



## Research summary

# Understanding dietary cholesterol and blood absorption

## About the study

Decades of research have confirmed that dietary cholesterol (cholesterol found in food) does not affect blood cholesterol levels. In fact, researchers have clearly shown how eating eggs, which contain 14 important nutrients, can contribute to a healthy lifestyle, despite being a source of dietary cholesterol.

At the same time, little is known about the mechanism behind dietary cholesterol absorption. To further understand this, researchers at Purdue University explored the effect of eating cooked whole eggs on blood cholesterol absorption.

## Methods

This study is based on the results of two separate investigations. In the first, 16 healthy young men participated in three randomized trials, consuming a prescribed diet during the week preceding each trial. They then fasted for 12 hours and a baseline blood test was taken. For each trial, participants ate one of three randomized meals: a carefully portioned raw mixed-vegetable salad either without eggs (0 mg of cholesterol), with one and half scrambled whole eggs (280 mg of cholesterol), or with three scrambled whole eggs (560 mg of cholesterol).



For the second investigation, 17 healthy middle-aged women consumed a prescribed diet during the week preceding each trial. Before each of the two trials, a baseline blood sample was taken. The participants then consumed one of two meals: sautéed vegetables either without eggs (0 mg of cholesterol), or with two cooked whole eggs (373 mg of cholesterol).

In each investigation, blood samples were collected hourly for 10 hours following consumption of the test meal, with participants eating a low cholesterol lunch at the fifth hour. These samples were tested for the amount of cholesterol absorbed in the blood.



## Findings

In tracking cholesterol absorption following the meals, the researchers found that dietary cholesterol was not well absorbed into participants' bloodstream. Regardless of whether the participants consumed 0, 280, 373 or 560 mg of cholesterol from eggs, it did not significantly impact the participant's blood cholesterol concentration.

## Conclusions

Managing the amount of cholesterol in our bodies is important for healthy living. Historically, it was thought the way to do this was to limit dietary cholesterol consumption. However, as this study shows, dietary cholesterol is not necessarily absorbed into the bloodstream. The study's authors suggest that compounds in egg yolks may work together with egg white protein to limit cholesterol absorption. Knowing this, people can enjoy nutrient-rich eggs with the confidence they are contributing to a healthy lifestyle.

## About the researchers

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## Citation

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