

During-exercise nutrition needs

What you eat or drink during exercise is only important under specific circumstances. But if you are going to eat during exercise, your goals will be similar to those for pre-workout nutrition. Above all, you'll want to maintain hydration.

Goals of nutrition during exercise:

- stay hydrated;
- provide immediate fuel;
- boost performance;
- preserve muscle; and
- improve recovery.

Protein during exercise:

- **Helps prevent muscle breakdown.** This can lead to improved recovery and greater adaptation to training over the longer term. And this is especially true if it has been more than three hours since your last meal. You only need a small amount of protein to control protein breakdown — around 15 grams per hour.
- **Is really only necessary for some people:** athletes doing long, intense training bouts, multiple daily training sessions, and/or people trying to gain significant amounts of mass.

Carbs during exercise:

- **Provides an immediate fuel source.** This helps boost performance and facilitate faster recovery. It keeps our stress hormone cortisol down, and beneficial hormones up.
- **Is only beneficial in certain circumstances:** endurance athletes on long runs, for people who want to gain a lot of muscle, and for highly active people who need every calorie they can get to increase size, strength, and/or performance.

How many carbs should you eat?

That depends. The maximum amount of carbohydrates that can be digested/absorbed during exercise is 60-70 grams per hour.

However, if you include protein in the mix, you can achieve the same endurance benefits with only 30-45 grams of carbohydrate per hour. Note: the protein also protects against muscle breakdown so it's typically a good idea to add some in.

Fats during exercise

Eating a bit of fat before and after exercise can be a great idea. (And tasty, too!)

But you should try to avoid eating fats during exercise. That's because fats can be more difficult to digest. And during training, you don't want to give your stomach more work than it can handle.

During-exercise nutrition in practice

Do you need to eat during your workout?

That depends on how long it's been since your last meal and the length/type of exercise you're planning on.

Exercise lasting less than two hours

For training that's less than two hours long, the main focus should be hydration. This is especially true if you're using good pre- and post-training nutrition. So make sure you bring plenty of water.

But what about sports drinks? They don't offer much benefit for events less than two hours long. Especially if you ate a good pre-exercise meal.

There are some exceptions, though.

1. If you're exercising **in the heat and sweating a lot**, sports drinks may be useful since they have electrolytes that help speed hydration and recovery.
2. Also, if you're going to be **competing or training again in less than eight hours**, sports drinks may jumpstart recovery before the next session.
3. If you're **trying to gain maximum muscle**, then including a protein and carbohydrate drink during training could provide a small advantage.
4. Finally, **at the highest end of sport or competition**, while it may not help, it certainly won't hurt to sip on a sports drink during competition to ensure maximal hydration and energy supply.

Exercise lasting more than two hours

For training that is longer than two hours, sports drinks can be a huge help. Every hour you'll want to consume:

- 15 grams protein
- 30-45 grams carbs

This can come in the form of liquids, gels, or even some solid food.

Many endurance athletes prefer to drink water and eat fruit and other foods to supply their energy even on really long runs. Either approach is fine, as long as you ensure you're getting enough protein, carbohydrates and electrolytes, especially sodium.

If you are exercising intensely for longer than two hours, especially in the heat, do not rely on water alone. This will decrease your performance and your recovery. And it could also lead to hyponatremia, a condition in which the sodium levels in your blood become too low. Hyponatremia causes your muscles and heart to contract erratically, and can even lead to death.

Under these conditions, when you're sweating a lot, go with sports drinks.

Source: Precision Nutrition