



## Heart Disease - Beat The Number 1 Killer

Fat is necessary for life but unfortunately many of us consume too much of the wrong types of fat. Our intake of different fats has changed markedly during the last century. We eat far more saturated fats and vegetable oils which contain omega-6 fatty acids, whereas our intake of fatty fish oils (omega-3) has decreased by 80% during the last 80 years. We eat much less fish today, so most of us suffer from a deficiency of omega-3 fatty acids. To keep up with the need for fish fatty acids, we should eat 100g of fatty fish such as mackerel, herring or salmon daily.

### Low Heart Disease

Studies of Greenland Eskimos show they have low incidence of heart disease, joint and skin problems as compared to Westerners. This has been attributed to their diet, which is very rich in omega-3 polyunsaturated fatty acids. Their high consumption of deep sea oily fish contributes large amounts of these essential fatty acids. The fatty acid component of cells differs considerably between different populations. People in Europe and the USA have low levels of omega-3 fatty acids in their cells and heart disease is common. The Japanese and Greenland Eskimos have a much lower incidence of heart disease and their consumption of omega-3 fatty acids is very high.

### Evidence

Evidence suggests that some ordinary fish oil preparations may, due to their instability, produce free radicals which can be damaging to cardiovascular health. Free radicals are substances which attack the body's defences, weakening them so they cannot properly protect us. Free radicals need to keep stable. They do this by stealing from other stable substances and making them less stable. This sets up a damaging chain reaction. This can be compared to the way rust attacks a car. One tiny scratch on the paintwork results in the air being able to penetrate the body work and unless the reaction is stopped the rust will keep spreading, causing more and more damage.

### Antioxidants Combat Free Radicals

From this research a stable fish oil has been developed in which omega-3 fatty acids have been combined with appropriate antioxidants, (antioxidants help to combat free radical damage), resulting in a stable preparation with more pronounced effects in humans. As such, the stable fish oil has significant advantage over ordinary, commercially available fish oil preparations.

### Favourable Effects

The omega-3 fatty acids help to keep the cells of deep water ocean fish supple. These fish oils have been shown to keep cells flexible in man, helping to maintain joint suppleness and skin and blood vessel elasticity. They have more favourable effects on many bodily functions by forming substances that aid the immune system and help to prevent the formation of blood clots. In a natural stable fish oil there is a maximal natural concentration of omega-3 fatty acids which have not been chemically modified. The antioxidant system of the fish has been restored. Unfortunately many people confuse fish oil, which is obtained from the muscles and fat tissues of oily fish, with cod liver oil which is obtained from the liver of cod. Cod liver oil has a different taste and is primarily used for supplementation of vitamins A and D. There are many fish oils on the market today which are not stable and therefore do not perform the functions associated with a stable fish oil. A stable fish oil does not have the strong smell or taste of fish and is therefore pleasant to take.



### Effects Of Fish Oil On Cholesterol

LDL cholesterol (the 'bad' cholesterol), is a major risk factor for heart disease. It can be decreased by the omega 3 fatty acids in fish oil which simultaneously increases HDL cholesterol (the 'good' cholesterol).

### Effects of Fish Oil On Triglycerides & Fibrinogen

People suffering from a heart attack often have high blood levels of triglycerides. Triglycerides are a form of harmful fats and have been shown to be a major risk factor in cardiovascular disease. A stable fish oil can decrease the triglycerides markedly and to a far greater extent than ordinary fish oil. In fact no other compound to date seems to be more effective in decreasing triglycerides.

### Fibrinogen

Fibrinogen is a blood protein, an important risk factor for cardiovascular disease as it is one of the ingredients that makes up thrombi (clots). People with high levels of fibrinogen may be at greater risk of thrombosis. Studies have shown that fish oil helps to decrease the fibrinogen level in the blood, therefore reducing the risk of blood clots.

### Blood Circulation, High Blood Pressure & Stable Fish Oil

Subjects taking a natural stable fish oil have reported improved blood circulation in the legs and fingers which could be due to improved relaxation in the blood vessel walls. Stable fish oil is of particular interest in patients with mild raised blood pressure especially when on medication. Fish oil has been shown to help further reduce blood pressure and alleviate some of the side effects associated with some of the drugs e.g. raised blood cholesterol.