

CBSE Class 6

NCERT Notes and Exercise

Chapter 3. Mindful Eating: A Path to a Healthy Body

Introduction

Food is essential for our body. It gives us energy, helps us grow, and keeps us healthy. Eating carefully and choosing healthy food habits is called Mindful Eating.

Mindful eating means:

- Eating healthy food
- Eating at the right time
- Eating the right quantity
- Eating slowly and carefully

Sanskrit saying: "Annena jatani jivanti" - Meaning: All living beings survive by food. Food is essential for life. It provides energy, helps in growth, repairs body tissues, and keeps us healthy.

1. Nutrients in Food

Nutrients are substances in food that our body needs to grow, repair, and stay healthy. The main nutrients are:

Nutrient	Primary Function	Food Sources	Deficiency Disease	Symptoms
Carbohydrates	Primary source of energy	Wheat, rice, maize, potato, sweet potato, banana, mango	No specific disease	Weakness, fatigue
Fats	Stored energy, vitamin absorption, healthy skin/hair	Nuts, seeds, ghee, butter, oil, milk	No specific disease	Dry skin, weak hair
Proteins	Growth, repair, building blocks of body	Pulses, beans, nuts, milk, paneer, eggs, fish, meat	Kwashiorkor	Swelling, stunted growth
Vitamin A	Keeps eyes and skin healthy	Papaya, carrots, mangoes, milk	Night blindness	Poor vision in dark
Vitamin B1 (Thiamine)	Keeps heart healthy	Legumes, nuts, whole grains, seeds	Beriberi	Swelling, tingling in hands/feet
Vitamin C	Fights diseases	Amla, guava, oranges, lemons, green chillies	Scurvy	Bleeding gums, slow wound healing
Vitamin D	Absorbs calcium for bones/teeth	Sunlight, milk, butter, fish, eggs	Rickets	Soft and bent bones
Calcium	Strong bones and teeth	Milk, curd, cheese, paneer	Bone/tooth decay	Weak bones
Iodine	Physical and mental activities	Seaweed, water chestnut, iodised salt	Goitre	Swelling at neck
Iron	Making blood	Green leafy vegetables, beetroot, pomegranate	Anaemia	Weakness, shortness of breath

2. Dietary Fibre (Roughage)

Dietary fibres are essential for digestion and excretion. They help maintain a healthy digestive system by promoting regular bowel movements.

Sources:

- Green leafy vegetables: Spinach, kale
- Fresh fruits: Apples, oranges, berries
- Whole grains: Brown rice, oats
- Pulses and nuts: Lentils, almonds

Functions:

- Helps body get rid of undigested food
 - Ensures smooth passage of stools
 - Prevents constipation
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3. Water

Water is vital for all bodily functions:

- Hydrates cells and tissues
- Transports nutrients and oxygen throughout the body
- Regulates body temperature
- Lubricates joints
- Aids digestion
- Eliminates waste products

Drinking adequate water daily is essential to stay hydrated.

4. Balanced Diet

Balanced diet is one that has **all the nutrients** our body needs in the **right amounts**. It should also have enough roughage and water.

Benefits of a balanced diet:

- Keeps us healthy
 - Helps us grow properly
 - Boosts immunity
 - Provides energy for daily activities
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5. Malnutrition

Malnutrition is a condition that occurs when a person:

- Doesn't get enough nutrients, OR
- Gets too much of certain nutrients

Consequences:

- Stunted growth
 - Weak immune system
 - Poor cognitive development in children
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6. Junk Food

Junk foods are unhealthy because they have a lot of **fat and sugar** but not enough of other important nutrients.

Examples: Potato wafers, candy bars, carbonated drinks, noodles, biscuits

Effects of eating too much junk food:

- Weight gain/obesity
- Falling sick
- Lack of essential nutrients

Advice: Eat junk food only sometimes and in small amounts.

7. Millets

Millets are special kinds of grains that are very good for our health.

Examples: Jowar, Bajra, Ragi

Nutritional benefits:

- Rich in vitamins, minerals, and fibre
- Called "**nutri-cereals**"
- High in fibre
- Gluten-free
- Low in fat and cholesterol
- Provide sustained energy

Can eating only millets suffice?

No! A balanced diet needs all nutrients. Millets should be part of a varied diet including pulses, vegetables, fruits, and milk products.

8. Food Miles

Food miles mean how far the food has travelled from where it is grown to where it is eaten.

Why eat local food?

- Reduces pollution from transportation
- Supports local farmers
- Reduces transportation cost
- Food is usually fresher

9. Avoid Wasting Food

- A lot of hard work goes into growing and cooking food
- Take only as much food as you can eat
- Wasting food is not good for the environment

Nutrient Tests in Food

Nutrient	Test Method	Positive Result
Starch	Add iodine solution	Turns blue-black
Fat	Rub food on brown paper	Leaves oily patch
Protein	Add copper sulfate + caustic soda	Turns violet

Important note: Iodine test detects **starch only**, not all carbohydrates. Sugar is a carbohydrate but not starch, so it does not turn blue-black with iodine.

