Lean and Mean Protein

Protein is an essential nutrient of the human body. It is made up of amino acids which allows the body to perform basic bodily functions. Protein is an important building block of bones, muscles, cartilage, skin, and blood. It contributes to tissue repair, hormone production, enzyme production (enzymes help speed up chemical reactions), and immunity. Moreover, protein has shown to help us stay full for longer. It can also be used as a source of energy.

To estimate how much protein you need to maintain health, use this formula:
weight (kg) x 0.8g/kg = the amount of protein required in one day (g)

For example, if an individual weights 70kg:
70 kg x 0.8g/kg = 56 g of protein per day

(if you only know your weight in pounds, divide the number by 2.2 to get your weight in kilograms)

(Shulman, 2012)

This amount of protein will vary depending on the person's activity levels and health. For example, an athlete or construction worker or an older adult with a chronic disease may need between 1.4g – 2g of protein/kg/day. (Campbell et al., 2007)

Foods High in Protein

There are many sources of food that have high levels of protein other than meats.

Food	Amount of Food	Amount of Protein
cooked beef	75 g, 1/2 cup	23 g
chicken breast	75 g, 1/2 cup	20 g
firm tofu	150 g, 3/4 cup	21 g
cooked fish	75 g , 1/2 cup	19 g
tuna	125 mL, 1/2 cup	19 g
cooked quinoa	1 cup	18 g
beans, chickpeas, lentils	175 mL, 3/4 cup	12 g
milk and chocolate milk	250 mL, 1 cup	9 g
peanut butter	30 mL, 2 tablespoons	8 g
egg	1 large egg	6 g

Proteins can either be **complete** or **incomplete.** Complete proteins means that they contain all **essential amino acids** whereas incomplete proteins do not. Our body needs 20 different types of amino acids; our body can synthesize 11 of them, and the other 9 must be obtained from food. The 9 amino acids we must obtain from food are also known as **essential amino acids.** Examples of complete proteins include meat, dairy products, quinoa, buckwheat, and chia seed. Some examples of incomplete proteins are beans, chickpeas, peanuts, and grains.
(Health Canada, 2008)

Simple and Healthy Protein Snacks

Snack (protein in grams)	Directions
Greek Yogurt with Berries (3/4 cup = 15 g)	Adding berries to Greek yogurt makes it more enjoyable.
Cottage Cheese with Peaches (1/2 cup = 13 g)	Add fresh peaches to a bowl of cottage cheese.
Roasted Chickpeas (1/2 cup = 7 g)	Grand a handful to munch on.
Hummus (1 tbsp = 1.2 g)	Dip baby carrots, red peppers, and cucumbers with hummus.
Tuna with Whole Wheat Crackers (1 can = 16 g)	Have your whole wheat crackers with a small can of tuna.
Mixed Nuts/Trail Mix (1/2 cup = 15 g)	Mix your favourite nuts such as almonds, cashews, and pistachios in a small container! You can even add some dried fruit for some sweetness.
Hard Boiled Eggs (2 large eggs = 12 g)	Hard boil and pre-peel multiple eggs at once. This is an easy snack to take on-the-go.
Grape and Cheese Sticks (1 cubic inch = 3.3 g)	Stack grapes and cubes of cheese onto toothpicks.
Chunky Monkey Shake (1 serving = 13 g)	Blend 1 cup of chocolate milk, 1 banana, and 1 tablespoon of peanut butter for a tasty protein shake.
Edamame (1 cup = 17 g)	You can steam or boil edamame for a high-protein snack. It may be served with a sprinkle of salt for added flavour. (Remove the green shell before eating the beans).

Other Online Resources on Protein and High-Protein Recipes

Canadian Society for Exercise Physiology: http://www.csep.ca/CMFiles/publications/dfc/Protein_booklet_e.pdf

Live Strong: http://www.livestrong.com/article/307814-top-10-sources-of-protein/

Real Simple: http://www.realsimple.com/food-recipes/recipe-collections-favorites/healthy-meals/high-protein-recipes

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