

Q1 What is cholesterol? Discuss its importance, normal blood level & dangers of elevated levels with reference to the health and disease in humans.

Ans: Cholesterol:

Cholestrals are fatty compounds which are necessary for the good working of human body. Cholesterol ~~are~~ is necessary to perform certain function such food digestion, synthesis of other important component which are necessary for healthy body.

Importance of cholesterol:

There are two types of cholesterol which are very important, Low Density Lipoprotein (LDL) and High Density Lipoprotein. Low Density Lipoprotein is also called Bad Cholesterol and High Density Lipoprotein is also called Good Cholesterol. Excessive or deficiency of each type of cholesterol lead to several diseases. An Bad Cholesterol if exceed in body

it leads to serious diseases such as heart attack.

Disadvantages of High level of Cholesterol.

If cholesterol exceed more than 100 mg/dl than it leads to following diseases.

Heart Attack:

If bad cholesterol increases its ~~threst~~ amount more than 100 mg than it will create plaques in the arteries. It will blocked the movement of blood to the heart which in results heart attack. A severe heart attack can cause human death.

Stroke:

If cholesterol ~~exceed~~ its threshold than it can also cause stroke. High amount of cholesterol will blocked the movement of ~~wat~~ blood towards the brain and results in stroke.

Other disease: Excessive cholesterol in human body can also cause of other serious human diseases.

Q2 What is the significance of vitamins? Describe the sources, uses and deficiency symptom of fat soluble vitamins.

Vitamins:

Vitamins are the important element of balanced diet. Vitamins do not provide energy to the body. They play an important role in the running of other human body function. They make sure that body is functioning properly.

Types of vitamins.

There are two types of vitamins

- ① Fat soluble vitamins (A, D, E, K)
- ② Water soluble vitamins (B, C)

Significance of vitamins.

Vitamins are very important for the smooth functioning of human body. Vitamins are necessary to trigger chemical reactions inside the human body. Vitamins play vital role to maintain a healthy body. Vitamins can be obtained through food & other sources such as sun light. We must make sure that the diet

that we intake has a significant amount of vitamins.

Fat soluble Vitamins.

There are four types of fat soluble vitamins which are as follows.

Vitamin A:

(i) Sources: Vitamin can be obtained through by eating fishes, eggs, milk and other dietary and vegetables products.

(ii) Uses: Vitamin A is necessary to improve visionary capabilities, good formation of skin etc.

(iii) Disease: Deficiency can lead to blindness.

Vitamin D:

(i) Sources: Vitamin D can be obtained from sunlight and other vegetable products.

(ii) Uses: Vitamin is necessary for bone formation and bone structure.

(iii) Disease: Deficiency of it can lead to fracture and weakness of bones.

Vitamin E:

Sources: Vitamin E can be obtained by vegetables such as cabbage, cauliflower etc.

Uses: Vitamin is necessary for the formation of antioxidants.

Disease: Deficiency of Vitamin can lead to disease of heart etc.

Vitamin K:

i) Sources: Vitamin K can be obtained from ~~diety~~ eggs, milk, meat and vegetables.

ii) Uses: it is necessary for blood clotting.

iii) Disease: Its deficiency can cause of bleeding, flowing and bruising.

Answer Question No: 03

Q3 Write a comprehensive note on Balance diet.

Balance Diet:

Balance Diet means a diet which includes all those elements which are necessary for the proper growth and development of human body such as proteins, vitamins, etc.

Balance diet provides a good amount of nutrient which are necessary for health.

Importance of Balance diet:

Balance diet is very necessary

for the proper functioning of human body. Balance diet keeps human healthy and smart. If somebody does not take balance diet for a long time, he may be attacked by diseases.

Components of Balance Diet

Components of Balance Diet are described below as follows

- i) **Carbohydrates:** Carbohydrates provide energy to human body. They consist of Hydrogen, Oxygen and Carbon.
- ii) **Protein:** Proteins are used for the development of human body tissues. Different types of protein are used by human body.
- iii) **Vitamins:** Vitamins do not provide energy but they regulate certain chemical reactions in human body. Their deficiency can lead to several problems.
- iv) **Lipids:** Lipids are also known as fats, they are used to perform certain functions.

They are also use for the food digestion.
Water : Water is the most important part of Balance diet. Our body ~~part~~ consist of 70% of water. So water is necessary.

If a ^{food} diet contains all these necessary component then it is called Balance Diet.

Q4 Discuss the importance of preservative and antioxidants in food.

Importance of preservatives:

Preservatives have been very important all the time ~~be~~ because they are used to preserve food from deteriorating.

Preservatives are used to keep food safe and fresh for a longtime.

Preservatives are used to protect food from damage.

These are used to preserve food from other non eating items.

These are used to preserve color and odour of food.

Preservatives can be used to transport goods on ships.

By using them, food can easily be moved from one place to another.

These are also used to protect food from poisonous elements.

Importance of anti-oxidants.

Antioxidants are very important to keep food fresh and healthy.

Antioxidants are used to preserve food from bacteria and other elements. Because harmful bacteria can be produced in a food if it is placed in an open air for a long time. So we use antioxidants and preservatives to protect food safe and fresh for a long time.

So, both antioxidants and preservatives are important for the protection of food.

Q Discuss different methods of Food preservation.

Preservation of food is very important task because it is used to keep food preserve for a long time. Following methods are used for the the preservation of Food.

Heat : Heat is the old and most effective method for the food preservation. For example if we heat milk for 15 minutes at the temperature of 63°C or more than it will kill all those bacteria which can deteriorate it.

Dry :

Dry is also an old and most commonly used method. By drying food, ~~all the~~ a sufficient amount of water is extracted from the food so it stops the growth of bacteria.

Smoking :

Smoking is also used to preserve food. Smoke contains those elements which can kill bacteria. Smoke also contains heat so it also absorb water from food. In this food can also be preserved.

Sugar Syrup :

Food is placed in sugar syrup which extracted a sufficient amount of water from food. So it stops the growth of bacteria. So food can be preserved for long time.

Use of Chemicals :

Chemicals can also be used to keep food preserved. Chemicals kill harmful bacteria. So food can be preserved.

Freezing:

Freezing is also used to keep food preserve. By freezing food at the temperature of -10°C , will make water in the food in the form of ice. So it will stop the growth of bacteria. Food will be safe and health fresh.

All of the above methods can be used to preserve food, and keep food fresh. We can store food for a long time in this way.