

科目： 膳食療養學(含人體生理學)

系所組：營養科學系

一、單選題 (60%) 每題兩分

1. Which of the following is recommended in the medical nutrition therapy for a patient undergoing surgical treatment of esophageal tumors? (A) Oral liquid diet with supplements; (B) Placement of a feeding tube at the time of surgery; (C) Regular diet with multivitamin supplementation; (D) Total parenteral nutrition.
2. With what do the plasma copper levels seen in patients with rheumatoid arthritis correlate? (A) Dietary intake of copper; (B) Degree of joint inflammation; (C) Type of medication; (D) Degree of malabsorption and diarrhea.
3. The ingestion of which of the following is most likely to promote bacterial activity that promotes dental caries? (A) Sucrose, glucose, and fructose; (B) Xylitol, mannitol, and lactose; (C) Aspartame, saccharin, and cyclamate; (D) Xylitol, saccharin, and galactose.
4. Under which conditions should an infant receive fluoride supplementation? (A) At 6 months if breastfed in a fluoridated community; (B) At 6 months if breastfed and given water in a fluoridated community; (C) At 3 months if breastfed in a fluoridated community; (D) At 3 months if breastfed and given water in a fluoridated community.
5. When a patient is identified as wearing full dentures, what else should be included in the nutrition assessment of the patient? (A) Recent changes in the patient's weight; (B) The patient's regular daily fluid intake; (C) When the patient last had her own teeth; (D) The patient's daily intake of cariogenic foods.
6. A common complication of enteral tube feeding is: (A) hyponatremia; (B) refeeding syndrome; (C) diarrhea; (D) hypoalbuminemia.
7. What should be the treatment goal in regard to a child or adolescent who is identified as overweight? (A) Promote weight loss of 1 to 2 pounds per week. (B) Promote weight loss to reduce BMI below the 85th percentile. (C) Promote weight maintenance and increased physical activity. (D) Promote weight loss of 10 to 12 pounds per year.
8. In home care, what is the recommended administration method for enteral nutrition? (A) Bolus feeding; (B) Gravity drip; (C) Cyclic pump; (D) Continuous pump.
9. Which of the following foods does **NOT** potentially increase the acidity of urine? (A) Cranberries; (B) Lemons; (C) Chicken; (D) Spaghetti noodles.
10. Intake of which of the following nutrients is generally **NOT** decreased in the nutrition therapy of patients with ESRD? (A) Sodium; (B) Phosphorus; (C) Calcium; (D) Potassium.
11. What symptoms are likely to occur in the person with a perceived intolerance to monosodium glutamate? (A) Decreased heart rate, constipation, and hives; (B) Anaphylaxis, toxic shock syndrome, and headache; (C) Steatorrhea, edema, proteinuria, and nausea; (D) Headache, flushing, abdominal pain, and nausea.
12. Infants with a genetic predisposition to atopic disease have an increased probability of developing food allergies. Which of the following may help reduce the likelihood of the infant developing food allergies? (A) Provide only breast milk and cereal for the first 6 months. (B) Provide cereal between breast milk feedings. (C) Provide diluted cereal and formula for the first 6 months. (D) Provide only breast milk to the infant for the first 6 months.
13. What is the major difference between gastric and duodenal ulcers? (A) Gastric ulcers can develop with low acid output, and duodenal ulcers develop with high acid secretions. (B) Gastric ulcers develop with high acid secretion, and duodenal ulcers develop with low acid output. (C) *H. pylori* is the primary cause of gastric ulcers. (D) Gastric ulcers are treated with proton pump inhibitors, and duodenal ulcers are treated with H₂-receptor antagonists.
14. Which of the following dietary modifications minimize the problems associated with a gastrectomy with a vagotomy? (A) Increasing carbohydrate intake, particularly simple sugars, and decreasing fat and protein; (B) Decreasing intake of liquids and simple sugars with meals; (C) Reducing the intake of fiber from fruits and vegetables; (D) Increasing the intake of milk at mealtimes and between meals.

