

CLINICAL NUTRITION AND DIETETICS

STUDY NOTES

- **Nutrition** is the science of food and nutrients for the digestion and absorption by the body.
- **Nutritional** food is vital for the growth and development of the human body. It helps in prevention of diseases.
- When nutrition is not in appropriate amount then body has difficulty in proper functioning that leads to several health problems.
- **Clinical nutrition** is also called medical nutrition therapy.
- The specialized area of nutrition which specifically deals with nutrition during illness or any disease is called clinical nutrition.
- **Nutraceuticals** are substances that have health benefits. These are specially manufactured or natural ingredients for good health benefits.
- Medical foods are the food products specially prepared for persons with specific needs.
- **Phytochemicals compounds** are non-nutrient constituents present in food that have physiological or biological activity.
- **Clinical nutrition and dietetics** is concerned with the nutritional requirements of patients suffering from different diseases.
- Nowadays non-communicable diseases such as obesity, heart disease, hypertension and diabetes are increasing.
- **Clinical nutritionists** play a vital role in the prevention of disease and promotion of good health.
- Basically, a dietitian plays an important role in providing advice and suggesting technical information into dietary guidelines.
- **Dietitian** recommends diet therapy which is used to improve the overall health of a patient of any kind of disease and disorder.
- The objectives of **diet therapy** are the formulation of a diet to fulfill the needs of a patient, modification of the existing diet, correction of nutritional deficiencies, prevention of short-term and long-term diseases, education and counselling of patients.
- There are two types of diets: first is a regular diet which includes all groups of food to fulfill the requirements of a healthy individual, and the second type is a modified diet which is adjusted according to the needs of a patient.
- **Nutritional assessment** refers to the collection of information about a patient's nutritional status and nutrient needs.
- Basically, a dietitian is responsible to ensure that a patient receives appropriate diet and optimal nutritional care as per the illness and body.
- Generally, the consistency of a diet depends on the condition of a patient. It can be liquid and soft or a regular diet.
- **Liquid diets** are fluid in consistency at room temperature and are easily absorbed. This type of diet is advised for persons who are unable to swallow food normally.
- Examples of liquid diets are coconut water, fruit juice, milkshake, etc.
- **Soft diets** provide solid food in a soft form which does not contain much fibre; they are easy to chew and digest.
- Examples of soft diets are khichdi and kheer.

- **Mechanical diet** refers to the modification of food for normal adult in the older age group which include soft, mashed food for elderly.
- The best feeding route for patient is orally or by mouth.
- If patient may not be able to swallow then tube feeding and intravenous feeding takes place.
- **Intravenous feeding** means patient is nourished with special solution through drip in a vein.
- Increase in sugar and fat consumption with less physical activity cause obesity and diabetes.
- **Good nutrition** is necessary for healthy lifestyle and to control and delay the age of chronic disease. We should consume more vegetable and fruits with less sugar and salt.
- There are various career avenues in the field of **clinical nutrition** such as dietitian in hospital, health club or gym, freelance dietitian in catering services entrepreneur, teaching and academy and nutrition marketing.

QUESTION BANK

MULTIPLE CHOICE QUESTIONS

- _____ are substances that have health benefit.
 (a) Medical food (b) Bioactive food (c) Nutraceutical (d) All of these
- Who gave advice and translate technical information into dietary guidelines?
 (a) Dietitian (b) Doctor (c) Therapist (d) Scientists
- _____ nutrition focuses on the nutritional management of patient with disease.
 (a) Science (b) Health (c) Food (d) Clinical
- The professional nutritionist make a systematic and logical approach focusing on _____ unique needs.
 (a) Person (b) Patient (c) An individual (d) All of these
- Which of the following is non-communicable disease?
 (a) Obesity (b) Heart disease (c) Hypertension (d) All of these
- _____ therapy helps us to prevent from disease and promotes good health.
 (a) Medical nutrition (b) Doctor (c) Psychiatrist (d) Balanced diet
- Protective role is played by
 (a) Milk (b) Vitamin E and C (c) Energy (d) Minerals
- _____ products are specially manufactured for person with specific need.
 (a) Nutraceutical (b) Phytochemical (c) Medical food products (d) Vitamin C
- _____ are non-nutrient constituent present in food.
 (a) Bioactive compounds (b) Nutraceutical (c) Phytochemical (d) None of these
- Clinical nutrition is concerned with _____ of patients suffering from disease.
 (a) Diet (b) Nutritional requirement
 (c) Protein (d) All of these
- Which of the following is not an objective of diet therapy?
 (a) Formulation of diet to meet the need of patient with consideration of his food habit
 (b) Correction of nutritional deficiency
 (c) Modification of existing diet to ameliorate the disease
 (d) No prevention from short-term complications
- Factors considered by dietician
 (a) Education level (b) Income (c) Psychological stress (d) Culture
- Nutritional care is a group of activity, consist of
 (a) Assessing nutritional status (b) Diagnosing nutritional problem
 (c) Planning and evaluating nutritional intervention (d) All of these

