and typically cover the primary healthcare needs of populations in local communities, in contrast to larger hospitals which offer specialized treatments and admit in patients for overnight stays.

### Role and the Functions of a Clinic

The function of clinics will differ from place to place. For instance, a local general practice run by a single general practitioner will provide primary healthcare, and will usually be run as a for-profit business by the owner whereas a government specialist clinic may provide subsidized and specialized healthcare to the patients. They are advantageous to hospitals because they can provide immediate medical attention to patients who are suffering from illness.

Some clinics function as a place for people with injuries or illnesses to come and be seen by nurse or other health worker. In these clinics, the injury or illness may not be serious enought o warrant a visit to an emergency room, but the person can be moved to one if required. They sometimes have access to diagnostic equipment such as X- ray machines and other diagnostic facilities. Doctors at such clinics can often refer patients to specialists ifrequired.

### Types of Clinics

There are many different types of clinics providing outpatient services. Such clinics may be public (government funded) or private medical practices.

- A free clinic provides free or low-cost healthcare for it is generally provided by the State or Central government.
- A general out-patient clinic is a clinic offering a community general diagnoses or treatments without an overnightstay.
- A polyclinic is a place where a wide range of healthcare services including diagnostics can be obtained without need of an overnightstay.
- A specialist clinic is a clinic providing advanced diagnostic or treatment services for specific diseases or part soft he body. This type of clinic contrasts with general out-patientclinics, which deal with general health conditions and disease categories.
- A sexual health clinic deals with sexual health related problems, such as prevention and treatment of sexually transmitted in fections.
- A fertility clinic aims to help women and couples to become pregnant.
- An ambulatory clinic offers out patient guidance and counselling for various diseases and procedures that can be carried out in specialised hospitals orclinics.

# Session 4 : Describe Rehabilitation CareFacilities

## Relevant Knowledge

Rehabilitation / Convalescent care facilities help in restoring a person back to normal position and to get a useful place in society. As such, a rehabilitation center is a location in which rehabilitation can occur. People get displaced from society for various reasons. Some may experience an accident or illness that temporarily makes them unable to function normally; others may have an addiction that handicaps them. A rehabilitation center provides a support system to help restore people to their place in society.

### Functions of a Rehabilitation Center

The function of a rehabilitation center is to provide the means and space to help in the recovery process. This process varies depending on the rehabilitation that is needed. Rehabilitation centers use a combination of therapy, small groups, individual sessions and highly structured living. The function of a rehabilitation center is to both increase the quality of life and to help the patient integrate back into the community. These Programs provides 24-hour care to people who require specific medical and therapeutic services in a supportive environment. The program will help in rebuilding strength, endurance and functioning before returninghome.

Rehabilitation center / Convalescent care provide the care needed when required, it includes:

- Medical and the rapeutic support;
- A specialized care plan to help regain strengt hand independence of the individual in need and Guidance to the family and caregivers needed to support the individual inneed.

Depending on a persons need, a specialized care team plan is led by doctors and nurses with support from professionals such as physiotherapists, occupational therapists, dietitians and social workers, develop a plan to help in rehabilitation.

Rehabilitation centers are categorized into four types :

1. **Occupational Centers:** Occupational rehabilitation centers are often founding clinics and hospitals.They use occupation al therapy for assessment and treatment to develop, recover, or maintain the daily living and work skills of people with a physical, mental, or cognitive disorder. These rehabilitation centers focus on helping their clients regain skills needed to function. For example, an occupational the rapist may work with a patient who has had a severespinal cordinjury and help regain the use of her arms or legs. An occupational rehabilitation center can help the patient in talking, writing, dressing herself and eating without assistance. The occupational the rapistuses consistent rehabilitation exercises that help retrain the body.

2. **Physical Rehabilitation Centres:** They focus on the use of physical therapy for rehabilitation. Physical therapy or physiotherapy is a physical medicine and rehabilitation specialty that remediates impairments and promotes mobility, function, and quality of life through examination, diagnosis, prognosis, and physical intervention (therapy using mechanical force and movements). Physical rehabilitation centers are similar to occupational rehabilitation centers, except they focus more on using physical exercises to help patients regain motor skills. Physical therapy (also called as physio-therapy) rehabilitation centers specializein helping rehabilitate patients who have accident- related injuries or who have lost a limb, they also help rehabilitate those who have spinal, muscular or bone problems due to degenerative diseases.

3. **Addiction Rehabilitation Centres:** The addiction rehabilitation centers give the intensive therapy and tools that a person needs to defeat alcohol and drug addiction so that he/she can get back on the right path and live a successful, happy and productive life. Rehabilitation centers also work with those who have addiction problems. Addictions rehabilitation centers provide both in- patient and out-patient programs. Rehabilitation centers are an important part of treating those addicted to drugs and alcohol. However, rehabilitation centers can also treat eating disorders and other addictions, such as gambling,etc.

4. **Psychosocial Centres:** Psychiatric rehabilitation, also known as psychosocial (involving both psychological and social aspects) rehabilitation is the process of restoration of community functioning and well-being of an individual diagnosed in mental health or mental or emotional disorder and who may be considered to have a psychiatric disability. Psychosocial rehabilitation centers focus less on physical rehabilitation and more on the rehabilitation of the mind. Psychosocial rehabilitation centers specialize in the treatment and rehabilitation of psychiatric disorders such as major depression, bi-polar disorder, and schizophrenia. Psychosocial rehabilitation was implemented as an alternative to long-term institutionalization. It workstohelp those suffering from psychiatric disorders stabilize themselves through therapy and medication. Patients also learn skill stocope with their disorder while living in society.

# Session 5 : Describe Long Term Care Facilities

## Relevant Knowledge

**Long Term Care (LTC)** is a variety of services which help meet both the medical and non-medical needs of people with a chronic illness or disability who cannot care for themselves for long period of time.

Generally, the LTC provides the non-skilled care, such as assisting with normal daily tasks like dressing, bathing, and using the bathroom. Essentially, it involves providing a level of medical care that requires the expertise of skilled practitioners to address the often multiple chronic conditions associated with older populations. Long-term care can be provided at home, in assisted living facilities or in nursing homes. Long-term care may be needed by people of any age, although it is a more commonly needed for senior citizens.

## Definition

Long Term Care facility provides rehabilitative, restorative, and/or ongoing skilled nursing care to patients or residents who are in need of assistance with the activities of daily living. Long-term care facilities include nursing homes, rehabilitation facilities, inpatient behavioral health facilities, and long-term chronic care hospitals.

## Need for Long Term Care

Life expect ancyis going up in most countries, implying that more and more people are living longer and entering an age when they may need care in their daily activities. In today's world 70 percent of all older people now live in lowor middle-income countries. Countries and healthcare systems need to find innovative and sustainable ways to cope with changing scenario.

This change is also being accompanied by changing social patterns, including nuclear families, different residential patterns and increased female labour participation in work force. These factors often contribute to an increased need for care.

In many countries, the largest percentages of older persons needing LTC services still relyon in formal homecare, or services provided by unpaid care givers who are usually non-professional family members, friends or other volunteers.

### Types of Long Term Care

Long-term care can be provided formally or informally. Facilities that offer formal LTC services typically provide living accommodation for people who require on site delivery of around-the-clock supervised care, including professional health services, personal care and services such as meals and housekeeping. These facilities may be called as nursing home, personal care facility, residential continuing care facility, etc. Long-term care provided formally in the home, also known as home healthcare, can also include a wide range of clinical services (e.g. nursing, drug therapy, physical therapy) and other activities such as physical construction according to the need of the patient. (e.g. renovating bathrooms and kitchens so that its easier for people to work). These services are usually ordered by a physician or other professional. Informal long-term home care is care and support provided by family members, friends and other unpaid volunteers. It is estimated that 90% of all home care is provided informally by a loved one.

## Session 6 : Hospice Care

### Relevant Knowledge

**Hospice care** is a type and philosophy of care that focuses on the relieving and preventing the suffering of a terminally ill or seriously ill patient's pain and symptoms, and attending to their emotional needs.

The focus of hospice care is on palliation of the patient's pain and symptoms. These symptoms may be physical, emotional, or psychosocial in nature. Hospice care focuses on bringing comfort, self-respect, and peace to people in the final time of life. Patients' symptoms and pain are controlled, goals of care are discussed and emotional needs are supported. Hospice believes that the end of life is not a medical experience; it is a human experience that benefits from expert medical and holistic support that hospice offers.

Hospice care focuses on quality rather than length of life. It provides humane and compassionate care for people in the last phases of incurable disease so that they may live as fully and comfortably as possible. Hospice care treats the person rather than the disease, working to manage symptoms so that a person's last days may be spent with dignity and quality, surrounded by their loved ones. It's also family-centered it includes the patient and the family in making decisions.

Hospice care is used when you can no longer be helped by curative treatment, and you are expected to live about 6 months or less if the illness runs its usual course. Hospice gives you supportive or palliative care, which is treatment to help relieve disease-related symptoms, but not cure the disease. Its main purpose is to improve your quality of life.

### Places where Hospice Care is Provided

Hospice care is generally, designed to be available 24 hours a day, 7 days a week. It can be given at the patient's home, a hospital, nursing home, or private hospice facility. Thedoctor, guidance

counselor helps in deciding which program is best for the patient and the family. Hospice can be provided at:

### 1. Home Hospice Care

Most home health agencies and independently owned hospice programs, offer home hospice services. A nurse, doctor, and other professional staff monitor the home hospice program but the main care give ris usually a family member or friend who is responsible for around-the-clock supervision of the patient. This person is with the patient most of the time and is trained by the nurse to provide much of the hands-oncare. Members of the hospice staff will visit regularly to check on the person, his/ her family, and caregivers to give needed guidance and services.

Care begins when a patient is admitted to the hospice program, which generally means that a hospice team member visits your home to learn about you and your needs. Return visits are scheduled so that the patient's needs are re-evaluated regularly. To provide further support on call nurse and counselors are available throughout theday.

### 2. Hospital Based Hospices

Hospitals that treat seriously ill patients often have a hospice program. This allows patients and their families easy access to support services and healthcare professionals. Some hospitals have a special hospice unit, while others use a hospice team of caregivers who visit patients with advanced disease on any nursing unit. In other hospitals, the staff on the patient's unit will act as the hospice team.

### 3. Long Term Care Facility Based Hospice

Many nursing homes and other long-term care facilities have small hospice units. They might have a specially trained nursing staff to care for hospice patients, or they might make arrangements with home health agencies or independent community- based hospices to provide care. This can be a good option for patients who want hospice care but don't have primary caregivers to take care of them at home.

## Support Facilities Extended by Hospice Care

Various types of services are provided by the hospice care team, depending upon the need of the patient and the family. The following are the main services extended by the hospice care:

### a) Pain and Symptom Control

The goal of pain and symptom control is to help patient to be comfortable while allowing staying in control and enjoying life. This means that discomfort, pain, and side effects are managed to make sure that the patient is free of pain and symptoms as much possible and alert enought o enjoy the people around you and make important decisions.

### b) Home Care and Inpatient Care

Al though hospice care can be provided at home, a patient may be admitted to a hospital, extended-care facility, or a hospice inpatient facility. The hospice can arrange for inpatient care and will stay involved in patient care and guiding the family through the process.The patient can go back to in-home care when he and his family are ready.

### c) Family Conferences

Regularly scheduled family conferences, often led by the hospice nurse or social worker, keep family members informedab out the condition of the patient and what.

### d) Bereavement Care

Be reavement is the time of mourning after a loss. The hospice care team works with surviving loved ones to help them through the grieving process. A trained volunteer or professional counsel or provides support to surviv or sthrough visits, phone calls, and/or other contact, as well as through support groups. The hospice team can refer family member sand care giving friends to other medical or professional care, if needed.

# ROLE OF HOME HEALTH AIDE

**INTRODUCTION-**

Home care aides help care for physically or mentally ill, injured, disabled or infirm individuals who are confined to their homes or living in residential care facilities. They may also provide daily care services to people with disabilities who work outside the home.

**DEFINITION –**

Home health aide is a trained and certified health care worker who provide assistance to a patient in the home with personal care.

**OBJECTIVE-** To provide basic health care in the homes of the elderly, disabled, or convalescent.

**SKILLS-**

- Communication skills
- Interpersonal skills
- Time management
- Medical knowledge
- Organizational skills

**RESPONSIBILITIES-**

- Help patients with personal hygiene, dressing, bathing and task.
- Perform basic health care services for patients including assessing the physical discomfortor administering prescribed medications.
- Help with general light housekeeping.
- Help with mobility.
- Assist patients by providing personal services, such as bathing, dressing and grooming etc.
- Transportation.

**ACTIVITIES OF HOME HEALTH AIDE-**

- Feeding
- Bathing
- Cooking
- Assisting in Brushing teeth
- Getting in and out of bed or a chair
- Maintaining bowel and bladder control.
- Transferring patients.

