

Frequently Asked Nutrition Questions About Eggs

Why are eggs considered a nutrient-dense food?

One large egg has varying amounts of 13 essential vitamins and minerals all for 70 calories. At just 15 cents each, eggs are affordable and also contain 6 grams of high-quality protein and all nine essential amino acids. Eggs are an excellent source of choline and selenium, and a good source of high-quality protein, vitamin D, vitamin B12, phosphorus and riboflavin. In addition, eggs are rich in the essential amino acid leucine (one large egg provides 600 milligrams), which plays a unique role in stimulating muscle protein synthesis.

Does nutrient content vary depending on egg color or how the hens are raised?

The nutrient content of eggs is similar regardless of color (white or brown), grade (AA, A, or B), or how they are raised (organic, free-range, and conventional). Although eggs are a natural nutrition powerhouse, feeding laying hens a diet enriched in specific nutrients can, in most instances, enhance that nutrient in eggs. Due to higher production costs, such specialty eggs are usually more expensive than generic shell eggs.

Is it wise nutritionally to throw out the yolk?

Most of the vitamins and minerals in an egg are lost if the yolk is discarded. The white of a large egg contains ~60% of the egg's total protein with the remaining ~40% found in the yolk. Additionally, fat and cholesterol in the egg yolk carry fat-soluble nutrients like vitamin D, E, A, choline, and the carotenoids lutein/zeaxanthin, which may aid absorption of these essential and important components of egg.

Are eggs a good source of vitamin D?

Eggs are one of the few foods that are a naturally good source of vitamin D, with one egg providing 10% of the Daily Value (41 IU). Vitamin D is essential for maintaining serum calcium and phosphate levels and in developing and maintaining healthy bones. Several additional benefits of vitamin D are being actively investigated including reducing risk for chronic health conditions such as diabetes mellitus, cardiovascular disease, and certain cancers.¹

Who should be concerned about choline intakes?

Choline is a precursor for acetylcholine, phospholipids, and the methyl donor, betaine. Choline plays an essential role in fetal and infant brain development, affecting the areas of the brain responsible for memory and life-long learning ability. Moreover, adequate choline during pregnancy may help prevent neural tube birth defects. One large egg provides 125 milligrams of choline, approximately 23–31% of the recommended intake for adults.²

Why are eggs known for lutein/zeaxanthin?

Egg yolk is among the few commonly consumed foods containing the carotenoid lutein and its stereoisomer zeaxanthin. Although spinach and dark leafy greens have a higher content per serving, lutein/zeaxanthin in egg yolk may be more bioavailable.³ Lutein/zeaxanthin are unique in being the predominant carotenoids in both lens and macular pigmentation of the retina (particularly the macula region responsible for central vision). The role of these carotenoids in maintaining eye health remains an active area of research, with several studies suggesting associations with decreased risk of certain types of cataracts, macular pigment optical density, as well as, the dry form of macular degeneration.⁴



Do eggs increase the risk of heart disease?

There is a preponderance of evidence that shows that eggs do not increase risk for heart disease. In fact, the 2010 Dietary Guidelines for Americans states that healthy individuals can enjoy an egg daily.⁵ While a small percentage of the population experiences an increase in plasma lipoprotein lipid concentrations following increased dietary cholesterol intakes, both LDL-cholesterol and HDL-cholesterol increase in response to dietary cholesterol, maintaining the LDL-C/HDL-C ratio, a biomarker previously shown to reflect heart disease risk. Indeed, the 2013 American College of Cardiology and American Heart Association lifestyle guidelines for reducing risk of heart disease do not encourage limiting dietary cholesterol, but rather recommend a dietary pattern emphasizing intake of vegetables, fruits, and whole grains; including low-fat dairy products, poultry, fish, legumes, nontropical vegetable oils, and nuts; and limiting intake of sweets, sugar-sweetened beverages, and red meats.⁶

What's the latest evidence on the benefits of high-quality protein?

Diets rich in high-quality protein have been shown to improve appetite control, satiety, and promote body weight management across all ages.⁷ Higher protein intake in general, and at breakfast specifically, might help weight loss by promoting satiety, possibly via increased gut satiety hormones. Maintaining lean body mass is another important factor related to maintaining healthy body weight. Muscle protein synthesis has been shown to be 25% higher when the same quantity of protein (90 grams per day) is evenly distributed across breakfast, lunch, and dinner, compared to a dinner-skewed protein consumption pattern consistent with current intake patterns in the U.S.⁸

Do eggs increase the risk of type 2 diabetes?

Early observations led to a hypothesized positive association between egg intake and risk for developing type 2 diabetes, as well as, increased risk for developing heart disease in individuals with diabetes.⁹ However, a recent critical review of the evidence concluded that there is a lack of consistency in results from prospective analyses, and that for many studies, dietary confounders were not accounted for in statistical models.¹⁰ Moreover, some studies show favorable changes in chronic disease risk factors with egg intake in persons with diabetes or metabolic syndrome.¹¹ The relationships between egg consumption and diabetes and related disorders remains an active area of research.

References:

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