

3. NATURE AND DIET

Objectives

- (1) To understand importance of diet based on Indian Ayurvedic science.
- (2) To understand diet specific to one's region and natural environment.
- (3) To understand diet suitable to one's own nature.
- (4) To create awareness that diet affects on the body as well as the mind.
- (5) To maintain and enhance physical fitness through proper diet.
- (6) To differentiate between diet requirements of an player and a normal person.

Food is the most basic and renewable source for the body. It is the source of fuel for the body to keep functioning continuously. Diet provides the life-giving nourishment that the body needs. It is the tonic that replenishes our body. In other words, diet enables the body to complete all the functions.

The energy required for every



organism comes from the food it consumes. All living organisms right from a single cell amoeba to the super intelligent human being, have the ability to obtain their food. Although the nature of food, the ability to obtain, consume and digest it, may be different for different living beings. The ultimate truth remains is that food sustains life.

Dietary factors as described in traditional Indian sciences

On a minute note it can be observed that each constituent of food is obtained from nature. All the living beings as well as the nutrition required by has come from the nature itself.

According to the principles of Indian Sciences the whole universe is formed after the integration of five basic principles that is the 'Panchmahabhutas', earth, water, fire, air and ether.

Although the universe is enable after combining all above Panchmahabhutas one always finds a dominance of one of these in the food that one consumes. For example one observes a dominance of the earth elements in wheat, jowar or component of water in fruits and milks or component of air in the formated food substances.

Five basic elements (Panchmahabhutas) and six tastes (Shadrasas)

The diet consisting all the five Panchmahabhutas is a balanced diet as it is enriched with proper proportions of

carbohydrates, proteins, fats, vitamins and minerals. One can find the important information on diet in the Indian Ayurvedic science. According to Ayurveda, an ideal diet should incorporate all the six tastes (flavours.) They are sweet (madhura), sour (amla), salty (lavana), pungent (Tikhat), Bitter (katu) and Astringent (kashaya). Our daily diet should consist of these tastes.

The food based on these six different flavours is also a combination of the five basic elements (panchamahabhutas) in various proportions.

Example :

Sweet	-	earth and water
Sour	-	earth and fire
Salty	-	water and fire
Bitter	-	air and Ether
Pungent	-	air and Fire
Astringent	-	air and earth

Role of the six basic tastes

The food items consisting of these six types of tastes helps us to enhance our appetite as well as in different bodily functions and movements for example the sweet help in nourishing and strengthening the human body . The sour tasting food items help creating an appetite , escalate the speed of the digestive juices. The food items with salt help in given taste to the food, reduces lethargy and obesity, increase secretions of various glands. The bitter tastes absorbs excessive secretions helps the production of hunger and digestion of food. It also absorbs food after digestion,

reduces excess viscosity and gives taste to the food gives contentment to the mind. Thus the diet constituting of four colours should be inclusive of all six rasas. (tastes).

Food culture

The Indian culture is known for its diversity. This diversity is reflected in standard of living, costumes, traditions duties, religious practices followed and also the diet of the particular regions. The Indian food culture is the manifestation of deep thought process of our ancestors. Thus each of such states came up with a diet conducive with the climate conditions and thus 'Ahar Sanskriti' was created;

Food components suited to the natural environment

The cereals ,fruits and vegetables produced in a particular region are suitable for that region and thus became the staple diet of that region. It is the mechanism created by nature. Thus walnuts which are warm in nature are produced in colder regions while coconuts which quench thirst are produced in humid costal regions. Thus the availability of different food constitutes to create a regional food culture. The regions are diverse environment, temperature and water so they produce specific food grains,vegetables and fruits of good quality.

Listen to the call of your body

It is always advisable to consume the food and grain produced locally as it is

easy for the body to digest the food and grain produce which may lead to indigestion and can also lead various ailments. We need to acclimatize to the climatic conditions in the region where we are staying and also to the environment around us. A dip in temperatures creates a desire to the drink hot tea. Similarly a rise to drink cold lemon water .

