

Protein: Powerhouse Performance

For High School Athletes

Why protein?

As an athlete, you have good reason to focus on nutrition to excel at your sport. Your after-practice meals and snacks should contain both carbohydrates and protein. Carbohydrates restore glycogen in the muscles so the body is ready to perform at its best. Protein helps the muscles and bones replenish and rebuild after activity.



How much protein does a growing teen athlete need?

Although protein needs vary depending on the sport you play, your age and other factors, a general guide is to multiply your weight in pounds by 0.5 to 0.8 grams of protein. Most teens can meet protein needs by having 3 servings a day of dairy plus other high-quality protein sources such as lean meat and poultry, fish, beans, lentils and eggs.

What about lactose intolerance?

If you are lactose intolerant, you can still enjoy dairy!

- Try *lactose-free milk*. It's still milk, but without lactose.
- Yogurt contains helpful bacteria that break down lactose, making it easy to digest.
- *Hard cheeses* contain little or no lactose.

What is whey protein powder?

In cheese-making, milk is divided into curds and whey. Whey can be powdered, is high in protein and has almost no lactose.

Eat protein throughout the day for:

- **More energy.** Protein at each meal and snack helps keep your energy constant throughout the day by preventing blood sugar highs and lows.
- **Strong bones.** Milk includes the nutrients needed for bones: protein, calcium, vitamin D, phosphorus and magnesium.
- **Strong muscles.** Both exercise and protein are needed to build and repair muscles. Protein, before and after a strenuous game or practice, helps your muscles stay strong.

Do all milks contain the same amount of protein?

Milk naturally contains 8 grams of high-quality protein per cup regardless of fat content. Milk alternatives vary in protein, so read the labels to compare. Soy beverages may have 5 to 8 grams and almond beverages may have 1 to 2 grams.

Which foods contain protein?

16-22 grams per serving	11-15 grams per serving	6-10 grams per serving	2-5 grams per serving
Beef, chicken, pork, turkey (3 ounces)	Fish and shellfish (3 ounces)	Milk (1 cup) or yogurt (6-ounce carton)	Brown rice (1 cup cooked)
Deli meat (3 ounces)	Beans and lentils (¼ cup)	Cheese (1½ ounces)	Oatmeal (1 cup cooked)
Greek yogurt (6-ounce carton)	2 eggs	Nuts, small handful (¼ cup)	Broccoli, chopped (1 cup cooked)
Meal replacement bar with whey protein	Personal pizza	Peanut butter (1 tablespoon)	Whole-grain bread (1 slice)

When is the best time to eat protein?

Including protein evenly throughout the day is best for muscle building and repair. Start your day with high-quality protein such as an egg, a carton of yogurt or milk in cereal. Protein at breakfast helps you focus more clearly and be alert at school. Aim for 20 to 30 grams of protein at each meal.



Power Meals + Snacks

Grab-and-go breakfast

Choco-Banana Oatmeal Smoothie – 1 cup low-fat milk + 1 tablespoon chocolate syrup (or cocoa powder) + whey protein powder (or fat-free dry milk powder) + ½ frozen banana + 2 tablespoons dry oats. Blend in blender. Add ice; blend again. Pour into to-go cup.

Microwave Scramble – 1 egg (beaten) + 2 tablespoons milk. Place in cooking-spray-coated coffee cup and microwave one minute; stir. Microwave another minute. Top with shredded cheese + salsa. (Can be prepared the night before and refrigerated overnight; microwave in the morning.)



Lunch for school

Tuna Salad Wrap – Canned tuna + plain Greek yogurt + shredded carrots + sunflower seeds. Stuff into a tortilla, sandwich thin or pita bread.

Cold Pita “Pizza” – Whole-wheat pita bread + zip-top bag of pizza sauce (squeeze out of the corner) + zip-top bag of shredded mozzarella cheese + green peppers + grape tomatoes + olives. Bring a paper plate for assembly.

