

Sports Nutrition



The main supply of quick energy during endurance exercise comes from carbohydrate. This comes in the form of blood glucose (sugar) and liver and muscle glycogen (storage form of carbohydrate in the body). When you exercise at a high intensity for greater than 90 minutes, you usually feel very tired because you have depleted this quick form of energy and the fat and protein stored in your body cannot be used fast enough for energy. This may result in one feeling exhausted, light-headed, dizzy, headaches, confusion, mood swings and muscle cramps.



What Should I Eat and Drink Before, During and After Exercise?



Timing of Exercise	When	Food	Why
Before exercise	2-3 hours before	Drink fluids, eat well balanced meals with carbohydrate (grain, fruits, vegetables) with a low fat protein choice (chicken, beans, peanut butter or	<ul style="list-style-type: none"> • Boosts energy levels • Prevents hunger • Keeps you hydrated

Timing of Exercise	When	Food	Why
During Exercise	Every 15-20 minutes during exercise	hummus Great choices: <ul style="list-style-type: none"> • Water(preferred over sports drinks) • Soda crackers • Pretzels • Granola/cereal bars • 30-60g carbohydrate per hour of exercise 	<ul style="list-style-type: none"> • To replace the fluid you lose in sweat • May improve endurance and performance
After Exercise	Immediately and shortly after exercise	Immediately: <ul style="list-style-type: none"> • Carbohydrate and protein snack such as chocolate milk, smoothie(milk or yogurt, fruit, ice) Afterwards follow up with: <ul style="list-style-type: none"> • A meal with complex carbohydrates and protein such as brown rice, chicken and vegetables, or whole wheat pasta, meat sauce, salad. 	<ul style="list-style-type: none"> • To replace energy losses • Repair muscles • Rehydrate with fluid

Importance of Staying Hydrated During Sports

Adults need to drink 2-3 litres (9-12 cups) of fluid every day for healthy living. If you are active, you need extra fluid to replace the fluid lost through sweating.

Sweating helps our body cool down. If you sweat a lot and do not drink adequate fluids you will get dehydrated. **Symptoms of dehydration: thirst, dizziness, tired, nausea, chills, headache and muscle cramps.** Dehydration may be prevented if you drink before, during and after your exercise.

Guidelines to Prevent Dehydration During Exercise:

Timing	Quantity	Type of Beverage
4 hours or less before exercise	Drink about 1-2 cups of fluid (250-500 mL).	Water is usually your best choice.
2 hours or less before exercise	Drink about ½ - 1 ½ cup (125-375 mL) of fluid if you have not produced any urine or only a small amount of bright yellow urine.	Water is usually your best choice.
During exercise	Keep fluid with you when you exercise. Sip it during your workout. Drink enough to replace water lost through sweat.	Water is usually your best choice. Sports drinks are a good choice when exercising for over 1 hour or in other special circumstances. (see sports drink section)
Immediately after exercise	If you drank enough during your exercise let your thirst guide you over the rest of the day. Eat your regular meals and healthy snacks over the day.	Water continues to be a good choice but you can also include: <ul style="list-style-type: none"> • milk or chocolate milk • 100% fruit juice • sports drinks-(see sports drink section for more details)

Fluids to Avoid during exercise:

- Carbonated soft drinks, regular fruit juices, fruit drinks
- Energy drinks containing a lot of sugar and caffeine
- These fluids may cause stomach upset/cramps and lessen your performance



Sports Drinks:

Sport drinks provide fluid to cool down your body and replace fluid losses and provide carbohydrate for quick energy. They may be a better choice than water when:

- Exercise is intense (soccer, hockey, interval training etc.)
- Activity is longer than 1 hour
- You sweat a lot and notice cakey white salt lines on clothes
- You wear a lot of protective equipment (hockey and football)
- Weather is hot and humid
- Your fluid needs to be quickly replaced(during soccer tournaments or 2-day training session)