**PIEDMONT COMPANION CARE**

## CLIENT CARE RECORD

**Client:** _____

**Home Health Aide**

**Initial each task performed as instructed by care plan**

| Month/Year: | Sat | Sun | Mon | Tues | Wed | Thurs | Fri |
|---|---|---|---|---|---|---|---|
| Date: | | | | | | | |
| **PERSONAL CARE** Bath | | | | | | | |
| Oral Hygiene | | | | | | | |
| Hair Care | | | | | | | |
| Assist Dressing | | | | | | | |
| Shave | | | | | | | |
| Skin Care | | | | | | | |
| Nail Care | | | | | | | |
| Foot Care | | | | | | | |
| **NUTRITION** Prepare Breakfast | | | | | | | |
| Prepare Lunch | | | | | | | |
| Prepare Dinner | | | | | | | |
| Prepare Snack | | | | | | | |
| Assist Eating | | | | | | | |
| | | | | | | | |
| **ACTIVITIES** Ambulation | | | | | | | |
| Transfer: Bed/Chair | | | | | | | |
| Turn/Reposition | | | | | | | |
| ROM Exercises | | | | | | | |
| **RECORD** TPR | | | | | | | |
| BP | | | | | | | |
| Monitor blood glucose | | | | | | | |
| Remind of Meds | | | | | | | |
| Food Intake | | | | | | | |
| Fluid Intake | | | | | | | |
| Urinary Output | | | | | | | |
| Bowel Movements | | | | | | | |
| **HOMEMAKING** Linen Change | | | | | | | |
| Laundry | | | | | | | |
| Wash Dishes | | | | | | | |
| Light Housework | | | | | | | |
| Grocery Shopping | | | | | | | |
| Other: | | | | | | | |
| **ELIMINATION** Bowel Movement | | | | | | | |
| Urination | | | | | | | |
| Catheter Care | | | | | | | |
| Ostomy Care | | | | | | | |

**Please return to the Agency office each week.**

_____

Nursing Supervisor Date



**OBSERVATIONS/COMMENTS**

Date:

Signature: Title:

Date:

Signature: Title:

Date:

Signature: Title:

Date:

Signature: Title:

Date:

Signature: Title:

Use back of page if more space is needed.

**Caregivers: Record name and initials.**
**Record initials when task is done.**

| Name | Initials |
|---|---|
| | |
| | |
| | |
| | |
| | |

**Table 1: Record Chart of Home Health Aid**

# Technique of transferring patients

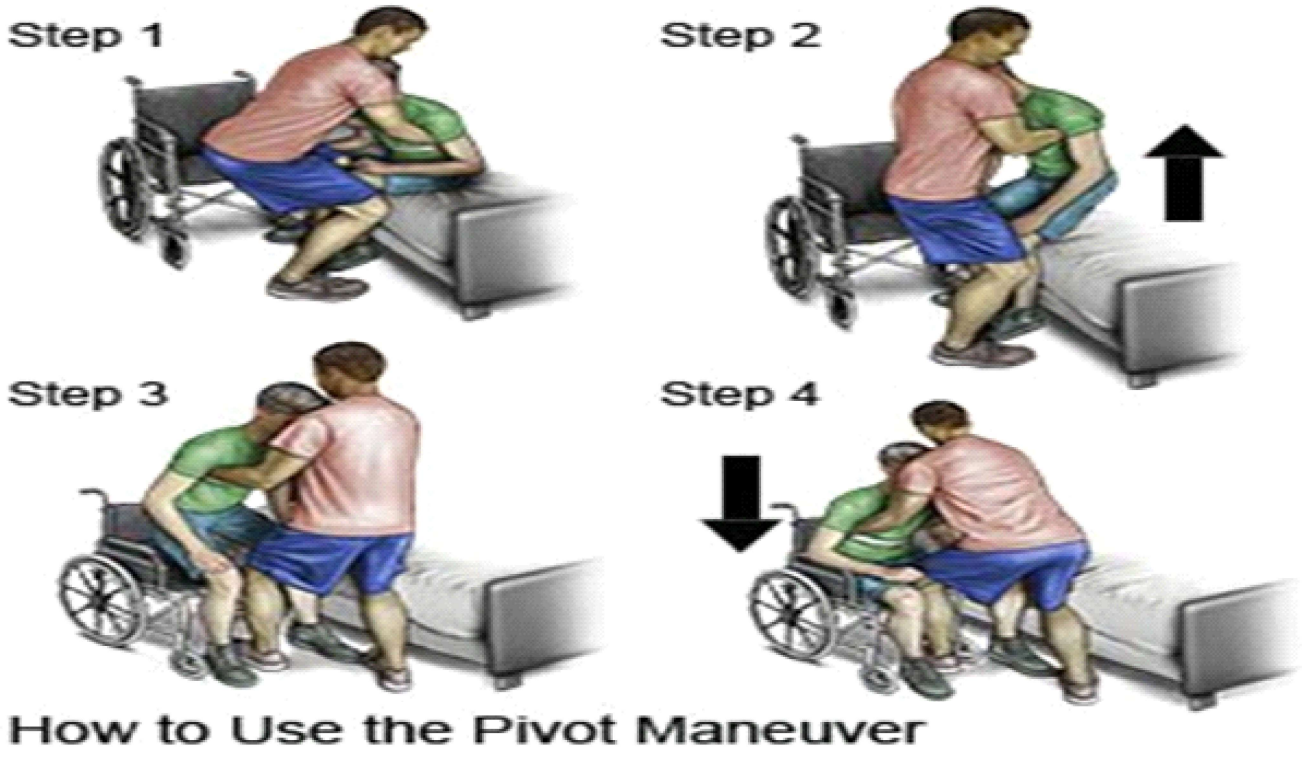



**Fig 1:Technique of transferring patients: Use of Pivot Maneuver**

## MOVING AND HANDLING EQUIPMENT

1. Wheelchairs
2. Walking aids
3. Handling belts
4. Transfer aids
5. Lifting slings
6. Bath hoists

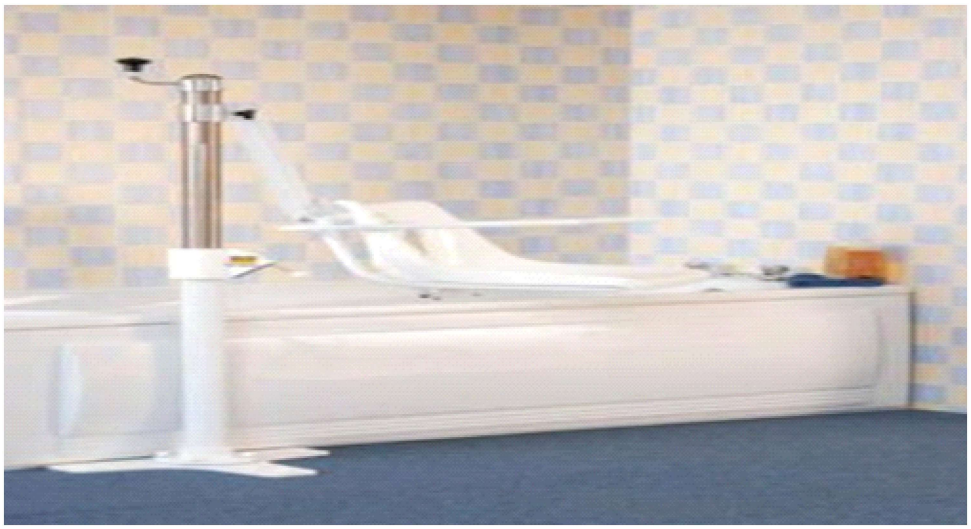


**Fig.2 Bath Hoists**

# Mobility aids

## By Kristie Gordon

**Fig 3: Walking Belts**

**Fig 4: Handling Belts**

**Fig 5: Transfer Aids**

**Fig 6: Wheel Chair**

**Fig 7: Lifting Slings**

**BASIC COMPONENTS REQUIRED FOR PATIENT'S COMFORT –**

- *Pillows*- Pillows are used to give comfortable position to the patient.
- *Back rest*- It is a mechanical device which provide a suitable support and rest for the back of patients in sitting position.
- *Knee rest*- It gives relaxation and thus relives pain on abdominal muscles and on tendons beneath the knee.
- *Rolls*-
  *Hand rolls*- Made by folding a wash cloth in half, rolling in length wise and securing rolls in length tissue and securing with tape. Roll is placed against the palmar surface of hand.
  *Trochanter rolls* - A cotton blanket/sheet is folded lengthwise to width extending from greater trochanter of femur to lower bordor of popliteal space.
- *Sand bags*- These are canvas rubber or plastic bags filled with sand. These are used to immobilize a part of body.
- *Cardiac table/ bed table*-Usually for patients who are propped up in sitting position for change of position. Bed table placed in front with a pillow on it patients can lean forward and take rest.
- *Air and water mattress*-These are used for very thin and obese patients and those who have high chance to get pressure sores/ bed sores. It helps in equal distribution of pressure exerted on the body .
- *Side rails*- Ensuring patient's safety and are useful for increasing mobility.

**VARIOUS ELEMENTS OF PATIENTS SAFETY-**

a) Proper assessment of physical health, mental health, maternal health etc.
b) Early recognition of behavioral health needs.
c) Responding to and learning from device problems.
d) Device cleaning , disinfection and sterilization.
e) Standardizing safety across the health care system**.**
f) Train your team

**PATIENTS RIGHT AND ENVIRONMENT-**

The most important 7 fundamental rights of patients include-

a) Access
b) Safety
c) Respect
d) Partnership
e) Information
f) Privacy
g) Giving feedback

## PATIENTS SAFETY –

There are 6 international patient safety goals-

- Identify patients correctly.
- Improve effective communication.
- Improve the safety of high alert medication.
- Ensure safe surgery.
- Reduce the risk of health care associated infections
- Reduce the risk of patients harm resulting from falls.

## GOOD QUALITIES OF HOME HEALTH AIDE-

There are 5 important qualities of home health aide-

1. **Patience**- Ability to keep up with the patient's behaviour and needs.
2. **Compassionate**- Ability to understand the patient feelings.
3. **Attentive**- Ability to precisely follow instructions.
4. **Organized**- Ability to keep the patient's place neat.
5. **Physically active**- Ability to assist the patient all throughout the day.

## LIST OF DO'S AND DON'T S IN HEALTH CARE SETUP-

❖ **DO'S:**

i. Proper hand washing/ alcohol base hand-rub before entering and living the patient room.
ii. Listen to health care worker instruction all time.
iii. Limit the time you spend in patient's room.
iv. Keep at least 1m physical distance between yourself and patients.
v. Use an alternative, non- touched greeting.
vi. Reconsider the need to visit.

❖ **DON'T S:**

i. Do not visit the hospital if your unwell.
ii. Do not touch, hug or kiss the patients.
iii. Do not use the patient's toilet.
iv. Don't sit on the patient's bed or on a chair inside the patient's room.
v. Don't bring anything into or take anything out from the patient's room without checking with a health care worker.

## PRINCIPLES OF MEDICAL ETHICS-

✧ **A**utonomy
✧ **B**eneficence
✧ **C**onfidentiality
✧ **D**o not harm / non- maleficence
✧ **E**quity or justice

## VARIOUS TECHNIQUE OF COLLECTING THE SPECIMEN OF URINE, STOOL, BLOOD, SPUTUM-

- **TECHNIQUE OF COLLECTING URINE SPECMEN –**

1. Wash hands well with soap and running water, then rinse and dry.
2. Unscrew cap of the urine specimen cup, place cup on counter , don't touch inside of cup or cap.
3. Cleanse yourself with towelette as follows.
   *Male*- Clean in the single motion with towelette around urinary opening.
   *Female*- Wipe in front to back along centre of genital area.
4. Ask the patient to urinate a small amount into the toilet.
5. Ask the patient to place a cup under stream and continue to urinate into cup and collect specimen. About half the cup is enough.
6. Instruct the patient to pass the remaining urine into the toilet.
7. Screw the lid on the cup tightly. Don't touch the inside of the cup or lid.
8. Wash hands, return to your bed with the urine cup. Wait for staff to collect the cup.

**TYPES OF URINE COLLECTION –**

- **First monitoring specimen-** It is also called 8 hours specimen, the first morning specimen is collected when the patient first wakes up in the morning, having emptied the bladder before going to sleep. Since the urine can be collected over any eight hour period.

- **Midstream Clean Catch Specimen-** The patients should then void the first portion of the urine stream into the toilet. This first steps significantly reduce the opportunities for contaminants to enter into the urine stream. The urine midstream is then collected into a clean container (any excess urine should be voided into the toilet). This method of collection can be conducted at any time of day or night.

- **Catheter collection specimen**- This assisted procedure is conducted when patients is bedridden or cannot urinate independently. The health care provider inserts a Foley's catheter into the bladder through the urethra to collect urine specimen. Specimen may be collected into from a evacuated tube or transferred from a syringe into a tube or cup.

- **Supra pubic**

- **Aspiration specimen**- This method is used when a bedridden patient cannot be catheterized or a sterile specimen is required. The urine specimen is collected by needle aspiration through the abdominal wall into the bladder.

- **Pediatric specimen-** For infants and small children a special urine collection bag is adhered to the skin surrounding the urethra area , once the collection is completed the urine is poured into a collection cup or transferred directly into an evacuated tube .

- **24 hours urine collection –** It is recommended that all time urine collection( 24 hours) be keep refrigerated during the collection period and brought to the laboratory as soon as possible after completion

**TECHNIQUE OF COLLECTING STOOL SPECIMEN-**

1. Position sample collection paper across the rim of toilet bowl.
2. Makes a bowel movement onto the collection paper.
3. Avoid mixing with the urine or water from toilet.
4. Poke onto stool at six different sites.
5. Collect in a neat, clean ,and wide mouthed jar.
6. Do not clump, scoop, or fill the tube.
7. Screw it tightly and level it .
8. Store between 2-8 degree or room temperature.

**TECHNIQUE OF COLLECTING SPUTUM SPECIMEN-**

1. Patient is instructed to inhale deeply 2-3 times with his /her mouth open, cough deeply from the chest, open the container, spit out the sputum into it and close the container tightly.
2. The health worker or laboratory technician should stand behind the patients.
3. If a patient cough out only saliva, he/ she should be ask to try again to bring out the sputum.
4. If specimen cannot be sent immediately, it should be stored in a refrigerator or in another cool place.
5. Sputum specimen should be examined immediately whenever possible and not late than a week after correction.

