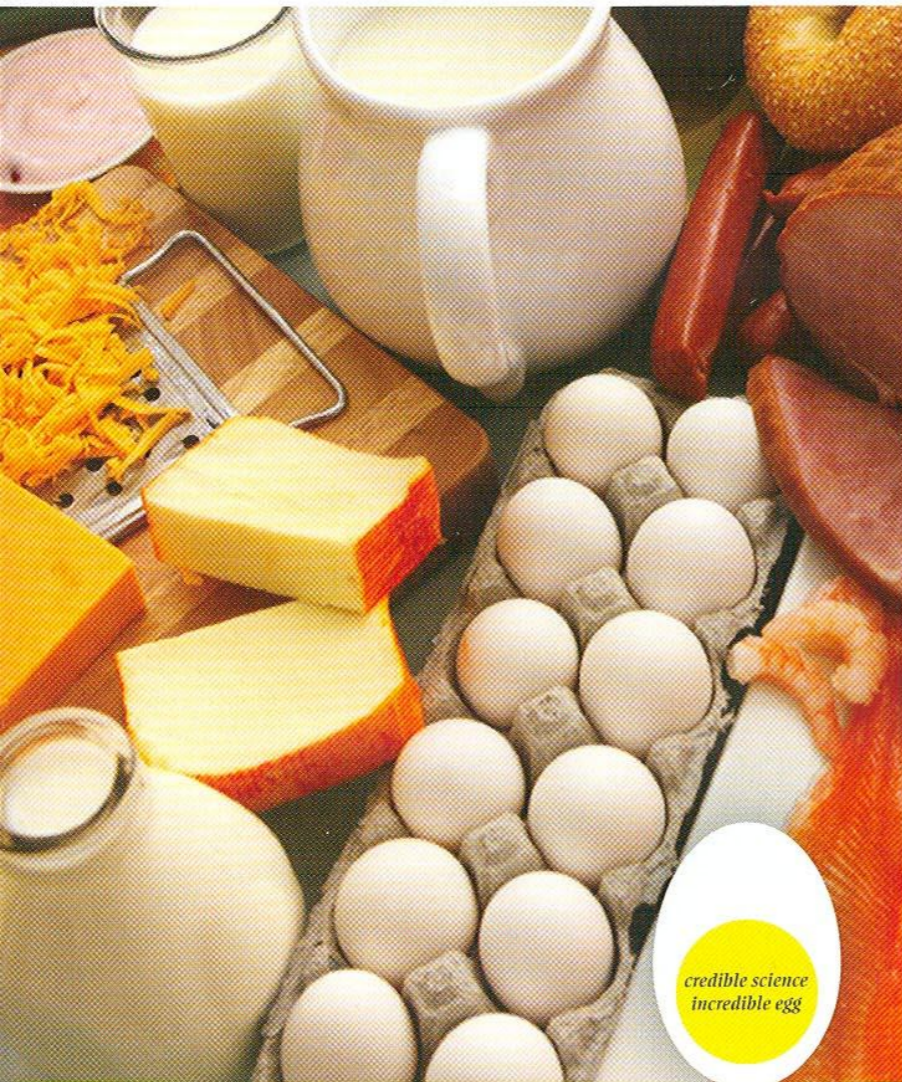


Cholesterol: What Does the Science Say?



More than 40 years of research has shown that healthy adults can eat eggs without significantly affecting their risk for heart disease.

What is cholesterol?

Cholesterol, a wax-like substance, belongs to the lipid family like fats and oils. Essential to all our body cells, it plays a special role in the formation of brain cells, nerve cells, and certain hormones.

What is the difference between dietary cholesterol and cholesterol in the blood?

Dietary cholesterol is found in some of the foods you may eat, such as milk products, poultry, beef and eggs. Your liver makes most of your blood cholesterol, and the amount produced varies by individual.

What are the different types of blood cholesterol?

Two main proteins carry cholesterol in the blood.

- Low-density lipoprotein (LDL)
- High-density lipoprotein (HDL)

LDL cholesterol is often referred to as “bad” cholesterol and carries fat in the bloodstream all throughout the body. LDL cholesterol is either big and fluffy or small and dense. When small and dense, LDL can get stuck to the walls of blood vessels, narrowing flow. When the narrowed blood vessel is blocked, a blood clot may form that could cause a heart attack or stroke.

Although LDL cholesterol is made naturally in the body, some people make too much of it, naturally or from eating too much saturated fat.

HDL or “good” cholesterol looks for fat throughout the bloodstream and returns it to the liver. Having adequate HDL levels mean that fatty deposits are less likely to build up in the blood vessels. Physical activity and eating healthier fats are two ways to potentially raise your HDL cholesterol levels.

How much cholesterol does one egg have?

