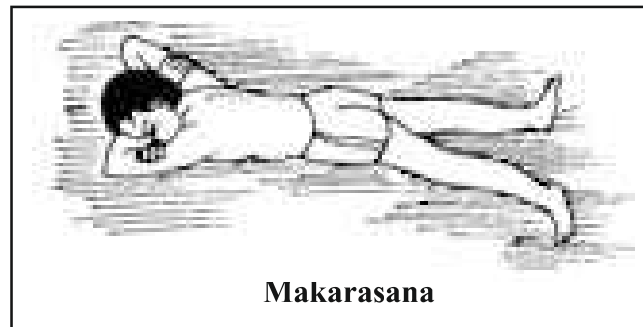


● **Original position :**

- (1) Lie on stomach.
- (2) Keep both the hands in side of thigh.
- (3) Keep palms touching the ground.
- (4) Keep the legs touching each other.
- (5) Keep chin leant on ground, the body completely in erect postion.



● **Method :**

- (1) Keep a distance of a foot between both the legs. Keep heels inside, fingers and toes outside.
- (2) Keep both the hands one above the other below forehead.
- (3) Relax the body completely stress free, and lie down in the relaxed postion.

● **Points to bear in mind :**

- (1) Make respiration process very normal and natural.
- (2) Make the complete body loose and relax.
- (3) Make the mind quiet.
- (4) The person suffering from low B. P. and problem pertaining to heart should not do this asana.

● **Benefits :**

- (1) Physical fatigue is removed.
- (2) Intestines become active, due to which gas and constipation are removed.
- (3) Fat decreases.
- (4) It is beneficial to the patient of high B. P.
- (5) Mental stress and sleeplessness are removed.

EXERCISE

1. Answer the following questions in detail.

- (1) Explain the meaning of ushttrasana, its initial position, method and benefits.
- (2) Explain the meaning of Chakrasana, its initial position, points to bear in mind and benefits.
- (3) State the meaning of Garudasana, its initial position, method and benefits.
- (4) State the meaning of Shalabhasana, its initial position, method, points to bear in mind and benefits.
- (5) State the benefits of the following Asanas :

Akarndhanurasana, Garbhasana, Bhujangasana, Naukasana.

2. Answer the following questions in short.

- (1) State the meaning of Makarasana.
- (2) Describe the initial position of Lolasana.
- (3) State the benefits of Setukasana.
- (4) State the method of Pavanmuktasana.
- (5) State the names of any four asanas, to be done on supine position.

3. Write answers to the following questions by selecting correct option from the options given below :

- (1) What is the meaning of Bhujang from the following ?
(A) Bhuj (B) Hip (C) Serpent (D) Water.
- (2) How is Lolasana to be performed ?
(A) Sitting position (B) Lying on the back
(C) Lying on the stomach (D) Standing Position.
- (3) Which asana has the complete state like bridge ?
(A) Chakrasana (B) Garudasana (C) Garbhasana (D) Setukasana.
- (4) Which asana removes gas from stomach ?
(A) Setukasana (B) Pawanmuktasana (C) Lolasana (D) Ustrasana.
- (5) Which Asana has the shape like that of a child in the embryo ?
(A) Akarnadhanurasana (B) Makarasana (C) Garbhasana (D) Lolasana.
- (6) Which asana is beneficial to the patients of Osteoporosis ?
(A) Lolasana (B) Ustrasana (C) Chakrasana (D) Setukasana.
- (7) Which asana is not beneficial for the patients of the Hernia ?
(A) Bhujangasana (B) Makarasana (C) Garudasana (D) Pawanmuktasana
- (8) Which asana is useful for increasing height ?
(A) Bhujangasana (B) Shalabhasana (C) Garbhasana (D) Garudasana .
- (9) Which asana has the shape of the body just like locust ?
(A) Garbhasana (B) Akarnadhanurasana
(C) Shalabhasana (D) Ushtrasana.



Infection is a well known word. A person suffering from disease comes in contact with another person, who becomes a prey of that disease. This is called infection. Diseases caused by bacteria, viruses and fungi can be infectious. Crores of germs and bacteria from the body of a diseased person reach bodies of other animals via some ways and cause disease in them. These bacteria enter human body through the medium of air or dust, through water, milk or food, through bites or stings of animals or insects, through personal contact or through respiration or excreta - urine of disease carrying persons and cause disease. When a disease is spread through bacteria from one animal to other animal we call that disease as infectious disease. When a large number of persons are attacked with infection of certain disease simultaneously, it is called epidemic, cold influenza (flu), Pneumonia,

Tuberculosis of lungs, Jaundice, Cholera, Typhoid, Whooping cough, Diphtheria, Measles, Influenza, Pneumonia Chicken - pox, Leprosy, AIDS, Guineaworm, Dysentery etc. are infectious disease.

(1) **Germs and Germs carrier :**

Germ is a very small living insect. Some of them come under animal kingdom, some come under plant kingdom. Insects enter the body, colonizes there and produce disease, they are called parasites. Germs enter the body, they cause malaria, plague, cholera. Germs of malaria come under animal kingdom, they are called protozoa, initial germs.

Bacteria are under plant kingdom. These virus are of different types. It flies from one place to another place, for example, fungi is a plant, it has very small string. When fungi freezes, after some days, it produces spores like few small drops. It flies in the air here and there. When it drops on food or on other things, fungi increases. Fungi anyhow enters the body, reproduces themselves, it makes man diseased. Some bacteria are useful to man, Milk is converted into curds due to bacteria, bacteria prepares alcohol in the flour of Dhokala. Alcohol is prepared from sugar with the help of bacteria.

Bacteria of diseases enter the human body through the following ways :

(1) Through air : Bacteria of some diseases enter the human body along with air and dust to the lungs, influenza (Flu), Bacteria of Tuberculosis, cough etc.

(2) Through diet, food, water or milk : Bacteria of some diseases enter human body through polluted water, or food e.g. bacteria of diseases like cholera, typhoid, dysentery, worms, jaundice etc.

(3) Through direct contact : Some bacteria enter directly or through contact. Such diseases are called contagious diseases e.g. diseases like scabies, ring worms, eczema, leprosy, small pox, measles, chicken pox, etc..

(4) Through animals and insects : Some bacteria do not directly enter human body. First they enter to other animals and through them they enter the human body. e.g. first the insects of Malaria are with Mosquitos, mosquitos bite us then they enter our body through skin, in the same way diseases are spread by fleas also. The rabies diseases spread by bite of rabid animal. Some bacteria stick to flies feet, wings or other parts, spread from one place to another and food is polluted.

(5) Through rubbing of skin : Skin works as coverage against bacteria entering into the body. Even then some times bacteria of diseases enter human body, through rubbing or cut of skin e.g. anthrax and tetanus diseases are spread in this way.

(6) Through organs of generation : Sexual diseases or secret diseases are contagious diseases entering from one body to another body through organs of generation e.g. Syphilis, Clamedia, Gonorrhea are diseases spread through sexual contact. Those are sexual diseases.

(7) Through disease holders (carriers) : Some men are such that bacteria of specific diseases are there in their bodies, but as they have got immunity to fight against such bacteria, the disease do not adhere to them, but if bacteria from their bodies enter bodies of others, then they can be diseased. Such persons are called carriers of diseases. In such a way when a man becomes free from certain disease, he is a carrier of bacteria for some days. Hence that disease can adhere to the other person. Diphtheria, typhoid etc. are spread through disease carriers.

Prevention of Infectious Disease :

Closed place, houses with darkness and humidity, rotten fruits, food and vegetables are the production place of different types of bacteria. In this atmosphere, bacteria progress in geometrical progression. Bacteria increases like one to two, two to four, four to eight like that there will be innumerable production of bacteria in a very short period. Sunlight and open air destroy bacteria. So we should reside in well sunlit and well - ventilated open air residence. Such atmosphere control the bacteria and destroy them.