**TECHNIQUE OF COLLECTING BLOOD SPECIMEN-**

There are mainly two techniques for collection of blood sample –

- ✧ Collecting of venous blood
- ✧ Collection of capillary blood

## Collection of venous blood using a syringe - Blood is withdrawn from the veins.

1. Clean hands thoroughly with soap and water.
2. Write proper identity of patients on the tube in which blood is to be collected.
3. Place a needle into the syringe. Keep the cap over the needle capped till it is used. Check that syringe works smoothly.
4. With the needle bevel up and parallel to the surface of the skin insert it into the vein .
5. Withdraw the blood slowly.
6. After obtaining the requisite amount of blood, place a sterile gauze pad over the point where the needle insert the skin and deftly withdraw the needle simultaneously while applying pressure over the site.
7. Deliver the blood gently in to the specified receiver. Cap it firmly to prevent leakage.
8. Maintain light pressure on the gauze pads over the venepuncture till the blood stop.
9. Destroy the needle in a special device immediately after use. Do not break, bend, or recap the needles after used.
10. Place the used syringe, and any other contaminated material in a puncture resistant container for adequate disposal.

## CHART OF THE PREREQUISITE OF COLLECTING SPECIMEN-

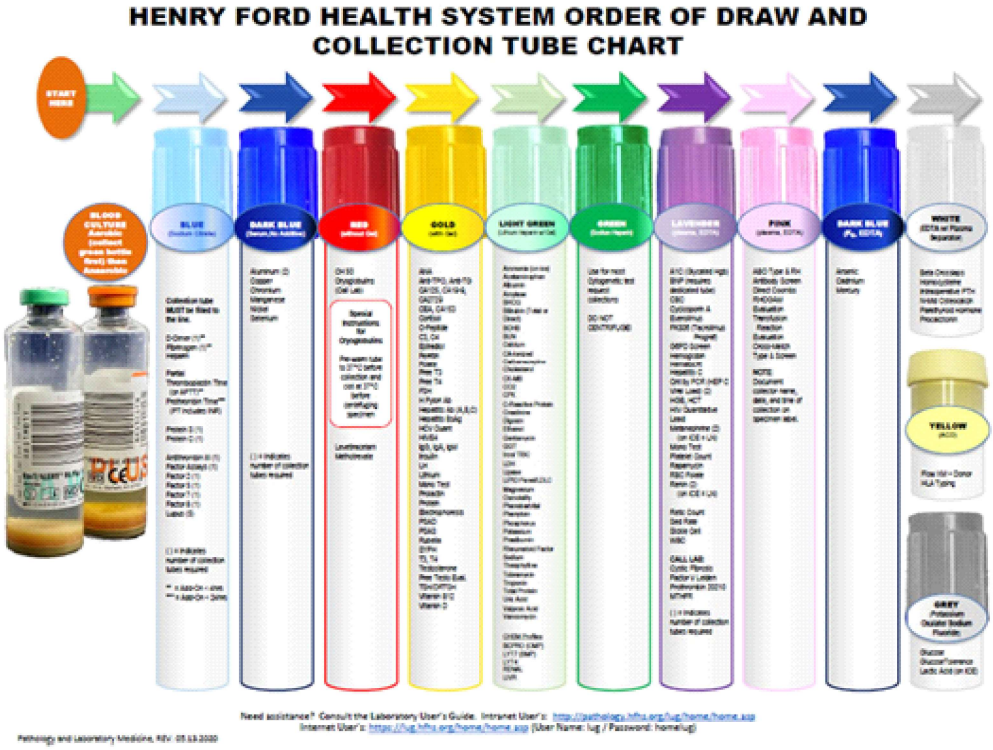



**Fig 8: Chart of the Prerequisite of Collecting Specimen**

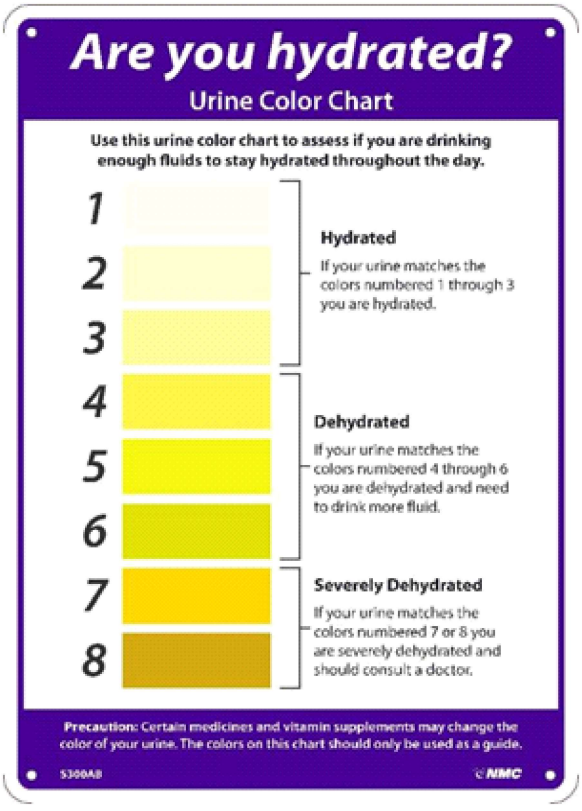



**Fig 9: Urine Color Chart**

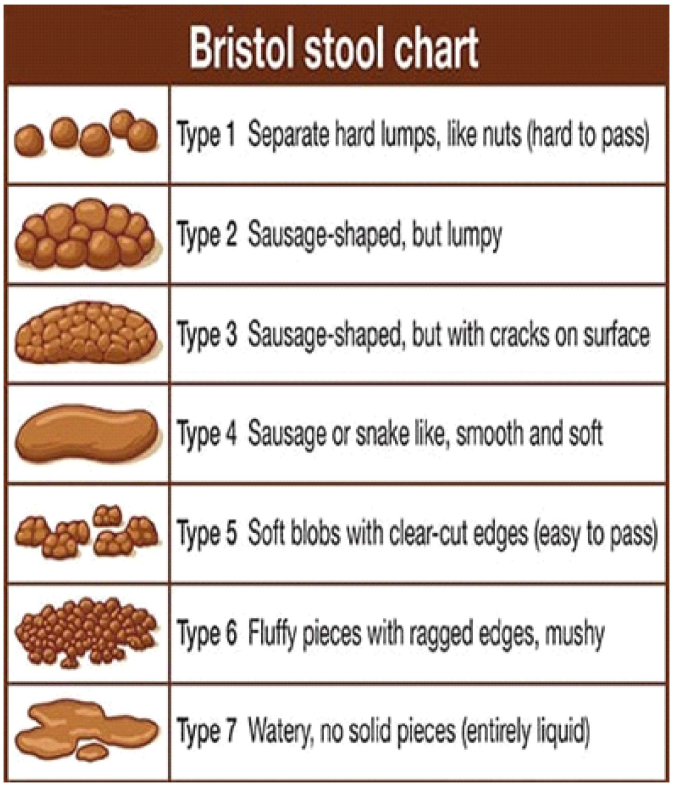


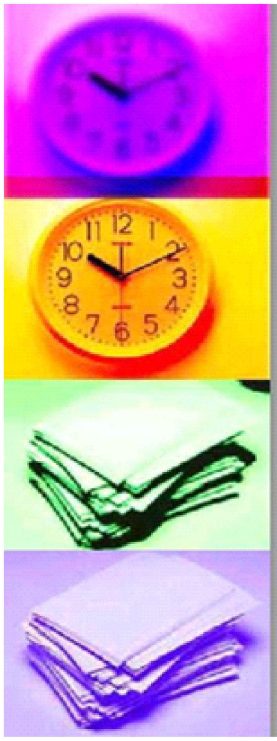

**Fig 10 (a): Stool Chart**


**Fig 10(b): Stool Chart**

**THE SAFETY MEASURES TO BE ADOPTED WHILE COLLECTING THE VARIOUS SPECIMEN-**

## NURSING RESPONSIBILITIES ASSOCIATED WITH SPECIMEN COLLECTION

- Provide client comfort, privacy and safety
- Explain the purpose of the specimen collection
- Explain the procedure
- Use the correct procedure for obtaining a specimen
- Hand washing & Use aseptic technique.



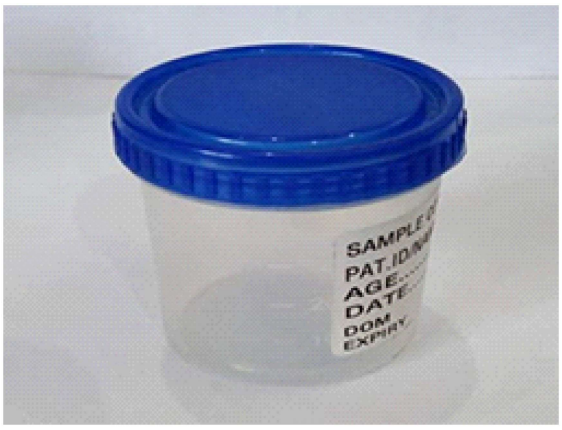
## Nursing Functions for Specimen Collection

1. Explain procedure, gain client's participation
2. Collect right amt. of specimen at the right time
3. Place specimen in correct container
4. Label container accurately (addressograph), plastic bag

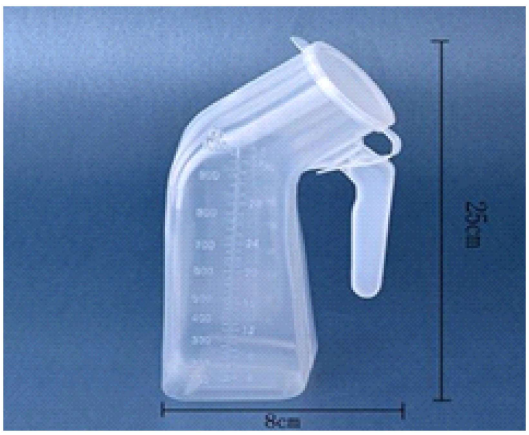
**EQUIPMENTS/ INSTRUMENT USED IN COLLECTING SPECIMEN OF PATIENT-**

**FOR URINE COLLECTION-**

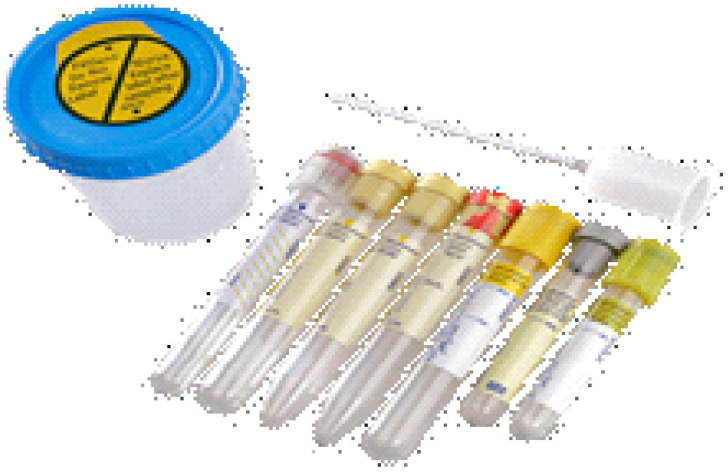
- Soap and water.
- Hand towel or absorbent pad.
- 0.9% sodium chloride solution or disinfectant free solution for genital hygiene
- Collection tubes.
- Gloves.
- Plastic apron ( if required)
- Urine container
- Urine pot




**Urine container**



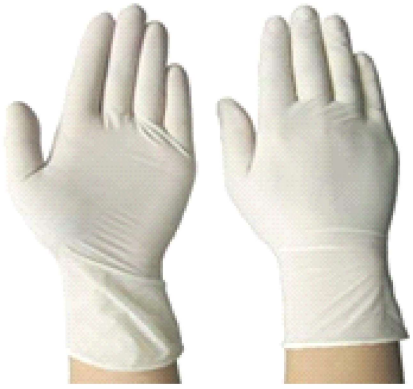

**Urine pot**

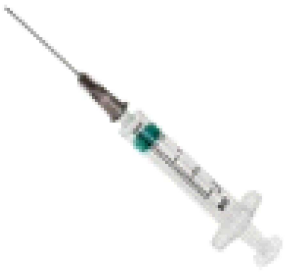


**Vacutainer**

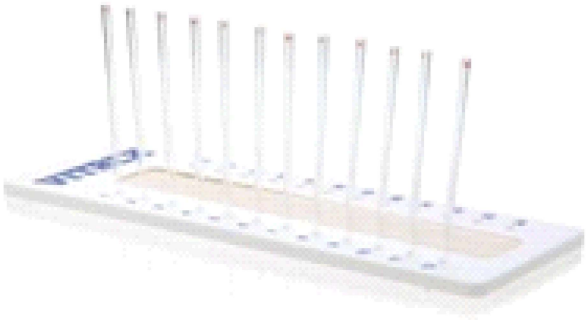
**FOR BLOOD SPECIMEN-**

1. Disposable gloves
2. Apron
3. Sharp disposable container
4. Alcohol swab
5. Tourniquet
6. Syringe
7. Sterile blood lancet
8. Capillary tubes
9. Kidney tray





**HAND GLOVESSYRINGE**

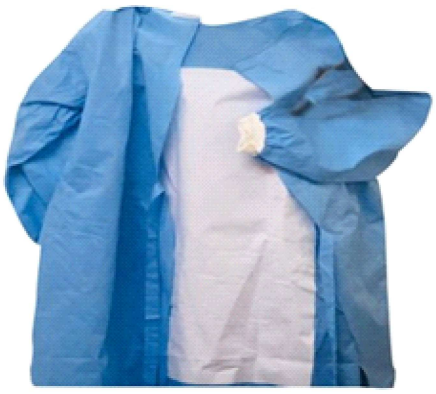


**BLOOD LANCETCAPILLARY TUBE**

**KIDNEY TRAYTOURNIQUET**

**FOR STOOL SPECIMEN-**

- Disposable apron
- Gloves
- Bedpan
- Stool specimen pot with spoon



**DISPOSABLE APRONDISPOSABLE GLOVES**

**BEDPAN**

**STOOL SPECIMEN POT**

## ROLE OF HOME HEALTH AIDE –

Home health aides provide basic services to elderly, ill, or disabled persons. They travel to their patient's own homes or to a nursing care facility. In many cases, their care is a big part of what allows a person to continue living in her own home and not have to move to a nursing home or another setting.

