

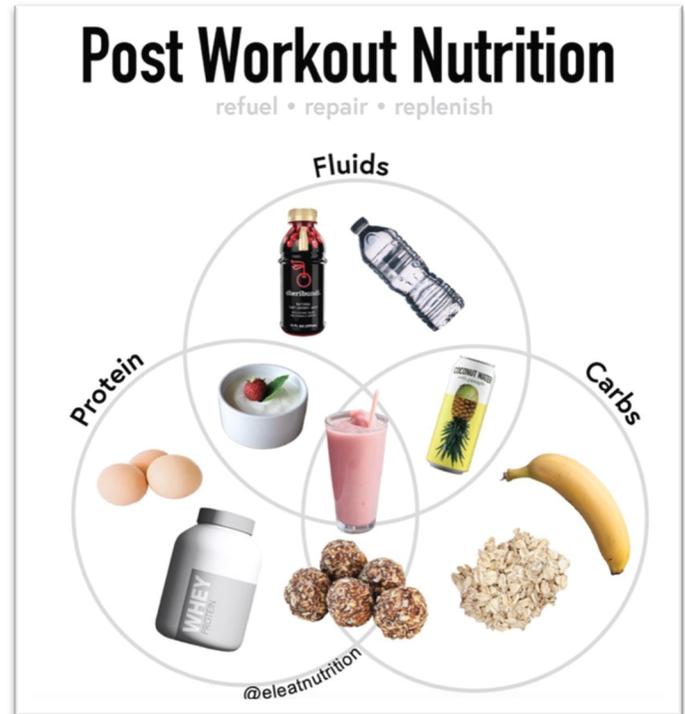
Recovery Nutrition

Fueling **after** hard training sessions and meets is just as important, if not more important for improving performance as pre-workout nutrition. Competitive swimmers can expend up to **2,500 calories** during a 2-hour practice! Swimming has energy requirements 4x great than that of running on land. To recover quickly and repair your muscles for your next session, you should aim to refuel with both **carbohydrates** and **protein** within 60 minutes post-workout.

Carbohydrates

The glycogen (stored energy) in your muscles is restored by consuming carbohydrates. Without glycogen, your muscles won't have the fuel source to perform at your maximum potential; early fatigue will set in, and performance will suffer. After intense exercise, aim for **0.75 grams of carbs per pound body weight** within that first hour, then an additional 0.75 g/lb. two hours after that. For many athletes, strenuous exercise can lead to decreased appetite post-workout.

If you find it difficult to tolerate solid foods after exercise, chocolate milk or **smoothies** are a great solution. They provide carbohydrates, protein, and fluids all in one. A smoothie example could be blending together 1 cup milk, 1 scoop protein powder, 1 large banana, handful of strawberries, and ½ cup yogurt or ½ cup oats (could also add in a few handfuls of spinach or kale for more vegetables.)



If you plan to eat a balanced dinner within an hour of finishing your training session, that could be your recovery meal. But if it will be several hours and you're needing a quick recovery snack beforehand, make sure to plan ahead and pack some snacks with you.

Protein

To help repair muscle tissue and reduce muscle breakdown after exercise, consuming adequate protein is key. Aim for **15-25 grams of protein** within the first hour after exercise. Food sources containing protein include eggs, milk, yogurt, meat, fish, nuts & seeds.

Fluids

After exercise, you should consume approximately 16-24 oz. for every pound lost during exercise. The higher the water temperature is, the higher the water loss in sweat. Smoothies, chocolate milk, and ready to drink shakes are all excellent and convenient ways to assure you're consuming all three - fluids, carbs, and protein post-workout. You'll also need to replenish electrolytes, sodium and potassium, which can be accomplished by adding additional salt to your post-workout meal and/or with a sports drink.



Tart Cherry Juice:

Cherries are very rich in antioxidants. Research has shown tart cherry juice to be beneficial in reducing inflammation. Drink 30 minutes after strenuous exercise to help fight inflammation.