PROTEIN FOODS

For Older Adults

What is protein and what are protein foods?

Proteins contain 20 amino acids. Nine of these are called *indispensable* amino acids because they cannot be made by the human body and must be provided by the diet. Protein is found in many foods, but some foods have higher amounts than others. Major sources of protein include animal-based (e.g. meat, fish, eggs, dairy) and plant-based (e.g. pulses, soy, nuts, seeds) foods. Both the quality and amount of the protein sources are important. For example, proteins that contain all of the indispensable amino acids are often called "complete" proteins and they are found in animal-based sources (e.g. milk) and some plant-based sources (e.g. soy). Those foods that are missing one or more indispensable amino acids are sometimes called "incomplete" proteins and are typically found in plant-based sources. Therefore, it is important to combine sources of protein to obtain all indispensable amino acids.

Why is protein important?

- Source of amino acids
- Growth and development
- Maintaining lean muscle mass
- Food intake and appetite control
- Blood sugar control
- Fat metabolism
- Heart health
- Bone health
- Body weight control

How much protein do we need?

The Recommended Daily Allowance (RDA) for adults is 0.8 g/kg of body weight; however, for older adults, 1.2-2.0 g/kg of body weight is recommended depending on health status (e.g. kidney problems) and goals (e.g. maintaining lean muscle mass). The recommendation for physically active individuals is 1.2-2.0 g/kg of body weight depending on duration, type and intensity of the activity.

Example: A 69 year-old man weighing 70 kg should consume at least 84 g (70 kg x 1.2 g/kg of body weight) of protein each day. This is the equivalent of two cups (500 mL) of cow's milk, 2 tablespoons (30 g) of peanut butter, 1 serving of chicken breast (100 g), 1 serving (175 g) of yogurt, 1 serving (100 g) of chickpeas and 1 serving (30g) of almonds.

How can protein foods be incorporated into the diet?

- Add or substitute pulses in your meals (e.g. bean and chickpea burrito, vegetarian chili, lentil salad, bean brownies)
- Have hard-boiled eggs ready to snack on
- Add Greek yogurt to smoothies
- Make homemade trail mix by combining whole grain cereals with a handful of nuts (e.g. almonds, pistachios, walnuts) and seeds (e.g. pumpkin seeds, sunflower seeds)
- Use hummus in sandwiches or as dips and eat with vegetables
- Eat dairy foods such as yogurt and cheese
- See Canada's Food Guide for more tips!

What are processed protein foods?

Processed protein foods are those that have undergone processing that change a food from its original state. They may include:

- Canning, packaging, curing, pasteurizing, freezing
- Preservatives, flavours or food additives
- Added salt, sugar and saturated fat
- Protein blend foods that have a mix of both meat and vegetable products
- Protein powders and supplements

Some processed protein foods (e.g. frozen chicken fingers, sweetened dairy products, deli meats, vegetarian burgers) that are high in sugar, salt and fat should be eaten in smaller amounts.

Protein Food	Serving Size	Protein (g)
Cow's milk (2% M.F.)	250 mL	8.1
Cheese (cheddar)	30 g	6.9
Yogurt (plain, 2% M.F.)	175 g	6.1
Beef (lean)	100 g	28.6
Chicken breast (skinless)	100 g	28.9
Egg	100 g	12.4
Fish (salmon)	100 g	25.1
Tofu	100 g	17.7
Grains (rice)	30 g	2.6
Pulses (dry)	100 g	21.4
Nuts	30 g	6.1
Seeds	30 g	5.8
Peanut Butter	15 g	3.3

Did you know? Food allergies are caused by the immune system incorrectly identifying some proteins in food as harmful. Examples include cow's milk, eggs, tree nuts, peanuts, shellfish, fish, soy and wheat. In the case of allergies in some people (e.g. trouble breathing, itchy skin), it is important to avoid the food and read the ingredients on a product's label.

How do protein foods affect our planet?

The production, processing, transport and retail of various proteins foods affect the environment differently with some animal-based foods having a greater impact. Eating more plant-based foods such as whole grains, pulses, nuts, and seeds could help protect our planet.

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