- Home health aides take vital signs, and they assist patients in moving from the bed to the bathroom and/ or give bed pans and change garments, and they can administer basic medications. With additional education, they may operate certain medical equipment (for example, supplemental oxygen devices )
- They may drive patients to and from medical appointments
- They may assist them in purchasing groceries and preparing meals; and must be sure to follow specific dietary guidelines.
- Home health aide may need to change bedding, assist with dressing the client and help with basic grooming and maintain patient's personal hygiene.
- Some home health care aides work with clients that need round-the-clock care, while others travel back and forth to the home several times a day.
- Helps patients care for themselves by teaching use of cane or walker, special utensils to eat, special techniques and equipment for personal hygiene.
- Helps family members care for the patient by teaching appropriate ways to lift, turn, and re-position the patient.
- Advises on nutrition, cleanliness, and housekeeping.
- Records patient information by making entries in the patient record chart and notifying nursing supervisor of changing or unusual conditions.
- Maintains a safe, secure, and healthy patient environment by following asepsis standards and procedures.

## CONCLUSION-

Home health aides take vital signs, and they assist patients in moving from the bed to the bathroom and/ or give bedpans and change garments, and they can also administer basic medications. With additional education, they may operate certain medical equipment. Home health aide supports patients by providing housekeeping and laundry services, shopping for food and other household requirements, preparing and serving meals and snacks. Assists patients by providing personal services, such as, bathing, dressing, and grooming etc.

# PERSONAL HYGIENE AND FIRST AID

## PERSONAL HYGIENE:

***Introduction*:** Personal hygiene involves keeping all parts of the external body clean and healthy. Maintaining personal hygiene is essential for maintaining the physical, mental, social health. Maintaining a good standard of hygiene helps to keep away from infections, illnesses and bad odors from the body.

The importance of hygiene should be taught from an early age to cultivate good habits. Maintaining good personal hygiene consists of bathing, washing your hands, brushing teeth and sporting clean clothing. Additionally, it is also about making safe and hygienic decisions when you are around others.

On a social level, people may avoid a person with poor personal hygiene, which may result in isolation and loneliness.

***Definition*:** Personal hygiene can be defined as an act of maintaining cleanliness and grooming of the external body.

Regular routine of Personal Care: washing and Grooming of:

Hair, Face and skin, teeth, ears,hands, Nails, feet

### *Importance of Personal Hygiene*

Good personal hygiene is important for both health and social reasons. It keeps our hands, head and body clean so as to stop the spread of germs and illness. Personal hygiene benefits our own health and impacts the lives of those around you, too. The social benefits associated with personal habits must also be considered. Since it involves washing our body every day and caring for our self, it reduces the chances of body odors and thus, any chances of embarrassment at work or at school.

***Factors affecting good health*:**

Housing, financial security, community safety, employment, education and the environment. These are known as the wider determinants of health.

### Hand washing

The first place to start with our personal hygiene routine is our hands. We use our hands constantly during the day, touching many different surfaces, shaking hands with people, eating our meals, typing on the laptop or using a common telephone at work, or even playing at school. Naturally, our hands are the biggest carriers of germs. Hand washing is required:

- Before eating or cooking food
- Before picking up a baby
- After visiting the toilet
- After coughing or sneezing, or being in contact with someone who is ill
- After being in contact with animals

***Steps of Hand washing:***

**Step-1:** Rub your hand's palm to palm.
**Step-2:** Left palm over dorsum with interlaced fingers and vice versa.
**Step-3:** Palm to palm with fingers interlaced.
**Step-4:** Fingers interlocked rub backs of fingers to opposing palms.
**Step-5:** Rotational rubbing of right thumb clasped in left palm and vice versa.
**Step-6:** Rotational rubbing the hand backward and forwards with clasped fingers of the left hand in the right palm and vice versa.
**Step-7: R**otational rubbing of left wrist and vice versa

These seven steps must be done for at least 15-20 seconds and refer the figure 1.1 for better understanding.

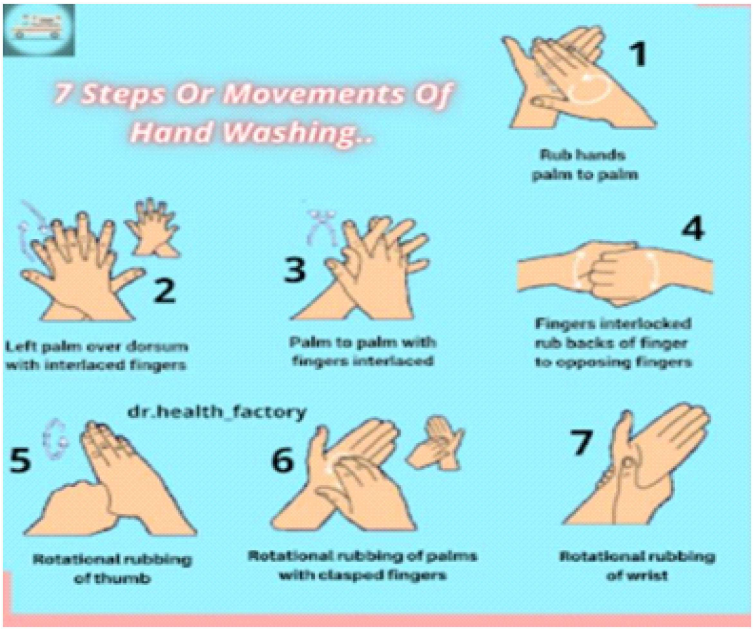



***Fig-1.1 : Steps of Hand washing***

**Dental Care:**

Caring for your teeth and practicing good oral hygiene wards off gum disease, bad breath, tooth decay and many infections. Remember to always: Make sure you and your family brushes their teeth twice a day – after breakfast, and before bed, Brush the teeth daily. Store your tooth brush in a clean, dry place and replace it regularly

**Bathing**

Do shower every day using warm water and soap. You could consider showering twice a day when the weather is warm. Daily bathing is an integral part of good personal hygiene because:

- Bathing daily with soap such as dettol, soap and warm water prevents body odors because it kills the odors-causing bacteria.
- Skin infections such as Athlete's Foot can be reduced by carefully washing and drying the affected areas daily.
- Shampoo and condition your hair at least once a week to keep the scalp clean and prevent head lice.
- We should wear Hygienic Clothes.

## *FIRST AID*

We all observe that when individuals fall ill or are injured, they are taken to hospitals or doctors for treatment. But it takes time to reach them, during which if some initial care is taken, it helps treatment of such individuals and in many cases saves their lives. We all observe that some of the minor illnesses or injuries are cured by taking such initial care. However, this care cannot be taken unless we are aware and trained in first-aid. Help for Others Having studied first-aid, you are prepared to give others some instruction in first-aid, to promote among them a reasonable safety attitude and to assist them wisely if they are stricken.
There is no greater satisfaction than that resulting from relieving suffering or saving a life.

## *What Does First Aid Mean?*

First aid is the provision of initial care for an illness or injury. It is usually performed by a non-expert person to a sick or injured person until appropriate medical treatment can be accessed in a hospital or by going to a doctor. Certain self-limiting illnesses or minor injuries may not require further medical care after the first aid intervention.

It generally consists of a series of simple and in some cases, potentially life-saving techniques that an individual can be trained to perform with minimal equipment.

The First aid training, therefore, is of value in both preventing and treating sudden illness or accidental injury and in caring for large number of persons caught in a natural disaster. It is a measure both for self-help as well as for the help of others. Self-help as a first-aider, are prepared to help others, that will help us to care for ourself and others in case of injury or sudden illness.

## *Why First Aid?*

The main objective of first aid is not to cure, but ensure safety until the patient gets further treatment. It is the final assistance or care of a suddenly sick or injured person. It is the care administered by a person as soon as possible after an illness or accident. It is this prompt care and attention prior to the arrival of the ambulance that sometimes creates the difference between life and death, or between a full or partial recovery.

## ***The major objectives and purposes of First Aid:***

- To ensure that the victim reaches the place of specialized treatment safely and life is not lost in-between.
- To prevent further harm, i.e., the injury that has taken place, does not deteriorate further;
- To prevent the danger of further injury; and
- To promote recovery, i.e. necessary intervening care is taken in a way that promotes recovery and relieves the victim of pain and uneasiness.

## *Principles and Golden rules of First Aid:*

- Always be calm and keep Patience
- Taking care of patient in a proper way after knowing the details.
- Do not treat the patient in a hurry or in tension
- Examine the Airway, Breathing, Circulation (ABC)of the victim as a priority basis.
- Build confidence of the victim.
- Maintain honesty, encourage victim and to the family members.
- Don’t allow crowd to gather around the patient.

## *Golden rules of First Aid*

- Quick and careful evaluation of the situation.
- Give moral support to the patient and his relatives.
- First aid work should be done patiently and calmly.
- Reach quickly to the site of accident.
- To think of the ABC:
  A-Airway
  B-Breathing
  C-Circulation
- Prevention and Management of shock
- Don't give fluids to unconscious or semi-conscious patient
- Keep the patient warm and comfortable
- Reassuring the victim, maintain cool and calm behavior with patience
- Lay down the patient comfortably
- First aider should use available articles to save the life of the victims
- Victim should be shifted to safe crowded free place
- Information should be given to relatives and families
- Arrange for ambulance and nearby hospital
- Avoid asking too many questions to the injured victim

## *Preparation of First aid kit/Equipments used for the First Aid*

First Aid kit is an important item which may be needed at any place, e.g.-roads, Factories, homes, or institutions. It may be made of plastics or any other metal and its size depends on according to the need. It contains the following items:

- First aid dressing-small size, medium size
- Adhesive tapes
- Small cotton packet
- Small scissors
- Safety pins
- Betadine ointment
- Pad for eyes, eye ointment
- Triangular dressings
- Bundle of bandages
- Antiseptic solution
- Torch
- Gauze pieces
- Aspirin, paracetamol tablets
- Band aid
- Dressings for finger, hand, body
- Dettol solution/savlon solution
- Blades
- Tourniquet, syringe
- Thermometer
- Syringe
- Pencil/pens, notebook /record charts

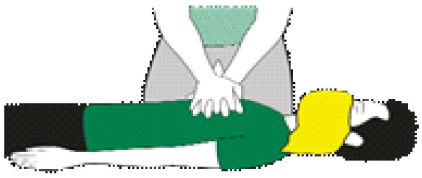
## *Roles of First Aider in the following emergencies:*

### CARDIAC ARREST/HEART ATTACK

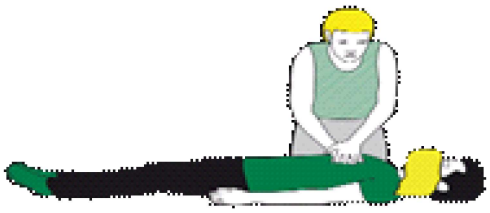
A cardiac arrest happens when someone's heart stops functioning or pumping. If someone has become unresponsive and they are not breathing normally, they could be in cardiac arrest and you need to act quickly as a first aider. If someone has a cardiac arrest, they may be unresponsive, be not breathing normally or show no movement or signs of life./

***First Aider role:*** 1.If you find someone collapsed, you should first perform a/ primary survey./ **Do not place your face close to theirs.** If this shows that they are unresponsive. Give them CPR by following steps Ask a helper to find and bring a defibrillator, if available Call for ambulance if at Assam, 108.

- **Ask your helper to put the phone on speaker and hold it out towards you, so they can maintain a 2m distance.**
- If you are on your own, use the hands-free speaker on a/ phone so you can start CPR while speaking to ambulance control.
- Do not leave the victim to look for a defibrillator yourself, the ambulance will bring one.



- **Before you start CPR, use a towel or piece of clothing and lay it over the mouth and nose of the victim.** Start CPR. Kneel by the victim and put the heel of your hand in the middle of their chest.Put your other hand on top of the first. Interlock your fingers making sure they don't touch the ribs. Keep your arms straight and lean over the casualty. Press down hard, to a depth of about 5-6cm before releasing the pressure, allowing the chest to come back up.
- The beat of the song "Staying Alive" can help you keep the right rate

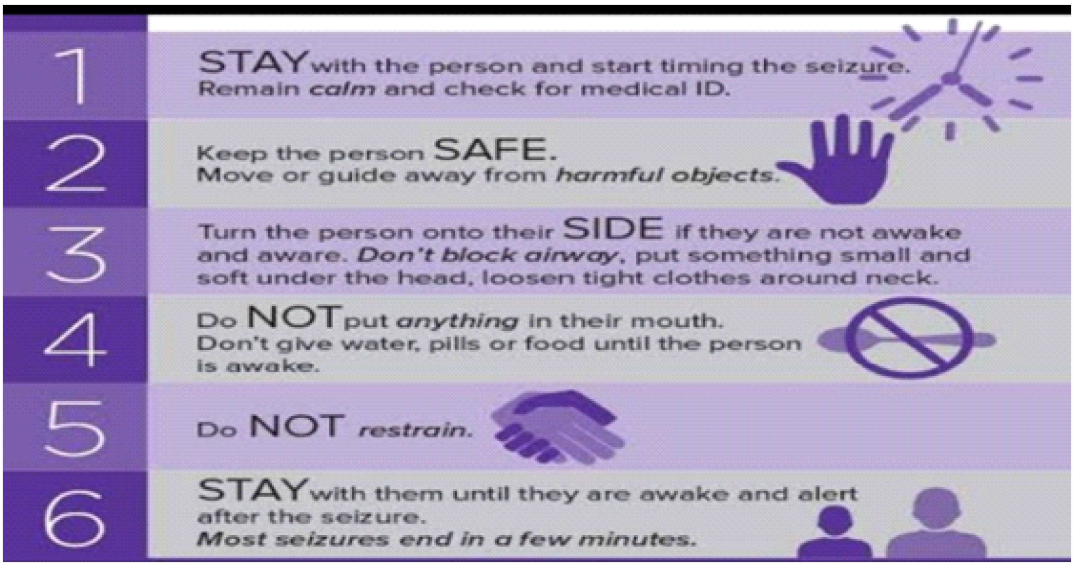


- **Do not give rescue breaths.**

Continue to perform CPR until:/ /

- emergency help arrives and takes over
- the person starts showing signs of life and starts to breathe normally
- you are too exhausted to continue - if there is a helper, you can change over every one-to-two minutes with minimal interruptions to chest compressions
- a defibrillator is ready to be used. When the helper returns with a defibrillator, ask them to switch it on and take the pads out while you continue with CPR. They should remove or cut through clothing to get to the casualty's bare chest. They also need to wipe away any sweat.

