

Guide to nutrient timing: The basics

When you eat is just as important as **what** you eat for optimal performance. Fueling with the right types of food and fluids before, during, and after activity can mean the difference between mission success and failure.

	WHAT	WHEN	EXAMPLES
BEFORE YOU WORK OUT	For activity < 1 hour A carb-rich meal or snack of 200–300 calories Avoid high-fat or high-fiber foods for easier digestion	30–60 minutes	<ul style="list-style-type: none"> Bread with jam Cereal and milk Banana or apple with nut butter
	For activity > 1 hour 1–4 g carb/kg (0.5–1.8 g carb/lb) Adjust timing and amount of carbs to match your schedule and activity	1–4 hours	Examples for 185-lb person fueling 1g/kg: <ul style="list-style-type: none"> Medium banana and 2 packets instant apple-cinnamon oatmeal Orange juice and whole-wheat bagel with jelly Waffles with syrup and berries
	Fluid 16 fl oz	2–4 hours	Water
	Caffeine (Optional) 200 mg	30–60 minutes	16 oz coffee, 2 pieces caffeinated gum or mints
WHILE YOU WORK OUT	For activity > 1 hour 30–60 g carbs	Every hour	At least 1–2 options (~25 g carb each) <ul style="list-style-type: none"> 1 sports gel 3 sport chews 20 mini-pretzels ¼ cup raisins 18 gummy bears 25 jelly beans 2 squeezable fruit pouches 16 oz sports drink
	For activity > 3 hours Up to 90 g carbs	Every hour	Up to 3.5 options from examples above (~25 g carb each)
	Fluid and Electrolytes 16–32 fl oz; adjust to environment and sweat rate Limit to 48 fl oz per hour Replenish electrolytes with food, sports drinks, or both	Every hour	Water and/or sports drink <ul style="list-style-type: none"> 16 fl oz water bottle ½ 1-qt canteen 100 oz hydration pack (finish in 4–5 hours)
	Caffeine (Optional) 200 mg	Every 3–4 hours as needed	16 oz coffee, or 2 pieces caffeinated gum or mints ⚠ Don't exceed 600 mg in 24 hours or 800 mg for sustained operations
AFTER YOU WORK OUT	Meal or snack High in carbs (at least 50 g) with 15–30 g protein Include salty foods	Within 2 hours	<ul style="list-style-type: none"> Turkey and cheddar cheese on whole-wheat bread with an apple Peanut butter and jelly on whole-wheat bread with chocolate milk Low-fat Greek yogurt with trail mix and fruit
	Fluid 16 oz for every lb lost during exercise or until urine is pale yellow	Begin immediately after workout	Water and/or sports drink