Types of diseases :

Diseases can be classified into two types : (i) Infectious diseases (ii) Non - infectious diseases.

- (i) Infectious diseases :** As we have seen, if one person is suffering from diseases and the other person comes in contact with him and gets affected with that disease, then it is called infection. Disease caused by bacteria, viruses and fungi are infectious.
- (ii) Non - infectious diseases :** Physical or mental diseases caused by increase or decrease of inanimate factors (external or internal) congenital defects by accident etc. are called non - infectious diseases.

(2) Physical protection against infectious diseases

Physical protection along with environmental health is another important step for protection against infectious diseases. Physical protection against infectious diseases can be had at two layers :

(1) External protection : Disease protection armour

(2) Internal Protection : Disease resistance armour

i. Disease protection armour : Generally most of the infectious diseases spread through carriers like water, food, air, flies, insects etc. If an armour is set up to stop contact between disease - causing bacteria and carriers spreading them, it is a first step of physical protection against infectious diseases.

ii. Immunity : Protection against disease of the diseased body depends on immunity. Immunity is basically of two kinds (1) Natural and (2) Acquired

(3) Natural Immunity :

Many bacteria enter human body through air, food or water. When bacteria enter human body with diseases to the blood, white blood corpuscles, white cells in blood fight to destroy bacteria. These white cells surround the bacteria of diseases enter them in their body and destroy them. Antitoxins produced in blood do not allow the poison produced through bacteria to affect human body. The disease - resistance strength of human body is called natural immunity.

(4) Acquired Immunity :

Once there happens small - pox, that did not happen again. The reason is the acquired immunity, so the bacteria do not succeed in human body. The blood gets the immunity to destroy the bacteria of small pox. So we do not suffer the disease. This is called acquired immunity. Immunity is developed by creating situation like mild infection artificially through vaccination in the body over and above infection or disease caused unknowingly. Do not wait for spreading infectious disease, the immunity vaccination should be taken to increase acquired immunity. This immunity is more important than natural immunity.

(5) Regular health (medical) check-up to control diseases:

Regular health check - up is necessary for controlling the diseases. Instead of post diagnosis, its prediagnosis is necessary for protecting and maintaining health. Early diagnosis and treatment brings good result for protection of diseases. Regular medical check up is essential for maintaining health. especially in case of non-infectious diseases regular medical check-up proves much beneficial.

The Government has made an arrangement for medical check- up and diagnosis. The health - cards of children are prepared and maintained. The facilities are provided to children in the school for diagnosis of general disease, necessary medicine, if essential, vaccination etc. If it is necessary to admit the child in hospital for some diseases, parents are informed accordingly and necessary arrangements are made.

Defective eye sight is found, but diagnosis has not been done, in that case the parents do not give him necessary treatment or there is a defect caused during school period. Early diagnosis brings good result of the treatment for eyesight, paleness in blood, defect of vitamin A, defect of teeth, defect in ear, anemia etc.

Importance of regular health check-up increases tremendously in diseases like high blood pressure, diabetes, diseases of heart or cancer found in adults and senior citizens, because some diseases are found going out of control in the body without giving physical troubles as such, and when physical trouble / complaints arise, till then they would have done much harm. Such hidden diseases can be diagnosed early through regular health check-up. Its treatment then brings good results.

(6) Vaccination programme and booster dose

Immunity has not sufficient capacity to over come and the diseases always. Some bacteria create powerful poison and the healthy person comes under the effect of diseases. For the resistance from the bacteria, the immunity power should be increased. So insects of special disease brought up through artificial treatment and will be converted in passive. Vaccine contains dead bacteria and posion thereof. Vaccine is injected in human body. This is called to put vaccine or inoculation. After vaccination, white cells of blood attack on dead insects, so the white cells are habituated to fight against bacteria, insect and antitoxin is created. Such person gets immunity power to fight against disease. But vaccine is not available for each and every disease. Vaccination programme has been launched through health department for six major diseases in our country. This vaccine is given to the child up to one year from its birth, but some of the vaccines are to be given even after one year. This additional dose is called the booster dose. Moreover the mother is also given vaccine during pregnancy also under the national vaccination programme. The details regarding the name of vaccine, protection against which disease etc. are given here in the following table :

Vaccination in children

Sr. No.	Name of Vaccine	Protection against which disease	When to give	How to give
1	B. C. G.	T. B.	On the second day after birth or after half month	Injection
2	DPT Triple Vaccine	Diphtheria, whooping cough and Tetanus.	- First dose at one and half month -Second dose at two and half months, -Third dose at three and half months	Injection
3	OPV	Polio	After birth on 2nd day and along with DTP three doses.	Two drops innmouth.
4	Small pox measles	Small pox measles	At Nine months	Injection.

Booster Dose

First booster dose

DPT (Triple vaccine)	Diphtheria whooping cough and Tetanus.	Age of one and half to two years	Injection
OPV	Polio	Age of one and half to two years	Two drops in mouth

Second booster dose

DT (Double vaccine)	Diphtheria Tetanus	At the age of 5-6 years	Injection.
OPV	Polio	At the age of 5-6 years	Two drops in month.

Third booster dose

TT (Tetanus)	Tetanus	10 to 16 years	Injection.
Vaccination to the pregnant mother			
TT (Tetanus)	Tetanus	After 16 weeks of pregnancy.	Injection
TT (booster After a month of dose of Tetanus)	Injection.	the first dose.	to two years

In the second half of the last century up to 1970-75, vaccine of small pox was being given, but we could abolish not only the disease but also its disease causing bacteria from this earth through effective vaccine and vaccination throughout the whole world, and thus made a history.

In the same way intensive efforts are being made to abolish the disease polio and its disease causing bacteria through universal vaccination. At present we have reached very near to that target of achievement. Once again very quickly we would be able to make history of abolishing this polio through its additional vaccination dose.

Death rate of India - at present time :

There is a good repose of national health programmes of the government of India. People also have become vigilant for health improvement. We succeed to decrease death rate, due to control over the infectious diseases, remedy of the protection on the seasonal spreading disease and modern health technology. The Government of India started Prime Minister health protection scheme in Five year plan. Six centers have been already started at state level on the level of all India Institute of Medical sciences (AIMS), New Delhi. There is also a scheme of upgrading the centres to AIMS level and will be given central status.

The Death rate in India

Year	2001	2002	2003	2004	2005	2006
Percent of Death Rate	8.74%	6.62%	8.49%	8.34%	8.28%	8.18%
Year	2007	2008	2009	2010	2011	2012
Percent of Death Rate	6.58%	6.40%	8.23%	7.53%	7.48%	7.43%

It is clear that an average death rate in 2001 to 2005 period was 8.1%, that decreased in 2006 to 2010, and become 6.98%. In 2011-2012 this rate was average 7.45 %.

(7) National Health Programmes :

National health programmes are planned for the control of the problem of health which is wide spread and that has effect on large mass of the nation. Its main objective is to prevent infectious diseases and to establish control on them. People's health will be improved and they become fit for excellent living. Objectives and working of some important national health programmes is shown below in brief :

(1) Reproduction - Child Health Programme :

- **Objectives :**

- ❖ To protect and promote health of children as well as mother.
- ❖ To improve reproduction - health as a part of which family - welfare and population control can be achieved.

- **Functions :**

This programme is a group of many programmes. Efforts are made to achieve the above objectives by co-ordinating all the programmes related to child-health, mother - health and reproduction - health under this programme. Functions of this programme are as under

- (1) Vaccination.
- (2) Co-ordinated child development scheme.
- (3) Gastro - enteritis control programme.
- (4) Programme of controlling respiratory diseases.
- (5) Family welfare programme.
- (6) Deficiency of Vitamin A control - programme.
- (7) Anaemia control programme.
- (8) Treatment of infections of reproductive system and control programme.
- (9) Care of pregnancy and remedial measure.

