

Post-exercise nutrition needs

Now let's take a look at post-exercise nutrition.

Post-workout nutrition can help you:

- recover;
- rehydrate;
- refuel;
- build muscle; and
- improve future performance.

Protein after exercise

Eating protein after exercise prevents protein breakdown and stimulates synthesis, leading to increased or maintained muscle tissue. So it's a great strategy for better recovery, adaptation, and performance.

In the past, most fitness experts recommended fast acting proteins like whey or casein hydrolysate. This is because early research indicated that the more quickly amino acids get to your muscles, the better the result.

However, new research shows that hydrolyzed, fast-digesting proteins may get into our systems too fast. Because they're in and out of the bloodstream so quickly, they might not maximize protein synthesis or maximally inhibit protein breakdown after all.

What's more, hydrolyzed casein is preferentially taken up by the splanchnic bed (i.e. our internal organs). Which means it isn't maximally effective for improving protein synthesis elsewhere.

And the protein you ate before training is still peaking in your bloodstream, so how quickly this protein gets there doesn't really matter.

In other words, there's no real evidence that protein powders, especially the fast-digesting kind, are any better for us than whole food protein after training.

They're probably not worse either. Which means you can choose whichever type of protein you want for your post-workout meal.

Want fast and convenient? Make an awesome post-workout protein shake.

Want real food? Then make an awesome high-protein meal.

Any high quality complete protein should do the job, as long as you eat enough. That means about 40-60 grams for men (or 2 palms) and 20-30 grams for women (1 palm).

Carbs after exercise

Contrary to popular belief, it's unnecessary to stuff yourself with refined carbohydrates and sugars to "spike" insulin and theoretically restore muscle and liver glycogen as rapidly as possible after your workout.

In fact, a blend of minimally processed whole food carbohydrates, along with some fruit (to better restore or maintain liver glycogen) is actually a better choice, because:

- it's better tolerated;
- it restores glycogen equally over a 24-hour time period; and
- it might lead to better next-day performance.

Endurance athletes who perform two glycogen-depleting sessions within eight hours of one another might be an exception to this guideline, as speed of glycogen replenishment is critical in that situation. But for most healthy exercisers, whole food with some fruit is a better way to go.

Research shows that muscle protein breakdown is most inhibited and muscle protein synthesis happens best when insulin is at 15-30 mU/L. This is only about three times above fasting levels of 5-10 mU/L.

These levels are easily reached if you eat a mixed meal or drink a shake a few hours before and after training. Plus, with mixed meals, your levels should stay at this rate for about four hours after consumption.

Fats after exercise

Dogma has it that we should avoid fats after exercise because they slow the digestion and absorption of nutrients.

While this is true, in most cases, it's also irrelevant. We've already seen that speed of digestion of protein and carbs is not necessarily as important as we once thought. The same with fats.

In fact, one study compared what happens when people drink skim milk rather than whole milk after training. Participants drank either 14 oz. of skim milk or 8 oz. of whole milk (that equalized the calories, for those of you who love calorie math).

The skim milk drinkers got the same number of calories — along with six extra grams of protein. So you'd think they'd have the advantage.

Yet the whole milk drinkers actually ended up with a higher net protein balance! And the researchers had no explanation other than the fat content of the whole milk.

Additional research shows that eating as much as 55 grams of fat post-training, and another 55 grams in the two subsequent meals did not get in the way of glycogen replenishment compared to lower fat meals with the same amount of carbohydrates.

Clearly, fat doesn't reduce the benefits of protein and carbohydrate consumption around training. In fact, it actually might provide some benefits of its own!

Post-exercise nutrition in practice

While you don't have to rush in the door and straight to the fridge the minute you finish at the gym, you shouldn't dawdle and poke around forever before eating. Failing to eat within a two-hour window following training can slow recovery.

But this is context dependent; what you ate before your workout influences things.

If your pre-training meal was a small one or you ate it several hours before training, then it's probably more important for you to get that post-workout meal into your system pretty quickly. Probably within an hour.

If you trained in a fasted state (say, first thing in the morning before breakfast) then it's also a good idea to chow down as soon after your workout as you can.

But if you ate a normal sized mixed meal a couple of hours before training (or a small shake closer to training), then you have a full one to two hours after training to eat your post-workout meal and still maximize the benefits of workout nutrition.

So go ahead — spend an hour in the kitchen cooking up a feast.

0-2 hours after exercise

The approach to recover from training is the same as your preparation for a workout: have a mixed meal of real food.

Again, here's how men might build it:

- 2 palms of protein;
- 2 fists of vegetables;
- 2 cupped handfuls of carbs;
- 2 thumbs of fats;
- low-calorie beverage like water.

And here's how women might build it:

- 1 palm of protein;
- 1 fist of vegetables;
- 1 cupped handful of carbs;
- 1 thumb of fats;
- low-calorie beverage like water.

Sometimes after training you might not feel hungry. And that's okay. If you don't feel like eating, you can go with liquid nutrition.

Make a shake using the same hand-sized portion guidelines as discussed above.

Source: Precision Nutrition