Chapter 1 – Linking Food, Function & Health KEY

Read Chapter 1 Page 3-13

Define the following terms:

1. **Food:** The plants and animals we eat for energy.
2. **Nutrition:** The science that studies food and how food nourishes the body and influences health.
3. **Chronic Diseases:** Diseases that come on slowly and can persist for years.
4. **Wellness:** Multidimensional lifelong process of physical, emotional, social, occupational, and spiritual health.
5. **Nutrients**: Chemicals found in foods that are critical to human growth and function.
6. **Organic**: Foods grown with little or no synthetic chemicals
7. **Macronutrients:** Nutrients that the body needs in relatively large amounts.
8. **Define micronutrients**: Nutrients needed in small amounts to support normal health and body function.
9. **Define metabolism:** The process of macronutrients being broken down into smaller chemicals.

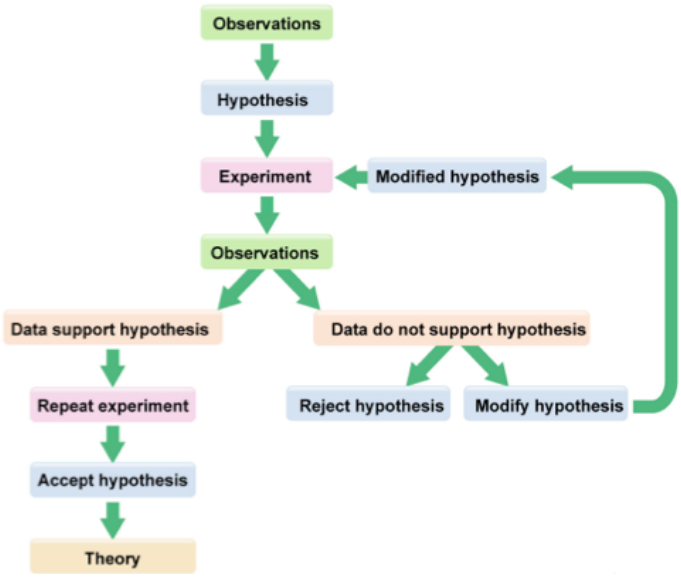
Answer the following questions:

1. **List the 5 types of health that contribute to wellness:** Physical, emotional, social, occupational, and spiritual health
2. **What are the top 4 leading causes of death?** Cancerous Tumours, Diseases of the Heart, Accidents, Cerebrovascular Disease
3. **List the 6 groups of essential nutrients including an example:** Carbs, fats/oils, proteins, vitamins, minerals, water
4. **Macronutrients – what are they? Provide 3 examples.** Nutrients that the body needs in relatively large amounts. Carbs, fats, proteins.
5. **What is used to measure food energy?** Kilocalories (kcal)
6. **What is the difference between a Kcal and a Cal as found on food labels?** There are the same. 1 Kcal = 1 Cal (food calorie)
7. **What is the main function of carbohydrates?** Fuel source.
8. **List 5 common examples of foods rich in carbs.** Rice, wheat, grains, veggies, fruits, all sweets, all breads, pasta etc.
9. **Why are fats important?** They are important energy sources when we are at rest or do low-intensity exercise AND they are the only energy source we can store on our bodies in large amounts.
10. **List 3 common examples of dietary fat.** Butter, lard, margarine, various oils
11. **What are the 4 main functions of proteins?** Building new cells and tissue, maintaining bone structure and strength, repairing damage, regulating the breakdown of food and fluid balance
12. **What are the building blocks of proteins?** Amino acids
13. **Which foods are high in protein?** Meat, dairy, seeds, nuts, legumes
14. **Define vitamins.** Organic compounds that assist us in regulating our bodies processes.
15. **List 6 common vitamins.** A, B, C, D, E, K
16. **What is the function of minerals?** Assist in fluid regulation and energy production, essential for healthy bones and blood, and help rid our body of harmful by-products of metabolism.
17. **List 6 major minerals that your body requires.** Calcium, phosphorus, sodium, potassium, chloride, magnesium, sulfur
18. **Besides drinking pure water, list 5 other ways we can intake water.** Juice, soup, other liquids, fruits, veggies.
19. **List 6 reasons water is so important to us.** Maintain fluid balance in and out of cells, nerve impulses, body temperature, muscle contractions, nutrient transport, and excretion of waste.

Read Page 17-26

Answer the following questions:

20. **Draw the scientific method flow chart into your notes.** (Page 18 text)



21. **Explain the 3 key elements to a good scientific study.** Sample size, control group, control of variables
22. **Why must experiments be repeatable?** To allow supporters and skeptics to repeat and arrive at similar conclusions or the hypothesis will become invalid.
23. **What does single and double blind refer to?**
    Single blind – the participants are not aware if they are receiving treatment or if they are in control group
    Double blind – neither researchers nor participants are aware of which group really get the treatment.
24. **What is the placebo effect?**
    A beneficial effect, produced by a placebo drug or treatment that cannot be attributed to the properties of the placebo itself, and must therefore be due to the patient's belief in that treatment.
25. **List the 5 professionals we can obtain reputable nutritional information from.** Registered dietitian, licenced dietitian, nutritionist, professional with advanced degrees in nutrition, physicians
26. **Do the "You do the Math" on Page 11.**

Carbohydrates: 4 kcal/g (45-60% of energy intake)

Proteins: 4 kcal/g (10-35% of energy intake)

Fats: 9 kcal/g (20-35% of energy intake)

Percentage of the total energy consumed from protein:

- (123 g protein)(4 kcal/g) = 492 kcal of protein consumed
- 492 kcal/2500 kcal = 19.68% of total energy comes from protein