

Protein for performance: The basics

Protein is an essential part of every cell in your body. It helps build and repair tissues, transport nutrients, maintain a healthy immune system, and make hormones and enzymes. When you don't consume enough calories to meet your body's needs, your body uses protein for energy rather than muscle repair and growth. This is an inefficient and expensive way to fuel your body, so aim for the "right amount" of protein for optimal performance and recovery. Keep in mind protein needs differ based on body weight, frequency of workouts, and types of workouts.

Daily protein requirements to support muscle growth, recovery, and repair for Military Service Members range from 0.8–1.6 g/kg (0.4–0.7 g/lb) body weight.

Eat more protein (at the **higher end** of the range) with intensified training, more frequent training, new training stimulus, if you're less trained, or when energy intake (calories) is low.

You can meet your protein needs by consuming nutrient-dense foods and drinks from the commissary, on-base dining facilities, and even mini-markets or convenience stores. Lean meats ("round," "loin," or "sirloin" cuts), poultry, fish, beans, nuts, eggs, legumes, and dairy products are great sources of protein. Grains and vegetables contain small amounts of protein as well.

When you don't take in enough calories to meet your body's demands (negative energy balance), you might need up to 2 grams of protein/kg body weight to maintain muscle mass, strength, and performance. **When you're in severe negative energy balance, such as during intense training, missions, or extreme environmental conditions, even extra protein might not be enough to preserve muscle mass.**

In these settings, it's best to focus on getting enough high-quality foods and drinks to help meet your energy needs. Eating and drinking more calories helps your body avoid using protein for energy.

Examples of recommended protein intake ranges (0.8–1.6 g/kg [0.4–0.7 g/lb] body weight) for Warfighters:

- 50 kg (110 lb): 40–80 g
- 70 kg (154 lb): 56–112 g
- 100 kg (220 lb): 80–160 g



When choosing protein, focus on whole foods. However, protein supplements might be necessary when these foods are unavailable, inconvenient, or unable to meet your protein needs. As with any dietary supplement, read the label, so you know exactly what you're getting. If you look for a protein supplement, pick a whey, casein, protein blend, or plant-based product that's **third-party certified**.

Try to include protein in all your meals and snacks throughout the day vs. consuming large portions a few times per day. For **optimal recovery**, aim for **15–30 g of protein** as part of a carb-rich snack within 2 hours of activity.

For more information:

- Read HPRC's **in-depth guide** to protein for performance
- Visit Operation Supplement Safety (OPSS) at **opss.org** to learn more about protein supplements