

## Chapter 8:

### Nutrition, Health and Well-being

#### 2marks

Q1: What is nutrition, and why is it important for children's well-being?

A: Nutrition is the process by which we obtain nutrients from food, metabolizing them for growth, repair, and overall well-being. Adequate nutrition is crucial for children's growth, development, and lifelong well-being.

Q 2: Explain the nutritional requirements of infants during the first six months.

A: During the first six months, infants require calories, protein for muscular growth, calcium for healthy bones, and iron for the expansion of blood volume. Breast milk, being rich in essential nutrients, is recommended, and dietary requirements are based on the composition of mother's milk.

Q 3: Why is exclusive breastfeeding recommended for the first six months, according to WHO?

A: Exclusive breastfeeding for the first six months is recommended by WHO because breast milk is nutritionally tailor-made for infants, providing all required nutrients in the right proportions. It offers natural immunity, protects against infections, and fosters a healthy emotional relationship between the mother and child.

Q 4: What are the benefits of breastfeeding for both infants and mothers?

A: Benefits of breastfeeding include meeting the infant's nutritional needs, protection against infections, allergies, and diseases. It also provides immunity, contributes to the emotional bond between mother and child, and protects mothers against breast and ovarian cancers and weak bones.

Q5: What are the types of complementary foods, and when should they be introduced?

A: Complementary foods include liquid complements, semi-solid complements, and solid complements. They should be introduced by 6 months, and good hygienic conditions must be maintained. Calorie-dense foods providing at least 10% of energy as proteins are recommended.

Q 6: Explain the importance of immunization in protecting children's health.

A: Immunization protects children from various diseases by introducing inactive forms of bacteria, viruses, or toxins. Vaccines stimulate the production of antibodies that help kill germs when they attack the child's system.

Q7: Provide two guidelines for complementary feeding.

A: Guidelines for complementary feeding include introducing one food at a time, starting with small quantities and gradually increasing, avoiding force-feeding, avoiding spicy and fried foods for small babies, and encouraging a variety of foods to make them acceptable.

#### **4MARKS**

Q1: Explain the factors contributing to malnutrition in infants and young children, highlighting the role of social and economic factors.

A: Malnutrition in infants and young children is influenced by various factors, including social and economic elements. Poverty, illiteracy, and ignorance about nutritional needs contribute to malnutrition. Lack of access to adequate healthcare, especially in rural and tribal areas, exacerbates the problem. When breast milk is insufficient, and complementary foods don't meet nutrient needs, infants become susceptible to malnutrition. Diarrhea, a common consequence, leads to dehydration and is a significant cause of infant mortality. Research suggests a link between malnutrition and diseases like tuberculosis, highlighting the interconnectedness of social and health factors.

Q 2: Discuss the nutritional deficiency diseases that may affect children during early childhood, emphasizing their causes and consequences.

A: Several nutritional deficiency diseases can affect children during early childhood. Protein Energy Malnutrition (PEM) leads to growth retardation and increases susceptibility to infections, causing diarrhea and dehydration. Anemia results from iron deficiency, while vitamin A deficiency causes nutritional blindness. Shortage of vitamin D and calcium leads to bone-related issues like rickets and osteopenia. Iodine deficiency causes goitre. These diseases occur when infants are not exclusively breastfed, and complementary foods fail to meet their nutrient needs. The consequences include impaired growth, increased vulnerability to infections, and long-term health issues.

Q3:Describe the nutritional needs of preschool children and provide recommendations for planning balanced meals according to the ICMR guidelines.

A:Preschool children have specific nutritional needs crucial for their growth and development. ICMR recommends dietary allowances for energy, protein, fat, calcium, iron, and various vitamins. To plan balanced meals, emphasis should be on variety, including textures, tastes, and colors. Meals should have a balance of complex carbohydrates, lean proteins, and essential fats. Moderation is essential when including sweets and fast foods. ICMR's guidelines suggest specific quantities of food groups, such as cereals, pulses, milk, fruits, and vegetables, to be included in the diet. Regularity in mealtime and involving children in meal planning are also key recommendations.

Q 4:Examine the factors influencing the diet intake of school-age children, discussing the impact of family environment, media, peers, and socio-cultural influences.

