

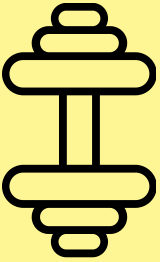
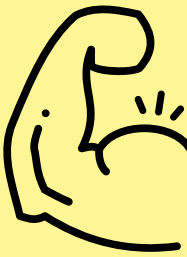
Fuel for Workout Recovery

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Nothing beats the wave of accomplishment you feel after completing a tough workout. Just because the weights are put away or you've left the cycle studio doesn't mean our work is over. After exercising, it is important to replenish your body with appropriate nutrients to keep it feeling strong and ready for your next sweat session. If you're not sure where to start, no worries! Navigating time for exercise in your busy college schedule is already difficult enough, so incorporating proper post-exercise nutrition should not be an added stressor. This article will give you a quick rundown on how to reward your muscles for working hard and getting you through your exercise.

Before we delve into what should be eaten post-exercise, let's go over what happens to our body during exercise. Our muscles have glycogen stores that are used to fuel our daily movement. Glycogen is a source of energy in the muscles and the liver that the body can quickly access and use. During a workout, our muscles move and contract resulting in the depletion of our glycogen stores. This is where proper post-exercise nutrition steps in and saves the day.

A perfect **post-workout snack** is composed of two key macronutrients: carbohydrates and protein. Carbohydrates are a form of energy that replenishes our empty glycogen stores and protein assists with rebuilding and repairing tired muscles. Carbohydrates can be found in foods like whole wheat bread, fruits, crackers, granola, and milk. It is recommended to consume 1-1.5 grams of carbohydrates per kilogram of your body weight. For lighter intensity workouts, the lesser end of that range is appropriate, and the higher end of the range is best for high intensity exercise. You can find your weight in kilograms by dividing your weight in pounds by 2.2. Protein is found in foods like meat, nut butters, cheese, milk, eggs, yogurt, and protein powders.



After a workout, it is recommended to eat a snack that has 15-25 grams of protein. There is no need to stress if your snack does not fit these values exactly; they serve as a range you can aim for. At the end of the day, finding a yummy combination of these two components will aid in post workout recovery! Here are some **snack ideas** for inspiration:

- Greek yogurt + berries + granola
- Whole grain toast + nut butter + sliced banana
- Tortilla + sliced turkey + hummus
- Crackers + string cheese + sliced apple
- Chocolate milk
- Smoothie with fruit, low-fat milk, and protein powder
- A protein bar



In addition to a snack, it is vital to **hydrate** after a workout with either water or an electrolyte drink. Your body produces sweat while you work out as an attempt to cool down and retain a normal body temperature. Dizziness, fatigue, and confusion are symptoms of dehydration, making it important to rehydrate after exercise to replenish any lost fluids. Although it is recommended to drink 8 oz of water within the first half hour post exercise, it is important to listen to your body's thirst cues and continue to drink fluids throughout the rest of your day.



Now that we've established why to eat a post-workout snack and what goes into post recovery fuel, let's cover the final W: when should I eat my snack? It is recommended to eat a snack rich in both carbohydrates and protein within 60 minutes of your workout. More specifically, there is emphasis on the consumption of carbohydrates within the first 30 minutes after exercise since increased blood flow allows your muscles' glycogen stores to uptake energy at a faster rate. If you cannot meet that 30 minute window, there is no need to stress. Eating a snack that is rich in both protein and carbohydrates within that first hour is still sufficient to help your muscles recover and prepare for your next endeavor. Finding time to exercise between classes is challenging as a college student, so carrying a quick snack in your bag to replenish your muscles is a stress-free way to get in some post-workout fuel. As aforementioned, it is recommended to drink 8 ounces of water within a 30-minute window after exercise and to continue hydrating as needed.

Feeling ready to incorporate some post-workout nutrition after your next sweat sesh? Let's quickly recap our 3 W's of post-exercise snacking!

Why? Our body is using up our muscles' energy stores as we work out which leaves our muscles depleted and tired after we finish exercising.

What? A post workout snack is composed of carbohydrates and protein. Carbohydrates help replenish your muscles' lost energy while protein assists with repairing and rebuilding them. Drinking water or a sports drink aids in replenishing lost sweat and prevents dehydration.

When? Although carbohydrates are best when eaten within 30 minutes of exercise, getting in protein and carbohydrates within 60 minutes of your workout is sufficient to begin muscle repair and refueling. Listening to your body for thirst cues will assist in proper rehydration. It is important to kickstart this process by drinking fluids within 30 minutes of exercise.

Post-workout nutrition should not be an added stress to exercising, but instead it should be a tool to keep your body strong and ready for your next adventure! Finding ways to keep snacks accessible after exercising is key to incorporating proper nutrition into your gym routine. Find food combinations that taste good and feel good to you; this will help you regularly enjoy a post-exercise snack to supplement your fitness goals! Have a great lift session and happy snacking.

Additional Resources:

1. Glycogen. Cleveland Clinic. Reviewed July 13, 2022. Accessed October 14, 2023. <https://my.clevelandclinic.org/health/articles/23509-glycogen>.
2. Mohr C. Timing your pre- and post-workout nutrition. Academy of Nutrition and Dietetics. July 25, 2019. Accessed October 14, 2023. <https://www.eatright.org/fitness/physical-activity/exercise-nutrition/timing-your-pre-and-post-workout-nutrition>.
3. Murphy L. Nutrient timing: pre and post-workout questions answered. National Association of Sports Medicine. Accessed October 14, 2023. <https://blog.nasm.org/workout-and-nutrition-timing>.
4. Mayo Clinic. Dehydration. Mayo Clinic. October 14, 2021. Accessed October 14, 2023. <https://www.mayoclinic.org/diseases-conditions/dehydration/symptoms-causes/syc-20354086>.
5. Patel D. Hydration for athletes. FamilyDoctor.org. Updated June 2023. Accessed October 14, 2023. <https://familydoctor.org/athletes-the-importance-of-good-hydration/>.
6. Kane M. How to snack to fuel your workouts and recovery. Colorado State University Kendall Reagan Nutrition Center. October 2023. Accessed October 14, 2023. <https://www.chhs.colostate.edu/krnc/monthly-blog/how-to-snack-to-fuel-your-workouts-and-recovery/>.