Traditional vs Modern Culinary Practices in India

Traditional Practices	Modern Practices
Cooking on chulha (wood stove)	Gas stoves
Grinding with sil-batta (stone grinder)	Electrical grinders
Locally sourced, seasonal, fresh ingredients	Processed ingredients
Time-consuming methods	Quick and convenient

These changes occurred due to technological development, improved transportation, and better communication.

Mindful Eating

Mindful eating means paying attention to our eating habits to foster better health.

Key concepts:

- Understanding food groups
 - Functions of nutrients
 - Portion control
 - Hydration
 - Making healthy food choices
 - Impact of food choices on personal and environmental health
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Important Definitions

1. **Mindful Eating:** Paying attention to eating habits for better health
 2. **Balanced Diet:** Diet with all nutrients in right amounts
 3. **Nutrients:** Essential substances in food for growth and health
 4. **Roughage:** Fibre found in plant-based foods that helps digestion
 5. **Junk Food:** Food high in unhealthy fats, sugars, sodium
 6. **Milletts:** Small-grained cereals rich in nutrients
 7. **Food Miles:** Distance food travels from farm to consumer
 8. **Deficiency Diseases:** Sickesses caused by lack of nutrients
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NCERT Summary

- People across India eat diverse types of food, containing various food components.
- Choice of food may vary according to the cultivation of food crops in a region, taste preferences, culture and traditions, and so on.
- Culinary practices have changed over time. There is a significant difference between traditional and modern methods of cooking food.
- Food provides us energy, support growth, repairs our bodies and protects us from diseases.
- The major nutrients in our food are carbohydrates, fats, proteins, vitamins, and minerals. In addition, food also contains dietary fibres and water.
- Carbohydrates and fats are primary energy sources, while proteins are body-building nutrients.
- Vitamins and minerals strengthen our body, protect us from infections, and keep us healthy.
- A balanced diet provides all the essential nutrients in the right quantities, along with adequate roughage and water.
- Deficiency of one or more nutrients in our diet for a long time can lead to deficiency diseases and disorders.
- Junk foods are unhealthy as they contain high levels of sugar and fats but little protein, minerals, vitamins, and dietary fibres.
- Milletts are known as nutri-cereals as they provide most of the nutrients required for the normal functioning of our bodies. They can be easily cultivated in different climatic conditions.
- Eating food that is locally grown and plant-based, to the extent possible, is not only healthy for our bodies but is also good for our environment and our planet.
- The distance travelled by a food item, from the place of its production to the consumer, is called food miles. We must aim to minimise food miles.
- We should never waste food and only take as much as we can consume.

Exercise

Question 1: Pick the odd one out and give reasons:

- (i) Jowar, Bajra, Ragi, Chana
- (ii) Kidney beans, Green gram, Soya bean, Rice

Answer

1:

- (i) Chana is the odd one out because Jowar, Bajra, and Ragi are millets (nutri-cereals), while Chana is a pulse.
- (ii) Rice is the odd one out because Kidney beans, Green gram, and Soya bean are protein-rich pulses, while Rice is a carbohydrate-rich cereal.

Question 2: Discuss traditional versus modern culinary practices in India.

Answer 2: Traditional culinary practices involved cooking on a chulha (traditional stove) and grinding manually using sil-batta (stone grinder). Modern practices use gas stoves and electrical grinders. Traditional methods used locally sourced, seasonal, and fresh ingredients with traditional cooking methods. Modern methods focus on convenience and speed, often using processed ingredients and convenience foods. These changes occurred due to technological development, improved transportation, and better communication.

Question 3: A teacher says that good food may act as medicine. Ravi is curious about this statement and has some questions for his teacher. List at least two questions that he can ask.

Answer 3:

- How can food prevent or cure diseases?
- Which specific nutrients in food help fight particular diseases?
- What happens to our body if we don't get proper nutrients from food?

Question 4: Not all delicious foods are necessarily healthy, while not all nutritious foods are always enjoyable. Share your thoughts along with a few examples.

Answer 4: This statement is true. Potato wafers, candy bars, and carbonated drinks are delicious but unhealthy (junk foods) as they contain high sugar and fats but low proteins, vitamins, minerals, and dietary fibre. On the other hand, boiled vegetables, whole grains, and legumes are highly nutritious but may not taste as appealing to everyone. A balanced diet requires both nutritious and enjoyable foods.

Question 5: Medu does not eat vegetables but enjoys biscuits, noodles and white bread. He often has stomach ache and constipation. What changes should he make in his diet to get rid of these problems? Explain your answer.

Answer 5: Medu should add green leafy vegetables, fresh fruits, wholegrains, pulses, and nuts to his diet. These foods are rich in dietary fibre (roughage), which helps his body get rid of undigested food and ensures smooth passage of stools. Biscuits, noodles, and white bread lack sufficient roughage, which is causing his constipation and stomach ache.

Question 6: Reshma had trouble seeing things in dim light. The doctor tested her eyesight and prescribed a particular vitamin supplement. He also advised her to include a few food items in her diet.

- (i) Which deficiency disease is she suffering from?
- (ii) Which food component may be lacking in her diet?
- (iii) Suggest some food items that she should include in her diet to overcome this problem (any four).