- The defibrillator will give voice prompts on what to do.They should attach the pads to the victim's chest by removing the backing paper. Applying the pads in the positions shown.
- The first pad should be on the upper right side below the collar bone.
- The second pad should be on the casualty's left side below the arm pit. The defibrillator will analyze the heart's rhythm. Stop CPR, and make sure no one is touching the victim. It will then give a series of visual and verbal prompts that should be followed.
- If the defibrillator tells you that a shock is needed, tell people to stand back. The defibrillator will tell you when to press the shock button. After the shock has been given, the defibrillator will tell you to continue CPR for two minutes before it re-analyses.




- If the defibrillator tells you that no shock is needed, continue CPR for two minutes before the defibrillator re-analyses.

If the victim shows signs of becoming responsive such as coughing, opening their eyes, speaking, or starts to breathe normally, put them in the recovery position.Leave the defibrillator attached. Monitor their level of response and prepare to give CPR again if necessary.

## CONVULSIONS:

A condition in which muscles contract and relax quickly and cause uncontrolled shaking of the body. Head injuries, high fevers, some medical disorders, and certain drugs can cause convulsions. They may also occur during seizures caused by epilepsy.

**Table 1: Role of first aider in Convulsion**

## OTHER KEY POINTS:

- Call ambulance immediately
- Seizure can last upto 5minutes long
- It can leads to difficulty in breathing, check ABC as a priority basis.
- Seizure can also occur in water.

### FEVER:

A fever is generally a response of the body's immune system. In other words, fever is not itself an illness, but rather the body's response to a variety of factors. These may include stress, colds, heat accumulation, as well as infections, tumors or metabolic disorders.

***First Aider role in Fever:***

- Make the person comfortable. Place a light sheet over the one who is having fever.
- During high-grade fever, cold water sponging is helpful.
- Give plenty of fluids.
- Give the recommended dose of paracetamol after consulting with the doctor. Check for the temperature, pulse and breathing to look for signs of improvement.

### HEAT STROKE

Heatstroke occurs when the body fails to regulate its own temperature and body temperature continues to rise, often to 40°C (104°F) or higher. Heatstroke is a medical emergency. Even with immediate treatment, it can be life-threatening or result in serious, long-term complications.

***First Aider role in Heat stroke:***

- Move the person into a cool place, out of direct sunlight.
- Remove the person's unnecessary clothing, and place the person on his or her side to expose as much skin surface to the air as possible.
- Cool the person's entire body by sponging or spraying cold water, and fan the person to help lower the person's body temperature. Watch for signs of rapidly progressing heatstroke, such as seizure, unconsciousness for longer than a few seconds, and moderate to severe difficulty breathing.
- Apply ice packs in each armpit and on the back of the person's neck.
- If a child has stopped breathing, begin rescue breathing.
- **Do not give aspirin or acetaminophen** to reduce a high body temperature that can occur with heatstroke. These medicines may cause problems because of the body's response to heatstroke.
- If the person is awake and alert enough to swallow, give the person fluids [1 L to 2 L over 1 to 2hrs for hydration. You may have to help. Make sure the person is sitting up enough so that he or she does not choke. Most people with heatstroke have an altered level of consciousness and cannot safely be given fluids to drink.

### BACK PAIN

In the first 48 hours after you strain your back, the goal of treatment is to decrease pain, swelling, and muscle spasms. Resting, icing the affected area, and taking over-the-counter medications can help.

- **Rest-**Cut back on your normal activities and exercise routine for a day or two. Give your back some time to heal.

- **Ice-**Put an ice pack on the injured area for 20 minutes at a time, four to eight times a day. Use a cold pack, or fill a bag with ice and wrap it in a towel. Continue for 48 hours after the injury. During this period, icing the affected area decreases inflammation by constricting your blood vessels. This limits blood flow to the area. Don't apply heat during this time. It will have the opposite effect.
- **Compression-**Applying pressure also helps reduce swelling. To apply pressure, wrap an elastic bandage around the affected area of your back. It may be easier and less painful to ask someone else to wrap it for you. To avoid cutting off your blood circulation, don't wrap it too tightly. Loosen the bandage if the pain increases, the wrapped area becomes numb, or you notice swelling below the wrapped area.
- Medication-Aspirin, ibuprofen. (Pain killers).

**BURN:** ***First aider role in Burn***

- Put out fire or stop the person's contact with hot liquid, steam, or other material.
- Help the person "stop, drop, and roll" to smother flames.
- Remove smoldering material from the person.
- Remove hot or burned clothing. If clothing sticks to skin, cut or tear around it.

### Remove Constrictive Clothing Immediately

- Take off jewelry, belts, and tight clothing. Burns can swell quickly.

### Cool Burn

- Hold burned skin under cool (not cold) running water or immerse in cool water until the pain subsides.
- Use compresses if running water isn't available.

### Protect the Burn

- Cover with sterile, non-adhesive bandage or clean cloth.
- Do not apply butter, oil, lotions, or creams (especially if they contain fragrance). Apply a petroleum-based ointment two to three times per day.

### Treat Pain

Give over-the-counter pain reliever such as acetaminophen

## BLEEDING

***First aider role in Bleeding***

**Stop the bleeding.** Place a sterile bandage or clean cloth on the wound. Press the bandage firmly with your palm to control bleeding. Apply constant pressure until the bleeding stops. Maintain pressure by binding the wound with a thick bandage or a piece of clean cloth. Don't put direct pressure on an eye injury.

- Secure the bandage with adhesive tape or continue to maintain pressure with your hands. If possible, raise an injured limb above the level of the heart.
- **Help the injured person lie down.** If possible, place the person on a rug or blanket to prevent loss of body heat. Calmly reassure the injured person.
- **Don't remove the gauze or bandage.** If the bleeding seeps through the gauze or other cloth on the wound, add another bandage on top of it. And keep pressing firmly on the area.

- **Tourniquets:** A tourniquet is effective in controlling life-threatening bleeding from a limb. Apply a tourniquet if you're trained in how to do so. When emergency help arrives, explain how long the tourniquet has been in place.
- **Immobilize the injured body part as much as possible.** Leave the bandages in place and get the injured person to an emergency room as soon as possible.

Call 108 or emergency medical help for severe bleeding that you can't control.

## SNAKE BITES

***First aider role:*** Call 108

- There is any chance that the snake is venomous.
- The person has difficulty breathing
- There is loss of consciousness

If you *know* the snake is not venomous, treat as a puncture wound.

- Note the Snake's Appearance
- Protect the Person

While waiting for medical help:

- Move the person beyond striking distance of the snake.
- Have the person lie down with wound below the heart.
- Keep the person calm and at rest, remaining as still as possible to keep venom from spreading.
- Cover the wound with loose, sterile bandage.
- Remove any jewelry from the area that was bitten.
- Remove shoes if the leg or foot was bitten

**Do not:**

- Cut a bite wound
- Attempt to suck out venom
- Apply tourniquet, ice, or water
- Give the person alcohol or caffeinated drinks or any other medications.

## DROWNING

***First aider role in Drowning***

Place the drowning person on their back on a flat surface, and be careful when handling them as they may be unconscious after bumping their head against something.

- Try to call the drowning person and shake their shoulders to make sure they are responding.
- If the person does not respond, check their breathing
- If the person is breathing: Place them in the recovery position and warm them up with clothes or blankets. Change their wet clothes while waiting for the ambulance. If not than call for help to the nearest person for CPR, or else call 108 for help, if in Assam.

Thus, from this unit we have learned about Personal hygiene, it's importance, First aid, first aids principles, first aider role in different emergencies that will be very helpful to save the life's of the individuals in any kind of emergencies.

# PRIMARY HEALTH CARE

## Introduction:

Primary health care (PHC)is defined as "essential health care based on practical, scientifically sound and socially acceptable methods and technology, made universally accessible to individuals and families in the community through their fullparticipation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination".

It forms an integral part both of the country's health system, of which it is the central function and main focus and of the overall social and economic development of the community. It is the first level of contact of individuals, the family and community with the national health system bringing health care as close as possible to where people live and work and constitutes the first elements of a continuing health care process.

In India the first National Health Policy in 1983 aimed to achieve the goal of 'Health for All' by 2000 AD, through the provision of comprehensive primary healthcare services. It stressed the creation of an infrastructure for primary healthcare; close co-ordination with health related services and activities (like nutrition, drinking water supply and sanitation); active involvement and participation of voluntary organization; provision of essential drugs and vaccines; qualitative improvement in health and family planning services; provision of adequate training; and medical research aimed at the common health problems of the people.

## Definition:

*"PHC is a whole-of-society approach to health that aims at ensuring the highest possible level of health and well-being and their equitable distribution by focusing on people's needs and as early as possible along the continuum from health promotion and disease prevention to treatment, rehabilitation and palliative care, and as close as feasible to people's everyday environment."* (WHO and UNICEF)

## Purposes:

- Village leve
- Increase in life expectation.
- Improvement in nutritional status.
- Provision of basic sanitation.
- Development of manpower and other resources.

## The "Graded (3-Tier)" System of Health Care:

In the curative domain there are various forms of medical practice. They may be thought of generally as forming a pyramidal structure, with three tiers representing increasing degrees of specialization and technical sophistication but catering to diminishing numbers of patients as they are filtered out of the system at a lower level. Only those patients who require special attention either for diagnosis or treatment should reach the second (advisory) or third (specialized treatment) tiers where the cost per item of service becomes increasingly higher. The first level represents primary health care, or first contact care, at which patients have their initial contact with the health-care system.

### *Primary health care:*

It is an integral part of a country's health maintenance system, of which it forms the largest and most important part. It deals with the entire gamut ofthe community at the grass-root level. Primary health care is a comprehensive team- work between medically qualified physician as well as a wide range of nursing and paramedical personnel. Quite often, primary health care systems are further subdivided into three levels -

- the most peripheral level which is in direct contact with the community and is usually managed by one or more members from within the community who are trained and equipped in preventive and promotive healthcare as well as in the most basic clinical and emergency care.
- The next higher level is managed by one or more nursing / paramedical workers,
- while the highest level within primary health acre is managed by a medical person along with his team of nursing and paramedical persons. In our country, these 3 levels correspond to the ASHA / Village health guide(VHG), Multi-purpose workers (MPWs) at subcentres and the Primary Health centre, respectively.

### *Secondary health care:*

The vast majority of patients can be fully dealt with at the primary level. Those who cannot are referred to the second tier for the opinion of a specialist. Secondary health care often requires the technology offered by a local or regional hospital.

### *Tertiary health care:*

The third tier of health care, employing super specialist services, is offered by institutions such as teaching hospitals and units devoted to the care of particular groups. The dramatic differences in the cost of treatment at the various levels is a matter of particular importance in developing countries, where the cost of treatment for patients at the primary level is usually only a small fraction of that at the third level.

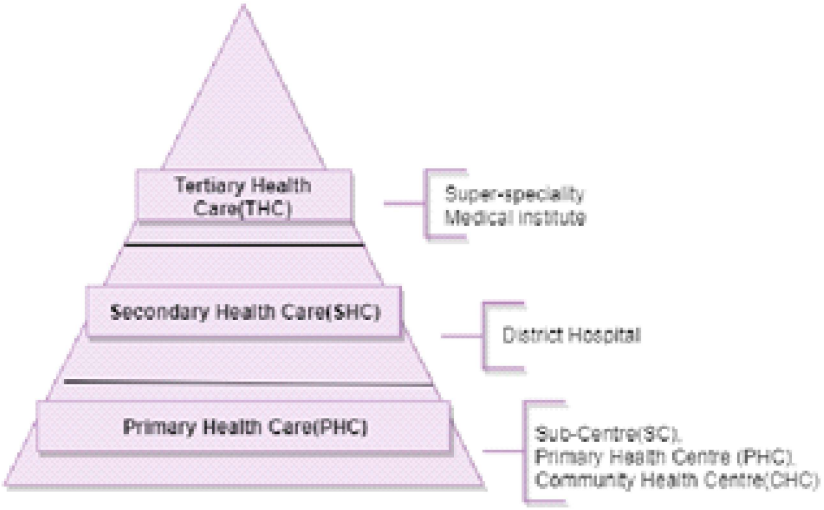



**Fig : 1: Levels of prevention**

**Goals:**

The ultimate goal of primary healthcare is the attainment of better health services for all. It is for this reason that the World Health Organization (WHO), has identified five key elements to achieving this goal:

a) Reducing exclusion and social disparities in health (universal coverage reforms);
b) Organizing health services around people's needs and expectations (service delivery reforms);
c) Integrating health into all sectors (public policy reforms);
d) Pursuing collaborative models of policy dialogue (leadership reforms); and
e) Increasing stakeholder participation.

