New Straits Times : 1 October 2006 WHAT if a heart attack does not have to mean death? Even if we could not prevent a heart attack, what if we could prevent death? After all, we fear a heart attack because in most cases, it means death. Indeed, it happens in seemingly healthy individuals and so suddenly that it is called "sudden death".

Yes, there is a totally natural and safe way to prevent death following a heart attack.

&#65533; Father of fish oil That may indeed be the biggest contribution of Dr Alexander Leaf.

This 86-year-old Jackson Professor of Medicine at Harvard has done some great ground-breaking research that he is increasingly being called the "father of fish oil". He was in Malaysia in 2002.

We had known for a long time that cardiovascular disease rates in the North Pole were far below that of North America and Europe.

This somewhat contradicts the "low fat" paradigm that says that if you eat less fat, you will have less heart disease.

Indeed, the Eskimos eat more fat. Indeed, 60 per cent of the daily energy of Eskimos comes from fat. Yet, they suffer less from heart disease.

For a long time, it was assumed that the omega-3 fatty acids prevented heart disease by preventing the process of artery hardening.

However, Australian researchers led by P.L. McLennan published data that hinted that omega-3 fatty acids could play a role in preventing or reducing irregular heart rhythms (arrhythmias).

After all, it is a known fact that these irregular rhythms cause death after a heart attack.

After the damage of a heart attack, the heart may stop suddenly from highly irregular heart rhythms. This cuts blood supply to your nerve centre &#65533; the brain and leads to death.

&#65533; Australian study

The Australian study used hearts of rats. Researchers compared the effects of different types of fats on arrhythmias.

Four types of fats were compared &#65533; saturated fats, mono unsaturated oils (olive oil), omega-6 polyunsaturated oil (Sunflower seed oil) and omega-3 polyunsaturated fatty acid (fish oil).

The result: There was almost no difference between saturated fat and olive oil. There was some reduction using sunflower seed oil.

However, fish oil caused total reduction in irregular heart rhythms. There were no arrhythmias when fish oil was used. Fish oil completely prevented arrhythmias.

&#65533; Irregular rhythms

This data startled Leaf. He set out to prove the research wrong.

After all, he reasoned that it would be inconceivable that something as natural as fish oil could be so effective. Leaf had a vested interest.

He had already lost a father and younger brother to heart disease. He was also excited on preventive medicine and researching omega-3 seemed really exciting.

Since the 1990s, his team not only proved that fatty acids prevent arrhythmias. More importantly, they have proposed a mechanism as to how it works.

They did some excellent work on dogs where they could trigger heart attacks using surgical procedures.

Once again, when heart attacks were triggered, fatty acids simply prevented it. When they used an omega-6 oil like soy bean oil, arrhythmias returned.

&#65533; Scientific data

As Leaf&#65533;s team were doing the work, some amazing data was coming out of fish oil research from all over the world.

In the ground-breaking GISSI Prevention Trial, published in the journal Lancet, researchers tested the effects of fish oil and vitamin E on people who had suffered a heart attack in the three months prior to the test period.

More than 11,000 men and women who had had heart attacks took part. In the 42-month follow-up from October 1993 and September 1995, there was 45 per cent reduction on heart disease.

The follow-up study that was published in Circulation included 11,323 patients who had suffered a heart attack within the

previous three months.

All of the patients received the same preventive care and ate Mediterranean-style diets rich in fruits, vegetables, olive oil and fish. Some patients also consumed fish oil supplements.

• Sudden death

The participants in all four groups were particularly vulnerable to sudden cardiac death because of their recent heart attacks.

But after just four months, the fish oil group already demonstrated a significant reduction in risk.

In fact, participants who took fish oil had about half the incidence of sudden death compared to participants in the other groups.

The much touted vitamin E had no effect at all either alone or when combined with fish oil. The study authors wrote that fish oil, on the other hand, had a "clinically important and statistically significant benefit".

Prof Leaf and his team had done a rather impressive study on the anti-arrthymic effect of fish oil in humans called The Fatty Acid Anti-arthymia Trial (FAAT). Again, it showed a 31 per cent reduction in sudden death.

Leaf said that fish oil works better than the antiarrhymic drugs. It is also safer and cheaper.

The best part is that it is part of the human diet. It has been so for millions of years.

Key points

> Fish oil contains essential fatty acids called omega 3 fatty acids

> New research shows that these omega 3 fatty acids are concentrated in tissues that conduct electrical impulses like the heart.

> New studies show that fish oil supplementation can reduce sudden death from a heart attack by to 45 per cent • almost half!

> Higher doses than what is currently recommended are necessary. You need 2-3 grams omega 3 fatty acids instead of the 300-600 milligrams.

> Fish oil is safe as it has been part of human nutrition for millions of years.

> Fish oil concentrates may be toxic as they carry the oceans toxins. Ask for "molecular distilled" fish oil supplements </p>