Answer 6:

- (i) She is suffering from night blindness (a deficiency disease).
- (ii) Vitamin A is lacking in her diet.
- (iii) She should include: carrots, papaya, mango, and milk in her diet.

Question 7: You are provided the following:

- (i) Canned fruit juice
- (ii) Fresh fruit juice
- (iii) Fresh fruit

Which one would you prefer and why?

Answer 7: I would prefer fresh fruit because it contains all the nutrients, vitamins (especially Vitamin C), dietary fibre, and water without any added sugars or preservatives. Fresh fruit juice is the second choice as it may lose some nutrients during processing. Canned fruit juice is the least preferred as it often contains added sugars and preservatives, and loses many nutrients during canning.

Question 8: Gourav got a fracture in his leg. His doctor aligned the bones and put on a plaster. The doctor also gave him calcium tablets. On the second visit, the doctor gave him Vitamin D syrup along with calcium tablets. Refer to Fig. 3.5 (chart of vitamins...) and answer the following questions:

(i) Why did the doctor give calcium tablets to Gourav?

(ii) On the second visit, why did the doctor give Vitamin D syrup along with calcium tablets?

(iii) What question arises in your mind about the choices made by the doctor in giving the medicines?

Answer 8:

(i) Calcium is essential for keeping bones and teeth healthy. Calcium tablets help in bone repair and healing of the fracture.

(ii) Vitamin D helps the body absorb calcium for bone and teeth health. Without Vitamin D, calcium cannot be properly absorbed by the body.

(iii) A question that arises: Why is sunlight exposure also important for bone healing, since Vitamin D is naturally produced by our body upon exposure to sunlight?

Question 9: Sugar is an example of carbohydrates. Sugar is tested with iodine solution but it does not change to blue-black colour. What can be a possible reason?

Answer 9: The iodine test specifically detects starch (a type of carbohydrate), not all carbohydrates. Sugar is a carbohydrate but not starch, so it does not turn blue-black when iodine is added. Only starch gives a blue-black colour with iodine solution.

Question 10: What do you think of Raman's statement, "All starches are carbohydrates but not all carbohydrates are starches." Describe the design of an activity to test your answer.

Answer 10: Raman's statement is correct. Starch is one type of carbohydrate, but carbohydrates also include sugars, fibres, and other compounds. To test this: Take potato (contains starch), sugar, and bread. Add iodine solution to each. Potato and bread will turn blue-black (containing starch), but sugar will not change colour (it's a carbohydrate but not starch).

Question 11: While using iodine in the laboratory, a few drops of iodine fell on Mishti's socks and a few fell on her teacher's saree. The drops of iodine on the saree turned blue-black while the colour on the socks did not change. What can be a possible reason?

Answer 11: The teacher's saree likely contains cotton (which has starch from sizing or starching treatment), so it turned blue-black with iodine. Mishti's socks may be made of synthetic fibre or wool, which do not contain starch, so the colour did not change.

Question 12: Why are millets considered a healthy choice of food? Can eating just millets suffice for the nutritional requirements of the body? Discuss.

Answer 12: Millets are considered healthy because they are rich in vitamins, minerals (like iron and calcium), dietary fibres, and are called "nutri-cereals." They can be easily cultivated in different climatic conditions. However, eating only millets cannot suffice for all nutritional requirements. A balanced diet needs all nutrients—carbohydrates, proteins, fats, vitamins, minerals, roughage, and water. Millets should be part of a varied diet including pulses, vegetables, fruits, and milk products.

Question 13: You are given a sample of a solution. How would you check the possibility of it being an iodine solution?

Answer 13: Add a few drops of the solution to a food item containing starch (like potato slice or bread). If the solution is iodine, it will turn blue-black on contact with starch. This colour change confirms it is an iodine solution.

Question 14: List junk foods you eat frequently. Ask your friends also to make such lists. On the basis of these lists, write a letter to your principal requesting to ban certain junk foods inside the school campus. Suggest some healthy options.

Answer 14:

To
The principal
GSBV Pooth Kalan (1412007)
Pooth Kalan, Rohini sector 20,
Delhi-86

I request you to ban junk foods like potato wafers, candy bars, and carbonated drinks from the school campus. These foods contain high sugar, rancid oils and fats but low nutrients, leading to obesity and other health ailments. Healthy alternatives include: roasted chana, fruits, nuts, milk, and homemade snacks. I request you to promote these nutrients. Health is the ultimate wealth. Thank You!

Yours Obedient Student
Tarun, Roll No. 5
Class 8

Question 15: Find out the variation in nutritional requirements of different individuals based on age, physical activity and health conditions. Record your observations. Discuss and analyse.

Answer 15: Nutritional requirements vary based on:

- Age: Growing children need more protein and calcium for growth; elderly need less calories but more calcium and vitamins.
- Physical activity: Athletes and active individuals need more carbohydrates and proteins for energy and muscle repair.
- Health conditions: Pregnant women need more iron and folic acid; diabetic patients need controlled carbohydrates; people with bone diseases need more calcium and Vitamin D. Everyone's requirements are different based on these factors.