

Williams Nutrition for Health Fitness and Sport 12th edition
Rawson Solutions Manual

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Chapter 2

LEARNING OUTCOMES

After studying this chapter, you should be able to:

1. List the six major classes of nutrients that are essential for human nutrition and identify specific nutrients within each class.
2. Explain the development of the DRIs and explain the meaning of their various components, including the RDA, AI, AMDR, UL, EAR, and EER.
3. Discuss the concept of a balanced diet and the basic components and recommendations of the MyPlate food guide.
4. Explain the key recommendations of the 2015–2020 Dietary Guidelines for Americans, including recommendations for saturated fat, added sugars, and sodium intake.
5. Describe key principles of healthy eating and provide examples for how food might be selected or prepared in order to adhere to these guidelines.
6. Describe the various classes of vegetarians, what foods may be consumed in vegetarian diets, and the potential health benefits of following a vegetarian diet.
7. List the nutrients that must be included on a nutrition facts panel and explain how reading food labels may help one consume a healthier diet.
8. Identify the various types of dietary supplements and discuss, in general, the potential benefits and risks associated with taking dietary supplements.
9. Provide practical recommendations to athletes in relation to optimal nutrition for training and competition to maximize sports performance.

KEY TERMS

Acceptable Macronutrient Distribution Range (AMDR)	Estimated Energy Requirement (EER)	nutrient density
Adequate Intake (AI)	Exchange System	Nutrition Facts panel
chronic training effect	functional foods	nutritional labeling
complementary proteins	health claims	ovolactovegetarians
Daily Value (DV)	key-nutrient concept	ovovegetarians
dietary guidance systems	lactovegetarians	pescovegetarians
Dietary Reference Intakes (DRIs)	liquid meals	phytonutrients
dietary supplement	macronutrient	Recommended Dietary Allowance (RDA)
empty kcal	micronutrient	semivegetarians
essential nutrients	MyPlate	sports bars
Estimated Average Requirement (EAR)	nonessential nutrient	Tolerable Upper Intake Level (UL)
	nutraceuticals	vegan
	nutrient content claims	

APPLICATION EXERCISE

Karl is a 21-year-old student-athlete who competes with his university's dive team. He has been diving since childhood and has always been competitive but recently was asked to compete in an international meet that will require him to travel out of the country for three weeks.

Overall, Karl has a fairly decent diet, but he would like to be in top shape for the international competition next month. When training with his college team, Karl mostly relies on food served at the dining hall, but he does have an apartment where he can store food and prepare meals.

Your Turn:

1. Provide Karl with two precompetition meal suggestions.
2. List at least five snacks Karl can carry with him to eat before training.
3. What suggestions do you have for Karl as he prepares for his international travels and competition? What should he consider when making food and beverage choices abroad?