



Lurking Beneath the Shell: Health Concerns with Eggs

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There are many reasons to eliminate eggs from your diet. Recent studies suggest that egg consumption can cause heart disease, diabetes, and even cancer.^{1,2}

Eggs have zero dietary fiber, and more than 60 percent of their calories are from fat—a large portion of which is saturated fat.³ An average-sized egg also contains an unhealthy 186 milligrams of cholesterol.³ To put this amount in perspective, those with high cholesterol, diabetes, or cardiovascular disease are advised to limit their daily intake to less than 200 milligrams.^{2,4} But any dietary cholesterol is unnecessary, as our bodies already produce more than enough for our needs.

Another health hazard is contamination. Porous and fragile shells and crowded egg farms allow eggs to become the perfect host for salmonella, the leading cause of food poisoning in the United States.⁵

Heart Disease

Researchers found that those who consumed the most eggs increased their risk for cardiovascular disease by 19 percent, and for those who already had diabetes, their risk for developing heart disease spiked to 83 percent.² New research suggests that there may be a byproduct of choline, a component found at a high concentration in eggs, that increases one's risk for a heart attack or stroke.⁶

Diabetes

A review of 14 studies published in the journal *Atherosclerosis* showed that those who consumed the most eggs increased their risk for diabetes by 68 percent.¹

In the Physicians' Health Study I, which included more than 21,000 participants, researchers found that those who consumed seven or more eggs per week had an almost 25 percent higher risk of death than those with the lowest egg consumption. For participants with diabetes, the risk of death was two-fold compared with those who ate the least amount of eggs.⁷

Egg consumption also increases the risk of gestational diabetes, according to two studies referenced in the *American Journal of Epidemiology*. Women who consumed the most eggs had a 77 percent increased risk of diabetes in one study and a 165 percent increased risk in the other, compared with those who consumed the fewest.⁸

The link between eggs and diabetes may be due to cholesterol or because high-fat diets correlate with increased blood sugar levels, since foods rich in fat can increase insulin resistance.⁹

Cancer

People who consume just 1.5 eggs per week have nearly five times the risk for colon cancer, compared with those who consume less than 11 eggs per year, according to a study published in the *International Journal of Cancer*.¹⁰ In analyzing data from 34 countries, the World Health Organization found evidence that eating eggs is associated with death from colon and rectal cancers.¹¹ Research published in *International Urology and Nephrology* suggests that even moderate egg consumption can triple the risk of developing bladder cancer.¹²

A 2011 Harvard study funded by the National Institutes of Health found that eating eggs is linked to developing prostate cancer. By consuming 2.5 eggs per week, men increased their risk for a lethal form of prostate cancer by 81 percent, compared with men who consumed less than half an egg per week.¹³ The high levels of cholesterol and choline in eggs may be the cause. It has been suggested that choline, though important in cellular signaling, can promote the spread of prostate cancer throughout the body.¹³

Even Egg Whites?

Since most Westerners include far more protein than necessary in their diets, adding a highly concentrated source such as egg whites can increase their risk for kidney disease, kidney stones,¹⁴ and some types of cancer.¹⁵

Substitutions

Eggs are included in recipes for binding, leavening, and adding moisture. However, there are many simple replacements, such as ground flaxseeds or applesauce, which allow for fully enjoying favorite foods while avoiding possible health risks. Products like tofu and beans can even take the place of eggs, making tofu scramble or garbanzo bean eggless salad.

This is a positive dietary change, not only facilitating a reduction of cholesterol, saturated fat, and animal protein, but also increasing the amount of protective fiber, antioxidants, and phytochemicals.

Below are several possibilities for egg substitutions for cooking or baking:

1 egg =



- 1/4 cup of tofu (any kind), blended with the liquid ingredients of a recipe (note: low-fat tofu allows for a caloric reduction for a recipe)
- 1/2 banana, mashed
- 1/4 cup applesauce or pureed fruit
- 1/2 cup soy yogurt
- 1-1 1/2 teaspoon Ener-G Foods Egg Replacer (a powdered commercial egg substitute) + 2 tablespoons lukewarm water
- 1/4 cup mashed white potatoes or sweet potatoes
- 1 tablespoon ground flaxseed meal + 3 tablespoons water
- 2 tablespoons potato starch, cornstarch, or arrowroot
- 2-3 tablespoons of tomato paste
- 1/4 cup cooked oats
- 2-3 tablespoons of bread crumbs
- 2-3 tablespoons of flour

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