DHA alone can lower triglycerides, says study

The study involved 116 patients with coronary artery disease and triglycerides greater than 200 mg/dL, approximately 90 percent of whom were on statin drugs. The groups of participants were supplemented DHA alone, or DHA combined with EPA.

The results reflect well for algae-derived DHA marketers, such as the manufacturer of the LifesDHA brand used in the trials, Martek Biosciences. In other areas, such as omega-3 for cognitive development - and in particular its use in infant formulas - fish oil suppliers have played up the DHA + EPA content of their ingredients on the grounds that it is closer to the lipid profile found in the human brain and breast milk.

The aim of the prospective, randomized, double-blind study was to compare DHA to DHA + EPA in patients with CAD and triglycerides greater than 200 mg/dL.

Subjects were randomized to either 1000mg of DHA or 1252 mg of DHA + EPA for eight weeks. A total of 116 subjects were enrolled; 57 in the DHA group and 59 in the DHA + EPA group. Baseline characteristics were similar between groups. The mean age was 69.4 years and 70.7 per cent were male.

Hypertriglyceridemia is a risk factor for CAD and the American Heart Association recommends 1000mg of omega-3's DHA (docosahexaenoic acid) and EPA (eicosapentaenoic acid) daily for cardioprotection and higher doses for triglyceride-lowering in patients with CAD.

In the study, triglycerides were lowered an average of 21.8 per cent in the DHA group and 18.3 per cent in the DHA + EPA group. The difference between groups was not significant, according to the study, and a higher proportion of subjects in the DHA group achieved their triglyceride goal (less than 150 mg/dL) compared to the DHA + EPA group (24.6 percent versus 10.2 percent.

The study compared Martek's life'sDHA branded microalgae ingredient with a fish oil that provided a combination of DHA and EPA. Martek said it did not fund or sponsor the study.

There is increasing interest in omega-3 from non-fish sources as a result of fears over potential contaminants and fish stocks.

While the relationship between both issues and fish-derived oil is still a matter of debate, industry is aware that the present scenario may not sustain for the future, and a number of players are putting in steps in case this comes to pass.

DHA from microalgae is regarded as an important development in this area, as traditional vegetarian sources of omega-3 such as flaxseed yield shorter chain fatty

acids, which lose a portion of their health benefits for humans when they are converted into DHA and EPA by the body.

One of the most interesting developments in microalgae-derived oils comes from a company called Water 4, which says it has found a way to derive both DHA and EPA from algae. Although it has started selling finished supplements using its oils on the internet, its ingredinet is yet to come to market.