(2) Improved national TB control programme

- **Objectives :**

- ❖ To reduce number of TB patients.
- ❖ To stop new cases of TB.

- **Functioning**

Treatment has been made available through diagnosis of TB and DOT (Directly observed treatment) dots centers with the help of microscope check-up at many places in the whole country. Every patient is made to take medicine (under direct care of the worker) so that he can recover by taking full dose.

(3) National malaria control programme :

7.5 crores people were suffering from malaria at independence time. Eight lakh people died every year due to this disease. National Malaria Control Programmes were started in 1953. It was converted in National malaria destroy programme in 1958, we succeeded. Malaria infected patients decreased in

1965-66 and number was one lakh. Malaria destroy programme was joined with primary health programme in 1997. Spreading method of pesticizer was changed. Now the pesiticizers were sprayed there where there are two or more patients per thousand population exist. Due to this there is decrease in malaria patients. Greater malaria control programme (GMCP) was started in 1997.

National germs - produced (vector born) diseases control programme has been launched by expanding the area of work of this programme.

- **Objectives :**

- ❖ To prevent the spreading of diseases like malaria, dangue and elephantiasis (Filariasis) spread through mosquitoes.
- ❖ To control the proportion of such diseases.

- **Functioning :**

- (1) To abolish the breeding places of mosquitoes
- (2) To render treatment through immediate diagnosis
- (3) To sprinkle insecticides for killing of mosquitoes.

(4) National AIDS Control Programme :

To prevent the spread of AIDS, the Government had started National AIDS Control Programme in April, 1992. NSP programme had worked upto 1993. The second phase, NACP-2 was started from April, 1999. This phase has two objectives (1) To prevent the spread of HIV and (2) To empower the Central and State Government with more efficiency to fight against HIV / AIDS. This programme has been decentralized at state and central administrative territories. The AIDS control society has been started at each state level. That plans a suitable scheme as per local necessity, and execute properly.

- **Objectives :**

- ❖ To prevent the spread of HIV - AIDS in India.
- ❖ To give treatment and help to the person affected with HIV - AIDS.

Functioning : To give proper and enough understanding regarding HIV - AIDS to get protection from it. To encourage and help people having risky sexual behavior to develop safe sexual behavior. To plan for making HIV free blood available.

Health Policy : The government of India had declared new national health policy in 2002, regarding health programme, in this scheme, more weightage is given to the field of medical research. The expenditure amount had increased double at government and private sectors up to 2010. In this policy, at the health sector the expenditure increases 8% at the GDP level up to 2010. The provision of 38 percent in health field medical expenditure is included, The provision of expenditure is increased up to 55 percent.

(8) Role of students and community in National Health Programme :

If students and people participate in National Health Programme, the programme will succeed and healthy environment will be created. To prevent this disease, people awarness and people efforts are very important forces.

Prevention of diseases can be achieved only by people participation and cooperation. i.e. malaria spreads through mosquitoes. If mosquitoes increase, the disease spreads rapidly. Mosquitoes which spread malaria, get produced in houses, schools, public places where there is water stored roundabout. If we have to stop malaria disease, we must destroy the malaria producing chains like bacteria. Students, youth and people should be educated and train to remove. The mosquitoes from house to house and should find out breeding places of mosquitoes and abolish them, we should do co-operative efforts. We can control the malaria with the help of youths and students.

(9) Primary Health Protection :

Primary health services means necessary services which are related to health made available in the vicinity of houses. Primary health protection system includes not only treatment of widespread disease, but also allround services for protection, promotion of health of people of that area and prevention and control of diseases.

National programmes as shown above are a part of primary health protection. Primary health protection is provided through health organization established in the country. The government has started emergency services like 108 KILKILAT Joyoas noise, children's laughter.

(10) Village and Urban Health Organization.

Village health organization :

Basic facilities of required number of doctors and experts. Facilities affecting health like safe drinking water, drainage, toilet arrangement, roads, electricity etc. are found less as compared to those in cities. Hence village health protection organisation has been established in order to make available basic services of health and services affecting health.

Primary Health centre is the unit of this organization. There is a primary health centre with one doctor and his team available for population of about thirty thousand. Under this health centre five to six sub - centres - as per the norm sub - centres for population of five to six thousand are established. Primary health centre is connected with community health centre and district hospital for intensive services.

Urban Health Organization :

Functioning

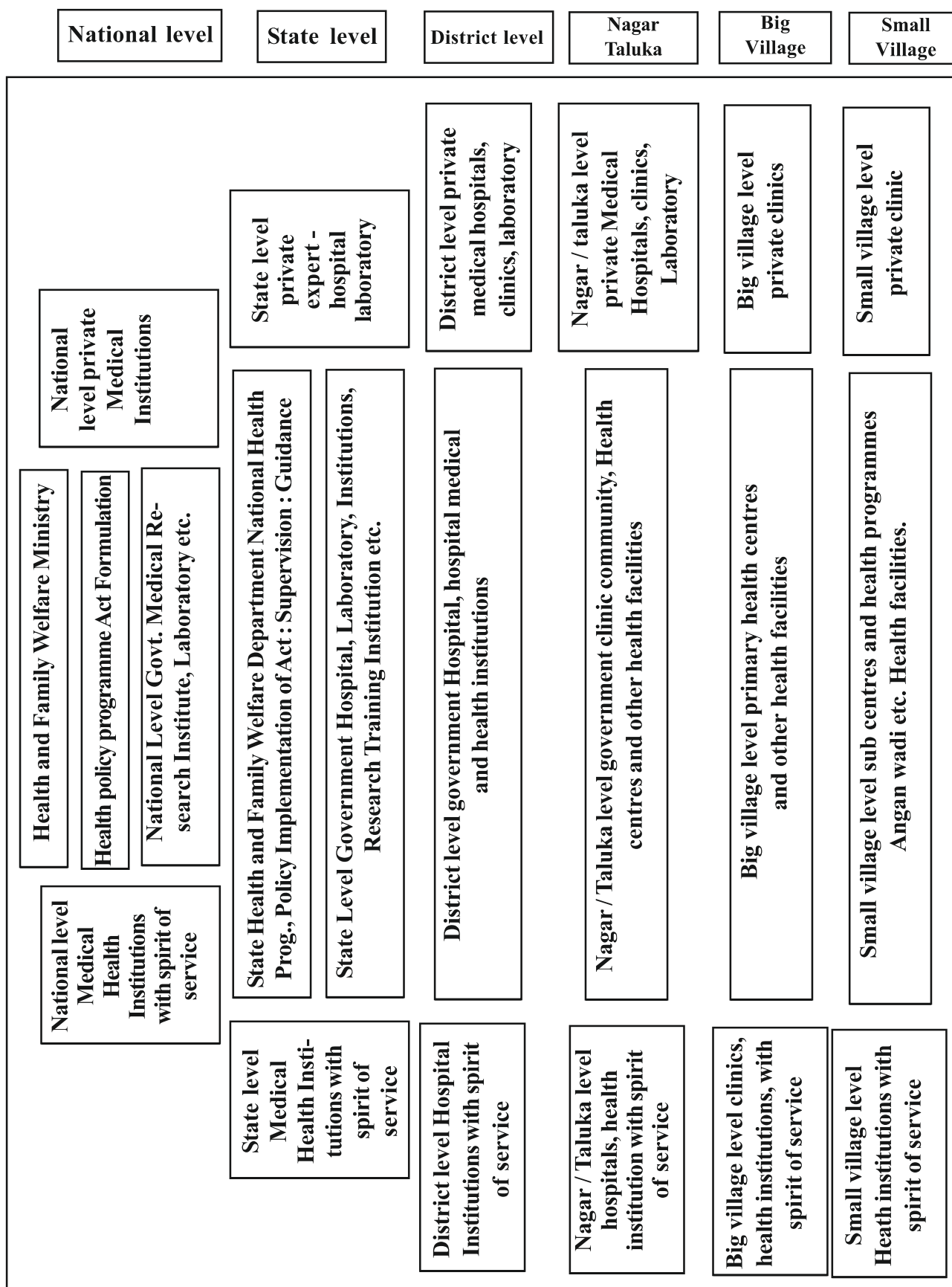
- Basic function: Treatment of ill person.
- Vaccination and family welfare function in slum areas of that particular area.
- Cleanliness of the area and proper dumping of waste.