14. _____ is required to obtain information on the patients nutritional status.
 (a) Measurement (b) Nutritional assessment (c) Evaluation (d) Weight
15. Nutritional assessment helps to know
 (a) Detailed information on health diet and medication histories
 (b) Anthropometric measurements
 (c) Identify potential nutritional deficiency and risk of future deficiency
 (d) All of these
16. What is full form of OPD?
 (a) Out-patient department (b) On-patient department
 (c) Out-parent division (d) Out-patient division
17. Normal and therapeutic diets are planned to maintain good nutrition in the individual.
 (a) False (b) True (c) Can't say (d) None of these
18. Medical nutrition therapist never consider the
 (a) Health status and physical condition (b) Food pattern and frequency of intake
 (c) Cultural and religious beliefs (d) Family status
19. There are _____ types of diet.
 (a) 1 (b) 2 (c) 4 (d) 5
20. Which type of diet is used to meet the medical need of patient?
 (a) Modified diet (b) Regular diet (c) Standard diet (d) Healthy diet
21. Modified diets considers _____.
 (a) Change in consistency of food (b) Increase or decrease in energy intake
 (c) Inclusion and exclusion of nutrients (d) All of these
22. _____ protein intake in kidney failure.
 (a) Higher (b) Lower (c) Average (d) None
23. Nutrients are easily absorbed when _____ tract is functioning normally.
 (a) Gastro-intestinal (b) Intestine (c) Stomach (d) Pipe
24. Which type of diet is recommended for person who are unable to swallow food normally?
 (a) Fibre (b) Modified (c) Liquid (d) Solid
25. Coconut water, soup, buttermilk, milkshake are type of
 (a) Solid diet (b) Semi solid (c) Modified (d) Liquid
26. Which type of diet is prescribed just after surgery?
 (a) Solid (b) Clear liquid (c) Liquid (d) Soft
27. Which of the following is limitation of clear liquid diet?
 (a) Not made the nutritional requirement of persons completely
 (b) Good for the patient (c) Easy to swallow down (d) All of these
28. Examples of soft diet are
 (a) Kheer (b) Khichdi (c) Banana (d) All of these
29. Modification in food for normal adult and older age group is called
 (a) Soft diet (b) Mechanical diet (c) Bio active (d) All of these
30. Which of the following diet contain different types of food in adequate quantity and in right proportion to meet nutritional requirements of the body?
 (a) Nutritional diet (b) Clinical diet (c) Unbalanced diet (d) Balanced diet
31. Anthropometric measurements deals with
 (a) Weight (b) Height
 (c) Head chest circumference (d) All of these

32. Which of the following is the best route for feeding the patient?
 (a) Mouth (b) Pipe (c) Intravenous (d) Intestine
33. When patient is unconscious to swallow then the feeding route is
 (a) Mouth (b) Intravenous feeding (c) Intestine (d) All of these
34. In which feeding, patient is nourished with solution through drip in a vein?
 (a) Tube feeding (b) Mouth feeding (c) Intravenous (d) All of these
35. Processed food contains
 (a) Additive (b) High fat (c) Highly-refined food (d) All of these
36. Changes in food pattern leads to increase _____ disease.
 (a) Chronic (b) Communicable (c) Non-communicable (d) None of these
37. Examples of chronic disease are
 (a) Diarrhoea (b) Hypertension (c) Fever (d) Headache
38. Which of the following is incorrect statement about cause of obesity and diabetes?
 (a) Less physical activity (b) More consumption of sugar
 (c) Trend of processed food (d) Increase in fibre consumption
39. Hypertension is also known as
 (a) Obesity (b) Cardiovascular disease
 (c) High blood pressure (d) All of these
40. Which of the following statement is incorrect?
 (a) Clinical nutritionist help in preventing disease (b) Providing appropriate diet counselling
 (c) Appointed for guidance (d) None of these
41. **Statement I:** Old people should consume fresh fruit and vegetables which are easy to digest.
Statement II: Old people should avoid iron rich food as absorption of iron and calcium in blood is comparatively slower.
 (a) Both I and II (b) Only I (c) Only II (d) Neither I nor II
42. Mashed potatoes are
 (a) Liquid food (b) Solid (c) Semi solid (d) None of these
43. Food without salt should be cooked for
 (a) Heart patient (b) Person with BP (c) Constipated patient (d) Fever
44. Modification can be done by serving different amounts of foods to different member.
 (a) True (b) False (c) Can't say (d) None of these
45. Career option after doing B.Sc degree in home science or nutrition
 (a) Dietician (b) Research and development
 (c) Career opportunities in food industry (d) All of these
46. _____ is the diet which includes all food groups and fulfill need of healthy person.
 (a) Modified (b) Standard (c) Balanced (d) Regular
47. Tube feeding is also known as
 (a) Parenteral nutrition (b) Enteral nutrition (c) Supplement nutrition (d) Complementary nutrition
48. Which vitamin should be taken in problem of muscle fatigue?
 (a) Vitamin D (b) Vitamin K (c) Vitamin A (d) Vitamin E
49. By _____ food passes to stomach.
 (a) Large intestine (b) Heart (c) Small intestine (d) Pancreas
50. Citrus fruits are excellent source of:
 (a) Vitamin A (b) Vitamin C (c) Calcium (d) Protein
51. Which of the following factor increases the demand of ready to eat food?
 (a) Social-cultural changes (b) Socio-economic changes
 (c) Working class (d) All of the above

