



Food Studies

Nearly 2,500 years ago, Hippocrates said, “Let food be thy medicine and medicine be thy food.” For most of human civilization, people ate whatever was available, and most often died from plagues and tragic accidents unrelated to what they ate.

Today, however, it's estimated that as much as 80% of disease can be tied to our food and lifestyle choices, so it's once again important that we follow Hippocrates' advice to “Let food be thy medicine.” While the totality of our diets is much more important than seeking out individual superfoods, the studies below illustrate how science is documenting the wisdom of Hippocrates' approach, by uncovering the beneficial properties of many foods.



Seafood Linked with Fewer Signs of Alzheimer's Disease. To see how fish consumption and mercury exposure relate to Alzheimer's, scientists analyzed the food intake of over 500 retired adults in Chicago each year for several years. They then autopsied the brains of 286 of the deceased participants to study signs of Alzheimer's disease and measure levels of mercury in the brain. The scientists found that eating at least one seafood meal per week was linked with less Alzheimer's disease pathology (including lower density of neuritic plaques, less severe and widespread neurofibrillary tangles, and lower neuropathologically defined Alzheimer's disease) in participants with genetic predisposition to Alzheimer's disease (APOE4 allele carriers). They also found that higher brain concentrations of mercury were not linked with increased signs of Alzheimer's disease, and that fish oil supplementation had no effect on these markers.

[*JAMA. 2016 Feb 2;315\(5\):489-97. \(Morris MC et al.\)*](#)



Consuming Fat from Plant Oils May Help Prevent Cardiac Death. In a large study, researchers from the Global Burden of Diseases Nutrition and Chronic Diseases Expert Group analyzed fat consumption and coronary heart disease statistics of 186 nations across the world. They found that 10.3% of coronary heart disease deaths were attributable to not eating enough n-6 polyunsaturated fats (found in soy, walnuts, sunflower seeds, and some plant oils), while 7.7% were due to eating too much trans fat (found in margarine and highly processed foods), and 3.6% were due to eating too much saturated fat (found in red meat and butter). In 80% of nations studied, deaths from heart disease due to inadequate n-6 polyunsaturated fats was at least double the heart disease deaths due to too much saturated fat. This suggests that positive messages focused on adding healthy foods (such as cooking vegetables in plant oils, and sprinkling nuts and seeds on meals) can have an important impact on public health.

[*Journal of the American Heart Association. 2016 Jan 20;5\(1\). Pii: e002891. \(Wang Q et al.\)*](#)



Eating Fiber in Young Adulthood Linked with Lower Breast Cancer Risk.

Dietary fiber is an important nutrient found in plant foods (mostly in whole grains, fruits, vegetables, and pulses). To study the link between fiber intake and breast cancer risk, Harvard scientists analyzed the adolescent and early adulthood diets of over 90,000 women, and noted any diagnosis of breast cancer. Researchers found that every 10g of fiber in adolescence and young adulthood was linked with a 14% and 13% lower risk of breast cancer, respectively. Those eating the most fiber in adolescence and young adulthood (25g per day) were 25% less likely to get breast cancer than those eating the least fiber (12g per day).



[Pediatrics. 2016 Feb 1.](#) pii: peds.2015-1226. (Farvid MS et al).

Young Women Better Absorb Iron over Time.

Phytates are compounds found in many plant foods, especially in beans and whole grains. Although phytates are linked with health benefits, they can also block the absorption of non-heme iron (the type of iron found in beans and other plant sources). To see how eating phytate-rich foods affects nutrition status, scientists in Iowa assigned 28 non-anemic young women to either a high phytate (lots of whole grains, beans, nuts, and tofu) or low phytate (refined grains, eggs, and cheese, avoiding high phytate foods) diet for eight weeks, then tested their iron levels. After consuming a high phytate diet for 8 weeks, there was a 41% increase in serum iron response (measured by area under the curve). This indicates that “habitual consumption of [a high phytate] diet can reduce the negative effect of phytate on non-heme iron absorption among young women with sub-optimal iron stores.”



[Journal of Nutrition.](#) 2015 Aug;145(8):1735-9. (Armah SM et al.)

Leafy Greens Can Keep Your Brain Young.

It is no secret that green vegetables are some of the healthiest foods for our bodies, but new research shows that they are also good for our brains. Researchers in Chicago and Boston analyzed the eating patterns and cognitive abilities of over 950 older adults for an average of five years. The scientists found a significant decrease in the rate of cognitive decline for people who ate more green leafy vegetables (like spinach, kale, collards, and mustard greens). In fact, people who ate just one to two servings of leafy greens per day had the cognitive ability of a person 11 years younger than those who ate none.



[Presentation at the American Society for Nutrition](#) (ASN) Annual Meeting during Experimental Biology. Boston MA. March 30, 2015.