A:The diet intake of school-age children is influenced by various factors. The family environment plays a crucial role, shaping food preferences and establishing eating patterns. Positive parenting practices are essential for encouraging healthy habits. Media, particularly TV commercials, influences children's food choices, often promoting unhealthy options. Peer influence becomes significant as children enter school, impacting their food preferences and intake. Socio-cultural factors, including regional food habits, also shape children's dietary choices. Awareness of these factors is vital for parents and caregivers to promote a healthy and balanced diet for school-age children.

Q 5:Discuss the recommended dietary allowances for school-age children (7–12 years) according to ICMR. Highlight the specific nutrient requirements and explain the significance of these nutrients during this developmental stage.

A:ICMR recommends specific dietary allowances for school-age children (7–12 years) to meet their nutritional needs. These include energy, protein, fat, calcium, iron, and various vitamins. During this developmental stage, children need increased amounts of protein, calcium, iron, and other nutrients to support growth,

bone development, and overall health. Adequate intake of these nutrients is crucial for boys and girls, with variations in protein, iron, and calcium requirements after the age of 9. A balanced diet that incorporates a variety of foods from different groups is essential to fulfill these dietary recommendations.

**Q6:** Explain the importance of involving children in meal planning and preparation. Provide examples of age-appropriate tasks that children can undertake to develop positive food habits.

**A:** Involving children in meal planning and preparation has several benefits. It helps them develop positive food habits, encourages a sense of responsibility, and fosters an appreciation for nutritious foods. Children can be engaged in age-appropriate tasks like washing, cutting, and mixing ingredients under supervision. For older children, tasks such as cooking simple recipes or setting the table can be introduced. This participation makes the mealtime experience more enjoyable and educative, instilling a lifelong understanding of healthy eating habits.

**Q 7:** Explore the role of immunization in combating communicable diseases among preschool and school-age children. Provide a detailed schedule of recommended vaccines and their significance in ensuring children's health.

**A:** Immunization plays a crucial role in preventing communicable diseases among preschool and school-age children. The schedule includes vaccines such as DPT, OPV, BCG, MMR, Typhoid, and Vitamin A drops at specific ages. These vaccines provide immunity against diseases like polio, diphtheria, tuberculosis, measles, mumps, rubella, and typhoid. Booster doses are administered to maintain long-term immunity. Vitamin A drops contribute to eye health. Following the immunization schedule is essential to protect children from severe illnesses and ensure their overall well-being.

## 8MARKS

1Q: Explain the significance of breastfeeding for infants, outlining its nutritional benefits and impact on the overall health and development of the child. Discuss the recommended dietary allowances for infants according to the Indian Council of Medical Research (ICMR) and elaborate on the types of complementary foods that can be introduced. Additionally, highlight the benefits of immunization during the infancy stage.

Answer: Breastfeeding holds immense significance for infants, serving as nature's gift enriched with essential nutrients crucial for their growth and development. The nutritional benefits of breastfeeding include the provision of complete and easily absorbable nutrients, immune protection through antibodies present in the mother's milk, and the promotion of a healthy emotional bond between the mother and the child.

As per the ICMR's recommended dietary allowances for infants, various nutrients play vital roles. For instance, infants need protein for muscular growth, calcium for healthy bones, and iron for the growth and expansion of blood volume. The composition of mother's milk is considered the benchmark for nutrient requirements in the first 4–6 months. The ICMR guidelines provide specific values for energy, protein, calcium, and various vitamins during this period.

Complementary feeding becomes crucial around the age of 6 months, introducing foods along with breast milk. Complementary foods should be calorie-dense, providing at least 10% of energy as proteins. These foods can be liquid

complements, semi-solid complements, and solid complements, gradually introduced to meet the growing nutritional needs of the infant.

Immunization is another integral aspect of infant health. The National Immunization Schedule recommends vaccines like BCG, OPV, HEP B, PENTA (DPT, HEP B, HiB), and MR during the first year of life. These vaccines provide life-long immunity against communicable diseases, protecting infants from various infections.

In conclusion, breastfeeding, adherence to ICMR's dietary recommendations, proper introduction of complementary foods, and timely immunization collectively contribute to the optimal nutrition, health, and well-being of infants, setting the foundation for their lifelong development.

Q2: Discuss the factors influencing the diet intake of preschool-age and school-age children. Examine the role of family environment, media, peers, and socio-cultural influences in shaping children's eating habits. Provide examples and strategies to promote positive dietary choices in these age groups.