Seasonal diet

There is wonderful scientific concept on Ayurveda called the 'Ritucharya' . The Ritucharya helps in creating a homeostasis by reducing the tension created due to the difference between the changing external environment and the actual condition of the internal constitutes of the body. It helps in maintaining good health ,building a food immunate system and also helps in elements creates in the body.

As the earth revolves around the sun we experience the different seasons. In India basically,two time periods are followed: Uttarayana (northern movement of the sun) and Dakshinayana (southern solstice). These two time periods have three different seasons respectively. In Uttarayana the seasons are Shishira (winter), Vasanta (spring), Grishma (summer) while in Dakshinayana the seasons are Varsha (monsoon), Sharada (Autumn) and Hemanta (late autumn). Uttarayana indicates the ascent of the sun. In this period the sun and the wind are powerful. During the strength of the body goes down. It is called the Adana Period.

Dakshinayana indicates the descent of the sun or movement of sun in the southern direction. The earth becomes cool and the strength of the body increases. It is called the Visarga Period. With the knowledge of Ritucharya and by practicing regimen in accordance with the Ritu (season) to maintain harmony of the Tridosha - Vata, Pitta and Kapha one can stay healthy across seasons. If these scientific ideas are put into practice one can acquire and sustain good health. With the change in season there is high likelihood of changes in the Vata (wind), Pitta (bile) and Kapha (phlegm), causing various diseases. Our ancestors over the years have understood the importance of seasonal diet. Thus they interwoven the concept of seasonal diet with various festivals and celebrations, naturally leading to it's faithful following by the society.

Diet based on physical needs of the body

Food is to be consumed based on the requirement of the body. An athlete may modify diet according to the immediate requirement to enable enhanced and consistent performance.

1. Diet for building strength :

Food for this purpose will increase the strength in the muscle fibers and the bones of the body. Such food will include a good quantity of milk, dates, fig, almond, pistachios, walnut, bananas, lentils, coconut, apricots, shrikhand, meat cooked with less spices, eggs and food of sweet flavor.

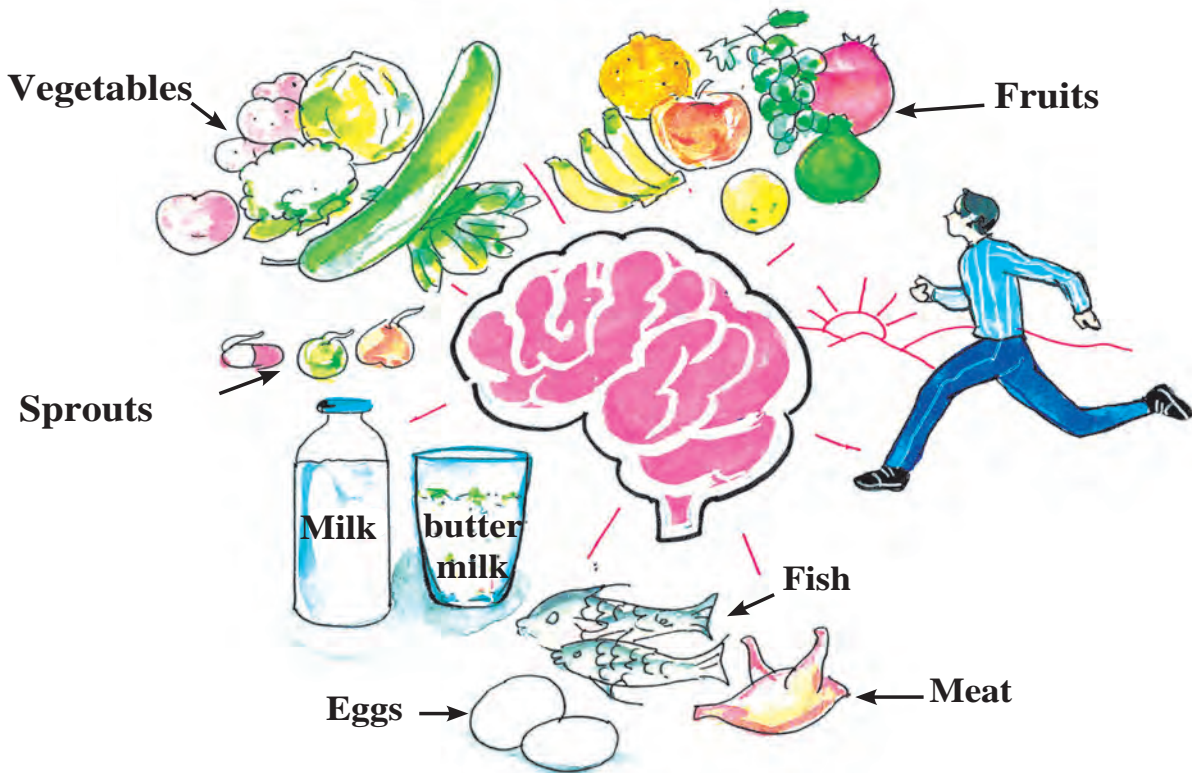
2. **Diet that reduces fatigue :** This diet needs to increase the stamina of the players and reduce the recovery time. They include sour juices, pomegranate juice, shrikhand pills, tamarind pills, butter milk, sweet and sour drinks.
3. **Rejuvenating diet :** After an entire day's load, relieving the body of fatigue alone is not sufficient. Following rest, the body with the help of a proper diet has to replenish itself for another day of workout and training. Dry fruits like figs, raisins, almonds, bananas, ghee, jaggery, non-veg soup, milkshakes are included.
4. **Performance enhancing diet :** Along with consistent and regular training there needs to be the intake of the right type of diet. Inclusion of ghee, fenugreek seeds, asofoetida, curry leaves, soybeans, beetroot is necessary. Such diet maintains the nutrients in the body and helps training at high level. For performance enhancement before competition a light diet, low on spices, should be incorporated. Day prior to competition sweet potato kheer, paratha made from potatoes, cheese paratha can be good. Also adequate rest before the competition will greatly help in performing well.

