Research from Pennsylvania State University shows a new way in which peanuts may reduce the risk of heart disease. This study, published in The Journal of Nutrition, is the first to show that peanuts, especially peanut protein and bioactives, help keep your arteries flexible.

Levels of fat in the blood rise rapidly after a high fat meal, causing blood vessels to become stiff. This makes your heart work harder to pump blood through the body, increasing the risk of heart disease and stroke. In this study, obese and overweight men who ate peanuts as part of a high fat shake reduced the rise in blood triglycerides by 32% compared to a control shake.

Additionally, peanuts caused the participants’ arteries to remain open and flexible, despite the shake having a whopping 50% of its calories from fat. The researchers think the peanut protein, along with bioactives, vitamins and minerals play a major role in preventing this stiffening response. “Since the macronutrients were matched between the two shakes, we don’t think that it was the mono- and polyunsaturated fatty acids in the peanuts that affected the response,” according to lead researcher Dr. Penny Kris-Etherton. “The plant protein in peanuts, and specifically the amino acid arginine, along with the many other nutrients in peanuts likely played a role.”

Peanuts contain more protein than any other nut and, more arginine than most other foods. This is important because arginine is used to make nitric oxide, a vasodilator that helps keep blood vessels open and flexible. In this study, blood vessel flexibility was measured using an ultrasound technique called flow-mediated dilation (FMD).

Peanuts contain a rich assortment of bioactives, including resveratrol, plant sterols, flavonoids and antioxidants. Peanuts are also a source of dozens of vitamins and minerals, including niacin, folate, biotin, vitamin E, copper, manganese, molybdenum, and phosphorus. Dr. Kris-Etherton states “the many nutrients and bioactives in peanuts have multiple health benefits, including the ability to blunt postprandial triglyceride response and prevent arteries from getting stiff after a high fat meal.”

“Peanut protein and bioactives help keep arteries flexible”

“Peanuts prevent arteries from stiffening after a high fat meal”

“Peanuts reduce the rise in triglycerides by 32%”

To isolate the effects of peanut protein and bioactives, researchers prepared two shakes: a “control” shake containing a mixture of healthy oils, fiber, and protein from egg whites, and a shake containing peanuts. The fat content in the control shake was an exact match to that of the peanut shake, allowing researchers to test the effects of peanut protein and bioactives specifically.

When it comes to promoting heart health, peanuts can’t be beat. Research shows that eating a small handful of peanuts—just 20 grams—daily can reduce the risk of major diseases like heart disease, and even the risk of death. Take a small step that really delivers: choose peanuts!
Eat Peanuts for Blood Vessel Health

The average adult has approximately 100,000 miles of arteries, veins, and capillaries. These blood vessels carry oxygen and nutrients throughout the body, and must remain flexible in order to work properly. However, eating a high fat meal causes arteries to become stiff.

When arteries become stiff, the heart has to work harder to pump blood throughout the body. Over time, this can increase the risk of heart disease and stroke. New research shows that the nutrients and bioactives in peanuts can prevent this stiffening response.

In particular, peanuts are high in the amino acid arginine. Peanuts contain 4.7 grams of arginine per cup, which is almost double the amount found in chicken breast (2.6 grams/cup), and nearly twenty times the amount found in a glass of skim milk (0.23 grams/cup). Arginine is used to make nitric oxide, a vasodilator that helps keep blood vessels open and flexible. Nitric oxide is essential for blood pressure regulation, and it also supports the immune system. These are major health benefits for a tiny peanut package!

Research from the Pennsylvania State University shows, for the first time, that peanuts protect blood vessels from the damaging effects of a high fat meal. Interestingly, this protective effect is even more pronounced in those who are at highest risk of developing stiff arteries.

Researchers sorted participants into two groups based on their starting or “baseline” blood cholesterol levels: those with high levels of blood cholesterol, and those with normal levels of blood cholesterol. They found that those with high cholesterol levels developed the stiffest arteries after a high fat shake, but this response was completely prevented when the shake contained peanuts.

Other studies have also shown that peanuts have major health benefits in those who are at highest health risk. For example, the Southern Community Cohort Study (SCCS) recruited men and women from 12 southern U.S. states, where the incidence of obesity and chronic diseases are exceedingly high. Over 76% of SCCS participants had metabolic conditions such as hypertension, diabetes and high cholesterol, and over 75% were overweight or obese. In this study, those with the highest peanut/nut intake experienced a 21% reduction in the risk of death.

These studies show that peanuts have a major impact on overall health, even in those who are most at-risk of developing serious health complications. Pass the peanuts please!
Keeping Blood Vessels Healthy in the Postprandial State

Research from Pennsylvania State University shows that peanuts keep arteries open and flexible in the postprandial state. What exactly is the “postprandial state”?

The word “postprandial” means “after meal.” Therefore, the “postprandial state” refers to the hours immediately following a meal or snack. During this time food is broken down and digested in the stomach and intestines, and the nutrients from your meal enter the bloodstream.

Most people spend the majority of their nonsleeping time in a postprandial state. In fact, research from the United States Department of Agriculture (USDA) shows that in addition to regular meals, over two-thirds of adults eat at least two snacks per day. With nutrients constantly entering and circulating in the blood, it is important to keep blood vessels healthy in the postprandial state. Research shows that peanuts may help preserve blood vessel function even under stressful postprandial conditions.

A high fat meal can be very stressful for your arteries. Rising levels of fat in the blood trigger inflammation, making blood vessels constrict and become stiff. The protective peanut protein, nutrients and bioactives prevent this response, keeping blood vessels flexible and healthy.

To measure how blood vessels constrict (vasoconstriction) and open (vasodilation) after a meal, researchers use a technique called flow-mediated dilation (FMD). This is a noninvasive ultrasound technique that is similar to getting your blood pressure taken.

To measure FMD, a cuff is placed on the upper arm to restrain blood flow in the artery for several minutes. When the cuff is released, researchers measure how much the artery opens or “dilates.” Healthy blood vessels are flexible, and remain open to allow oxygen and nutrients to move throughout the body. After a high fat meal, however, blood vessels become inflamed and constrict. Research shows that peanuts prevent vasoconstriction after a high fat meal.

Visit peanut-institute.org to learn more about the protective nutrients in peanuts.
Peanuts: New Health Benefits for a Long-Time Superfood

Research from Pennsylvania State University shows a new way in which peanuts promote heart health. However, peanuts have a long track record of heart-healthy status:

Peanuts received a FDA Qualified Health Claim for Heart Health in 2003 that states “Scientific evidence suggests but does not prove that eating 1.5 ounces of most nuts, such as peanuts, as part of a diet low in saturated fat and cholesterol may reduce the risk of heart disease.” It was based primarily on studies showing benefits of the good mono- and polyunsaturated fats in peanuts.

The USDA highlights peanuts in its “Smart Snacks in Schools” program. Peanuts are recognized as one of the most nutrient-dense choices, having zero empty calories.10

Eat Your Way to a Healthy Heart!

Research shows that eating a small amount of peanuts daily reduces the risk of death and major diseases.

Visit peanut-institute.org for tasty recipes that you (and your heart) will love!

References