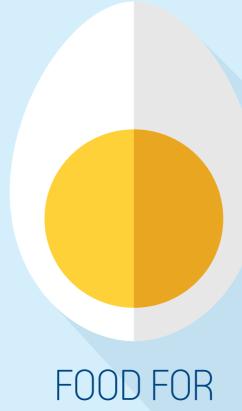
Wise Food & Lifestyle Choices For Better Overall Health

THE **IMPORTANCE** OF PROTEIN IN YOUR DIET



THOUGHT

YOUR BODY DEPENDS ON PROTEIN

Have you ever wondered... why protein matters? How much you need? What the best food sources are? These are all good questions, since protein is vital to every cell in your body!

Proteins are an important part of your:

- muscles and bones
- skin, hair and nails
- organs
- immune system



Every cell in your body depends on protein!

WHAT ARE PROTEINS?

Proteins are macronutrients - an essential source of energy to fuel your body. Proteins also provide building blocks (called amino acids) to support cell and tissue growth and repair. A variety of different foods can help you meet your protein needs. Eggs, poultry, meat, fish, milk products and soy can provide you with a complete source of protein. Proteins from plant sources such as whole grains, beans, peas, nuts and seeds can also help you meet your protein needs, even though they are considered incomplete proteins.

PROTEIN BENEFITS

- > growth and development
- > tissue formation and repair
- > brain and nervous system function
- > immune system function
- > vitamin and mineral performance
- transporting nutrients and oxygen
- > enzyme function
- > hormone function
- > source of energy

HOW MUCH PROTEIN DO YOU NEED?

The amount of protein your body needs depends on your age and gender. Other factors such as your level of physical activity and your health status may also affect your protein needs.

Current recommendations suggest there's a range of healthy protein intakes.¹ Healthy adults are encouraged to get 10% of their total calories from protein.¹ This translates to a range of about 50 to 175 grams of protein for an adult that eats 2,000 calories a day.

Table 1 shows the Recommended Dietary Allowance (RDA), which represents the **minimum** daily protein requirements to prevent deficiency. The daily RDA for adults, is 0.8 grams of **good quality protein** per kilogram of body weight.¹

Current evidence suggests most people can benefit from protein intakes above the RDA.²⁻⁶

TABLE 1
RECOMMENDED DIETARY ALLOWANCES
(RDA) FOR PROTEIN

LIFE STAGE & GENDER	AGE	RDA g/kg/day	GRAMS PER DAY*
Infants	7 to 12 mths	1.2	11
Children	1 to 3 yrs	1.05	13
Children	4 to 8 yrs	0.95	19
Children	9 to 13 yrs	0.95	34
Teenage boys	14 to 18 yrs	0.85	52
Teenage girls	14 to 18 yrs	0.85	46
Men	19 yrs & over	0.80	56
Women	19 yrs & over	0.80	46
Pregnant	All ages	1.1	71
Breastfeeding	All ages	1.3	71

^{*}The grams per day amounts are based on a reference body weight and your needs may differ based on your weight. Keep in mind the RDA is a minimum amount for healthy individuals.

OPTIMAL HEALTH

Our bodies need a regular supply of protein to build and repair tissues like our muscle and bone. Recent research indicates that eating more protein than the RDA can help support optimal long-term health.²⁻⁶ Experts suggest 0.8 grams of protein per kilogram of body weight is a more ideal amount to help prevent muscle loss in older adults.³

For healthy adults, experts suggest about 25-30 g of high quality protein at each meal, breakfast, lunch and dinner.³⁻⁵ This may help to prevent or slow muscle loss as we age.⁵

ATHLETIC PERFORMANCE

You may also want to leverage the power of protein for peak performance if you are an athlete. A higher daily protein intake of 1.2 to 2.0 grams of protein per kilogram of body weight is also recommended for athletes. Current guidelines suggest athletes aim to consume protein after exercise and over 3 to 4 meals a day to maximize the benefits.

HEALTHY WEIGHTS

If you are watching your weight, it's good to know protein can help keep you feeling fuller for longer than carbohydrate or fat.⁸ Higher protein diets with 1.2 to 1.6 grams of protein per kilogram of body weight may promote appetite control and weight management. ^{3,8} Some studies have found higher protein weight loss diets may also help improve risk factors for heart disease and diabetes such as triglyceride, LDL cholesterol, and insulin levels.⁸

PROTEIN QUALITY

Not all protein is created equal. The quality of protein varies in different foods. Protein quality is based on two key factors:

- 1. The balance of amino acids in the protein.
- 2. The ease with which the protein is digested.