Urban hospital :

Functioning : Expert and basic medical service facility of treatment like operation and to admit the patient. Health protection arrangement has been made in all India with the help of two health organizations as shown above.

If you study attentively the pictorial health organization shown here, you would be able to understand the health organization right from the village level to the national level. Broadly there are three major partners in health organization. (1) Government (2) Institutions with spirit of service. (3) Private institutions.

Village, Town, District, State and National Level Health organization



Exercise

1. Answer the following questions in detail.

- (1) How are the bacteria of diseases enter into human body ?
- (2) What made reduction in death-rate ?
- (3) State the objectives and functions of reproduction - child health programme.
- (4) State the objectives and functions of National Malaria control programme.
- (5) State the objectives and functions of National AIDS control programme.

2. Write short notes:

- (1) Germs.
- (2) Acquired immunity.
- (3) Vaccination.
- (4) National TB control programme.

3. Answer the following questions in one sentence : :

- (1) What is meant by "to be infected" ?
- (2) State the types of germs.
- (3) What is a parasite insect ?
- (4) Give name of one disease that spreads through air.
- (5) Give name of one disease that spreads through direct contact.

4. Write answers to the following questions by selecting correct option from the options given below :

- (1) Which disease spreads through direct contact ?
(A) TB (B) Scabies (C) Malaria (D) Dysentery.
- (2) What is called infectious disease ?
(A) Diseases spread through water. (B) Diseases spread through air.
(C) Diseases spread through one animal to other animal.
(D) Diseases spread through pollution.
- (3) Which disease is spread through air ?
(A) Typhoid (B) Influenza (C) Eczema (D) Anthrax
- (4) Which vaccine is given to prevent TB ?
(A) D. P. T. (B) O. P. V. (C) Small Pox (D) B. C. G.
- (5) Bacteria of which disease enters into human body through rubbing of skin ?
(A) Tetanus (B) Malaria (C) AIDS (D) TB.
- (6) Which vaccine is given to prevent polio ?
(A) B. C. C. (B) O. P. V. (C) T. T. (D) D. P. T.

- (7) Why is pulse polio vaccine given ?
- (A) Protection against tetanus. (B) Protection against polio.
(C) Protection against small pox. (D) Protection against diphtheria
- (8) Which programme is started to reduce death rate ?
- (A) Prime minister health protection programme.
(B) Chief minister health protection programme.
(C) Health minister health protection programme.
(D) Death rate prevention programme.
- (9) Which check - up is necessary to control the diseases ?
- (A) Regular health check - up. (B) Check - up of blood.
(C) Check - up of lungs. (D) Check - up of heart.
- (10) Diseases are classified in how many types ?
- (A) One (B) Two (C) Three (D) Four.

In olden age, the human beings used to live in jungles. For their food, they used to hunt animals. We know these facts, but in those days how they were suffering from the diseases and how the treatment was given is not known to us. We do not have any specific information about this. But we know that, before thousands of years Ayurvedik treatment was given. Because of this treatment Ayurved is considered as fifth Ved. But we know that, with the development of science, other treatments or therapeutic methods have been found by the respective resarches. Now, here we shall get information regarding the approved therapeututic methods in which the specilization degrees are awarded. They are as follows.

- (1) Ayurved
- (2) Yogopchar
- (3) Homeopathy
- (4) Naturopathy
- (5) Yunani treatment (Therapy)
- (6) Allopathy

(1) Ayurved :

About 5000 years ago, our saints and sages had found out Ayurvedic therapeutic method. According to Ayurved, when there is imbalance between Vat, Pitta and cough in our body i.e. when their percentage is increased or decreased, any disease develops. In Ayurved these three are considered as faults. When these three faults become defective the diseases develop. Defective gas develops about 80 diseases, defective acidity develops about 60 diseases and defective cough develops about 40 diseases. To destory the defects of these diseases, the therapeutic treatment is there in Ayurved. Ayurved therapeutic methods are proved unfailling positively effective for old cold, old fever, soriasis and skin diseases.

The reasons for having the Ayurvedic method the self sufficient one are as follows:

- (i) It is a natural therapeutic method.
- (ii) Removes the disease from its root and does not allow to develop again.
- (iii) It is a complete innocent therapeutic method without any side - effect.
- (iv) It observes the disease and the diseased person completely.

Types of therapy

There are two types of Ayurved therapy.

- (i) Shodhan and (ii) Shaman

Shodhan consists upon Panchkarm in which Vaman, Virechan, Basti, Nasya and Raktamokshan are included. In Shaman Snehan and Swedan are main pre-actions. By means of Snehan-Swedan the defects are diverted towards the Koshhta. From Koshhta they are thrown out by means of Vaman and Virechan.

Pareji (Control) in Ayurved

In Ayurved, along with the medicine, what should be taken according to the acceptance of the body, what should not be taken, what should be done and what should not be done etc. morally sound conduct and proper food and merriment have been thought of in the best way. Most of the diseases get rid- of, only because of observing and adopting the beneficial and avoiding injurious to the health food habits.

(2) **Yogopchar**

The steps of Yogopchar are as follows :

- (i) Brahmacharya (celibacy)
- (ii) Asana and Mudra
- (iii) Pranayam
- (iv) Upvas (Fasting)
- (v) Sadvichar (Morally good thoughts)
- (vi) Sadachar (Morally good conduct)

(i) Brahmcharya (Celibacy)

Brahmacharya is the base of Yogopchar. Enjoying sexuality in the disease condition brings physical and mental weakness. Hence, an individual who observes celibacy taking the shelter of yogopchar only can get rid of the disease. For the observation of Brahmacharya proper food and merriment, company and reading and also balanced way of life are very necessary.

(ii) Asana and Mudra

Asana and Mudra are very useful for the diseased, Yogi and Nirogi (healthy) persons. By means of Asanas the diseased organs can be made healthy, and also the mind can be kept in control. While doing asanas and Mudra the different centres in our mind become actively functioning and hence the natural health is obtained. Internally secreting glands become active, because of which the liveliness is created in the body and the mind becomes cheerful.

(iii) Pranayam

The base of Yog is Pranayam. Because of Pranayam, the lungs provide more oxygen and the blood becomes pure speedily. Because of Pranayam the body gets animated. The unsteadiness of mind and the dullness of the body goes off. Because of the purification of the blood the number of white corpuscles increases, which destroy the germs in the body.

(iv) Fasting

Willful fasting purifies the body instead of over eating and inviting the disease. It is the sign of intellect to eat little less than required and enjoy the healthy state of the body.

In the aim of fasting control over the mind, tyranny of senses, fasting, over eating, required balanced diet etc. are included in which purification of mind and body are main.

(V) Sadvichar (Morally good thoughts)

Bad thought is the seed of disease and good thought is the seed of health.

(Vi) Sadachar (Morally good conduct)

Sadachar means . ‘सत्’ + ‘आचार’. सत् pertains to God, where as ‘आचार’ pertains to behaviour. Hence sadachar makes an individual facing toward the God. Good thought is not created without good company and Sadachar is not created without good thoughts. The quality of good behaviour is Sattvagun (सत्त्वगुण) .

(3) **Homeopathy**

This method is based on the principle of curing naturally the diseased. The basic principle of this method is “like cures like”. This means that a diseased should be given the medicine of the symptoms of the disease. This method is prevalent based on the complaints of the patient. In this method the proportion of the medicine remains very meagre, The plus point of this medicine is that there is no side - effect.

