



STAYING HEALTHY BY EATING SEAFOOD OFTEN

Seafood is one of the most important keys to healthy eating. People who eat fish and shellfish regularly are healthier than those who don't. Eating seafood discourages the development of chronic health conditions that impair health as we age. Seafood alone cannot prevent the onset of disease, but it may delay some conditions or make them less likely and less severe. Here are some examples emerging from recent science.

Visual Function

The leading cause of impaired vision in older people is age-related macular degeneration or ARM. It can lead to blindness. ARM is less likely to develop in people who consume fruits, leafy vegetables, and zinc, an element rich in oysters, clams, and mussels. We now know ARM is less common in people who eat seafood regularly. A recent study reported that people with the early stages of ARM were less likely to have their disease progress if they ate seafood regularly. In contrast, people who ate large amounts of fat, including vegetable fat, and people who smoked were more likely to have their vision worsen. The fatty acids found in fish—omega-3s—are concentrated in the eye and retina and are important for visual function. New evidence also suggests that eating fish may make cataracts less likely too. Eating fish regularly could be an important step toward maintaining good eyesight, especially later in life.

Type 2 Diabetes

Type 2 diabetes is increasing rapidly among Americans and is common in people who are overweight and inactive. Once diabetes develops, heart disease is much more likely. In type 2 diabetes, the pattern of lipids and other substances in blood becomes abnormal. However, omega-3s, the special fatty acids in fish, help improve the pattern of blood lipids by reducing the level of blood fats. They also improve "good" cholesterol levels. Omega-3 fatty acids from fish make blood clotting less likely, improve the function of blood vessels, and modestly lower blood pressure. These improvements lower the chance of heart attack. Including fish often among the foods you eat, maintaining a healthy weight, and



exercising everyday can lower your chance of developing type 2 diabetes and make the condition less dangerous once it develops.

Inflammatory Conditions

Several chronic diseases involve the immune system. The most common are rheumatoid arthritis, asthma, psoriasis (an inflammatory skin condition), and some allergies. In these conditions the immune system overacts and the inflammation that results contributes to the disease symptoms—painful joints, itchy skin, swelling, redness, wheezing, etc. These overactive immune responses can be toned down by the omega-3 fatty acids found in fish. For this reason, the oils in fatty fish, such as salmon, mackerel, herring, rainbow trout, and sardines, can be helpful in reducing the severity of the symptoms of these conditions. Omega-3s cannot prevent or cure these conditions, but they may make a noticeable improvement in the discomfort associated with them.

Mental Function

The omega-3 fatty acids found in fish oils include one, DHA, that concentrates in the brain. It is needed for proper brain and eye development during fetal development and the first two years of life. We are now learning that DHA may be important for healthy brain function throughout life. For example, some children with behavioral disorders show improvement in their learning and behavior when they consume fish oil or DHA. It is too soon to say that omega-3s will improve reading skills, learning, and inattention, but recent evidence points in that direction. This suggests that including fish in children's diets is important.

There is also growing evidence from older people that those who eat fish at least once a week may be less likely to develop Alzheimer's disease later in life compared with people who don't eat fish. Studies in animals with the disease have also shown that the disease develops more rapidly and is more severe when omega-3s are deficient in the diet than when they are plentiful. There is some indication that this may also be the case for Parkinson's disease, another degenerative brain condition.

In another area of mental function, omega-3 fatty acids from fish have been linked to lower chance of developing depression and bipolar disorder. Some studies have reported improvements in the symptoms



of various mental conditions, although it is too soon to say that fish oil fatty acids are an effective treatment. What these studies suggest is that many types of brain activity perform better when the brain has adequate amounts of fish oil fatty acids. The way to obtain them safely is to eat fish regularly. It's a smart choice.

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