High quality complete proteins provide all 9 of the essential amino acids our bodies need.

Complete Proteins:

- > Are found in foods such as eggs, poultry, meat, fish, milk, and soy.
- These high quality proteins have a well-balanced amino acid pattern that closely matches our body's needs.

Incomplete Proteins:

- Are found in plant foods such as grains, vegetables, dried beans and peas, nuts, and seeds.
- Have lower levels of one or more of the nine essential amino acids our body needs.



TYPES OF AMINO ACIDS

The amino acids in the protein we eat are classified in three groups based on whether they are essential:

- **1. Indispensable amino acids** there are 9 essential amino acids that we must get from our diet because our body cannot make them.
- **2. Dispensable amino acids** are considered non-essential because our body can make them.
- **3. Conditionally indispensable** can normally be made by our body; however not in some cases such as in premature infants.

Complete Proteins provide all 9 of the ESSENTIAL AMINO ACIDS our body needs. Methionine, Phenylalanine, Tryptophan, Histidine, Lysine, Valine, Isoleucine, Threonine, Leucine

HEALTHY BALANCE

Protein is one of the three macronutrients (protein, fat and carbohydrate) our bodies need.

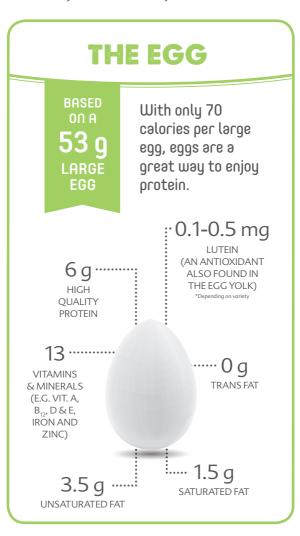
If you eat too little protein, some of the protein in your muscles can be broken down to provide essential amino acids for critical body functions. Over time, that can lead to muscle loss. Too much protein may also be a problem, since our bodies need a healthy balance of macronutrients.

Aim for a healthy variety and balance of nutritious foods.

Learn more about eating well with Canada's Food Guide at www.healthcanada.gc.ca/foodguide.

EGGS - A NATURALLY NUTRITIOUS CHOICE

Eggs have long been recognized as a natural source of high quality protein. In fact, traditionally egg protein was used as a standard reference for measuring the protein quality of other foods. Egg protein provides an excellent balance of amino acids that closely matches our body's needs.



START YOUR DAY OFF RIGHT

When it comes to getting enough protein, it makes sense to focus on breakfast.³ That's because the morning meal often falls short on protein. Table 2 shows an example of a balanced breakfast menu.

TABLE 2

PROTEIN-WISE BREAKFAST MENU · 2 large eggs 26 q • 1 slice multigrain toast 1 medium orange **PROTEIN** · 250 mL glass of milk (1%, 2% or skim) 12 g PROTFIN

This information is for educational purposes and is not intended to replace advice provided by your doctor or dietitian.



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REFERENCES:

- Institute of Medicine. Dietary Reference Intakes for Energy, Carbohydrate, Fibre, Fat, Fatty Acids, Cholesterol, Protein, and Amino Acids. Washington DC National Academy Press, 2005.
- Pencharz PB, Elango R, and Wolfe R. Recent developments in understanding protein needs — How much and what kind should we eat? Appl Phisiol Nutr Metab, 2016; 41:577-580.
- Phillips S, Chevalier S, and Leidy HJ. Protein "requirements" beyond the RDA: implications for optimizing health Appl Physiol Nutr Metab, 2016; 41:565-572.
- Layman DK et al. Defining meal requirements for protein to optimize metabolic roles of amino acids. Am J Clin Nutr, 2015; 101(6):13305-13385.
- Paddon-Jones D and Rasmussen BB. Dietary protein recommendations and the prevention of sarcopenia: protein, amino acid metabolism and therapy. Curr Opin Clin Nutr Metab Care, 2009; 12(1):86-90.
- Layman DK. Dietary guidelines should reflect new understandings about adult protein needs. Nutr Metab, 2009; 6:12.
- Position of the Academy of Nutrition and Dietetics, Dietitians of Canada, and the American College of Sports Medicine: Nutrition and Athletic Performance. Can J Diet Pract Res. 2016 Mar; 77(1):54.
- Leidy HJ et al. The role of protein in weight loss and maintenance. Am J Clin Nutr, 2015; 101(6): 1320S-1329S.

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