Basic Principles:

- (i) “Like cures like” means the medicine having the same symptoms as those of the disease cures the patient.
- (ii) At a time only one type of medicine is to be given.
- (iii) The quantity (dose) of the medicine should be minimum. i.e. Medicine is to be given in very little dose.
- (iv) The effect of the medicine should be tested on a healthy person. The medicine prepared for human beings can not be tested on the animals, because the constitutions of the bodies of human beings and those of the animals are different.

(4) Naturopathy :

The treatment being done by means of the natural elements is called naturopathy, The important elements for this treatment are water, clay, light and the air. In this treatment external medicines, tablets, injections or the chemicals are not used of. Now, we shall get information regarding the following treatments making the use of natural elements.

- (i) Water Therapy
- (ii) Clay treatment
- (iii) Sun-light treatment
- (iv) Air treatment

(i) Water therapy : Water therapy means, the Therapy being given by various water experiments. Water has the tendency to catch up both the heat and the cold. When there is fever cold water piece of cloth is applied, which lessens the fever. Mostly such piece of cloth is put on the forehead of the patient. Such piece of water can also be put on the stomach.

When there is a sprain on the ankle of the leg or when there is swelling on any part of the body, hot water fomentation is given, which reduces the swelling. For this type of fomentation hot-water bag can be used filled with hot water. To reduce the swelling another method is of dipping the swelled part of the body alternately in hot and cold waters for the duration of one minute each.

Over and above vapour bath or steam bath, anima etc. experimental treatments also can be done.

(ii) Clay treatments : Clay gives cooling effect, absorbs the poison and reduces swelling, burning etc. Pond’s clay without sticky black mud or the clay of an ant hill (रुक्मिणी) should be dried in the sunshine, it should be cleaned and crushed and then should be sifted and it should be drenched. One should take care that there are no chemicals, dirt and unpleasant smell. Such drenched clay should be applied on the respective organ of the body, in thick layer. Such clay can be applied on the stomach, the inner part of the abdomen below the navel, over the eye lid and over the spine.

(iii) Sun-light treatments : Under the sun-light various insects can not harm us.

After sun-rise, if we stand under the sun-light for half an hour, it increases the lustre (तेज) of our eyes and the ultra-violet rays in the sun-light help us getting vitamin - D, which strengthen our bones.

If there is swelling on any part of our body and if that part is buried under the hot sand of the river, it reduces the swelling.

(iv) Air treatment : Air is an animate power (प्राण) of the human body. In its absence a man can not survive. Especially, the individuals having the troubles of lungs (weak lungs), should walk in the open air. They should keep the windows and the doors of their houses open to get enough air.

To increase the efficiency of filling more air in the lungs one should practise Bhramari Pranayam, Anunlom- Vilom Pranayam etc. Over and above one should inhale deeply and slowly. With- hold the breath in the lungs for few seconds and then exhale it slowly.

Over and above the treatments shown above one should observe fasting, should take balanced diet. Should perform light type of asanas and Pranayams. To observe morally good conducts of Yam-Niyam, should practise the relaxing actions and enough rest and sleep should be taken.

(5) Unani treatment (Theraphy)

In Unani treatment the following four matters are important :

- (i) Dam (blood)- hot and moisturised
- (ii) Balgam - Cold and moisturised
- (iii) Safa - Yellow acidity, hot and dry.
- (iv) Sofa - black acidity : cold and dry.

If these four are in proper proportion, the individual is considered healthy. If there is some obstruction in the proportion. it creates the disease.

Treatment : A

- (i) By means of passing more urine.
- (ii) Giving turkis bath.
- (iii) By means of massage.
- (iv) By means of more motions or more vomitting.

B: By means of food: By means of giving fruit juices and different types of food.

C: By means of Medicine

- (i) The medicines prepared from the trees, fruits and flowers.
- (ii) The medicines prepared from the animals.
- (iii) The medicines prepared from salts.

The unani medicines give good results in the diseases like arthritis, lukoderma, Jaundice, asthma etc.

(6) Allopathy

In the modern time the allopathy therapeutic method has been accepted by all. Since it is based on logic and is transparent the whole world has universally accepted it as the scientific method. This method is widely in use. With new researches and the developments of the technology, new changes are incorporated in this method. It means, this method is ever changing based on scientific principles.

This method is most efficient to examine all the parts and the sub-parts of the body and for the treatement of the diseases developed in it. This method can join hand to hand with the prevealent time accepting re-searches and new technology based on experiences.

But the limitation of this modern method is that the medicines used in this method have side- effects. Second limitation is this that in few diseases this method gives very little relief. e.g. Eczema (ඇළද), some skin direases and the cold can not be removed from their roots.

There are so many branches of this method. e.g. surgery, orthopaedic, cardiogy, anaesthesiology, neu- rology, gynecology, pathology, dentistry, ear-nose and throat branch (ENT), Physiotherapy etc. Some other branches regarding different diseases also are developed.

Here, the more prevalent treatments and theropeutic methods are listed. Some methods are less

prevalent and only limited persons make their use :

The methods are as follows :

- | | |
|---------------------------------|--------------------------|
| (i) Acupressure and acupuncture | (ii) Magnet treatment |
| (iii) Shivambu treatment method | (iv) Colour therapy |
| (v) Touch therapy | (vi) Aroma therapy |
| (vii) Music therapy | (viii) Hypnotism therapy |
| (ix) Laughter therapy | (x) Reiky therapy |

Prescribed and unprescribed Medicines

The medicines which can not be sold without the prescription of a doctor are called prescribed medicines. Before using such medicines, one has to understand all the instructions of the doctor regarding the medicine. e.g. If the instructions are not taken in to consideration, it may lead to serious results. Hence such medicines can not be given without the prescription. Over and above the medicines can be sold as per the instructions and in the prescribed dose. In the cash-memo of such medicines, the information regarding the batch number must necessarily be written. Loose tablets can not be sold. The tablets are to be given in the prescribed number and properly packed.

Unprescribed medicines can be purchased from any medical store, like purchasing the house-hold things. A purchaser has to use these medicines for house-hold treatment. Even then, the best thing is that such medicines also should be purchased as per the advice of a doctor. Unfortunately the rules regarding the medicines are not observed. Even then, the medical store keepers easily give such medicines. They give loose tablets also. As a result, the condition harmful to the health is created. Hence the Government and the vigilant institutions should start intense movement and the people should be saved from such actions.

Addiction Medicines

Medicines are to cure the disease. The medicines if taken in more than required proportion. it becomes harmful. Some medicines are such that a patient becomes addicted to it. An addicted man always takes such medicines in more quantity. At the end, the symptoms of bad effect are seen in the body of such a man. Some such medicines are as under :

Intoxication or sleeping medicines

Diazepam and such other medicines are given to an individual suffering from insomnia. Their use makes an individual addicted to it. Such medicines affect the nervous system. The long term effect decreases the efficiency of the mind.

Cough Syrup

In most of the cough syrups there is a medicine prepared from the opium. which suppresses the cough. The addiction of such medicines harm the mind.

Pain killer (Analgesic) Medicines

We see the addicted persons taking simple as well as acute analgesic medicines. Such acute medicines harm the stomach, kidneys and other organs of the body.

Amphetamine

This medicine is given to an individual to awaken him who suffers from excessive sleep. But this medicine harms the addicted one and it creates in him violent feelings instinct. Mental diseases like frustration, stress, anxiety etc. medicines are prone to addiction. Hence one should remain acquainted

with such medicines having addiction quality and should remain aloof from their long term use, so that he can be saved from its addiction from encircling grip.

The risks of the self using medicines and the medicines of the quacks.

Even in simple house-hold treatment, some are proved harmful and ineffective e.g. to apply fomentation in all types of swellings. As a matter of fact, the swelling in any injury is because of the minute breaking of the internal capillaries in which blood comes out but it does not have any way to go outside the skin. Hence, the blood collects around the muscles under the skin, where swelling is seen. In such swelling, one should rub the ice over the swollen part of the body, which stops the bleeding outside. Giving fomentation immediately after the injury does not stop the bleeding. On the contrary the blood keeps on flowing and excessive swelling is occurs.

