

Activity: Develop a Sports Nutrition Plan for an Endurance or Team Sport Athlete

Introduction

Developing a specific sports nutrition plan for an athlete is more than just plugging numbers into a calculator and giving a value. As a practitioner you must account for the demands of the athlete's sport, the athlete's personal goals, the season of training the athlete is in, current habits and if they have any specific food preferences or allergies. In this activity you'll think broadly to design and apply a sports nutrition plan to help the athlete achieve their performance-based goals.

Choose either the endurance athlete or team sport athlete and give recommendations for total daily calories and macronutrients and address the following:

1. Calculate before, during and after training recommended macronutrient and calorie. Assume you are developing a plan for them to use during training, as practice for their competition.
2. Suggest foods to meet these calculated needs, considering what you know about the athlete. Why are you making these suggestions?
3. Look at their current food intake (assume it is typical for a training session). Without knowing specific amounts, comment on any immediate changes you notice.
4. Suggest a plan for the athlete to incorporate your suggested changes to their current intakes.
5. BONUS: use an online nutrient calculator to analyze their current intakes and compare to your recommendations.

Endurance Athlete profile

Name: Andrew

Age: 34

Height: 6'1" [185 cm]

Weight: 165 lbs [75 kg]

Body composition: 8% body fat

Sport: Marathon

Sweat rate: ~2.4 L/h at a moderate pace in 70 degree heat with 30% humidity

Athlete notes:

Goal: PR <3h marathon

Runs 3-4 marathons per year

Long Training runs at 7am on Saturdays

Previous issues:

-GI distress after electrolyte tabs

-Fatigue on long runs believed to be related to dehydration

Current Intake

Meal/Exercise + Time	Food Item	Quantity or Duration
6:00am: Pre-run snack	Tap water	4 oz
	Whole-wheat bread	2 slices
	Almond butter	2 tbs
7:00am: 2 hour training run	Water	32 fl oz (16 oz/h)
9:20am: Post-run snack	Almond Milk—Plain	8 fl oz
	Apple with skin	1 medium
12:00pm: Lunch at a deli restaurant	Turkey Club Sandwich with mayo	1 Sandwich
	New England Clam Chowder	Side order
	Iced Tea	20 fl oz

Volleyball Athlete profile

Name: Gina

Age: 21

Height: 5'10" (177.8 cm)

Weight: 145 lbs (65.9 kg)

Body Composition: 17% body fat

Sport: D1 Volleyball – Outside Hitter

Sweat rate: 0.9 L/h during a hard practice in typical gym conditions

Athlete notes:

Off-season, 12 weeks until the season starts

Goal: Add lean mass for more power/explosiveness

Allergies: Peanuts

History of iron deficiency anemia

Menstrual status: Eumenorrhea without contraceptives

Concerns: Becoming too “bulky”

Current Training

HIIT Conditioning or skill work 3x/week

Strength Training 3x/week

Current Intake

Meal/Exercise + Time	Food Item	Quantity or Duration
8:00am Breakfast	Cinnamon Raisin English Muffin	1
	Butter	1 tbs
	Cranberry Juice cocktail	8 fl oz
11am-12pm Strength training with strength coach on campus	Water	8 fl oz
12:30pm Lunch at a Restaurant	BLT Cobb Salad	Half Salad
	Classic Ranch Dressing	1/3 packet
	Diet Pepsi	20 fl oz