Omega-6 vs Omega-3 in the Fight Against Heart Disease

The American Heart Association (AHA) Science Advisory now cautions: Reducing omega 6 polyunsaturated fatty acids (PUFA) in our diets may increase the risk for heart disease. This was the conclusion after a 2009 review of the large body of research published to date.

For decades, health professionals have recommended substituting vegetable oil (e.g., corn, sunflower, safflower and soy) for saturated solid fats such as butter and shortening in an effort to reduce heart disease. These oils are largely comprised of omega 6 PUFA – mainly linoleic acid. Linoleic acid (LA) is known to reduce LDL cholesterol (the “bad” cholesterol), which increases the risk of heart disease. The AHA recommends that 5-10% of calories come from omega-6 PUFAs (n-6). In the last several years, omega-3 PUFAs (n-3) have been found to reduce inflammation and prevent clot formation--both important for cardiovascular health. Good sources of n-3 are canola oil, flaxseed, walnuts and fatty fish.

Recently, a controversy has arisen as some health professionals contend that it is the high ratio of n-6:n-3 in the typical American diet that poses the greatest threat to heart health. They assert we consume foods with more n-6 than our ancestors did, and it is the very disparate ratio of high amounts of n-6 in relation to n-3 that causes inflammation of blood vessels associated with heart disease. The researchers claim that n-6 is pro-inflammatory and n-3 is anti-inflammatory. The rationale that n-6 promotes inflammation is based on the fact that LA can form arachidonic acid (AA) which is often involved in the development of inflammation. However, that is not the only chemical activity derived from AA. AA forms molecules that actually help suppress the atherosclerotic process, thereby lowering the risk of coronary heart disease (CHD). The AHA contends that n-6 is also anti-inflammatory and if omega 6 fatty acids are decreased in our diets, the risk for heart disease may actually increase.

The Science Advisory from AHA summarizes that both omega 6 and omega 3 PUFAs are needed. It cautions that, although n-3 reduce the risk of heart disease, reducing n-6 to adjust the ratio does not necessarily have a beneficial effect. Reducing n-6 may actually increase the risk of heart disease. A healthy diet includes both, as each offer heart healthy benefits. The Health Professionals Follow-Up Study found the incidence of CHD was lowest in individuals who had higher
intakes of both omega 6 and omega 3 PUFAs.

What does this mean for the consumer?
In the battle against heart disease, a varied diet is key. Emphasis should be on fruits, vegetables, whole grains and lean protein foods, along with a good source of omega 6 PUFA found in small amounts of vegetable oil and omega 3 PUFAs found in fatty fish such as tuna, sardines or salmon a couple of times a week. Flaxseed, walnuts, canola oil and dark green vegetables are also sources of omega 3 PUFAs. Moderation and variety are still essential to good health – including heart health!