Recent studies show eggs have less cholesterol than ever before. The United States Department of Agriculture (USDA) recently reviewed the egg nutrient data. The results show the average amount of cholesterol in a Grade A, large egg is 185 mg, 14% lower than the previously recorded.

One possible cause for the decrease in cholesterol level is the improvement in the feed given to hens. A poultry nutrition specialist balances the feed given to hens to assure nutrients specifically required for the hens are provided.



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What are the current recommendations regarding dietary cholesterol intake?

The American Heart Association (AHA) and the Dietary Guidelines for Americans recommend no more than 300 mg of dietary cholesterol each day as a means of preventing heart disease. The 300 mg/day limit is a recommendation to be achieved as an average over time and not necessarily a daily limit. The guidelines do not provide a specific limit on egg consumption.

Does dietary cholesterol intake lead to an increase in blood cholesterol levels?

Actually, studies show saturated fat and trans fat have much more of an impact on raising blood cholesterol levels than dietary cholesterol. Only about one-third of people see a slight increase in their own blood cholesterol levels when they eat dietary cholesterol. This group is often referred to as “hyper-responders.”

Keep in mind, this rise in blood cholesterol is typically due to an increase in both the good cholesterol (HDL) and the bad cholesterol (LDL) with no changes in the LDL/HDL ratio. The ratio of LDL to HDL is thought to be a better indicator for risk of heart disease than the blood cholesterol values alone.

What many scientists consider important is the blood levels of small, dense LDL cholesterol particles because these small, dense particles are a well-defined risk factor for heart disease. Research has shown egg intake decreases levels of small, dense LDL particles. In fact, countries with the highest egg consumption report some of the lowest incidences of heart disease.

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What are some benefits of eating eggs?

Eggs are nutrient-dense and a good source of all natural, high-quality protein – the highest quality protein available in a food. Eggs also provide 13 vitamins and minerals in varying amounts at 70 calories per large egg. This is what makes the egg a nutrient-rich food.



The choline found in eggs plays a role in brain function and is a critical nutrient in the diet of pregnant mothers. Eggs are an excellent source of choline. Both egg yolks and egg whites are a good source of high-quality protein; however, the egg yolk contains almost half the protein and the majority of the other nutrients. Research findings show egg yolks contain lutein and zeaxanthin, which contribute to eye health. While eggs contain small amounts of these nutrients, research shows that the lutein found in eggs may be more bioavailable, or better used by the body, than lutein from richer sources. Most of the fat in the egg is unsaturated fat. While egg yolks are a concentrated source of dietary cholesterol, they can still be included in a heart-healthy diet.

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Nutrition Facts	
Serving Size 1 egg (50g)	
Serving per Container 12	
Amount Per Serving	
Calories 70	Calories from Fat 45
% Daily Value*	
Total Fat 5g	7%
Saturated Fat 1.5g	8%
Trans Fat 0g	
Cholesterol 185mg	60%
Sodium 70mg	2%
Potassium 70mg	2%
Total Carbohydrate 0g	0%
Protein 6g	13%
Vitamin A 6% • Vitamin C 0%	
Vitamin D 10% • Calcium 2%	
Iron 4% • Thiamin 0%	
Riboflavin 15% • Vitamin B-6 4%	
Folate 6% • Vitamin B-12 8%	
Phosphorus 10% • Zinc 4%	
Not a significant source of Dietary fiber or Sugars	
* Percent Daily Values are based on a 2000 Calorie diet. Your daily volumes may be higher or lower depending on your calorie needs.	
	Calories 2,000 2,500
Total Fat	Less than 65g 80g
Sat fat	Less than 20g 25g
Cholesterol	Less than 300mg 300mg
Sodium	Less than 2,400mg 2,400mg
Potassium	3,500mg 3,500mg
Total Carbohydrate	300g 375g
Dietary Fiber	25g 30g
Protein	50g 65g
Calories per gram	
Fat 9 • Carbohydrate 4 • Protein 4	

Can I control blood cholesterol through diet and exercise?

For many, blood cholesterol can be controlled by eating a heart-healthy diet and getting 30-60 minutes of exercise on more days than not. However, sometimes high blood cholesterol is hereditary and results in high LDL cholesterol levels. In this case, healthcare providers may recommend medication to help improve blood cholesterol levels.

How many eggs can I eat in a day?

Overall, the evidence shows that consumption of one egg per day is fine for most healthy people and does not result in significant changes in serum lipoprotein cholesterol and triglyceride levels.

The National Lipid Association recommends the following tips for a heart-healthy lifestyle:

- Get at least 30 minutes of physical activity most days of the week
- Cut back on saturated and trans fats, cholesterol, added sugars, and salt
- Maintain a healthy body weight by balancing the amount of calories you take in from food and beverages with the amount of calories you burn

The Egg Nutrition Center reports the latest science. Visit www.eggnutritioncenter.org to sign up for the Nutrition Close-Up and Nutrition Research Update newsletters.

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