

# PRE-WORKOUT NUTRITION

- Eat a combination of foods high in carbs and moderate in protein.
- Focus on foods low in fat and fiber.
- Length and intensity of workouts matter.
- 6 a.m. workout? Fuel well the night before and eat something small in the morning.
- Experiment in practices to figure out what works best.

## 3-4 HOURS BEFORE EXERCISE



- Turkey and Swiss sandwich, apple and low-fat chocolate milk
- Peanut butter and jelly sandwich with banana slices and low-fat milk
- Low-fat Greek yogurt with berries and small salad with chicken
- Always remember to hydrate with at least 16-20 oz. of fluid

## 30-60 MINUTES BEFORE EXERCISE



- Sports drink
- Fruit, apple sauce, or fruit snacks
- Small granola bar, pretzels, or graham crackers



For advice on customizing a nutrition plan, consult a sports dietitian.

# FUELING DURING EXERCISE

- Stay well-fueled during workouts with the right mix and timing of **carbohydrates, fluids** and **electrolytes** to replace what's lost during exercise.
- Take small, frequent bites during exercise and always with fluids.
- Experiment with new foods and drinks during training to find what works best for competition.



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EXERCISE TIME



TYPE OF EXERCISE



HOW TO FUEL

## BRIEF EXERCISE

<45  
MINUTES

- Batting practice
- Shoot around (basketball)
- Lifting

Focus on water for hydration



## SUSTAINED HIGH-ENERGY EXERCISE

45-75  
MINUTES

- Cross country workout
- Stop-and-start sports (soccer, football, field hockey)

Small amounts of carbs throughout activity (i.e., 2-3 gulps of sports fluid or 1/2 serving of applesauce every 15-20 min.)



## ENDURANCE EXERCISE

1-2.5  
HOURS

- Long distance cross country race
- Stop-and-start sports (soccer, football, field hockey)
- Rowing workouts

30-60 g carbs/hour (i.e., 1-2 handfuls of raisins or 1-2 med banana)



# FUELING FOR RECOVERY

**REFUEL** muscles with carbohydrates (body weight/2 = grams of carbs).

**REPAIR** and rebuild muscles with 20-30 grams of high-quality protein.

**REHYDRATE** with fluids and electrolytes lost during working out.

## FUELING STATION: 15-60 MIN. AFTER TRAINING



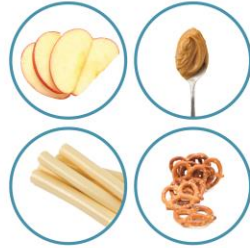
**Chocolate Milk and Almond Refuel**  
20g Protein • 53g Carbs

1 ½ cups low-fat chocolate milk  
1/4 cup almonds



**Blueberry Yogurt Parfait**  
22g Protein • 41g Carbs

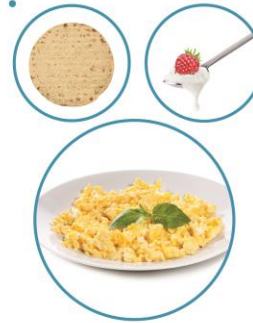
6 oz. Greek yogurt topped with:  
1/4 cup granola  
1 cup blueberries



**Snack Extravaganza**  
20g Protein • 70g Carbs

1 string cheese  
1 cup apple slices  
1/4 cup pretzels  
2 tbsp. peanut butter

## TRAINING TABLE MEAL: 3-4 HOURS AFTER TRAINING



**Egg Wrap with Yogurt Parfait**  
28g Protein • 40g Carbs

2 scrambled eggs with 1/4 cup Cheddar cheese  
1 whole wheat tortilla  
1/2 cup plain yogurt with 1 cup raspberries



**Fuel Up Stir Fry**  
33g Protein • 59g Carbs

3 oz. chicken breast with 1/8 cup teriyaki sauce  
1 cup brown rice  
1 ½ cups stir fry vegetables



**Chicken Fiesta Bowl**  
40g Protein • 68g Carbs

1 cup brown rice topped with:  
1/2 cup black beans  
3 oz. chicken breast  
1/8 cup salsa  
1/2 cup lettuce  
1/8 cup shredded Mexican blend cheese



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- ▶ For 2-a-day workouts, this recovery window is even more important.
- ▶ If you have a low appetite after exercising, a liquid food option may be the best place to start.
- ▶ Within two hours of working out drink 16-24 oz. of fluid for every pound lost during exercise.



# BUILD A PERFORMANCE-ENHANCING PLATE

Properly fueling can provide an edge over other athletes who don't focus on their nutrition.

- ▶ Calorie and nutrient needs vary depending upon intensity and phase of training.
- ▶ This plate represents a hard training day. On light training days, substitute 1/4 plate of whole grains with 1/4 plate of fruits and vegetables.

## WHOLE GRAINS



Carbohydrates fuel muscles and are the quickest source of **energy** for athletes.

## HEALTHY FATS



Moderate amounts of healthy fats provide a concentrated **energy** source and **essential fatty acids**.