52. Which of the following disease is not related to lifestyle?
 (a) Typhoid (b) Hypertension (c) Heart disease (d) Diabetes
53. Fish is high in _____
 (a) Protein (b) Omega 3 fatty acid (c) Calcium (d) Vitamin A
54. What is full form of RDA?
 (a) Required dietary allowances (b) Required diet allowances
 (c) Recommended dietary allowances (d) Recommended diet allowances

Input Text Based MCQs

Read the passage and answer the questions that follow (55 to 60).

In recent time people are busy with their modern life style which changes their eating habits. More adoption of process and ready to eat food which leads to health problem such as heart disease, obesity, hypertension and diabetes, etc. at very young age. Nutrition is necessary for preventing from disease and maintaining healthy life. Food should be nutritious so that disease will not take place in the body. Health problems develop the area of clinical nutrition. Clinical nutrition is the area of Nutrition which deal with the illness of nutrition problem. Requirement of nutrition in the body is dependent on the age, gender, physical activity, employment and health of a person. Food always play a protective role for the body.

55. Which factor is not considered while assessing nutritional status of a patient?
 (a) Anthropometric measurement (b) Diet survey
 (c) Information on diet and medical history (d) Identify potential nutritional deficiency
56. A person is suffering from kidney and chewing problems then which type of diet should be prescribed to them?
 (a) Low protein and mechanical soft diet (b) High protein and mechanical software diet
 (c) Low fibre diet and liquid (d) High fibre and regular diet
57. _____ are adjusted to meet the medical need of a patient.
 (a) Regular diet (b) Standard diet (c) Modified iet (d) All of the above
58. Which of the following plays a protective role?
 (a) Vitamin C (b) Vitamin E (c) Beta carotene (d) All of the above
59. Which is the incorrect option after getting education in clinical nutrition and dietitian?
 (a) Researcher in medical field (b) Teacher
 (c) Manager (d) Dietitian
60. Which of the following career courses are offered by clinical nutrition and dietetics?
 (a) B.Sc. Degree in Home Science (b) BSc in Nutrition
 (c) Post Graduate Diploma in Dietetics (d) All of the above

ANSWERS

Multiple Choice Questions

1. (c) 2. (a) 3. (d) 4. (d) 5. (d) 6. (a) 7. (b) 8. (c) 9. (a) 10. (b)
 11. (d) 12. (c) 13. (d) 14. (b) 15. (d) 16. (a) 17. (b) 18. (d) 19. (b) 20. (a)
 21. (d) 22. (b) 23. (a) 24. (c) 25. (d) 26. (b) 27. (a) 28. (d) 29. (b) 30. (d)
 31. (d) 32. (a) 33. (b) 34. (c) 35. (d) 36. (a) 37. (b) 38. (d) 39. (c) 40. (d)
 41. (a) 42. (c) 43. (b) 44. (a) 45. (d) 46. (c) 47. (b) 48. (a) 49. (c) 50. (b)
 51. (d) 52. (a) 53. (b) 54. (c)

Input Text Based MCQs

55. (b) 56. (a) 57. (c) 58. (d) 59. (c) 60. (d)