Diet and the mind

Many varying factors have been studied when taking diet into consideration. The nature of diet, its constituent substances, the need of the body, nutritional values of the food, digestion of the food consumed, ability of the body to facilitate the digestive process and many such factors have been looked into. However, there is one factor that is related to this complete process but is generally neglected and that is the human mind. The human mind although not a visible element in the body manifests its existence in different ways. For the proper functioning of the various systems of the body the mind has an important role to play. Assisting and controlling the functions of the organs of the body and assisting these processes at the right time and many such activities are controlled by the mind.

(1) Mind and Secretions of glands :

In the digestive system many secretions help in the digestive process. Salivary secretions, gastric juices play a very vital role in this process. If the mind is in a pleasant state all the secretions will take place in the right proportion. Unhappiness, sadness, irritability, anger such moods affect not only the intake but also the digestion process of the food consumed. Just as the physical fitness of the person is vital so also the mental fitness of the person plays an important role for achieving success. The



Diet and mind

feelings and emotions that play in the mind affect the mental state that control and moderate the release of hormones that affect the functioning of the body. This in turn affects the metabolic rate of the body. Consistent depressing thoughts affect release of secretions that control intake and digestion process. The feeling of hunger is present in every living thing. However, control over what to eat and how much to eat is at times lost due to a bad state of mind. A resulting ill effect is anorexia nervosa meaning very poor food intake with an unwarranted fear of being overweight or bulimia nervosa meaning bingeing, followed by methods to avoid weight-loss by vomiting, excessive exercising or fasting.

Both these conditions are detrimental to the body and will result in poor performance.

The ancient science of Ayurveda and Yoga has deeply considered this aspect of mind affecting the body functions. The unpleasant state of mind aggravating the negative effects on the body has been explicit in the science of Ayurveda.

(2) **Relation of diet and mind :**

People are constantly under stress. The stress to achieve success and maintain it, stress caused due to poor performance, professional competitiveness, fast paced lifestyle, inadequate rest, all affect the efforts and the ability of the individual. It is necessary to be aware of these realities and overcome them. Keeping the mind in a pleasant

state while eating, keeping negative thoughts away and enjoying food without stress is important. If these techniques are followed then success and contentment will be achieved even faster.

