

Exam #1 Review – HECO 1322

Chapter 1:

- Review the things that could possibly influence an individual's food choices (ex. - preferences, habit, etc)—know examples of each, etc.
- Review the nutrients: essential, which are organic, energy-yielding.
 - Know the amount of kcalories provided per gram for each of the three energy-yielding nutrients.
 - Know how to calculate the energy (kcal) a food provides.
- Review the nutrition standards and guidelines (RDA, AI, UL, EAR, diet planning principles, food group plans, etc.)
- Understand nutrient density (what does this mean, examples of foods more nutrient dense than others: ex. - soda or grapes)
- Understand what energy-yielding nutrient becomes important as a major fuel for the body when other nutrients are not available.
- Review food labels and the requirements for labels (daily values, what foods are exempt from labeling, etc.)
- Review and know the difference between the nutrition professionals in the *Nutrition in Practice* section of this chapter.

Chapter 3:

- Understand that carbohydrates are the preferred energy source for the body—brain depends on it exclusively.
- Review the difference between simple and complex carbohydrates (know examples of each)
- Review mono- and disaccharides: know the three monosaccharides and the three disaccharides (which monosaccharides make up each disaccharide), common names for sugars (i.e., sucrose="table sugar", "beet sugar", "cane sugar"), examples of sugars in foods (i.e., lactose is found in milk).
- Review polysaccharides: Know examples of types of fiber, soluble vs. insoluble fibers, examples of foods containing starch (i.e., plant foods, rice, wheat, corn, millet, rye, etc.)
- Understand that starch is the stored form of carbohydrate in plants, and glycogen is the stored form of carbohydrates in the human body.
- Review the health effects of sugar discussed in class (sugar and obesity, etc.)
- Understand how to calculate the percent of total kilocalories from carbohydrates with a given amount of total kcalories and grams of carbohydrates consumed (ex. -if you consume 2000 kcalories per day and eat 250 grams of carbohydrates, what percent of total kcalories came from carbohydrate?)
- Review sugar and dental caries.
- Review the different alternative sweeteners.

- Know food sources for carbohydrates (ex. -starch, vegetables, fruits, milk)
- Know the recommendations for carbohydrates consumption (ex. -should contribute to 45-65% of total kcalories).

Chapter 4:

- Review the three classes of lipids & know the difference between the three.
 - Know the chemical structure of triglycerides.
- Understand that triglycerides are the predominate fat in the diet and the body.
- Review Linoleic (Omega-6) & Linolenic (Omega-3) amino acids & know the examples of each.
- Know the current dietary recommendations listed for fat.
- Know the functions of fat in the body (the main function being to provide energy).
- Understand that meats and other protein-rich foods may sometimes actually contain more fat than protein.
- Know the difference in the chemical structure of saturated fatty acids and unsaturated fatty acids (both mono- & polyunsaturated).
- Understand that saturated fat is the most influential dietary factor thought to raise blood cholesterol levels.
- Understand the process of hydrogenation & what this does to fats (ex.- makes them more solid and prolongs shelf life).
- Understand the health risks associated with excess dietary fat intake.
- Understand that dietary sources of omega-3 fatty acids (such as fish) are absorbed better in the body as compared to omega-3 supplements.
- Understand that saturated fatty acids tend to raise blood cholesterol and unsaturated fatty acids tend to lower blood cholesterol levels.
- Understand that *trans*-fatty acids have negative health effects much like saturated fatty acids.
- Review Olestra and the undesirable effects it can have in the body (inhibits the absorption of fat-soluble vitamins, diarrhea, abdominal cramping).
- Know what fats contribute to foods (taste and aroma, etc.)
- Review the hidden fats mentioned in your book & PowerPoint notes.

Chapter 5:

- Know how proteins differ from the other energy-yielding nutrients.
- Understand that proteins are made up of 20 amino acids.
- Understand that the primary function of protein is to build, maintain, and repair the body.
- Understand that there are 9 essential amino acids.
- Understand the difference between positive and negative nitrogen balance.
 - Know examples of each.
- Know that the RDA for protein is 0.8 grams/kilogram of body weight.
 - Know how to calculate the amount of protein individuals should have given their weight.
- Review kwashiorkor & marasmus and know symptoms of each.
- Review the functions of antibodies, hormones, and enzymes.
- Know examples of protein (including high-quality/complete proteins).
- Know the risks associated with overconsumption of protein.
- Understand that although PEM occurs in underdeveloped nations it also occurs here in the U.S.
- Know the different types of vegetarianism & review vegetarian diets (*Nutrition in Practice*).

****Be sure to study all notes as well as chapters in book.**

****Just because it is not on this review, does NOT mean it will not be on the exam!**