

Eat fish

Health-conscious consumers have long been vexed by whether seafood's benefits outweigh the risks. Now, two studies have reached a definitive conclusion:

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Two federally funded reports – one from the Institute of Medicine and the other from Harvard Medical School, Harvard School of Public Health and Brigham and Women's Hospital in Boston – have analyzed hundreds of research studies and determined that eating seafood may help reduce the risk of heart disease in the general population.

Researchers at Harvard found that people who eat one to two servings of fish per week – especially varieties higher in fatty oils, such as wild salmon – may reduce their risk of death from heart attacks by 36 percent and the rate of death in general by 17 percent.

Both reports also assessed the risks of eating seafood – including exposure to toxic chemicals such as methylmercury, polychlorinated biphenyls, or PCBs, and dioxins – and decided that the evidence of adverse side effects for the general public is inconclusive.

Fatty fish such as salmon or albacore tuna are important sources of two kinds of omega-3 fatty acids – eicosapentaenoic acid and docosahexaenoic acid – “good” fats that help prevent higher blood pressure and irregular heartbeats, both of which can lead to heart attacks.

The American Heart Association recommends that people should eat fish – particularly the fatty type – at least twice a week.

The reports found that fish consumption by pregnant or nursing women – a population that has recently been skittish about consuming fish – may have a beneficial effect on their infants, including improved visual acuity and cognitive development.

The Harvard study says that women in this category should aim for up to 12 ounces of fish per week, while the other report says that two servings of three ounces each would be sufficient, although up to 12 ounces is safe.

However, the studies upheld existing recommendations by the Food and Drug Administration and the Environmental Protection Agency that women who are or may become pregnant or who are nursing should avoid certain types of fish (including shark, swordfish, tilefish and king mackerel) that contain high levels of mercury. Such women should limit their intake of albacore, or white, tuna to minimize the amount of toxic substances to which they are exposed, especially methylmercury, which can cause permanent neurological damage in infants and fetuses.

The Institute of Medicine report also said that children up to 12 years of age may benefit from consuming seafood, especially fish such as salmon.

This age group could reasonably eat two three-ounce servings per week (or an age-appropriate size), and they can safely consume up to 12 ounces per week.

For the Harvard report, supported by the National Institutes of Health and published in the *Journal of the American Medical Association* – the researchers performed a meta-analysis, pooling the data of more than 200 existing studies on the benefits of fish and fish-oil consumption on cardiovascular health in adults and on the neurological brain development of babies, as well as the health risks of methylmercury, PCBs and dioxin found in fish.

The authors of the Harvard report are explicit in their conclusion: The benefits of modest seafood consumption far outweigh the potential risks.

In their analysis, the researchers looked at a wide variety of commonly consumed fish. They determined that the cardiovascular health benefits of wild-salmon consumption, for example, outweigh the cancer risks by 900 to one, while the benefits of farm-raised salmon outweigh the risks by 300 to one.

“The number one cause of death in the U.S. is coronary heart disease,” said Dariush Mozaffarian, a cardiologist at Harvard Medical School and Harvard School of Public Health who is a co-author of the study. “If fish intake reduces that by approximately one-third, there’s potential to save thousands of people from coronary heart-disease deaths per year.”

By contrast, the Institute of Medicine report, sponsored by the National Oceanic Atmospheric Administration with support from the Food and Drug Administration – is more measured in its findings, which weren’t based on pooled data but on the qualitative examination of hundreds of studies.

The report determined that people may be able to reduce the risk of heart disease by eating seafood, although it isn’t clear if this is because of the protective effects of omega-3 fatty acids or because substituting the lean protein of fish for a fatty cut of meat reduces one’s intake of saturated fat.

The report concluded that much of the scientific evidence for the benefits and the risks of seafood is preliminary or insufficient.

It says there aren’t enough reliable data about contaminants and little evidence of how the beneficial effects of seafood may counteract some of the risks.

It also determined that people who have already had heart attacks may not necessarily reduce their risk of future attacks by eating fish, as previously thought. It also says it is unclear whether seafood can reduce a person’s risk for other diseases, such as diabetes, cancer or Alzheimer’s.

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