[nuts, seeds, oil and fatty fish]

## FLUIDS



Stay **hydrated** by drinking fluids at mealtime and throughout the day.

[milk, water, 100% fruit juice]

## LEAN PROTEIN



Protein foods are essential for **building/repairing muscle** and helping to support immune function.

## FRUITS & VEGGIES



Many fruits and vegetables provide **nutrients** that have been linked to **reduced oxidative damage** from hard training.



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# POWER PERFORMANCE WITH PROTEIN

Athletes require more protein than the average person. High-quality protein not only provides energy, it is an essential part of a training diet supporting:

- Strong muscles, bones, ligaments, and tendons
- Muscle recovery
- Moving oxygen to muscles
- Metabolism of other nutrients
- Healthy immune function

**Suggested Range: 0.5-0.8 grams of protein/pound body weight/day.**



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- Aim for 20-30 grams of high-quality protein at each meal and after workouts.
- Include foods like milk, yogurt, eggs, cheese and lean meats.
- Remember that not all proteins are created equal.
- Choose sources higher in leucine-which helps to build and repair muscle. Some experts recommend aiming for ~2.5 grams/meal.



1 can white tuna

= **41g** protein  
**3.3g** leucine



3 oz. chicken breast

= **25g** protein  
**1.8g** leucine



1 scoop (28 g)  
whey protein isolate

= **24g** protein  
**2.5g** leucine



3 large eggs

= **19g** protein  
**1.5g** leucine



1 single-serving  
Greek yogurt

= **15g** protein  
**1.5g** leucine



8 oz. chocolate  
milk

= **8g** protein  
**0.8g** leucine

# HYDRATE EARLY AND OFTEN

**Dehydration can negatively impact performance and cause early fatigue.** Follow these tips to stay hydrated and replenish fluids and electrolytes lost from sweat:

- Focus on fluid intake all day, every day, not just around workouts.
- Always carry a water bottle.
- Weigh yourself before and after exercise to know how much fluid to replace.
- Track hydration by checking urine color - the lighter the better hydrated.



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## BEFORE EXERCISE

- Begin exercise well-hydrated
- Drink 16-20 oz. of water or sports beverage at least four hours before exercise
- Drink 8-12 oz. of water 10-15 min. before exercise

## DURING EXERCISE

- Drink water or sports beverage every 15-20 min. during exercise
  - 3-8 oz. of water (2-3 large gulps) for exercise <60 min.
  - 3-8 oz. of sports beverage for exercise >60 min.

## AFTER EXERCISE

- Rehydrate
- 16-24 oz. of fluid for every pound lost within 2 hours of exercise
  - ▶ Chocolate milk is a great option to help rehydrate and refuel after a workout



# STRONG BONES HELP STRONG PERFORMANCE

- Stress fractures make up ~15% of athletic injuries. Strengthen bones with a calcium, vitamin D, and protein-rich diet.

## Snack Ideas

- Cheese cubes with grapes and almonds
- Greek yogurt with trail mix topping

## Meal Ideas

- Chicken/shrimp stir-fry with mushrooms, broccoli, and sesame seeds
- Spinach and egg omelet with cheese



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## CALCIUM

## VITAMIN D

## HIGH-QUALITY PROTEIN

SPORTS  
DIETITIANS  
RECOMMEND

1,000 TO  
**1,300**  
mg/day

1,500 TO  
**2,000\***  
IU/day  
(RDA= 600 IU/day)

20 TO  
**30**  
g/meal\*\*

FOOD  
SOURCES



1 cup  
broccoli  
**43 mg**



1 can of  
white tuna  
**140 IU**



Single-serve  
Greek yogurt  
**~13 g**



1 serving of  
dairy foods  
(milk, cheese, yogurt)  
**~300  
mg**



1 cup  
of milk  
**120 IU**



3 oz. chicken  
breast  
**21 g**

*\*\*To support building/rebuilding of muscle*

# FUELING ESSENTIALS FOR THE LACTOSE INTOLERANT ATHLETE

- Lactose intolerance is a sensitivity to lactose, the sugar found in milk and other dairy foods.
- Lactose intolerance is an individual condition and there are tips to help people find how much lactose they can tolerate at one time.
- Before eliminating dairy, be properly tested for lactose intolerance by a doctor, as many other conditions can result in similar symptoms.



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Dairy foods like milk, cheese and yogurt are nutrient-rich and a source of high-quality protein that can be beneficial to athletes. Use these tips to find which dairy options work best to help keep dairy in the diet.

## TRY IT

Opt for lactose-free cow's milk products



## SIP IT

Start small and introduce dairy slowly



## STIR IT

Mix milk with other foods to help slow lactose digestion



## SLICE IT

Choose natural cheeses (e.g. Cheddar, Swiss)



## SHRED IT

Add natural cheeses to foods (e.g. Parmesan, mozzarella)



## SPOON IT

Yogurt's live and active cultures help digest lactose

