

### The Importance of Protein Intake for Healing

Protein is an essential nutrient for muscle repair, bone health, and overall recovery after an orthopedic injury or surgery. Since 50% of bone is made of protein, consuming enough protein can help speed up healing, reduce muscle loss, and support mobility.



### WHY IS PROTEIN IMPORTANT FOR RECOVERY?

- 1. Supports Bone Healing** Protein helps form collagen, which is essential for bone structure and repair.
- 2. Reduces Muscle Loss** Injuries or surgeries can lead to muscle breakdown, but protein helps maintain and rebuild muscle.
- 3. Aids in Wound Healing** Protein plays a key role in tissue repair, helping surgical sites and injuries heal faster.
- 4. Boosts Immune Function** A strong immune system helps prevent infections that could delay recovery.
- 5. Improves Strength and Mobility** Protein supports muscle function, helping you regain strength after an injury.

### HOW MUCH PROTEIN DO I NEED?

**Orthopedic patients need more protein than the average person. A good guideline is:**

- General recovery: 1.0–1.2 grams of protein per kilogram of body weight per day
- Post-surgery or fracture healing: 1.2–2.0 grams per kilogram per day  
For example, a 150-pound (68 kg) patient recovering from a fracture should aim for 82–136 grams of protein per day.

### BEST PROTEIN SOURCES FOR HEALING

#### Animal-Based Proteins:

##### Lean Meats:

- Chicken breast (3 oz)–26g protein
- Turkey breast (3 oz)–25g protein
- Lean ground beef (3 oz, 90% lean)–22g protein
- Pork tenderloin (3 oz)–22g protein

##### Fish & Seafood:

- Salmon (3 oz)–22g protein
- Cod (3 oz)–20g protein
- Tuna (3 oz)–25g protein
- Shrimp (3 oz)–20g protein

##### Eggs & Dairy:

- Whole egg (1 large)–6g protein
- Egg whites (3 large)–11g protein

- Greek yogurt (1 cup)–20g protein
- Cottage cheese (1/2 cup)–14g protein
- Milk (1 cup)–8g protein
- Hard cheese (1 oz)–7g protein

#### Plant-Based Proteins:

##### Legumes & Beans:

- Lentils (1 cup cooked)–18g protein
- Chickpeas (1 cup cooked)–15g protein
- Black beans (1 cup cooked)–15g protein
- Kidney beans (1 cup cooked)–15g protein

##### Soy Products:

- Tofu (3 oz)–10g protein
- Tempeh (3 oz)–19g protein
- Edamame (1 cup cooked)–17g protein

##### Whole Grains:

- Quinoa (1 cup cooked)–8g protein
- Oats (1/2 cup dry)–5g protein
- Brown rice (1 cup cooked)–5g protein

##### Nuts & Seeds:

- Almonds (1 oz, ~23 almonds)–6g protein
- Walnuts (1 oz)–4g protein
- Chia seeds (2 tbsp)–4g protein
- Flaxseeds (2 tbsp)–3g protein
- Pumpkin seeds (1 oz)–7g protein
- Peanut butter (2 tbsp)–8g protein

### EXAMPLE HIGH-PROTEIN HEALING MEAL PLAN

**Here's a one-day menu designed to support recovery:**

- **Breakfast** Scrambled eggs with spinach and cheese, whole-grain toast, and a glass of milk
- **Lunch** Grilled chicken with quinoa, roasted Brussels sprouts, and a side of Greek yogurt
- **Snack** Cottage cheese with sliced almonds and berries
- **Dinner** Baked salmon with lentils, sautéed kale, and sweet potatoes
- **Snack** A protein smoothie with milk, banana, protein powder, and flaxseeds

### TIPS FOR INCREASING PROTEIN INTAKE

- Eat protein at every meal to support continuous muscle repair.
- Include snacks with protein like Greek yogurt, nuts, or hard-boiled eggs.
- Use protein powders if needed, especially after surgery or when appetite is low.
- Combine plant and animal proteins to get a variety of amino acids.

### Want Personalized Nutrition Guidance?

Contact our dietitians to schedule a consultation!

[www.TOA.com/nutrition-services](http://www.TOA.com/nutrition-services)

NutritionTeam@TOA.com