When there is a dog bite, sprinkling of chilly powder on the wound causes intolerable irritation. It will be of no use.

Some time the drugists are unknown to the hazards of particular medicines. Hence such medicines should not be purchased from him to avoid the possibility of occurring big difficulties. It has been noted that intake of aspirin some times creates the ulcer in the stomach and starts bleeding.

Some pain killer medicines have side effects of decreasing white blood cells, which in turn decreases the resistance power of the body.

Hazards of the medicines from quacks

The unqualified quacks make much use of the modern medicines, in which there is possibility of great harm. e.g. antibiotic medicines and steroid medicines.

Antibiotic Medicines

When there is fever because of any infection or even without infection. unnecessary antibiotic medicines are given. Mostly such medicines are not at all necessary, some times their selection is wrong. Their proportion some times is also in more or less degree. The quack does not know as to how many times in a day the medicine is to be given. Once the antibiotic medicines are continued they should be continued for a specific period which the quack does not know.

Steroid medicines

Steroid medicine is very much powerful. It is to be used only in a specific serious illness e.g., allergic shock. Mostly it is widely used to reduce the fever or for better feeling of the patient. But it suppresses the symptoms of the disease and reduces or vanishes the resistance power (immunity). The internal secretion of the glands reduces. In critical conditions the body can not resist properly.

Expiry of the date

Manufacturing date of medicine and within what period it can be taken in use. i.e. manufacturing date and expiry date written on the wrapper of the medicine or either on the bottle or any package. The time limit can be one year or even more than that. If expiry date is over, that medicine can not be used, because the quality of that medicine gets reduced. Again, there is no mention as to what will be the side effect. In short, a medicine after the expiry date should not be used.

As a precaution, one should always read the expiry date at the time of purchasing it. By mistake if you

purchase it and when you go home and come to know that the expiry date is over, you should go to the drugist and give it back and should purchase the same medicine of which the expiry date is not over.

The harmful effects of tobacco and liquor

Liquor and tobacco are the greatest enemies of the human beings of the present time. These two collectively harm the human beings so much that it is not done even by the nuclear bomb. Because of these two vices, an addicted person dies every after three minutes.

Liquor

In liquor there is ethyle alcohol element. In different types of liquors the proportion of this element is less to more. These elements make an individual addicted to it. Liquor makes great harm to an individual physically, mentally, socially and at family point of view.

There is a belief about the liquor that if taken in small quantity is advantageous is not correct. Once started taking it, its proportion goes on increasing. The liquor drunkard loses his mental balance. As a result the crimes like violence, rape etc. go on increasing.

The adverse effects of liquor are seen in the internal as well as and external organs.

The harmful effects of liquor

- (1) There is decrease in memory power and concentration.
- (2) An individual becomes prone towards frustration, delirium, bad behaviour and violence.
- (3) The skin of the face becomes dry. There are wrinkles on the face,
- (4) There is difficulty in coagulation of blood.
- (5) Liver is damaged. The possibility of developing cancer increases.
- (6) There is tremors of the hand, numbness of the fingers and minute pain.
- (7) There is swelling in the digestive system, because of malnutrition. There is vomiting and indigestion.
- (8) Ulcers in the stomach.
- (9) Swelling on the pancreas.
- (10) Imbalance in the movements of the joints.
- (11) There is numbness in the thumb of a leg. Minute pain.
- (12) The defect is created in the re-productive system.

Tobacco

The killing element nicotine in tobacco is responsible for addiction. The effects of addiction of tobacco are not seen immediately like those of liquor. After long time its killing effects are seen. That is why tobacco is called 'slow poison'.

Tobacco is taken in different forms. Beedi and cigarette in smoking form, gutka in the form of chewing and cleaning the teeth. But tobacco in any form has the capacity to be addicted to. It is dangerous for health.

The harmful effects of tobacco

- (1) Foul smell in the mouth. The taste can not be enjoyed, because of the harm to the nerves.
- (2) There are ulcers in the mouth.

(3) The mouth becomes tight, some times it becomes so tight that it can not be opened to enter the food into it.

(4) The gums of the teeth become weak. Teeth get carious. Digestibility becomes weak.

(5) Lungs become weak. Breathing capacity decreases. There is possibility of developing cancer disease.

(6) Illness of heart increases. High B.P. increases. Artery becomes narrow and the diseases are developed speedily. The possibilities of the paralysis and gangrene are more.

(7) In pregnancy the embryo is affected adversely.

(8) Nervous system is slackened.

(9) Adverse effects are seen on all the organs.

(10) Life quality decreases.

(11) If there is someone near the cigarette smoker, the smoke enters in his breath of that one, which has adverse effects in some proportion, In the world every six seconds one individual dies because of the utilization of tobacco.

Health frame work at village, city, district, state and national levels

(1) Health frame-work at village level

At village level the basic facilities of the health, strength of the doctors and experts and the facilities affecting the health like drinking safe water, gutter, latrine facility, roads, light etc. are less in comparison with cities.

For about thirty thousand population one primary health centre and one doctor along with his team are provided. Under primary health centre five to six sub-centres are provided keeping in mind five to six thousand population for each sub-centre. Primary health centres are connected with general health centre and district hospital for intensive services.

Over and above at this level selfless service health institutions and private medical dispensaries are also there.

(2) Health frame work at city level

At city level there are Government hospitals, general health centers and other health facilities. City health centres are providing treatments for basic illnesses, vaccination in hutments, family welfare works, area cleanliness and removal of the dirt.

In city hospital basic medical service, operation and admitting the patient in the hospital the treatment facilities are given by the experts.

Over and above there are hospital, with the spirit of service health institutions and private hospitals, medical dispensaries and laboratories also are there at this level.

(3) Health frame work at district level

There are district level hospitals, medical services and health institutions which provide all the services regarding health.

Over and above at district level hospitals with spirit of service health institutions, private medical dispensaries and the laboratories, which give services.

(4) Health frame work at State level

The health and family welfare department of the State organizes national health programme and gives guidelines regarding the implementations of policy and law and keep the supervision and give guidance at state level.

(5) Health frame-work at national level

At national level, the ministry of health and family welfare gives health policy programme and the services regarding the formulation of the laws. The government medical research institution provides laboratory services at this level.

Over and above the services of national level. Medical institutions with spirit of service and the services of private medical institutions also are available at this level.

Institutions with spirit of service of health and health education

Here we know that along with the government frame-work from the village to national level the institutions with spirit of service and private institutions also give their services regarding the health in different forms. The institutions with spirit of service are established by the individuals with spirit of service and selfless motive. These institutions do their work without taking any material profit in the activities of health. In Gujarat there are few such institutions. These institutions stay along with the people. They try to understand their problems. At a particular place if they find any deficiency, they go there and give the services. Some institutions work in the areas of treatments in the cities. Some institutions work at the village level, especially in the backward districts and talukas. Such institutes are work as supplement the health works done by the Government. They are as under.

- (1) **Bhansali trust** working in Banaskatha and Patan.
- (2) **Seva rural** working in Jhagadiya in Bharuch district.
- (3) **Anjali** working in Ranasan of Sabarkanatha.
- (4) **Anandi** working in Panchmahal.
- (5) **Seva, Chetna and Samvedna** working in Ahmedabad.

These institutions with spirit of service are like the light-house in health programmes.

These institutions are spreading their service light in the remote places, where no type of service is rendered. Such small institutions giving their services in the field of health are worth to be honoured.

Exercise

1. Answer the following questions in one or two sentences :

- (1) Explain Ayurved therapeutic method.
- (2) Explain the Naturopathy treatment method.
- (3) Explain Allopathy therapeutic method.
- (4) Give information regarding addiction medicines.
- (5) Write the harmful effects of liquor.
- (6) Write the harmful effects of Tobacco.
- (7) Give information regarding the health frame work at village level.