## Characteristics of Primary Health Care:

a) Stresses prevention rather than cure.
b) Relies on home self-help, community participation and technology that the people find acceptable, appropriate and affordable.
c) Combines modern, scientific knowledge and feasible health technology with acceptable, effective traditional healing practices.
d) Should be shaped around the life patterns of the population.
e) Should both meet the needs of the local community and be an integral part of the national health care system.
f) Should be formulated and implemented with involvement of the local population.

## Components of Primary Health Care:

There are eight essential components:

a) Education about common health problems and what can be done to prevent and control them;
b) Maternal and child health care, including family planning;
c) Promotion of proper nutrition;
d) Immunization against major infectious diseases;
e) An adequate supply of safe water;
f) Basic sanitation;
g) Prevention and control of locally endemic diseases;
h) Appropriate treatment for common diseases and injuries.

## The Four Pillars of Primary Health Care (Principles):

Primary health care is not simply treating patients or immunizing children and so on. It is an ethos, a concept, which is built up as a system. For this concept to be successful, it should employ the following four essential principles:

✧ *Community Participation:*

While most of the efforts in providing health care come from the state, the system of primary health acre should be based on full participation and involvement of the community. It is akin to placing people's health in people's hands. In our country, the concepts of ASHA, VHG, TBAs ( Trained Birth Attendant) are all examples of community participation.

✧ *Appropriate Technology:*

Appropriate technology is one which is scientifically sound, adapted to local needs, acceptable to those who apply it and to those on whom it is applied and which can be maintained by the people, as a part of self reliance and within the resources which can be afforded by the community and the nation. Outstanding examples of appropriate technology are the use of coloured tapes / bangles for measuring mid-upper arm circumference and use of coconut water for oral rehydration.

✧ *Inter-Sectoral Coordination:*

Health care, especially primary health care's preventive and promotive functions cannot be executed in isolation by health sector alone. A large number of other sectors concerned with human development will need to function in close cooperation. These include health, education, legal, urban / rural development, agriculture, industrial and such other sectors. Even at the grass root level, health care functionaries cannot function in isolation but will need to function with various other functionaries for obtaining best results. An outstanding example of inter- sectoral coordination at the grass root level is that of the Anganwadi, as a part of the **Integrated Child Development Services** (ICDS) programme launched in 2nd October, 1975.

✧ *Equitable Distribution:*

Health services should be available to each and every one in the community and not depend on one's capability to pay for the services. In fact, those who are not in a position to pay are the one's who are in most in need of health care. Similarly, disadvantaged groups within the homes / society (as women in a household or persons belonging to Scheduled Castes / Scheduled Tribes in the community) should have equal access and right to provision of health care, for itto be successful.

**The Basic Requirements for Sound PHC (the 8 A's and the 3 C's):**

- Appropriateness
- Availability
- Adequacy
- Accessibility
- Acceptability
- Affordability
- Accessibility
- Accountability
- Completeness
- Comprehensiveness
- Continuity

➢ **Appropriateness**

Whether the service is needed at all in relation to essential human needs, priorities and policies.The service has to be properly selected and carried out by trained personnel in the proper way.

➢ **Adequacy**

The service proportionate to requirement.Sufficient volume of care is planned to meet the need and demand of a community.

- **Affordability**

  The cost should be within the means and resources of the individual and the country.

- **Accessibility**

  Reachable, convenient services, Geographic, economic, cultural accessibility

- **Acceptability**

  Acceptability of care depends on a variety of factors, including satisfactory communication between health care providers and the patients, whether the patients trust this care, and whether the patients believe in the confidentiality and privacy of information shared with the providers.

- **Availability**

  Availability of medical care means that care can be obtained whenever people need it.

- **Assessability**

  Assessability means that medical care can be readily evaluated.

- **Accountability**

  Accountability implies the feasibility of regular review of financial records by certified public accountants.

- **Completeness**

  Completeness of care requires adequate attention to all aspects of a medical problem, including prevention, early detection, diagnosis, treatment, follow up measures, and rehabilitation.

- **Comprehensiveness**

  Comprehensiveness of care means that care is provided for all types of health problems.

- **Continuity**

  Continuity of care requires that the management of a patient's care over time be coordinated among providers.

To summarize:

**Primary health care is an approach that:**

- Focuses on the person not the disease, considers all determinants of health.
- Integrates care when there is more than one problem.
- Uses resources to narrow differences.
- Forms the basis for other levels of health systems.
- Addresses most important problems in the community by providing preventive, curative, and rehabilitative services.
- Organizes deployment of resources aiming at promoting and maintaining health.

# EMERGENCY MEDICAL RESPONSE (EMR)

Emergency Medical Response (EMR)is a dynamic 56-hours course featuring lecture, video, simulated emergency situations, discussion and hands-on skill practice based on the national EMS curriculum requirements and educational standards.

Emergency Medical Responders provide immediate lifesaving care to critical patients who access the emergency medical services system. EMRs have the knowledge and skills necessary to provide immediate lifesaving interventions while awaiting additional EMS resources to arrive.

EMR's also provide assistance to higher-level personnel at the scene of emergencies and during transport. Emergency Medical Responders are a vital part of the comprehensive EMS response. Under medical oversight, Emergency Medical Responders perform basic interventions with minimal equipment.

## WHAT IS EMERGENCY ?

Sudden illness or injury requiring immediate physicians attention to prevent the danger and delay in treatment to save the precious part or life with minimum disability or death . Most common cause of trauma /injury is road traffic accident. It is the fourth major killer after 3 'C' **Communicable diseases, Cancer and Cardio vascular diseases.**Popularly it is known as disease of urbanization or curse of rapid development.

## TRAUMA SERVICES

Accidents are an unfortunate incident that happens unexpectedly and unintentionally, typically resulting in damage or injury. Sometimes resultingin extensivedamage, deformity or death.

TRAUMA SERVICES Because of the nature of its severity, unexpectedness and fatal outcome ,a special branch of trauma care medicine has been started in large hospitals with trained trauma care physicians, nurses, paramedical staffetc.All efforts are made to provide all essential care and investigation in the same premises to save the life of trauma patients. Even to minimizethe delay in treatment, the trauma care is provided at the site of accident in the form of basic and advance life care support.

## BASIC AND ADVANCED LIFE SUPPORT (CARDIO PULMONARY RESUSCITATION)

**BASIC LIFE SUPPORT** : Given 1to 4 minutes

A — Airway
B — Breathing
C — Circulation

**ADVANCE LIFE SUPPORT ( Provided in hospital) :** Given 5to 8 minutes

D — Defibrillator
E — ECG
F — Fluid and drugs
G — Gauze parameters
H — Human and Machine function

## TYPES OF EMERGENCY SERVICES :

Depending on size of hospital, nature of injuries, population and catchments area. The services may be:

- MAJOR EMERGENCY AND DISASTER MANAGEMENT.
- BASIC EMERGENCY OR ROUTINE WITH SPECIAL ON CALL
- REFERRAL EMERGENCY
- STAND BY EMERGENCY

## AIMS AND OBJECTIVE OF EMERGENCYRESPONSE

- RIGHT TREATMENT
- RIGHT TIME
- RIGHT PLACE
- RIGHT RESOURCES
- SPEED
- SYMPATHY
- SCIENCE

## FUNCTIONS OF EMERGENCY

### MAJOR

- To treat unannounced patients , Life threatening and routine treatments
- To function 24 hrs x 7 days/ 365 days
- Provide immediate andappropriate life saving care
- Services both efficient and effective
- Sensitive to emotional needs
- Liase with Courts & Police in MLC( Medico legal cases)
- Relation with Superspeciality or referral hospitals
- Public relation
- Administration and feedback

### SUBSIDIARY

- Provide Ambulance Service
- Provide Porter Service
- Information & Communication Centre
- Education, Training & Research

## EMERGENCY MEDICAL RESPONSE PROCEDURE

### PURPOSE

- To establish procedure for the administration of First -aid, Medical emergency response treatment, reduction in fatalities, prevent injuries and further complications.

**OBJECTIVES**

- Timely responding to sudden onset of disaster/medicalemergencies/epidemic/spills/accidents/flood/ earthquake/storms etc.on- site or off-site
- Life safety
- Stabilization ofthe incident
- To reduce evacuation time
- Administration of first aid and medical treatment with use of appropriate Personal Protective equipments ( PPEs) by taking universal precautions against blood borne pathogens.
- To train additional staff for their usefulness in case of mass emergencies or voluntary help as per good Samaritan law

***Procedure-1***

- Contact emergency response coordinator
- State emergency
- Assess the situation
- Ensure the area is safe
- Identify the risk
- Neutralise the risk
- Use appropriate protective equipment as per the event
- Approach tovictim
- Conduct primary survey ( Inspection and assessment)
- Note down the victim's record

***Procedure- 2***

- Categorise casualties
- Stabilise the serious victim
- Treat minor injury cases on site—sent back in safe area
- Conduct secondary survey
- Mobilize ambulances
- Communicate to near by industries for help
- Casualties (serious and having threatening condition)requiredhospitalization—immediately refer to higher centre as per site evacuation procedure.

***Procedure-3***

- For minor injury cases and less serious cases follow the flow chart or guidelines of the disaster management response team or emergency medical responder's guidelines
- Regular follow up
- Record keeping as Annexure -1
- Regular communication with ER Co-coordinator
- List of doctors and hospital attached for reference.

# MILLENNIUM DEVELOPMENT GOALS

The Millennium Development Goals (MDGs) which include eight goals framed to address the world's major development challenges with health and its related areas as the prime focus. In India, considerable progress has been made in the field of basic universal education, gender equality in education, and global economic growth. However, there is slow progress in the improvement of health indicators related to mortality, morbidity, and various environmental factors contributing to poor health conditions. Even though the government has implemented a wide array of programs, policies, and various schemes to combat these health challenges, further intensification of efforts and redesigning of outreach strategies is needed to give momentum to the progress toward achievement of the MDGs.

The MDGs adopted by the United Nations in the year 2000 project the efforts of the international community to "spare no effort to free our fellow men, women and children from the abject and dehumanising conditions of extreme poverty." The MDGs are eight goals to be achieved by 2015 that respond to the world's main development challenges.

These goals are further subdivided into 18 numerical targets which are further measured by means of 40 quantifiable indicators. Health constitutes the prime focus of the MDGs. While three out of eight goals are directly related to health, the other goals are related to factors which have a significant influence on health. Hence, the goals and targets are inter-related in many ways.

**The eight MDG goals are to :**

1) eradicate extreme poverty and hunger;
2) achieve universal basic education;
3) promote gender equality and empower women;
4) reduce child mortality;
5) improve maternal health;
6) combat HIV/AIDS, malaria, and other diseases;
7) ensure environmental sustainability;
8) develop a global partnership for development.

Ever since India's independence in 1947, various national health schemes, programs, and policies have been launched with the view to improve the health status of people. The most recently launched National Rural Health Mission (NRHM) in 2005 aims to improve and strengthen the existing rural health care with the phased increase of funding amounting to 2-3 % of gross domestic product (GDP), as well as to bring out some innovative interventions. In addition, the NRHM has addressed two of the major problems identified under the MDGs i.e., poor governance and policy neglect. The half-way point in the time period of achievement of the MDGs has already been crossed. It is therefore crucial to capture India's achievements toward attaining the MDGs and to analyse the challenges and policies with reference to the goals and targets.

**India and the MDGs:**

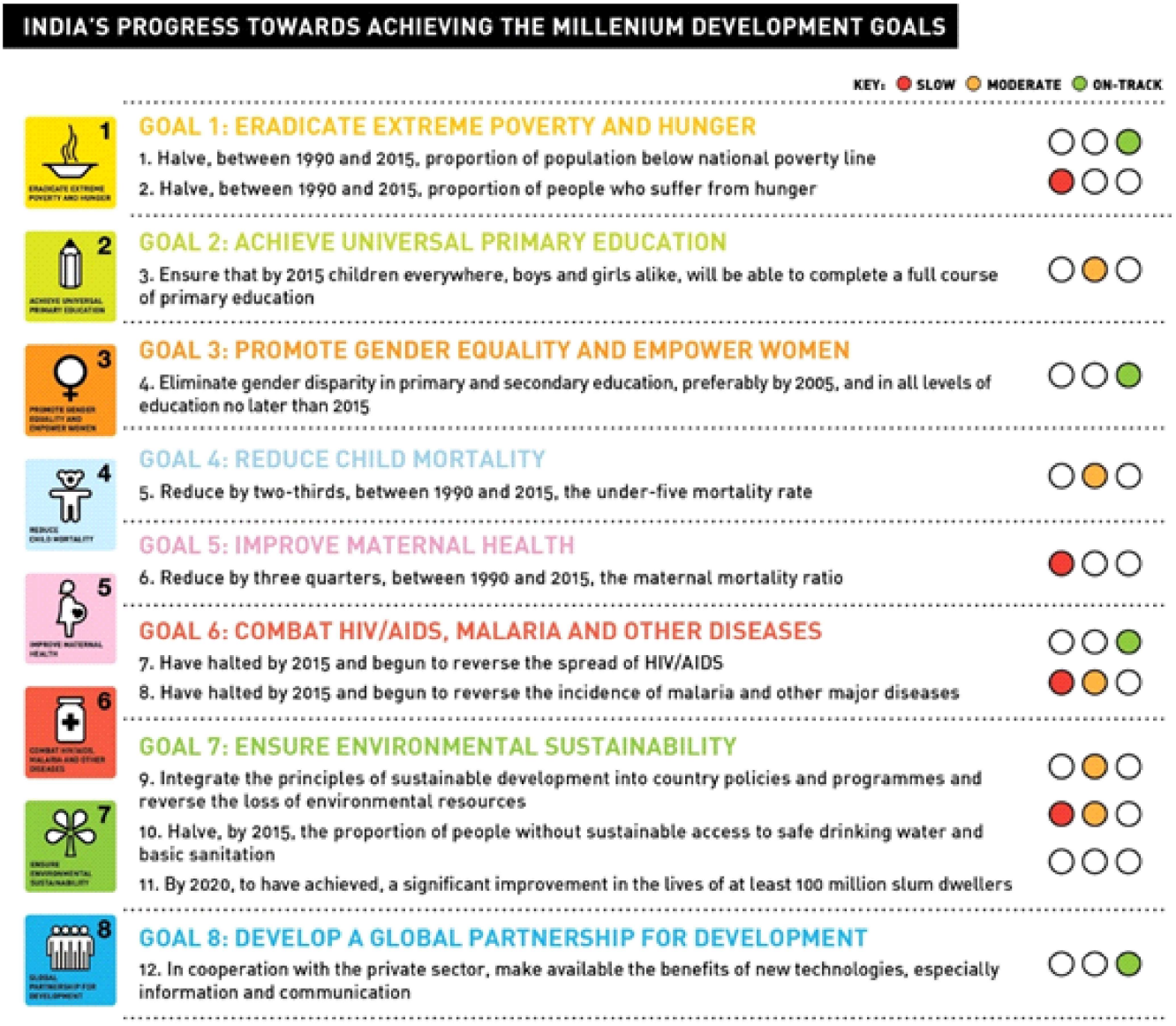



**Fig1: India's progress to MDG's**

The year 2015 is a landmark year for global development - the Millennium Development Goals (MDGs) are reaching their December 2015 deadline, and the world is set to adopt a new set of transformative and universal sustainable development goals (SDGs). At this juncture, when the framework for the next phase of global development is being formulated, it becomes critical to assess the achievements of the MDGs in India.

