

Tomato compound used to help stave off heart disease

Scientists have modified a natural compound found in tomatoes to produce a treatment which could be used to help stave off heart disease and stroke.

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The new product, which is being launched at the British Cardiovascular Society Conference in London today, is based on lycopene.

Lycopene is known to be a powerful antioxidant, blocking the breakdown of fats in the blood, which lead to the damaging cholesterol and the build-up of fatal atherosclerotic deposits in arteries.

Hundreds of research projects round the world have investigated this mechanism and looked for ways to replicate it. Until now it has been impossible to produce a formula which allows lycopene to be reliably absorbed by the human body.

Now a team at Cambridge Theranostics Ltd (CTL), one of the university's many biotechnology spin-off companies, have refined a lycopene complex originally developed by Nestle to produce Ateronon.

More than a dozen preliminary trials involving around 150 people with heart disease indicate that Ateronon can reduce the oxidation of harmful fats in the blood to almost zero within as little as eight weeks.

Since Ateronon, is made entirely from elements of natural food, it has circumvented the drug regulatory process. It is being launched in June through the company's website and in high street pharmacies as a dietary supplement.

"We have patented this formula, but it is too early to predict exactly how effective it will be" said Gunter Schmidt, a cell biologist, who is CTL chief executive. "However, we are extremely excited about it."

Two major research projects investigating the benefits of Ateronon are about to begin at Addenbrooke's Hospital in Cambridge, and at Brigham and Women's Hospital, which is part of Harvard Medical School in America.

The year-long American study beginning next month will investigate the effect of a daily dose of Ateronon in 200 people with pre-existing heart disease.

The British study led by senior neuroscientist Peter Kirkpatrick, will compare the effect of the drug in 80 patients who have suffered unexplained brain haemorrhage. Around 6,000 people a year are affected, many of them children and young adults. Half of them die or are left with crippling brain damage as a result of bruising and inflammation of brain tissue caused by the bleeding .

The intention is to investigate the anti-inflammatory effect of Ateronon in the hope that those who receive the treatment will be protected from the disastrous post-haemorrhage, inflammatory process.

"The science behind it is much more worked out than it is for other dietary supplements; the mechanism of action is very similar to that of the statin group of drugs which are currently taken by millions of patients, but this compound holds out the promise of being much more effective," Kirkpatrick said.

<http://www.telegraph.co.uk/health/healthnews/5417537/Tomato-compound-used-to-help-stave-off-heart-disease.html>