

Pre-Exercise Nutrition Needs

What and when you eat **before exercise** can make a big difference to your performance and recovery.

In the three hours before your workout, you'll want to eat something that helps you:

- sustain energy;
- boost performance;
- hydrate;
- preserve muscle mass; and
- speed recovery.

Here are a few ways to ensure you're meeting your requirements.

Eating some protein in the few hours before exercise:

- **Can help you maintain or even increase your muscle size.** That's important for anyone who wants to improve health, body composition, or performance.
- **Can reduce markers of muscle damage** (myoglobin, creatine kinase, and myofibrillar protein degradation). Or at least prevent them from getting worse. (Carbohydrates or a placebo eaten before exercise don't seem to do the same thing.) The less damage to your muscles, the faster you recover, and the better you adapt to your exercise over the long term.
- **Floods your bloodstream with amino acids just when your body needs them most.** This boosts your muscle-building capabilities. So not only are you preventing damage, you're increasing muscle size.

Before you rush off to mix a protein shake: While protein before a workout is a great idea, speed of digestion doesn't seem to matter much. So any protein source, eaten within a few hours of the workout session, will do the trick.

Eating carbs before exercise:

- **Fuels your training and helps with recovery.** It's a popular misconception that you only need carbs if you're engaging in a long (more than two hour) bout of endurance exercise. In reality, carbs can also enhance shorter term (one hour) high-intensity training. So unless you're just going for a quiet stroll, ensuring that you have some carbs in your system will improve high intensity performance.
- **Preserves muscle and liver glycogen.** This tells your brain that you are well fed, and helps increase muscle retention and growth.

- **Stimulates the release of insulin.** When combined with protein, this improves protein synthesis and prevents protein breakdown. Another reason why a mixed meal is a great idea. No sugary carb drinks required.

Fats before exercise:

- **Don't appear to improve nor diminish sport performance.** And they don't seem to fuel performance — that's what carbs are for.
- **Do help to slow digestion,** which maintains blood glucose and insulin levels and keeps you on an even keel.
- **Provide some vitamins and minerals,** and they're important in everyone's diet.

Pre-Exercise Nutrition in Practice

With these things in mind, here are some practical recommendations for the pre-exercise period.

Depending on what suits your individual needs, you can simply have normal meal in the few hours before exercise. Or you can have a smaller meal just before your exercise session. (If you're trying to put on mass, you may even want to do both.)

Option 1: 2-3 hours before exercise

This is far in advance of your workout, have a mixed meal and a low-calorie beverage like water.

If you're a man, here's what your meal might look like:

- 2 palm sized protein dense foods
- 2 thumb sized fat dense foods
- 2 fist sized portions of vegetables
- 2 cupped handfuls of carb dense foods

If you're a woman, here's what your meal might look like.

- 1 palm size of protein dense foods
- 1 thumb size of fat dense foods
- 1 fist size of vegetables

-1 cupped handful of carb dense foods

Note: Your actual needs will vary depending on your size, goals, genetics, and the duration and intensity of your activity.

For example, an endurance athlete preparing for a 20 mile run will need more carbs than someone getting ready for a 45 minute gym session.

Option 2: 0-60 minutes before training

Rather than eating a larger meal 2-3 hours before exercise, some people like to eat a smaller meal closer to the session.

The only issue with that: the closer you get to your workout, the less time there is to digest. That's why we generally recommend something liquid at this time, like a shake or a smoothie.

Yours might look like this:

- 1 scoop protein powder
- 1 fist of veggies (spinach works great in smoothies)
- 1-2 cupped handfuls of carbs (berries or a banana work great)
- 1 thumb of fats (like mixed nuts or flax seeds)
- low-calorie beverage like water or unsweetened almond milk

Here's a delicious example:

- 1 scoop chocolate protein powder
- 1 fist spinach
- 1 banana
- 1 thumb peanut butter
- 8 oz. chocolate, unsweetened almond milk

Resource: Precision Nutrition