

# Optimizing Nutrition for Recovery & Performance

Kristen Chang, MS, RDN - Real Food For Fuel, LLC



## Healthy Eating with a Purpose

**Purpose:** With endurance training the main goal is to provide calories for daily living and those expended through physical activity, as well as replenish glycogen stores and promote lean muscle repair. Focusing on eating often as well as what you consume pre-exercise, during and post-exercise is key to training and performing at an optimal level.

### General Guidelines

- In order to keep your body's gas tank full and maintain a high level of energy, eating every 3-4 hours will prevent your body from using muscle (protein) for energy and instead, burn fat. Additional benefits include maintaining a healthy blood sugar, prevention of overeating, and maintaining lean muscle-mass. Have a plan by bringing healthy snacks to school to eat between meals, after practice, or lifting.
- Athletes should focus on eating carbohydrate rich meals paired with lean protein, fruits and vegetables.
- Complex carbohydrates include starchy vegetables, whole wheat bread, oatmeal, wheat pasta, brown rice, quinoa, potatoes & sweet potatoes.
- Lean proteins include chicken, turkey, fish, low-fat dairy, eggs, beans, whey or soy protein powder, edamame or tofu.
- Healthy fats include peanut butter, nuts, seeds, avocado, olive oil, salmon or tuna.
- Hydration should be adequate so that urine is pale yellow or "straw" color throughout the day.
- Fresh Produce (Fruits and Vegetables) – Aim to consume 6-10 servings per day from whole foods.

### Recommended Foods: Pre-Workout

- Purpose: To prepare the body for performance by topping off muscle glycogen stores and providing adequate hydration.
- What to eat: whole grain carbohydrates + lean protein; low in fiber and fat.
- What to drink: At least 16-20oz of fluid or sports drink
- When to snack: 1-2 hours pre-exercise, have a high carbohydrate snack including protein + 5-10oz of additional fluids.
- Avoid: Carbonated beverages, caffeinated or sugar-sweetened beverages (unless a sports drink), high fat foods (creamy sauces, fatty meats, fried or buttery foods), desserts, high-fiber grains or veggies.

## Recommended Guidelines: During Workouts

- Purpose: To provide adequate muscle fuel and hydration during extended exercise efforts of greater than 45-60 minutes.
- Timing: Consume 30-60g carbohydrate/ hour; take a few bites every 15-20 minutes.
- What to eat: simple sugar carbohydrate such as sports drinks, gel, blocks and beans, or f
- What to drink: Hydration will depend on individual sweat rate and conditions
- Average 5-10oz fluid every 10-15 minutes
  - In hot conditions or for extended efforts, replace electrolytes lost with sports drinks or foods high in sodium/potassium.
- AVOID: Foods high in fiber, protein, fat and carbonated beverages as these are not optimally digested during exertion.

## Recommended Guidelines: Post-Workout

- Purpose: To replenish muscle glycogen stores, fluids and electrolytes; to provide protein promoting muscle repair and new tissue development.
- Timing: Eat a snack with carbohydrate and protein within 30-60 minutes of exercise completion. Follow-up with a meal within 2 hours of exercise completion.
- What to eat: Snacks should include a combination of simple carbohydrates and lean protein.
- Post-run meal should consist of whole grain carbohydrate, lean protein and healthy fats.
- What to drink: Drink 16-24 oz of water or sports drink for every pound of weight loss.
- AVOID: Foods high in fat and carbonated beverages.

## Performance Hydration

- Performance hydration is a balance of consuming enough fluids to be well hydrated, yet not so much that you feel bloated, sluggish or develop cramps.
- Goals of performance hydration include: delaying fatigue and maintaining mental focus, optimizing your body's ability to regulate core temperature and keep cool, satisfying thirst and replenishing losses from sweat and improving your ability to recover quickly post- training and competition.
- Begin exercise well hydrated. Start 2-3 days before a meet, not the day or afternoon of.
- For intense or extended efforts, combine carbohydrate with fluid in the form of a sports drink.
- For events lasting >60 minutes, optimize hydration efforts by supplementing with snacks containing salt or sodium.

**Do NOT try something new on race day. Save the experiments for your workouts.  
Stick with foods you know you can tolerate!**

