

A Special Report  
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Physicians  
Committee  
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*Confused About Cholesterol? Here's What You Need to Know*

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### Introduction

**“Good cholesterol,” “bad cholesterol,” “dietary cholesterol,” “serum cholesterol”—it’s enough to make your head spin. And it’s all become more complicated with recent news reports asking whether cholesterol you eat really makes any difference.**

Decades of science have conclusively linked dietary cholesterol to cardiovascular disease, which kills nearly 2,200 Americans daily.

An estimated 7.1 million Americans have experienced a heart attack during their lifetimes. Those who survive a heart attack often go on to have another.

More than 7 percent of Americans have some type of cardiovascular disease, and one out of every six deaths in the United States is due to coronary heart disease alone. Eating habits and other lifestyle factors play a large role in determining the risk of heart disease and may prevent or even reverse this condition.

### Here Is What You Need to Know

Cholesterol is produced in your body. It serves as a building block for making cell membranes and a raw material for producing hormones, such as testosterone or estrogens. But if you have too much cholesterol in your blood, it can increase your risk of heart disease.

How could you end up with too much cholesterol? The first way is by eating foods that contain cholesterol. That means meats, dairy products, and eggs. Because animals make cholesterol, just as

humans do, animal-derived food products contain substantial amounts of it. Fruits, vegetables, beans, grains, and other foods from plant sources are essentially cholesterol-free.

How much does the cholesterol that you eat affect **your blood cholesterol level? It depends. Let’s say** you generally avoid cholesterol-containing foods and maintain a healthy, low blood cholesterol level, and then you were to begin eating more cholesterol-containing foods. You will likely have a significant boost in your blood cholesterol.<sup>1</sup>

On the other hand, if you eat a fair amount of fat and cholesterol on a daily basis and, as a result, have a high blood cholesterol level, adding a bit more cholesterol to your diet will have little or no **effect on your blood cholesterol. It’s like a glass that** can only get so full; if you keep pouring in water, it will not be able to hold any more.

### Eggs Are High in Cholesterol

Eggs contain both cholesterol and saturated fat. Here are the numbers: Two large eggs contain approximately 3.3 grams of saturated fat, which is approximately 20 percent of their calories. For reference, most health authorities recommend that no more than 10 percent of calories should come from saturated fat. That means that eggs push your diet in the wrong direction. They also hold roughly 400 milligrams of cholesterol.

A 2013 meta-analysis, published in *Atherosclerosis*, showed that eggs increase the risk of developing diabetes.<sup>2</sup> A second meta-analysis, this one in the *American Journal of Clinical Nutrition*, agreed:

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Frequent egg consumption was associated with a 42 percent increased risk of developing diabetes. And in people with diabetes, having more than one egg per day was associated with a 69 percent higher risk of cardiovascular complications.<sup>3</sup>

Are eggs linked to heart disease? Evidence is mixed. The Atherosclerosis meta-analysis said yes, while the other meta-analysis did not identify a link. However, the authors of the latter study cautioned that most of the evidence they examined was from Western countries, where most people ate plenty of high-cholesterol foods, making it hard to tease out the effects of eggs.

Other risks have been reported: In Harvard's Health Professional Follow-up Study, men who consumed 2.5 or more eggs per week had an 81 percent increased risk of fatal prostate cancer, compared with those who consumed less than 0.5 eggs per week.<sup>4</sup>

### Red Meat, Lean Meat, All Meat Has Cholesterol

Surprisingly, cholesterol is mostly found in the lean portion of meat.

Chicken contains nearly as much cholesterol as red meat. Four ounces of beef and 4 ounces of chicken both contain approximately 100 milligrams of artery-clogging cholesterol, which contributes to heart disease.

In addition to dietary cholesterol, typical chicken servings are about 50 percent fat, and 30 percent of

that is saturated or "unhealthy" fat, which stimulates the body's production of cholesterol.

Chicken contains no fiber, a substance that can naturally lower cholesterol, remove toxins and hormones from the body, and help prevent certain types of cancer.