2. Write answers in one or two sentences of the following questions :

- (1) Explain Yogopchar.
- (2) Write the basic principles of homeopathy.
- (3) Explain water therapy in naturopathy.
- (4) Write the hazards of the medicine from quacks.
- (5) Explain about the expiry of date of medicine.
- (6) Give information regarding the health frame-work at state level.
- (7) Give the list of the institutions with spirit of service working in health education in Gujarat.

3. Answer the following questions by selecting correct option from the options given below.

- (1) Who had invented the Ayurvedic therapeutic method ?
(A) Ayurvedacharya (B) Guru Dronacharya
(C) Saints and sages (D) Yogacharya
- (2) What is called the expiry date of medicine ?
(A) The date limit given by the doctor to take the medicine.
(B) After completion of the medicine the date of the disease to get rid of.
(C) The date after which, medicine cannot be used ?
(D) Six months after the production of the medicine.
- (3) What is the name of the institution working in Ranasan of Sabarkantha with selfless service.
(A) Anandi (B) Nijanandi (C) Anjali (D) Bhansali
- (4) How many levels are there for health frame -work ?
(A) Three (B) Four (C) Five (D) Six
- (5) Which therapeutic method has side-effect ?
(A) Ayurved (B) Yogopchar (C) Homoeopathy (D) Allopathy



The first case of AIDS was registered on 5th June 1981. The world was, then not aware of the seriousness of this disease, but its history shows that, in the beginning of the first half of 20th century many instances of the disease which is known today as AIDS were noticed. As the time passes on this disease goes on increasing by leaps and bounds. In the under developed and developing countries, its spread is much faster. In India also, it is being spread hazardously and terribly. Due to the adverse effects of this disease on progress and development of the society, it has become a challenge for the whole mankind. For prevention of this disease, the Government, the social institutions and all others individually need to join the movement of co-operation. In the whole world, 1st December is being celebrated as “World AIDS Day”.

● Definition of AIDS

AIDS is spread due to the infection of Human Immune Deficiency virus to white blood corpuscles T - lymphocytes.

This type of virus destroy the immunity of human body. Hence many types of illnesses can be caused.

H - Human

I - Immuno Deficiency (producing defect in immunity)

V - Virus

A - Acquired

I - Immuno (in the immunity)

D - Deficiency (producing deficiencies)

S - Syndrome (Group of the characteristics of the disease.)

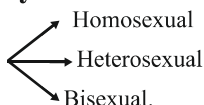
If in the blood - test of a person presence of these viruses is detected, that person is called HIV Positive. White blood corpuscles (WBC) protecting against diseases by providing immunity to the human body. But the viruses of this disease destroy the WBCs in the blood. HIV enters WBCs and attack the immunity system and make it weak. Thus they invite viruses of other diseases. After infected by HIV the time - duration of appearance of its characteristics can be from 6 months to 20 years. Such a person is known as bearer of AIDS and not a patient.

● Definition :

Group of diseases producing defect in the acquired immunity.

Entrance of HIV and AIDS in the body.

● HIV, AIDS enter the body mainly in the following ways :

(1) Sexual intercourse with the person already infected : 

(2) Mixing of the blood of the infected person with the blood of the healthy person.

(3) By using the unsterilized needle already used by the infected person without being sterilized.

(4) From the body of the infected mother to her child in embryo.

(5) Collective use of the needle used by the infected person for taking intoxicants (intoxicating substances).

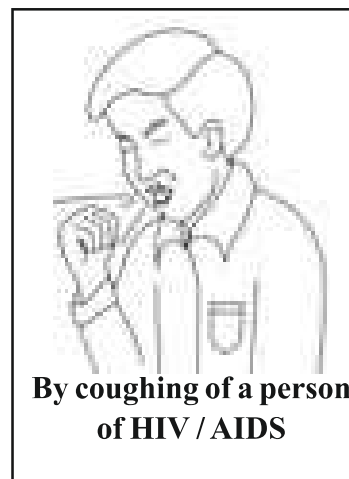
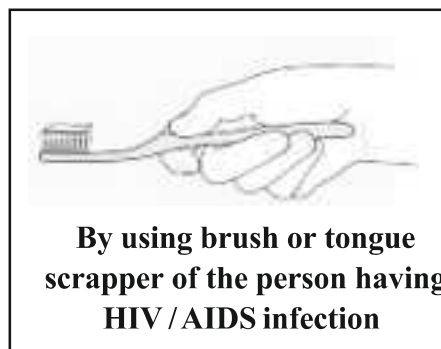
(6) The HIV viruses might have been mixed in the blade or needle. While shaving or setting 'tetu' made on the body.

In other infectious diseases medicines destroy bacteria, germs and thus it makes the person free from disease. But the medicines adverse to HIV viruses only stops the growth of these viruses, but they are not completely destroyed.

- **Patient of HIV infected / AIDS infected and society.**

There is no direct danger to the society from the patient of HIV or AIDS, infected because HIV present in his body does not spread in the other person, through the following social behavior.

HIV / AIDS do not spread like this



With the HIV / AIDS infected person :

- By staying in one house.
- Dining together.
- Using public latrines.
- By talking.
- By studying or playing together in the school.
- By donating blood with the sterilized needle.
- Embracing shaking hands or ordinary kissing.
- Using brush or tongue scraper.
- Taking bath together in the swimming pool.
- By travelling together in bus, train etc.
- Working together in the office or factory.

HIV / AIDS do not spread like such social behaviors as stated above.

- **Remedies to prevent HIV and AIDS :**

There is no remedy to uproot (destroy) HIV / AIDS completely, or no vaccine against it is still found. Hence the only remedy to save from it is in prevention of its spreading. Proper information regarding HIV and AIDS and to provide medicines at proper time is considered as the only remedy of saving.

Remedies to prevent HIV and AIDS :

- (1) Control sexual life.
- (2) Don't indulge in sexual relation before marriage or other than marriage.
- (3) Make use of condom at the time of sexual intercourse.
- (4) Don't take blood from professional blood donors.
- (5) Take blood from that person only declared HIV free through HIV testing.
- (6) Insist on the needle / syringe disposable or sterilized.
- (7) Use germfree instruments for any operation.
- (8) Don't make collective use of syringe with persons using intoxicant material.
- (9) Take care that the women having HIV infection does not become pregnant.
- (10) Insist on using things like razor, blade coming in contact with blood individually separate.

Healthy and hygienic life can be lived and enjoyed by keeping aside easily HIV / AIDS known as dangerous disease of this century by preventive measures for HIV / AIDS as stated above.

- **Unnatural sexual relation :**

There are mainly two types of sexual relations :

- (i) Natural sex relations.
- (ii) Unnatural sex relations.

(i) Natural sex relations :

The sexual relation undertaken with generative organs of woman and man physically is considered as natural sexual relation. Masturbation is a non - harmful and safe sexual activity. Discharge of semen in youths is natural. Due to that, neither any physical weakness, nor any disease is caused.

(ii) Unnatural sex relations :

Homosexual relation i.e. sexual relation between man - man and woman - woman is called unnatural sexual relation. Even between woman-man anus sexual intercourse is unnatural.

A person keeping such unnatural sexual relation gets his partner changed, then danger of AIDS - infection increases.

- **Intoxicating substances and HIV AIDS :**

In adolescence stage, sexual organs develop and it creates attraction for different sex, but social controls make hindrance. Hence they experience mental stress. For them this period proves to be critical. In this stage they are put in confused state. Due to sexual dissatisfaction they take shelter of intoxicating substances to get release from that dissatisfaction, and get caught in addiction to intoxicating substances. At last it carries them to the path of destruction - physical, mental and social i.e. in all the three areas.