※ 注意：1. 考生須在「彌封答案卷」上作答。

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15. When an H₂ blocker is used in the treatment of peptic ulcer disease, the patient may be at risk for deficiency of which nutrient? (A) Vitamin A; (B) Vitamin B₆; (C) Vitamin B₁₂; (D) Vitamin D.
16. Which of the following statements is **TRUE** regarding medium-chain triglycerides (MCTs)? (A) MCTs are rapidly hydrolyzed and absorbed in the absence of bile acids. (B) MCTs require pancreatic lipase for digestion. (C) MCTs must be administered intravenously in PN. (D) MCTs are contraindicated in steatorrhea and other malabsorptive conditions.
17. Which of the following may have a role in supporting tight junctions between the intraepithelial cells in the gut? (A) Parenteral nutrition; (B) Enteral feedings; (C) Gut rest; (D) positive nitrogen balance.
18. Which of the following patients with small bowel resection is the **LEAST** likely to need long-term parenteral nutrition? (A) 60-year-old woman with an almost total ileal resection; (B) 50-year-old woman with the ileocecal valve removed; (C) 40-year-old man with a jejunal resection; (D) 30-year-old woman who had radiation enteritis before resection.
19. A deficiency of which nutrient is associated with Wernicke's encephalopathy? (A) Copper; (B) Essential fatty acid; (C) Tryptophan; (D) Thiamin.
20. Which of the following, when eaten by a patient with cholecystitis, may cause pain? (A) High-protein foods; (B) High-fat foods; (C) Complex carbohydrates; (D) Simple carbohydrates.
21. Enteral nutrition is preferred over parenteral nutrition when treating patients with severe, acute pancreatitis because: (A) Enteral nutrition is more expensive. (B) Enteral nutrition can prevent pseudocysts from developing. (C) Failure to use the gastrointestinal tract exacerbates the stress response. (D) It is not the preferred route of nutrition.
22. If a patient with type 2 DM receives a nutrition prescription for a 2000-kcal diet, which of the following should be used? (A) 50% carbohydrate, 20% protein, 30% fat; (B) 40% carbohydrate, 30% protein, 30% fat; (C) 20% carbohydrate, 40% protein, 40% fat; (D) A macronutrient distribution individualized based on the patient's metabolic profile.
23. Increased serum aromatic amino acids and decreased serum branched-chain amino acids is associated with (A) sclerosing cholangitis. (B) acute pancreatitis. (C) hepatic encephalopathy. (D) cholecystitis.
24. Which of the following is **NOT** a microvascular disease associated with hyperglycemic patients? (A) Retinopathy; (B) Neuropathy; (C) Nephropathy; (D) Peripheral vascular disease.
25. Which of the following would **NOT** result in postprandial (reactive) hypoglycemia? (A) Rapid glucose absorption; (B) Excessive insulin secretion; (C) Insufficient glucagon secretion; (D) Excessive hepatic gluconeogenesis.
26. Which of the following statements about glycemic index (GI) is **TRUE**? (A) Consuming low-GI meals (<70) improves overall glycemic control. (B) Specific carbohydrate foods can have a variable GI. (C) When compared with an equal amount of starch, sucrose promotes a greater glycemic response. (D) The GI of glucose is lower than the GI of white bread.
27. Selenium deficiency, inadequate protein, excess carbohydrates, chronic illness, and stress (high cortisol levels) can all impact what thyroid metabolic process? (A) 5'-deiodinase conversion of T₄ to T₃; (B) Organification of iodide; (C) Thyroid-binding globulin (TBG) T₄ transport; (D) Thyroid-stimulating hormone (TSH) production.
28. Which vitamins are thought to be of particular importance in the prevention and treatment of bronchopulmonary dysplasia? (A) Pyridoxine, niacin, and folate; (B) Vitamins A, C, and E; (C) Folate, B₁₂, and K; (D) Thiamin, riboflavin, and vitamin D.
29. Which of the following is a dietary modification needed for treatment of cystic fibrosis? (A) Increased sodium for infants; (B) Reduction of fat to less than 20% of calories; (C) Increased carbohydrates (D) Additional water-soluble vitamins.
30. Renal adaptations that permit "normal" function eventually fail, causing a progression toward ESRD because of : (A) loss of nephrons. (B) uremia. (C) increases in blood pressure. (D) imbalances between glomerular and tubular functions.

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二、簡答題 (40%):

1. 解釋名詞：(20%，每小題 5 分)
 - (1) Blind loop syndrome
 - (2) Ranson's criteria
 - (3) Cushing's syndrome
 - (4) Restless legs syndrome
2. 請問肺臟疾病患者營養需求與正常人有何不同? 患者的營養照護為何? (10%)
3. 配合題：請選出最適當的疾病及症狀描述。(10%)
 - (1) Crohn's disease
 - (2) Graft-versus-host disease
 - (3) Kaposi's sarcoma
 - (4) Nephritic syndrome
 - (5) Nephrotic syndrome
 - (6) Neutropenia
 - (7) Osteoarthritis
 - (8) Renal tubular acidosis
 - (9) Sjögren's syndrome
 - (10) Systemic lupus erythematosus

疾病及症狀描述

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| (A) A bacterial condition of the kidney. |
| (B) A bone disease mostly affects the weight-bearing joints of the body, reduction of excessive weight places less stress on these joints. |
| (C) A chronic, systemic sclerosis or hardening of the skin and visceral organs characterized by deposition of fibrous connective tissue |
| (D) A complication of SIRS and generally begins with lung failure. The lung failure is followed by failure, in no particular order, of the liver, intestines, and kidneys. |
| (E) A condition of inflammation of the glomerulus, resulting in the loss of blood into the urine. |
| (F) A decrease in white blood cells that could increase the patient's risk of developing infections. |
| (G) A gastrointestinal disease with continuous distribution of the disease throughout the GI tract, which has clinical features of diarrhea, food intolerance, and dehydration. |
| (H) A genetic predisposition for the overproduction of type I interferon and other cytotoxic cells that can affect all organ systems. It involves inflammation, resulting in extreme fatigue, arthritis, unexplained fever, skin rashes, and kidney problems. |
| (I) A major complication seen after allogeneic transplants, in which the donated stem cells react against the tissues of the transplant recipient. |
| (J) A malignant disease that appears as purple lesions on the skin, mucous membranes, and lymph nodes. |
| (K) An autoimmune disorder that affects tear and salivary glands. These tissues are attacked by the immune system, and destruction of the glands leads to decreased production of tears and saliva. |
| (L) Characterized by the loss of the glomerular barrier to protein, resulting in hypoalbuminemia. |
| (M) Involve a defect in the ability of either the proximal or distal tubule's ability to handle bicarbonate. |

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