

Health: Personal and Social

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Solution 1. Hygiene is the science of preserving and promoting good health.

The major aspects of personal hygiene are:

- Cleanliness
- Physical exercise
- Rest and sleep
- Healthy habits
- Balanced diet

Solution 2. The healthy habits one should develop are:

1. Eating a balanced diet. A diet in adequate quantity and well-balanced, protects a person from several diseases and keeps him fit to work with efficiency.
2. Getting sound sleep by waking up and sleeping at the regular times
3. Avoiding smoking and drinking of alcohol
4. Having proper control over emotions like anger and hatred.

Solution 3. Maintaining personal cleanliness prevents us from getting infected with germs, thereby keeping us healthy.

Example – Our hands handle variety of things which may contain pathogens left by other infected persons. If these germs are not removed, they may enter our body and cause diseases. Hence it is important to wash hands with soap at regular intervals and especially before eating and after going to toilet.

Solution 4.

(a) Flies transmit germs of many diseases and hence they should not be allowed to sit on edible things to prevent the spread of diseases.

(b) Our hands handle variety of things which may contain pathogens left by other infected persons. If these germs are not removed, they may enter our body and cause diseases. Hence it is important to wash hands with soap before eating to prevent spread of diseases.

(c) Clothes of another person may contain germs of various diseases left by that person. Wearing those clothes could cause the transmission of the disease to us. Hence it is not advisable to wear other people's clothes.

(d) Nose has hair and mucus to filter the air coming through it while breathing. This traps dust, germs and other foreign particles and prevents them from reaching the lungs. Hence we should always breathe through nose.

(e) Flies and cockroaches transmit germs of many diseases. Hence they should be kept away from our kitchens so as to prevent spread of diseases.

Solution 5.

1. Cockroaches. They can easily be controlled by spraying D.D.T., malathione or commercially available sprays like baygon etc.
2. Flies. They can be controlled in following ways:
 - Removing human faeces, stable manure and garbage at regular intervals and disposing them off
 - Killing adult flies by using fly swatters, spraying D.D.T, chlordane etc. or some other chemicals like pyrethrum, B.H.C etc.

Solution 6. If human excreta are not properly disposed off, the bacteria inhabiting the gut may reach open water bodies and make it contaminated. Such contaminated water when consumed can cause serious diseases, even fatal ones. Hence it is highly important to properly dispose human excreta.

Solution 7.

- (a) Plague
- (b) Cholera and dysentery
- (c) Zinc phosphate
- (d) Gastroenteritis, dysentery

Solution 8. The common mosquitoes are Anopheles, Culex and Aedes. Diseases transmitted by these mosquitoes are malaria, yellow fever, dengue, filariasis, encephalitis and dermatobia.

Solution 9. Using one's own towel and comb prevents spread of diseases. Towel used by another person may contain germs of diseases if the person is infected. This may get transmitted to us. Also using comb of another person may transmit lice and other organisms present on another person's head to ours.

Solution 10. Three ways of controlling mosquitoes are:

1. Mosquitoes can be controlled by spraying liquid insecticides like flit or D.D.T.
2. The breeding places of mosquitoes are sprayed with petroleum oils. The oil-film formed on the surface of water is toxic to the mosquito larvae.

3. Mosquito-repellents like mosquito cream, citronella, odomos and indalone help to keep mosquitoes away and protect us from getting bitten.

Solution 11.

- Raticide – Insecticide
- Culex – Encephalitis
- Rat flea – Plague
- DDT – Contamination
- Housefly – Filariasis
- Cockroach – Gastroenteritis
- Cholera – Vibrio
- Giardia – Protozoan
- Faeces – Cholera

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Solution 12. Contamination of water is the addition of any substance, natural or synthetic that enters the water making it unfit for human use or that of animals too.

Solution 13. Water is contaminated by microbes when animal or human faecal waste or urine is disposed off in near or in water bodies.

Solution 14. No. If contaminated water is consumed, it can cause serious diseases, even fatal ones.

Solution 15.

(a) Cholera – It is caused by *Vibrio cholera*. It is caused by consuming contaminated water or food. The patient passes frequent white watery stools and has repeated vomiting. Several preventive measures can be taken to prevent spread of cholera like anticipatory inoculations, consuming boiled water, health education, isolation of infected person etc.

(b) Typhoid – It is caused by the bacterium *Salmonella typhi*. Infection occurs through consuming of contaminated food and water. Symptoms include headache, high fever, tender and distended abdomen, diarrhea with water green stools and eruption of rash on body of patient. Prevention methods include proper sanitation and disposal of faecal matter and vaccination.

(c) Amoebiasis – It is caused by a protozoa, *Entamoeba Histolytica*. It is commonly spread by water contaminated by faeces or from food served by contaminated hands.

Symptoms include – lower abdominal pain, diarrhoea and later develop dysentery and fever. Prevention methods include proper sanitation and drinking clean water.

(d) Giardiasis – It is caused by the protozoan flagellate *Giardia intestinalis*, which lives in upper parts of human intestine. It perches on living cells of intestinal wall with adhesive discs, absorbing nutrition from food passing by, growing and multiplying. They interfere with digestion, causing pain, diarrhea, headache and fever. Preventive measures include consuming boiled water, maintaining hygiene and sanitation as well as practicing personal hygiene.

(e) Hepatitis – It is caused by hepatitis virus. There are six varieties hepatitis A, B, C, D, E and F. Symptoms include enlarged liver in early stage, fever, anorexia, vomiting, epigastric, discomfort, pain in muscles and joints. Later on liver becomes smaller and yellowish or greenish. Some forms of hepatitis spreads through contaminated water and food whereas others spread through body fluids.

Solution 16.

- (i) (d) All the above
- (ii) (c) Health for all
- (iii) (b) *Gambusia*