

Important Nutrients



These FAQs attempt to answer questions that you might have about the nutritional value of eggs including protein, amino acids, vitamins and minerals.

The questions are all listed below. To get the answer to a question that interests you, simply click on it.

Are eggs a high-quality source of protein?

Yes. Eggs contain all nine essential amino acids making them an excellent source of high-quality protein.

Scientists frequently use eggs as a standard for measuring the protein quality of other foods. Protein quality is expressed as biological value, which measures the rate of efficiency that protein is used for growth. At 93.7%, eggs score higher than any other food.⁵¹

Eggs are an affordable protein source and can be stored in the refrigerator for up to three weeks without affecting their quality. According to *Canada's Food Guide*, two eggs are considered a serving from the Meat & Alternatives food group.

What is the nutritional value of an egg?

Eggs have a high nutrient density because they provide significant amounts of vitamins and minerals, yet contain only 70 calories. They are an excellent source of high-quality protein (i.e. they contain all the essential amino acids), as well as many B vitamins.

The nutritional value of an egg is divided between the egg yolk and the egg white.

The yolk provides $\frac{3}{4}$ of the calories and all or most of the fat, phosphorus, iron, zinc, vitamins B₆, B₁₂ and A, folic acid, pantothenic acid, choline and thiamin. The yolk provides almost half of the protein and riboflavin of the whole egg. Egg yolks are also one of the few foods naturally containing vitamin D.

The egg yolk contains approximately 195 mg of cholesterol and 5 grams of fat, of which 1.5 grams is saturated fat and some trans fat. In the 1980's science focused on the amount of cholesterol in eggs, however, recent nutrition information indicates that it is more important to focus on reducing the intake of total fat and saturated and trans fat rather than cholesterol. This is good news for eggs! It is not necessary to limit egg or egg yolk consumption unless recommended by your physician or registered dietitian.

The white contains more than half of the egg's total protein and riboflavin.

For more details, see [Nutrition](#).

What is the protein content of an egg white?

One large egg contains 6 grams of protein. The protein is almost equally split between the egg white and the egg yolk. Egg white contains 3.5 grams of protein and the egg yolk contains 2.8 grams. The protein in an egg contains all the essential amino acids used for proper growth and development.

Is there a difference in the nutritional value between brown eggs and white eggs?

Eggshell colour can vary but it has nothing to do with the quality, flavour, nutritive value, cooking characteristics or shell thickness of an egg. The eggshell colour depends upon the breed of the hen. White shell eggs in Canada generally come from Leghorn hens while brown shell eggs are generally produced by Rhode Island Red breed of hens. Rhode Island Red hens are slightly larger birds and require more food. Additional food costs and a smaller supply tends to make brown eggs more expensive than white eggs.

Are protein foods an important part of a healthy diet?

Yes. Protein is essential for building and repairing tissue. It is also necessary for proper growth and development. Muscles, organs, skin, hair as well as antibodies, enzymes and hormones are all made from protein.

Protein is composed of 23 different amino acids. Nine amino acids cannot be made by the body. These nine are known as essential

amino acids and you must get them from the foods you eat.

Foods that contain all nine essential amino acids are called "complete protein" foods. The nine essential amino acids are:

Valine
 Leucine
 Isoleucine
 Threonine
 Histidine
 Tryptophan
 Phenylalanine
 Methionine
 Lysine

What do vitamins and minerals do?

Nutrient	Benefit
Iron	Carries oxygen to the cells, helps prevent anemia – the iron in eggs is easily absorbed
Vitamin A	Helps maintain healthy skin and eye tissue; assists in night vision
Vitamin D	Strengthens bones and teeth; may help protect against certain cancers and auto-immune diseases
Vitamin E	An antioxidant that plays a role in maintaining good health and preventing disease
Vitamin B₁₂	Helps protect against heart disease
Folate	Helps produce and maintain new cells; helps prevent a type of anemia, helps protect against serious birth defects if taken prior to pregnancy and during the first 3 months of pregnancy
Protein	Essential for building and repairing muscles, organs, skin, hair and other body tissues; needed to produce hormones, enzymes and antibodies; the protein in eggs is easily absorbed by the body
Selenium	Works well with vitamin E to act as an antioxidant to help prevent the breakdown of body tissues
Lutein and zeaxanthin	Maintains good vision; may help reduce the risk of age-related eye diseases, such as cataracts and macular degeneration
Choline	Plays a strong role in brain development and function

Are fat and cholesterol essential nutrients?

Yes. People tend to forget that fat is an essential nutrient. It provides energy (calories) and essential fatty acids. Fat is needed to absorb the fat-soluble vitamins A, D, E, and K and helps us recognize feelings of fullness so we do not over eat. You can get more information about fat by clicking on the Fat FAQ.

Cholesterol is a waxy, fat-like substance. It has many uses, including insulating nerve fibres, maintaining cell walls and producing vitamin D, digestive juices and certain hormones. You can get more information about cholesterol by clicking on the Cholesterol FAQ.