

# Sports Nutrition

## Curriculum Overview

### Designed for:

- High school students
- Post-secondary students in health occupations courses
- Certified Athletic Trainer courses

### Length:

The activities in this curriculum will last approximately 11-14 hours. With supplemental materials, this curriculum can be adapted to a longer block of time.

### Goal:

To help participants learn the basic principles of nutrition as it relates to the sports medicine field.

### Synopsis:

This curriculum will help participants understand the four macronutrients - protein, carbohydrates, fat, and water, as well as their healthy ranges and how to build a balanced meal. It will cover meal timing, including pre-workout nutrition, fueling mid-workout, and post-workout nutrition as well as hydration and electrolyte balance. Participants will be introduced to body composition, weight, and anthropometric measurements. They will learn about the nutrition facts label, its uses, and its implications for athletes of various sports. Additionally, lessons will cover wafe methods for weight gain and loss, commonly used supplements, and issues with substance abuse in athletics.

### Curriculum Components:

- Teacher's guide – Complete lesson, including detailed steps of activities, time and materials needed, student handouts and instructor information to teach the lesson
- Assessment tools
- PowerPoint presentation slides

### Learning Objectives:

#### Lesson One – Nutrients

- Define “diet”
- Identify key characteristics of the four macronutrients
- Create a balanced meal plan and adjust meal plan based on a variety of eating patterns
- Calculate macronutrient ratios
- Determine if macronutrient blend follows AMDR Guidelines

#### Lesson Two – Nutrition to Enhance Performance

- Explain the importance of macronutrient timing in relation to exercise
- Recall adequate intake levels for hydration in adult males and females
- Identify protocol for rehydration and electrolyte repletion during and after exercise
- Compare nutrition facts for their energy bar or sports beverage of choice to recommended guidelines
- Visualize sugar content of popular sports drinks
- Design a game-day fueling plan for their sport of choice

#### Lesson Three – Body Composition and Weight

- Differentiate between body weight and body composition along with the factors that influence them
- Identify methods to calculate percent body fat and issues associated with each
- Practice taking midpoint, circumference, and skinfold measurements
- Predict fitness characteristics from anthropometric measurements

#### Lesson Four – Food Labels

- Explain the difference between serving size and portion size
- Understand if a food or beverage is high, moderate, or low in a certain nutrient based on the percent daily value
- Choose the best option provided two or more food or drink choices for athletes involved in different sports
- Create a Food Label Guide for Athletes of their chosen sport

#### Lesson Five – Safe Methods for Weight Loss and Weight Gain

- Identify unsafe methods for weight loss and weight gain, including fad diets and eating disorders
- Describe safe weight loss and weight gain practices for kids, teens, and adults
- Explain the female athlete triad, eating disorders, and compulsive exercise

#### Lesson Six – Supplements

- Define commonly used supplements in athletics
- Distinguish between supplements that are evidence-based vs. supplements that may not be impactful
- Identify food sources of supplements
- Explain how supplements are regulated and third-party certified

#### Lesson Seven – Substance Abuse

- Define doping and the WADA
- Determine which substances are always prohibited, prohibited in-competition, and prohibited in particular sports by the WADA
- Explain the consequences of doping