A: The diet intake of preschool-age and school-age children is significantly influenced by a multitude of factors that span their immediate environment and societal influences. One of the primary influencers is the family environment. Positive parenting practices and the atmosphere during meals play a crucial role in shaping a child's eating habits. Families that promote a comfortable and happy dining atmosphere tend to encourage healthy eating practices. Parents, therefore, should acquire proper nutritional knowledge and incorporate it into planning diets for their children. Eating together as a family not only fosters a sense of togetherness but also establishes food patterns and preferences.

Media, especially TV commercials and endorsements, has emerged as a powerful influencer. The exposure to enticing advertisements and the endorsement of products by popular figures can significantly impact children's food preferences. The catchy slogans and attractive displays often tempt children towards foods that are low in nutritional value but high in sugar, fat, and sodium. Counteracting this influence requires a conducive family environment, where parents educate their children about making healthy food choices and limit exposure to harmful media content.

As children enter school, there is a shift in dependence from parental standards to those set by the peer group. Peer influence becomes pronounced, and children tend to emulate the dietary habits of their friends. Eating in a group setting can positively impact preschoolers, making them more willing to try new foods and creating a sense of socialization around meals. Encouraging positive eating habits in preschoolers involves promoting group settings for meals, where they can enjoy a variety of foods with their peers.

Socio-cultural influences also play a pivotal role in shaping the dietary choices of children. Each region has its typical foods and flavors, and children often develop a liking for foods typical of their own region as well as others. Exposure to diverse regional cuisines fosters an appreciation for different types of foods. Families should encourage a diverse palate by introducing children to various regional dishes.

To promote positive dietary choices, families should focus on creating a supportive environment, limit exposure to unhealthy media content, encourage group settings for meals, and introduce diverse regional cuisines. Involving children in meal planning fosters a sense of ownership and interest in nutritious foods. Parents should also provide education on making healthy food choices, ensuring that children understand the importance of a balanced diet for their overall well-being.



Q3:Examine the challenges and strategies involved in feeding children with special needs. Highlight the importance of close observation, developing eating skills, and implementing special diets. Discuss the role of adaptive equipment and the significance of respecting a child's food preferences and feeding space. Provide examples and recommendations for caregivers dealing with children with disabilities.

A:Feeding children with special needs presents unique challenges that demand careful attention to the child's individual requirements. There are three main aspects to consider: close observation, developing eating skills, and implementing special diets.

#### Close Observation:

Closely observing the child's behavior, progress at mealtimes, and specific conditions is essential. This includes understanding their abilities to handle food, identifying food preferences, and being aware of any allergies or conditions that might impact their dietary needs. Observations should be comprehensive, covering both physical and behavioral aspects related to feeding.

#### Developing Eating Skills:

Children with disabilities often require more time to eat and may struggle to feed themselves. Positive reinforcement is crucial in keeping them motivated and preventing resistance. Creating a comfortable and supportive environment is key, ensuring that the child is seated comfortably and allowing them to eat at their own pace. Encouraging self-feeding skills is essential for their independence and overall development.

### Special Diets:

Some children with special needs may require modifications in their diets based on their abilities and conditions. For instance, spastic children may struggle with different food textures, and adjustments like thickening thin liquids or softening lumpy foods may be necessary. The feeding tube may be used if required. Children with specific conditions, such as autism, may have altered taste or smell perceptions, necessitating dietary changes like limited liquids, special formulas, or adjustments in fat content.

### Adaptive Equipment:

The use of adaptive equipment can significantly aid in the feeding process. This includes tools and utensils designed to accommodate the child's unique needs, making it easier for them to handle and consume food. Adaptive equipment ensures that the child can participate in mealtimes more independently.

### Respecting Food Preferences and Feeding Space:

Respecting the child's food preferences, eating space, and whether or not they choose to eat is crucial. Establishing regular feeding timings helps create a routine that supports the child's nutritional needs. By respecting their choices and preferences, caregivers contribute to a positive and stress-free feeding experience.

### Examples and Recommendations:

For spastic children struggling with food textures, modifications like thickened liquids or softened foods are recommended.

Children with autism may require dietary changes based on their altered taste or smell perceptions. These changes could include limited liquids, special formulas, or adjustments in fat content.

Adaptive equipment, such as specialized utensils or feeding tools, can greatly facilitate the feeding process for children with disabilities.