India is a signatory to the Millennium Declaration adopted at the United Nations General Assembly in September 2000, and has consistently reaffirmed its commitment towards the eight development goals. The targets of the MDGs converge with India's own development goals to reduce poverty and other areas of deprivation.

India has witnessed significant progress towards the MDGs, with some targets having been met ahead of the 2015 deadline, however progress has been inconsistent. For instance, while India, according to official national estimates, has achieved the target for reducing poverty by half, it is falling short of achieving the target for reducing hunger. The country has achieved gender parity in primary school enrolment yet it is lagging behind on targets for primary school enrolment and completion. India has made progress in providing clean drinking water however; access to sanitation facilities remains inadequate.

The Millennium Development Goals influenced Development policy formulation and planning globally. Along with bringing critical development challenges to the forefront, they also provided countries with a strong target-oriented agenda. While India has been moving in the right direction in some areas, there is still work remaining in the others. This is therefore an opportune moment to incorporate the lessons learned from the MDGs, into the sustainable development goals and build upon the unfinished MDG agenda.

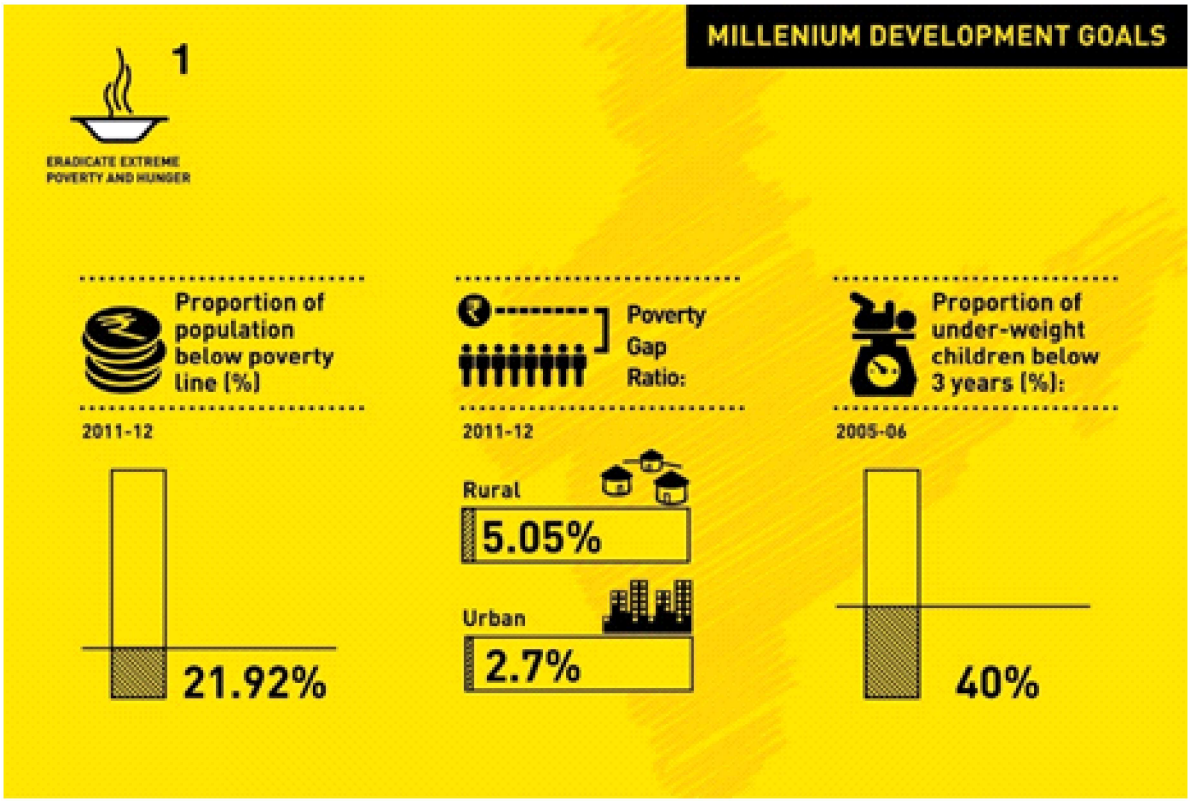



**Fig2: Goal 1: Eradicate Extreme Hunger and Poverty**

India has been moderately successful in reducing poverty. In 1990, the all India Poverty Head Count Ratio (PHCR) was estimated to be 47.8%. In order to meet the 2015 target, the PHCR level has to be 23.9%. In 2011-12, the PHCR was 21.9%. This indicates that, India has achieved the poverty reduction target, however, progress is uneven. Faster reduction in poverty since the mid-2000s helped India halve the incidence of poverty. This was a result of both: economic growth (including in agriculture) as well as increased social spending on interventions such as MGNREGA and the National Rural Health Mission (NRHM). Nevertheless, estimates from 2012 reveal that, over 270 million Indians continue to live in extreme poverty – making the post-2015 goal of eliminating extreme poverty by 2030 challenging, but feasible.

However, eradicating hunger remains a key challenge. India is home to one quarter of the world's undernourished population, over a third of the world's underweight children, and nearly a third of the world's food-insecure people. Malnourishment and food insecurity are interlinked. In 1990, when the MDGs were formulated, 53.5 percent of all Indian children were malnourished. Since then, progress has been slow. In India, the proportion of underweight children below three years has declined marginally between 1998-99 and 2005-06 to 46 percent. In 2015, malnourishment declined to 40 percent. This is still below the target of reducing malnourishment to 26 percent.


**Fig 3: Goal 2: Achieve Universal Primary Education**

India has made significant progress in universalizing primary education, and is moderately on track to achieve this Millennium Development Goal. Enrolment and completion rates of girls in primary school have improved and are catching up with those of boys, as are elementary completion rates. At the national level, male and female youth literacy rate is likely to be at 94.81% and 92.47%.

In 2009, India introduced the Right of Children to Free and Compulsory Education Act (RTE), however the quality of education remains a major concern. Another issue, which will have to be addressed, is the large numbers of children remaining out of school and failing to complete primary education, particularly in the case of girls, children in rural areas and those belonging to minority communities.

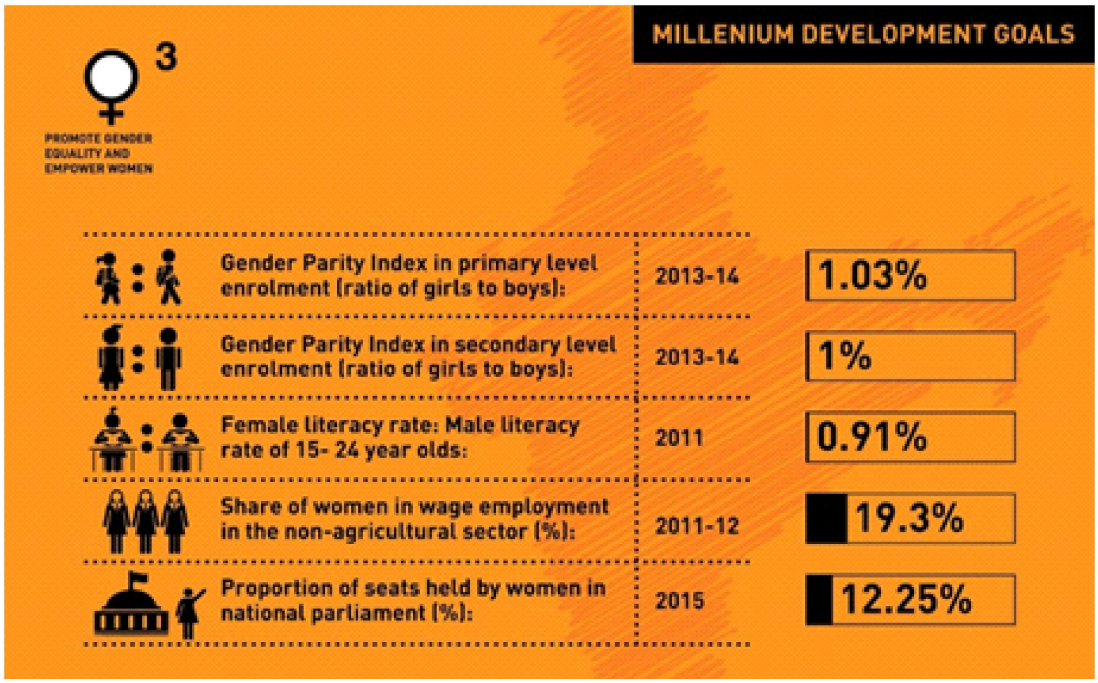



**Fig4: Goal 3: Promote Gender Equality and Empower Women**

India is on track to achieve gender parity at all education levels, having already achieved it at the primary level. But women's literacy rates lag behind that of men, indicating women's poorer learning outcomes and opportunities.

As of August 2015, in India, the world's largest democracy, has only 65 women representatives out of 542 members in Lok Sabha, while there are 31 female representatives in the 242 member Rajya Sabha and hence presently the proportion of seats in National Parliament held by women is only 12.24% against the target of 50%

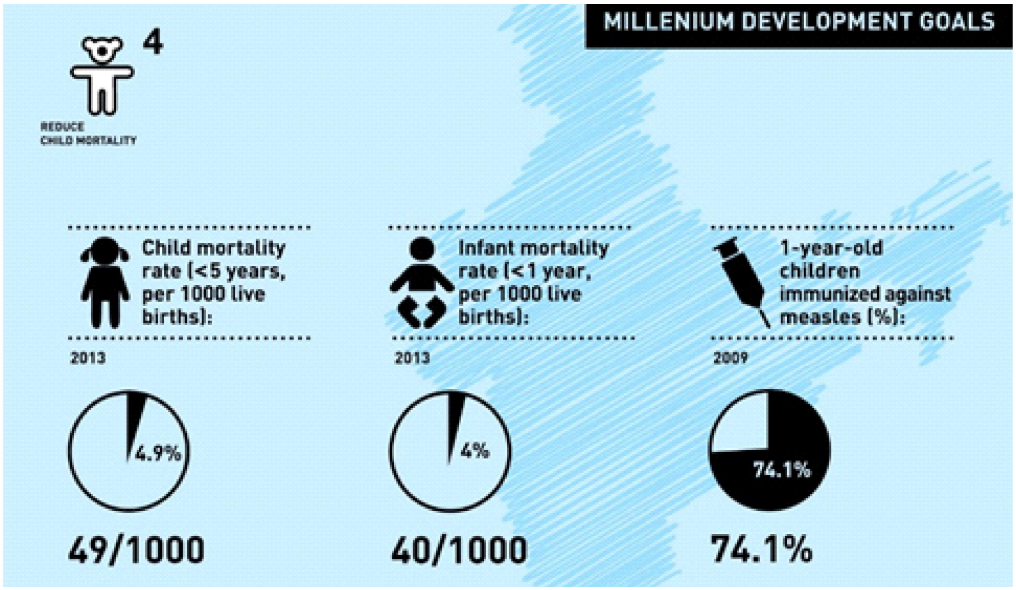



**Fig5: Goal 4: Reduce Child Mortality**

The fourth Millennium Development Goal aims to reduce mortality among children under five by two-thirds. India's Under Five Mortality (U5MR) declined from 125 per 1,000 live births in 1990 to 49 per 1,000 live births in 2013. The MDG target is of 42 per 1000, which suggests that India is moderately on track, largely due to the sharp decline in recent years.

Child survival in India needs sharper focus. This includes better managing neonatal and childhood illnesses and improving child survival, particularly among vulnerable communities. Survival risk remains a key challenge for the disadvantaged who have little access to reproductive and child health services. Major states in the heartland of India are likely to fall significantly short of these targets. Infant mortality rate( IMR) is lowest in Kerala (12) and highest for Madhya Pradesh (54). The key to significant progress in reducing U5MR and infant mortality rates rests with reducing neonatal deaths, that is, infant deaths that occur within a year of birth at a fast pace.