Intoxicating substances are taken many a times through injection. Many persons in a group take such injections through only one needle and that too without sterilization. Even if one person only of this group has AIDS, then the whole group is entrapped in it. Hence danger of AIDS increases for persons taking intoxicating substances this way.

- **Information regarding sexual relations pertaining the age :**

Adolescence stage is such a stage in which young boys and girls have strong sexual attraction naturally. Due to lack of proper guidance children, young boys-girls any how get knowledge, half knowledge, ignorance, distorted knowledge, from improper source. As a result they have to suffer its evil result after long time. In exactly half instances out of total instances of HIV infection, the infection is caused in the age group 15 to 24 years. So in adolescence stage, when physical maturity is taking place, they should then get true sexual education. The defect can be removed mostly through sex education (sexual science education). Moreover in order to control dangerous disease like HIV / AIDS education of sex - relations is inevitable.

Having got true education, young boys and girls would be free from some wrong beliefs spread in the society, and they would come to know that sexual relations out of marriage and unnatural sexual relations harmful to the person as well as to society.

By imparting education about sexual relations at proper time and in a proper way healthy and balanced development of youngsters takes place and they stop being victims of disorder.

- **Sexual Health**

Care should be taken as follows for maintaining sex - health. (sexual health).

(1) Take bath every day at least once with pure water.

(2) Boys should cleanse white thick discharge collected on penis by lifting up the skin over it.

(3) Girls should keep clean the private part while taking bath by opening external and internal os.

(4) Girls, while washing urine-excreta - passage, should take care to clean by moving hand front to back. Due to lack of this care, girls get infection and complain about continuous vaginal discharge. This endangers their general physical health as well as health of reproduction system.

(5) At the time of menstruation period, girls should take care of sex health. Sexual organs should be washed and cleansed with soap and water.

(6) At the time of menstruation period cloth - pad or sanitary napkins used for absorbing discharge should be clean and they should be properly disposed of.

(7) Underwear clothes should be of cotton and clean. Change them every day and clean them properly and then dry under heat of the sun.

Some confusions regarding sex organs :

In adolescence period youngsters are curious about topics pertaining to sexuality. These young boys - girls know somewhat about organs of the body, which they might have attained through friends, superfluous things, books read. Such knowledge is not scientific. As a result youngsters attaining such rubbish knowledge become victims of sexual disorders. Moreover, youngsters have many confusions due to wrong beliefs prevalent, about sexual organs. Wrong thoughts endanger their sexual health. Information regarding some of the confusions are as follows :

(1) Confusions regarding fixed time and internal discharge at the time of menstruation :

Physical development of every girl is not the same. Hence, there remains some difference of few days in menstruation period. Generally menstruation occurs during 28 days to 34 days. There may be difference of two three days, here and there. Days of menstruation discharge are generally three to five, some meager change may be. In the same way discharge may be also less or much more. i.e. in the case of discharge among girls some difference is common. In that case feeling that one is regular and well organized and the other defective need not prevail.

(2) Semen - discharge in boys means waste of energy :

Some illusions prevail in the society regarding semen-discharge. A drop of semen means hundred drops of blood'. This thing is quite unscientific and illusive. If semen does not flow out, it gets itself destroyed

in the body. Hence if there is no discharge, then it obviously wastes away and disposed of. Question of its collection and thereby strength - accumulation does not arise. In adolescence stage semen - discharge during sleep is very natural and non - harmful. It is not any sexual disorder.

(3) Confusions regarding size of sexual organs :

There is no relation of any type between size of sexual organs and sexual capacity. Process of sexual relation and reproduction takes place with the same capacity even with sexual organs of any size - rather small or big.

(4) Masterbation is a harmless process. It does not create any type of weakness in the body :

Masterbation is one type of copulation. In adolescence stage youngsters experience strong sexual force. In order to satisfy these sexual emotions youngsters take shelter of menstruation. Menstruation is one non-harmful and safe copulation process, through which youngsters are saved from infection of HIV / AIDS, as well as any sexual diseases. Menstruation neither causes any type of physical weakness nor any disease. Production of semen in the body occurs continuously. If it (semen) is not disposed of, it wastes away any how even during sleep. Thus through semen discharge it gets disposed of.

Exercise

1. Answer the following questions in one or two sentences :

- (1) Give definition of AIDS.
- (2) What is meant by unnatural sexual relations ?
- (3) Why sexual education according to age should be imparted ?
- (4) State any two cares to be taken, regarding sexual health.
- (5) In adolescence boys semen - discharge means waste of energy - This is an illusion - belief - How ?

2. Write shot notes :

- (1) Ways of entrance of HIV AIDS into the body.
- (2) Activities not spreading HIV AIDS.
- (3) Remedies of preventing HIV AIDS.
- (4) Sexual Health.
- (5) Confusions regarding sexual organs.

3. Answers the following questions by selecting correct option from the options given below :

- (1) When was the first case of AIDS - disease registered ?
(A) 5th June, 1981 (B) 5th June, 1982 (C) 15th June, 1981 (D) 15th June, 1982
- (2) When is the 'World AIDS Day' celebrated ?
(A) 1st October (B) 1st November (C) 1st December (D) 1 January.
- (3) In which age-group this infection of HIV is caused in exactly half instances of total instances ?
(A) 13 to 25 years (B) 14 to 25 years (C) 14 to 24 years (D) 15 to 24 years.
- (4) Generally after how many days menstruation occurs in girls ?
(A) Twenty eight days to thirty one days. (B) Twenty eight days to thirty two days.
(C) Twenty eight days to thirty three days. (D) Twenty eight days to thirty four days.



(1) Middle Distance Running

Running is divided into three groups which are organised in 400 mtrs track - Short distance running, middle distance running and long distance running. Previously you studied short distance running. Now we will learn middle distance running.

Middle distance running includes 800 mtr and 1500 mtrs running. In 800 mtrs run competitors run two round whereas in 1500 mtrs, run he / she runs $3\frac{3}{4}$ round, it means 3 full rounds and one three quarter round.

There is only one finish line for all the running events organized on the track. So that it is easy for judges who decide the winners and time keepers who take timing of the events, but starting lines are different in different runnings. On the track starting line of 800 mtrs run is near the finish line, whereas in 1500 mtr run starting line is near the second curve of the track which is known as curve starting line.

There are two methods of running in 800 mtr run (1) All competitors take standing start from the starting line. In this method all the competitors run all together. (2) In second method all the competitors run upto first curve in their own lanes and then they can go to the first lane.

To obtain a good result in 800 mtrs and 1500 mtrs run we will learn following skills in middle distance running.

- (1) Start.
- (2) Running style.
- (3) Position of the body.
- (4) Finish.

(1) Start : In 800 mtrs and 1500 mtrs run competitors take standing start. After start competitors run in any lane. As one has to run long distance and number of competitors are more, standing start is being taken. In standing start, competitor keeps his strong leg behind the starting line, both hands are kept bent from the elbow, the body is leaned forward and keeps body weight on the strong leg. Runner starts running on sound of clapper or pistol (starter will give first command of 'on your mark'. As soon as all competitors get ready behind the starting line starter will sound with clapper or pistol.

(2) Running Style : In middle distance running the starting strides are short, as the speed increases the strides become longer, at the similar speed, strides are also similar. In the end of running, strides will be longer and speedy. From the starting speedy strides are not advisable, because running distance is long so competitors may get tired. The speed should be increased according to one's efficiency. Competitors should cross the finish line with maximum speed.

(3) Position of the body : Co-ordination of different parts of the body like hands, legs and type of the track etc. are very important in completing of middle distance running.

(a) Position of hands : Both hands are bent from the elbows. According to law of pendulum, if hands are short, then motion will be more and if hands are long then motion will be slow. So keep elbows of both the hands bent. Motion of both arms will be forward - backward between the shoulder and waist.

(b) Position of legs : While running, movement of both the legs will be forward - backward and parallel to each other. When leg comes forward lift it in such a way that thigh of leg becomes parallel to the