Non-Nutritive Components of Diet

Non-nutritive components of diet are those components that do not provide energy or calories. Roughage or fibre, water, colours, flavours, pesticide residues, etc., are among tens of thousands of non-nutritive components of diet or food. As a matter of fact, there are a lot of non-nutritive components of diet that can be identified easily. However, there are also many non-nutritive components of diet that have been discovered recently. There may be thousands of phyto-chemicals which can both help us or harm us. Some of them are considered to check the cancer initiators or promoters in the body. The explanation of non-nutritive components of diet is given below.

1. **Fibre or Roughage**: Fibre or roughage has no nutrient value. Hence, it is included in the non-nutritive components of diet. It is the undigested part of the food or it can be said that it cannot be digested by the human intestinal tract. It consists of water and improves intestinal function by adding bulk to food. It satisfies the appetite. It helps to correct the disorders of large intestine. It prevents constipation. Roughage or fibre can be divided into two categories, i.e., soluble and insoluble fibres. Soluble fibres can dissolve in water, whereas, insoluble fibre can’t. The soluble fibre reduces blood sugar fluctuation and lowers cholesterol. Insoluble fibre is a good stool softener. Usually 30 grams of fibre is recommended for an adult per day. Both types of roughage or fibre are equally significant for human beings. Fibre is helpful in decreasing the risk of heart disease and in preventing certain types of cancer.

Sources. Whole wheat, fresh fruits, root, vegetables, oats, connective tissues of meat and fish are very good sources of roughage.

2. **Water**: Water is also an essential component of diet. Even blood comprises 90% of water. Water in the blood helps in the transportation of the nutrients to various cells of the body. Water is also significant in the excretion of waste products. It also regulates the body temperature. Our body loses approximately 2% of our body weight as water per day. We recover this loss of water by drinking water and by intake of food substances. Water also functions as a lubricant, keeps the skin moist and protects the body from shock. Generally, about 20% of water intake comes from food and remaining Role of water in nutrition intake comes from drinking water. It is excreted from the body in various forms such as urine, faeces, sweat and water vapour in the exhaled breath.
3. **Colour Compounds**: Food or diet is made more appetizing and attractive by the wide reflection of colours made possible through pigments. Natural pigments are found in fruits and vegetables. The colours derived from animal products and grains are less bright. There are various colours derived from fruits and vegetables such as red, orange, yellow, green, blue and cream.

4. **Flavour Compounds**: Flavours are derived from both nutritive and non-nutritive components of food. Sometimes it becomes very difficult to know the source of a specific flavour. An acidic food provides sour taste while an alkaline one provides a bitter taste.

5. **Plant Compounds**: In addition to colour compounds and flavour compounds, there are some plants which contain other non-nutritive substances. When these substances are ingested they may have beneficial or harmful effects. There are many compounds that inhibit cancer. There are also a number of harmful substances in plants which have harmful effects if ingested in excess. Caffeine is one such example. If it is taken in excess quantity then it may increase heart rate, secretion of stomach acid, lead to excessive urination.

**Short Answer Questions-I (Carrying 3 Marks)**

1. Clarify the meaning of balanced diet in brief.
2. What do you mean by macro and micro nutrients?
3. What do you mean by nutritive and non-nutritive components
5. Explain in brief, the importance of water.
6. What do you mean by colour compounds?
7. Briefly explain any two food myths.
8. What do you mean by macro nutrients? Explain about any two macro nutrients.
9. What do you mean by micro nutrients? Discuss about macro and micro minerals.
10. What do you mean by vitamin? Explain about fat soluble and water soluble vitamins.
11. Discuss protein as the nutritive component of diet.
12. What do you mean by water soluble vitamins? Explain about them in brief.
13. Discuss about mineral as nutritive component of diet.
14. Discuss water and roughage as a non-nutritive components of diet.
15. What do you mean by nutritive components of diet? Explain about any three of them in brief.
16. What do you mean by non-nutritive components of diet? Explain any four non-nutritive
components in brief.

Explain about them.

11. What is balanced diet? Explain the components of diet.

12. What are the nutritive and non-nutritive components of diet? Explain.