

The Swimmer Appetite is Legendary.

It's a by product of the hours and hours that we devote to swimming around the black line and for some swimmers, especially you distance folks, eating is largely a part-time job.

While eating lots of food is something we are known for (besides having the sought-after swimmers body, of course), that doesn't mean that most of us eat as good as we can. We use those 8,000m swim workouts as an excuse to plow through a large pizza in one sitting after practice.

What the body needs

There are a multitude of healthy food options for swimmers but timing is essential to receiving benefits. While swimmers require foods rich in complete proteins, it is difficult to digest these foods during a workout. So while high protein foods are a valuable asset, eating lots of protein during workout could be disastrous. The Academy of Nutrition and Dietetics warns that consuming foods that are difficult to digest or even foods in excess will hurt swim performance on race day or during training. To help you decipher when to best incorporate these foods into your diet, use the following guidelines. Ultimately, which dietary approach works best for you will require some individual testing and varies from person to person.

Before swimming/competition: Try to eat a snack or meal high in complex carbohydrates with some easily digestible protein. Example: a piece of peanut butter toast.

During swimming/competition: Swimmers should eat easily digestible foods that contain primarily carbohydrates. Examples: apples, bananas, raisins, power bars and pretzels.

After swimming/competition: Protein is essential for proper muscle recovery and should be combined with complex carbohydrates, healthy fats, and a variety of vitamins and minerals. Example: Spaghetti and meatballs with a side salad.

10 Foods to Incorporate into Your Diet

Nuts and Seeds: These foods are full of healthy fats, fiber, protein, magnesium and vitamin E. Try using them to top cereal, yogurt, or just grab a handful. If you're not allergic pecans and walnuts are also high in a diverse range of vitamins and acids that promote balanced moods and high energy levels.

Beans: Full of fiber, protein, iron, zinc and magnesium, beans are a hearty addition to a wide variety of meals. Roast them for a crunchy snack, mix into a burrito or salad, or throw them into a pasta dish.

Berries: Cranberries, blueberries, raspberries, blackberries and strawberries are all foods packed full of antioxidants. Try mixing them in your smoothie for a burst of flavor or eat them plain for an equally tasty treat.

Unsweetened dark chocolate: Dark chocolate, when consumed in moderation, has exceptional antioxidant powers without the added sugar.

Yogurt: Not only is it a good source of calcium, vitamin D, potassium and protein, it also provides long lasting energy and boosts muscle recovery. If you want even more protein, look into the Greek varieties.

Milk or soymilk: Dairy is a natural source of calcium, potassium, protein and vitamin D. If you're allergic or prefer soymilk, buy versions fortified with calcium and vitamin D. Either option is a great post-workout recovery drink.

Dark-green leafy vegetables: Veggies like kale, spinach and collard greens are high in iron and calcium. To maximize the absorption of iron from the vegetables, pair them with foods high in vitamin C, or serve with meat.

Orange fruits and vegetables: These foods are loaded with vitamins C, E, A, and potassium. Your immune system will thank you!

Russet and sweet potatoes: Contrary to popular preconceptions, potatoes can be a healthy part of a balanced diet. Russet potatoes are antioxidant-rich while sweet potatoes are high in beta carotene, which helps promote endurance. Just don't go nuts with the butter and sour cream.

Apples: An apple a day may actually keep the doctor away.

Eating well increases recovery.

When looking to maximize your nutrition for performance, it is most important to think about how you can increase or enhance recovery from training.

What separates fast swimmers from the "almosts" isn't always talent or genetics; it's how well prepared they are to train or race again. The elite know that time spent practicing is where you heal and recovery in order to be ready to perform at a high level at your next workout.

Let's Do This

The Reasons Why Swimmers Cramp Up

The reality is that science hasn't quite figured out the exact reasons for why muscle cramps occur. Although they are very common, not just with swimmers but across every other sport as well, they are poorly understood, and theories for why they happen are from anecdotal experience.

From a mountain of studies that have sought to figure out the root cause of muscle cramps, there are two theories that are discussed most frequently:

1. Dehydration

Coaches are always on their swimmers to drink more water. And for good reason—even just being dehydrated by a couple percentage points can lead to a swift drop in performance.

Muscle cramps are thought to happen because athletes, while performing peak intensity exercise, are losing more water than they ingesting, and thereby sensitizing nerves in your muscles.

As a result, it's thought that athletes and those who work in hot and humid conditions, and are prone to sweat lots and thereby lose a whole bunch of electrolytes, are more likely to incur cramping:

- Researchers found that athletes who were playing and working out in warmer environmental conditions were more likely to cramp up, while another study found that athletes who sweat more cramped up more often.
- A national level tennis player who was having trouble finishing matches due to cramps—he was also sweating 2.5L *per hour*— was able to successfully eliminate them by upping his daily sodium intake.

But what about those times that were fully hydrated, in a cool swimming pool, and you *still* felt your hamstring seize up on you?

And if it were as simple as fluid replacement, it doesn't explain that 69% of athletes in this study who took a carbohydrate-fluid that precisely matched sweat loss still experienced muscle cramps.

Well, there's a theory for that too.

2. Muscle Fatigue

It wasn't too long ago that I did a heavy session in the gym doing max weight for numerous sets of back squats. In my swim, which immediately followed the lifting, my legs were perpetually on the verge of cramping up.

Each push-off I could feel some twitchiness in my quads and hamstrings, and for the duration of my swim I took it easy on the walls. (It also meant not kicking and swimming with fins. Boo-urns.)

In other words, the muscles in my legs that I had been *using in the gym* kept firing and contracting.

This leads us to the second theory—cramps happen because of straight-up muscle fatigue.

Numerous studies have shown cramping to happen towards the end of competition when the muscle is already shortened and tired.

Which, if you have experienced something similar to my squat example above, makes intuitive sense.

After all, you probably also notice that you cramp up more often at the beginning of the season, after a long layoff, or during particularly trying stretches of training when you are either not in great shape, or fatigued.

How to Prevent & Deal with Muscle Cramps

Because there is no generally agreed upon source of muscle cramps, there is no singular course of treatment and prevention.

Treatments such as cryotherapy, massage, pickle juice, sports drinks, and more all lack experimental research.

1. Stay hydrated.

Even though there is a lack of direct evidence of cramps to dehydration, there is—as mentioned previously—a drop in performance that happens when swimmers aren't hydrated.

Don't just wait until you get to practice to start crushing water. Swimmers who drink a liter of water 60 minutes or so prior to practice or competition can be assured that the fluids will be fully absorbed and available.

2. Add salt to your water jug.

If you are one of those super sweaty athletes (and I am one too, no judgement here), the National Athletic Trainer's Association recommends you add 0.3 to 0.7g of salt to your water jug in order to help you avoid cramping up.

3. Stretch it out.

Gentle stretching on the affected area can help to soothe the soreness and immediate pain. Soreness can last for a few minutes or up to a few days. Light passive stretching makes it go away faster.

4. Dial up your intensity accordingly.

My mistake with my squat-swim combo was going heavy on my legs after having taken a little sabbatical from the gym. Do I regret that workout? Not necessarily—but knowing that it would ruin my swim afterwards would I have done it with the same intensity? Probably not.

Cramps tend to happen when we are pushing ourselves harder than normal, or when we are going too hard compared to our training experience. Also, when we are jumping from stroke to stroke we put extra strain on the muscle groups. Remember that shallow breathing can have an effect as well. So, make sure you are deep breathing to avoid cramps and stitches.

The Takeaway

There's no total guarantee that if you drink lots of water and escalate your training at a reasonable pace that you will never experience a muscle cramp again.