After a big game or tough practice

Replenish potassium with lots of fruits, vegetables and dairy foods. Pump up with these protein-rich recovery snacks:

- Chocolate milk and an orange
- Apple or pear slices with cheese
- Smoothie made with milk, yogurt and frozen fruit
- Pita chips and carrots dipped in hummus
- Lean deli meat sandwich with pepper slices
- Yogurt with fruit slices for dipping
- String cheese and a piece of fruit
- Peanut butter and banana sandwich

Lunch Box Power Pasta Salad

This thick, creamy dressing has a garlicky kick that becomes deliciously muted if served the next day in a lunch box; if made and served the same day, garlic powder could be substituted for a little less kick.
8 servings



- 4 cups (about 10 ounces) dried whole-wheat Rotini pasta
- 1 container (5 ounces) low-fat plain Greek yogurt
- 2 Avocados, halved, peeled and seeded, divided
- 3 tablespoons Lime juice, divided
- 1 tablespoon canola or corn Oil
- 1 small clove Garlic, roughly chopped
- ¼ teaspoon ground black Pepper
- ½ teaspoon Salt
- 1 cup frozen Corn
- 1 Carrot, shredded
- 1 can Black beans, drained and rinsed in a colander
- 4 ounces reduced-sodium deli Turkey, cut in one thick slice (or thin-sliced packaged deli meat) chopped into bite-sized pieces
- 1 cup (4 ounces) shredded Mexican blend (or cheddar) Cheese
- ¼ cup fresh Cilantro, chopped (optional)

1. Cook pasta according to package directions. Drain pasta in colander and rinse with cold water; place in a large bowl and set aside.
2. In a small food processor or blender, place yogurt, 2 avocado halves, 2 tablespoons lime juice, oil, garlic, pepper and salt; blend until smooth.
3. Place remaining 2 avocado halves on cutting board and cube. Slide avocado into small bowl and drizzle with remaining lime juice; toss gently. Add avocado to large bowl of cooked pasta.
4. To bowl of cooked pasta and avocado, add corn, carrot, beans, turkey, cheese and optional cilantro. Mix gently to combine. Pour yogurt dressing over salad and toss. Serve immediately or refrigerate overnight.

Nutritional analysis, per serving: 340 calories; 15 gm protein; 11 gm fat; 147 mg calcium; 307 mg sodium

Grab-and-Go Breakfast Bites

To save time, whip these bites up the night before. In the morning, serve cold—or warm 2 bites for about 30 seconds in the microwave.
6 servings



- 1 cup frozen Broccoli florets, cooked according to package directions
- 6 Eggs
- ½ cup low-fat Milk
- ⅛ teaspoon Salt
- ¼ teaspoon ground black Pepper
- ½ teaspoon Garlic powder
- ½ teaspoon dried Oregano
- 2 tablespoons chopped red Bell pepper (about ¼ of a pepper)
- 1 cup (4 ounces) shredded Cheddar or mozzarella cheese

1. Preheat oven to 350°. Coat 12 muffin cups in a muffin/cupcake pan with non-stick cooking spray; set aside.
2. On a cutting board, roughly chop broccoli. Place chopped broccoli in medium mixing bowl.
3. To the bowl of broccoli, add all remaining ingredients except cheese; whisk together.
4. Using a quarter cup measuring cup, divide mixture among 12 muffin cups; top each cup with about one rounded tablespoon of cheese. Bake for 20 to 22 minutes or until set. Cool for 5 minutes before removing from muffin cups.

Note:

To avoid extra cleanup of baked-on egg, heavily spray sides and bottoms of muffin cups or use aluminum foil cupcake liners if planning to eat immediately; can also be warmed for 5 minutes in a 350° oven. (Do not put foil-lined breakfast bites in the microwave.)

Nutritional analysis, per serving: 95 calories; 7 gm protein; 6 gm fat; 110 mg calcium; 124 mg sodium