The large scale of under-nutrition in expectant mothers and children poses a critical development challenge for India. On a positive note, various Ministries under the Government of India are implementing child centric policies and programmes which are vigorously attending the issues related to child health. This includes the National Policy on Children (2013); National Policy on Early Childhood Care and Education; Integrated Child Development Services (ICDS) and other initiatives focusing on holistic child development.

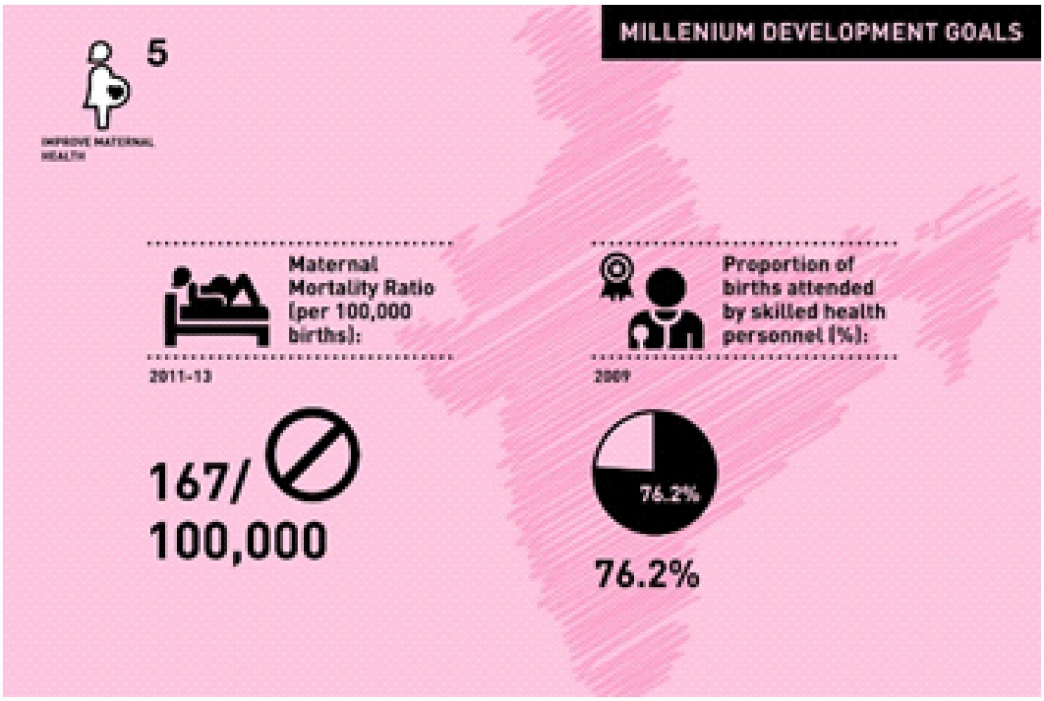



**Fig6**:**Goal 5: Improve Maternal Health**

From a Maternal Mortality Rate (MMR) of 556 per 100,000 live births in 1990-91, India is required to reduce MMR to 139 per 100,000 live births by 2015. Between 1990 and 2006, there has been some improvement in the Maternal Mortality Rate (MMR), which has declined to 167 per 100,000 live births in 2009. However, despite this, India's progress on this goal has been slow and off track.

Safe motherhood depends on the delivery by trained personnel, particularly through institutional facilities. Delivery in institutional facilities has risen from 26 percent in 1992-93 to 72 percent in 2009.

Consequently, deliveries by skilled personnel have increased at the same pace, from 33 percent to 76.2 percent in the same period.

One contributing factor has been the introduction of a conditional cash transfer scheme, Janani Suraksha Yojana which improved the delivery of babies in hospitals and nursing homes to 72 per cent in 2009. However, the quality of maternal care remains a concern.

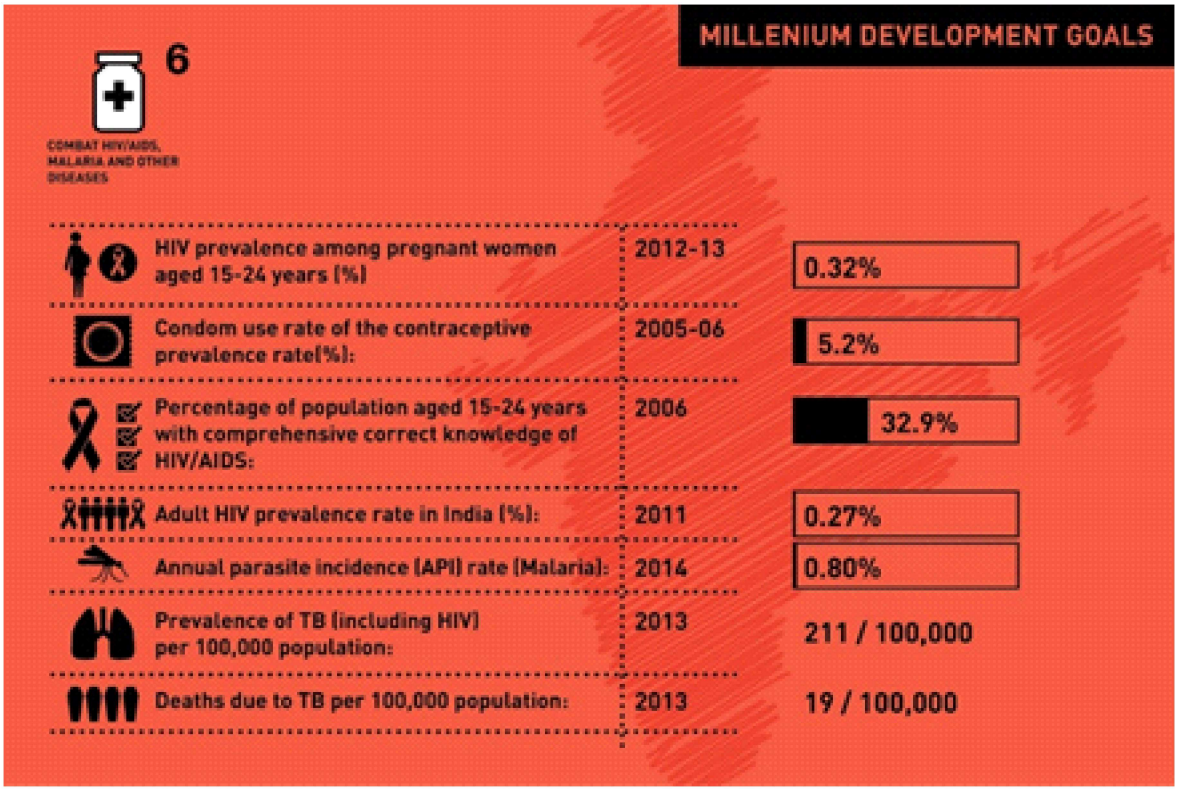



**Fig7: Goal 6: Combat HIV/AIDS, Malaria and Other Diseases**

Targets for this goal are based on trend reversal and not on base year value, hence it can be said that India is on track to achieve this goal, since HIV, malaria and tuberculosis prevalence have been declining.

India has made significant strides in reducing the prevalence of HIV and AIDS across different types of high risk categories. Eighty-six percent of transmissions of HIV and AIDS in India are caused by sexual activity. Much of this decline can be attributed to greater awareness and increasing condom use. Adult prevalence has come down from 0.45 percent in 2002 to 0.36 in 2009.

Malaria has consistently come down from 2.12 per thousand in 2001 to 0.72 per thousand in 2013, but slightly increased to 0.88 in 2014 (Provisional). The number of confirmed deaths due to malaria in 2013 was 440 and in 2014 (P), 578 malaria deaths have been registered.

India accounts for one-fifth of the global incidence of tuberculosis (TB), but India has made progress in halting its prevalence. Treatment success rates have remained steady and tuberculosis prevalence per lakh population has reduced from 465 in year 1990 to 211 in 2013. TB incidence per 100,000 population has also reduced from 216 in year 1990 to 171 in 2013.

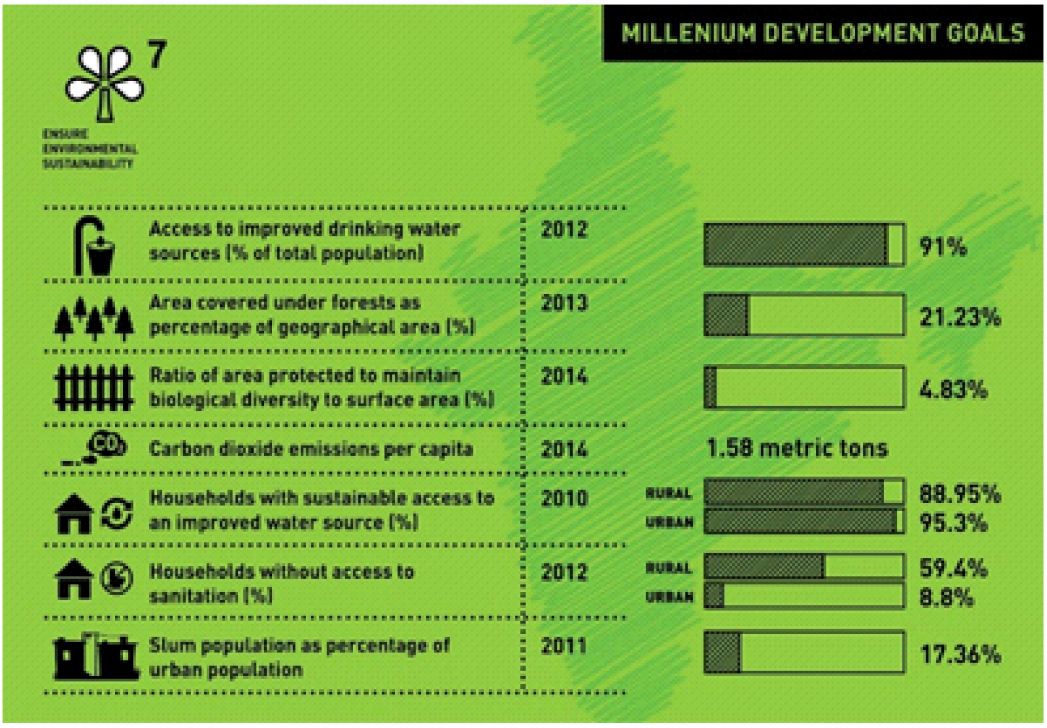



**Fig 7 :Goal 7: Ensure Environmental Sustainability**

India has made some progress and is on track towards achieving the Seventh Millennium Development Goal of ensuring environmental sustainability. Forest cover has increased to 21.23 percent - an increase of 5871 sq. km, and protected areas cover to about 4.83 percent of the country's total land area. Reducing the energy intensity of GDP growth through higher energy efficiency will be the key to achieving energy security.

India is on-track for achieving the MDG target for sustainable access to safe drinking water. The overall proportion of households having access to improved water sources increased from 68.2 percent in 1992-93 to 90.6 percent in 2011-12.However India, which is one of the most densely populated countries in the world, has not recorded similar progress in improving sanitation facilities over the last decade. Therefore, progress is slow for the sanitation coverage indicator.

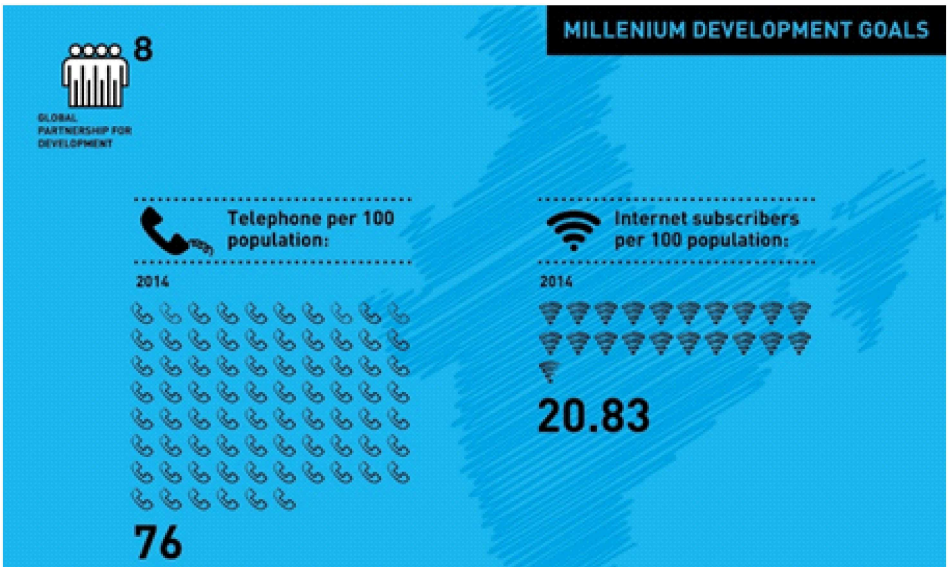



**Fig 9: Goal 8: Develop a Global Partnership for Development**

With 946.4 million telephone connections, including 918.72 million wireless ones, the Indian telecom network, as of 2014 is the second largest network in the world after China. Out of this, 383.97 million telephone connections are in rural areas and 562.43 million are in urban areas.

The huge leap in the telecom sector along with the advances in the IT sector have led to a massive expansion in the Internet subscriber base. Total number of Internet subscribers has increased from 198.39 million in 2013 to 259.14 million in 2014, with an annual growth of 60%. Presently, wired internet subscribers are 18.58 million and wireless internet subscribers are 240.60 million.

As part of the globalization process and integration with the global economy, India has emerged as one of the major development partners for fostering techno-economic and intellectual assistance to various developed and developing countries across the world. The Indian ICT industry, in particular, the IT software and services and ITES sectors have managed to catch up with the global leaders. As a part of its development partnership activities, India has helped developing countries through technical assistance, capacity-building support, economic assistance, and provided market access to least developed countries. India's development assistance at US$1.4 billion a year in nominal terms is significant for its level of development and can usefully complement the conventional ODA from developed countries.