### What About Fish?

While a 3-ounce T-bone steak contains 70 milligrams of cholesterol, 3 ounces of shrimp contain 161 milligrams. Numerous studies have shown that dietary cholesterol consumption corresponds with an increased risk for artery blockage.

### Dairy

Dairy products—including cheese, ice cream, milk, butter, and yogurt—contribute significant amounts of cholesterol and saturated fat to the diet.<sup>5</sup> Diets high in fat and especially in saturated fat can increase the risk of heart disease and can cause other serious health problems. The high levels of cholesterol and saturated fat in cheese and other dairy products can increase atherosclerosis, leading to cardiovascular problems.

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Food Product	Cholesterol Content
<b>Dairy</b>	<ul style="list-style-type: none"> <li>• 1 tablespoon of butter contains 31 milligrams of cholesterol.</li> <li>• 1 cup of reduced fat milk contains 20 milligrams of cholesterol.</li> <li>• 1 ounce or a ¼ cup of shredded cheddar cheese contains 25 milligrams of cholesterol.</li> <li>• ½ cup vanilla ice cream contains 29 milligrams of cholesterol.</li> </ul>
<b>Lean Meat</b>	<ul style="list-style-type: none"> <li>• 3.5 ounces of grilled or baked chicken breast contains about 52 milligrams of cholesterol.</li> <li>• 3.5 ounces of turkey breast contains 50 milligrams of cholesterol.</li> <li>• 3.5 ounces of broiled pork loin contains 85 milligrams of cholesterol.</li> </ul>
<b>Red Meat</b>	<ul style="list-style-type: none"> <li>• A 3.5-ounce burger made from 80 percent lean ground beef contains 88 milligrams of cholesterol.</li> <li>• That same serving size of bacon contains 96 milligrams of cholesterol.</li> </ul>
<b>Eggs</b>	<ul style="list-style-type: none"> <li>• One large egg contains 186 milligrams of cholesterol.</li> </ul>
<b>Seafood</b>	<ul style="list-style-type: none"> <li>• 3.5 ounces of shrimp contain 187 milligrams of cholesterol.</li> <li>• 3.5-ounce salmon fillet has 55 milligrams of cholesterol.</li> </ul>
<b>Plant-Based Foods: Fruits, Vegetables, Whole Grains, Legumes, Nuts, and Seeds</b>	<ul style="list-style-type: none"> <li>• Any food that grows from the ground and has had no animal ingredients added during processing contains ZERO cholesterol</li> </ul>

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### The Government Needs to Warn the Public About Cholesterol

The USDA should make sure that cholesterol is a nutrient of concern.

Doctors with the Physicians Committee are urging the USDA and DHHS to exercise its authority to reiterate prior federal recommendations that Americans limit their cholesterol intake.

In a petition to the USDA and DHHS, the doctors **group asks that the DGAC's findings stating that "[c]holesterol is not a nutrient of concern for overconsumption," be disregarded because the DGAC deferred entirely to a 2013 report by the American Heart Association and American College of Cardiology and one meta-analysis of egg consumption. The reliance on the American Heart Association and American College of Cardiology report does not comply with the spirit of the Federal Advisory Committee Act, which sets standards for bias among federal advisory committees.**

**The petition states: "In appearing to exonerate dietary cholesterol, the DGAC further confuses an already bewildered general public, the very group the Dietary Guidelines are supposed to benefit. See 7 U.S.C. § 5341(a). The average American does not differentiate fat from cholesterol, or dietary cholesterol from blood cholesterol. To suggest that cholesterol in foods is not a problem will lead many to imagine that fatty foods or an elevated blood cholesterol level carry no risk—two potentially disastrous notions."**

### What Can Consumers Do?

Of course, no one orders a plate of cholesterol at a restaurant or puts cholesterol on their grocery list. Cholesterol is hidden in meat, dairy products, and other foods.

The safest choice is to avoid high-cholesterol, high-fat food products. A plant-based diet of fruits, vegetables, whole grains, and legumes is naturally free of cholesterol and loaded with fiber and protein.

### Conclusion

**Let's cut through the confusion. Animal products contain both cholesterol and saturated fat, and you're better off avoiding them.**

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