Establishing a comfortable and supportive feeding environment, ensuring the child's independence, and respecting their choices contribute to positive feeding experiences.

Q4:

Examine the key factors influencing the diet intake of preschool and school-age children as discussed in the passage. Discuss the role of family, media, peers, socio-cultural influences, and erratic appetite in shaping the eating habits of children. Additionally, elaborate on the measures parents can take to foster healthy habits, both in terms of nutrition and overall well-being, for school-age children.

Answer:

The passage delves into various factors that significantly influence the diet intake of preschool and school-age children. One prominent determinant is the family environment, where positive parenting practices are emphasized for the overall well-being of children. The passage suggests that families, consciously or not, guide and shape the food preferences and patterns of school children. Encouraging nutritional knowledge and creating a comfortable, happy atmosphere during meals are highlighted as crucial aspects.

Media, especially TV commercials and celebrity endorsements, emerge as influential forces shaping children's food choices. The impact of catchy slogans and attractive displays during festivities can lead children towards foods that are low in fiber and high in sugar, fat, and sodium. The passage emphasizes the need for a conducive family environment to counteract these influences.

Peers also play a significant role in shaping food habits as children transition from parental standards to peer group norms. The passage notes that children tend to eat well in the company of friends, often trying new foods that they might otherwise refuse. Group settings are suggested to promote positive attitudes toward healthy food habits in preschoolers.

Socio-cultural influences are highlighted, showcasing how children tend to enjoy foods typical of their own region and sometimes develop a liking for dishes from other regions. This underlines the importance of cultural diversity in food choices.

Erratic appetite is recognized as a common phenomenon among children, where they may eat one meal well and refuse the next. The passage advises that such variations are temporary moods and should not be reinforced by bribes, punishments, or rigid rules.

To foster healthy habits in school-age children, the passage suggests establishing sensible eating habits, encouraging physical activity, ensuring food safety, and maintaining control over quantity intake. Sensible eating habits involve providing nutritious snacks and involving children in the preparation of salads and other healthy options. Physical activity, limiting television watching, and participation in sports are recommended for overall well-being. Additionally, parents are advised to ensure food safety by training children to eat under hygienic conditions and control the quantity of food without forcing them to eat when not hungry. This holistic approach aims to promote both nutritional and emotional well-being in school-age children.

## **CHOOSE THE CORRECT ANSWERS**

1.What is a crucial determinant of a child's food preferences and patterns, according to the passage?

- A. School environment
- B. Peer influence
- C. Positive parenting practices
- D. Media exposure

**Answer:C. Positive parenting practices**

2.Which factor does the passage emphasize as a significant influence on children's food choices, especially during festivities?

- A. Socio-cultural practices
- B. Erratic appetite
- C. Media, including catchy slogans and displays
- D. School activities

**AnswerC. Media, including catchy slogans and displays**

3. In the context of family environment, what is considered conducive to good eating habits and nutrient intake?

- A. Eating in isolation
- B. Incorporating nutritional knowledge
- C. Fast-paced mealtimes
- D. Encouraging strict dietary rules

**Answer B. Incorporating nutritional knowledge**

4. How does the passage suggest countering the influence of media on children's food choices?

- A. Encourage attractive displays during meals
- B. Create a conducive family environment
- C. Limit exposure to TV commercials
- D. Allow unrestricted access to sugary snacks

**Answer C. Limit exposure to TV commercials**

5. What role do peers play in shaping the eating habits of school-age children, according to the passage?

- A. Peers have no influence on food habits
- B. Peers encourage unhealthy eating habits
- C. Children eat well in the company of friends, promoting positive attitudes
- D. Peer influence only matters in preschool settings

**AnswerC. Children eat well in the company of friends, promoting positive attitudes**

**Fill in the blanks**

1. Ignoring erratic appetite as a temporary phase does the passage recommend as an effective approach to erratic appetite in children?

2.To foster healthy habits in school-age children, Limit television watching does the passage suggest regarding physical activity?

3.Promoting both nutritional and emotional well-being is the overarching goal of the holistic approach recommended for promoting well-being in school-age children?

4. Prioritizing variety to obtain essential nutrients is the primary emphasis when planning meals for school-age children, according to the passage.

5. To reduce the risk of obesity and related problems is it important to limit the intake of saturated fat, salt, and sugar in the diet of school children?