

## Protein in Sports Nutrition

Protein is an essential nutrient, important for building and maintaining muscle. Recommended protein needs for the average healthy adult are about 0.8 grams (g) per kg body weight per day. For a person weighing 70 kilograms (kg) (154 pounds), that would mean about 56 g protein every day.

If you exercise regularly and intensely, your protein needs are higher than average. For both endurance and strength exercise aim for 1.2-2.0 g of protein per kg body weight per day. For a 70 kg adult, that equals up to about 84-140 g of protein per day.

This fact sheet will help you plan a healthy, balanced diet with enough protein to improve your strength, recovery and performance.



### Steps you can take

#### Protein: When, How Much and What Protein Sources?

- Recent research shows that the total amount of protein you have during your training day may be more important than if you eat your protein right after you exercise to help you build and repair your muscles.
- **Divide your protein into 3-4 meals or snacks that are evenly spaced over the day.** This will help make it easier for you to meet your daily protein needs.
- **Have your protein meal and snack within a few hours of your exercise.** This will help with muscle repair and growth, and help you recover for your next session.
- **Aim for about 15 to 25 g of protein at each meal or snack.** This is a good way to build and maintain muscle. See the chart below for the amount of protein in some common foods.
- **Include protein from a variety of different food sources.** Enjoying a variety of foods will help you get a range of important vitamins and minerals along with your protein. See examples below.

- **Make sure you eat enough calories to maintain your weight.** Otherwise, your body will use protein for fuel instead of using the protein to help build and repair muscle.

**Table: Protein Content of Some Common Foods**

<i>Food</i>	<i>Serving Size</i>	<i>Protein (g) approx.</i>
Meat, poultry, fish, or shellfish, cooked	75 g (2 1/2 oz)	21
Yogurt Greek (plain)	175 g (3/4 cup)	17
Protein powder (check the label)	1 scoop	16-30
Cottage Cheese	125 g (1/2 cup)	12
Hemp seeds	60 mL (1/4 cup)	13
Eggs	2 large eggs	12
Cheese	50 g (1 1/2 oz)	12
Soy nuts (dry roasted)	60 mL (1/4 cup)	10
Cow's milk	250 mL (1 cup)	9
Yogurt	175 g (3/4 cup)	8
Fortified soy beverage	250 mL (1 cup)	7
Nuts, shelled (varies by type)	60 mL (1/4 cup)	7
Peanut butter	30 mL (2 Tbsp)	7
Bread	1 slice (35 g)	4
Quinoa	125 mL (1/2 cup)	4
Pasta or rice	125 mL (1/2 cup)	3

Source: Canadian Nutrient File 2016, individual manufacturers

Recipes:

<b>High Protein Overnight Oats (1 serving)</b>		
1/2 cup	low-fat Greek-style yogurt	125 g
1/2 cup	low-fat milk	125 mL
1/2 cup	mixed berries	125 mL
1/2 cup	oats, dry	125 mL
1 tsp	maple syrup	5 mL
	cinnamon to taste	

Directions: Mix yogurt, milk, and oats together in a re-sealable container. Leave refrigerated overnight.

In the morning, add berries, cinnamon, maple syrup, or any other toppings you prefer. Stir and serve.

Nutrient analysis per serving:

Calories: 409
Fat: 5 g
Carbohydrate: 66 g
Fibre: 9 g
Protein: 26 g

**High Protein Vegetarian Salad (1 serving)**

2 cups	mixed leafy greens (spinach, arugula, spring mix, etc.)	500 mL
1 Tbsp	hemp seeds	15 mL
1 Tbsp	pumpkin seeds	15 mL
1	hard-boiled egg	1
1/2 cup	chickpeas	125 mL
1/2 cup	cherry tomatoes	125 mL

Directions: Combine ingredients together as a salad and top with your favourite dressing, or make your own with olive oil and balsamic vinegar.

Nutrient analysis per serving without dressing:

Calories: 258
Fat: 10 g
Carbohydrate: 29 g
Fibre: 9 g
Protein: 16 g

## Special Considerations

### Do I need to take a protein supplement?

You likely do not need a protein supplement if you follow a well-balanced diet and eat protein-rich foods with your meals and snacks. However, protein supplements can be an easy, portable protein source especially if you are travelling, short on time, have dietary restrictions, or struggle with appetite after exercise.

One scoop of protein powder has about 16-30 g of protein, about the same amount that you would want in a snack or meal.

For more information on protein supplements, refer to [Additional Resources](#).



## Additional Resources

- Sports Supplements: Get the Facts [www.pennutrition.com/viewhandout.aspx?Portal=UbY=&id=J8HrUQ0=&PreviewHandout=bA==](http://www.pennutrition.com/viewhandout.aspx?Portal=UbY=&id=J8HrUQ0=&PreviewHandout=bA==)

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## Notes

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