Individuals today are in a constant state of anxiousness and worry, having a fear of failure. Their diet should make use of good fat, sweet and sour flavoured food items; food made using ginger, garlic, coconut, asafoetida, mint leaves, fruits and vegetables. It is helpful to reduce the use of green peas, potatoes, pavata and harbhara.

A constant state of aggressiveness as seen in athletes can lead to an irritable gall bladder. This causes excess secretion of bile. In such times avoid consumption of millet, urad, sesame, tur, pungent and spicy food. Instead, increased intake of leafy vegetables and fruits, bottle gourd, pumpkin, red pumpkin, grapes, black currant, avala, gulkhanda is helpful.

Diet of sportsperson

A wholesome diet is necessary to nourish the body. So also, replenishing the body with nutrient rich diet is imperative. The body that is involved in labour intensive work gets exhausted faster and requires greater amount of nutrient rich replenishment. To ensure this happens, the diet moderation needs to be according to the intensity of exercise performed. Otherwise the growth of the body is stunted and it becomes the

doorway to the causes of various injuries and ailments.

1. Adequate diet : One of the essential qualities that a player needs to acquire is muscle strength, and more importantly to maintain it over time. So, while planning the athlete's diet the following should be considered:

- Exercise – type and duration
- Duration and exertion caused in daily travel
- Duration of time spent outdoor in school / college

In all, the daily physical activities performed, the energy requirements for the same, the dietary components that will provide for these energy requirements, all need to be considered.

2. The Balanced diet : The daily diet of the athlete should be complete with maximum nutritional values. For example, the carbohydrate should be made available from grains that are unpolished or grains that are processed to the minimum. Proteins obtained from cereals, sprouts, cooked pulses, good quality milk and dairy products, poultry products like egg, meat, fat and ghee, homemade butter should be emphasized. Vitamins and minerals should be obtained from the natural sources of fruits and vegetables. Care should be taken not to focus on only one component of a wholesome diet. But every component of the diet

should be catered to while considering the dietary plan of an athlete.

Consuming food rich in carbohydrates an hour before training will be an instant source of energy for the body. Food such as boiled potatoes, sweet

potatoes, banana, groundnuts are advisable. 3 - 4 hours post training it is advisable to consume food rich in protein such as cereals, sprouts, soya beans, dairy products, non-fatty food, eggs and non-veg food.

Exercise

Q.1. Answer in one sentence.

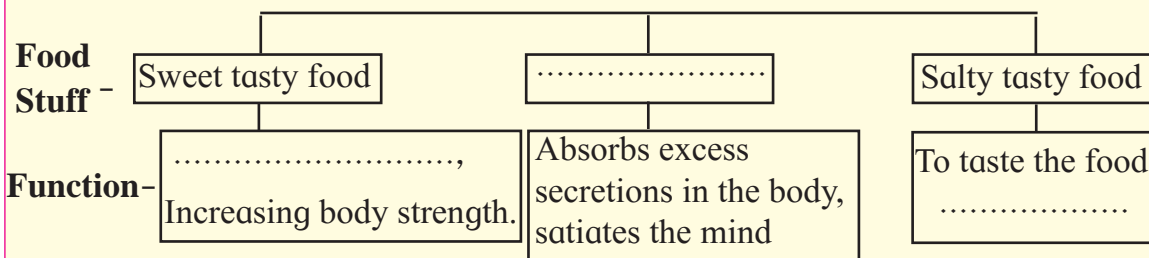
- (1) According to the theories of Panchamahabhut write the five components of food ?
- (2) What is meant by Adana Period?
- (3) What is the immediate source of energy for an athlete ?
- (4) Write any four components of food that help replenish the athletes body?
- (5) What should be the state of mind while having a meal?

Q.2. Match the following.

Group 'A'	Group 'B'
1) Diet for strength	a) Sour juices, shrikhand, butter milk, etc
2) Diet to replenish the body	b) Whole milk, banana, apricot, eggs, etc
3) Diet to reduce fatigue	c) Dry fruits, non-veg soup, sugar, milkshakes, etc

Supplementary Studies :

(1) Fill in the blank based on secretions and its functions.



(2) Complete the flow chart of the following dietary components.

