

Omega-3 boosts satiety during weight loss: study

25/06/2008- **Obese people receiving supplements of omega-3 fatty acids while following a weight loss programme experienced a feeling of fullness for longer, says a new study.**

"We show that the long chain omega-3 fatty acids can affect postprandial appetite sensations in volunteers during a period of weight loss induced by energy restriction," wrote lead author Dolores Parra in the journal *Appetite*.

"The usefulness of long chain omega-3 fatty acids in the nutritional treatment of obesity has to be investigated further, since they could improve the patients' compliance to changes in dietary habits required for weight loss and weight loss maintenance."

With 50 per cent of Europeans and 62 per cent of Americans classed as overweight, the food industry is reacting to the epidemic and waking up to the potential of products for weight loss and management.

The weight loss and management category is estimated to already be worth \$7bn.

And it would seem omega-3 fatty acids may have a role to play if further studies support the positive results from the new study, reported by researchers from the University of Navarra, University of Iceland and University College Cork.

Study details

The researchers recruited 232 overweight and obese volunteers with an average age of 31 and an average BMI of 28.3 kg per sq. m, and randomly assigned them to an energy restricted balanced diet and supplemented with either low (260 mg per day) or high dose (1300 mg per day) omega-3 for eight weeks. The appetite measurements were taken during the last two weeks of the study.

Consumption of the weight loss diet and the high-dose omega-3 led to fewer hunger sensations immediately after the test meals, as well as two hours later.

Blood sample analysis also showed that a higher omega-3 concentration, and an improved omega-3 to omega-6 ratio were associated with higher satiety, reported the researchers.

"The most important finding of this study is that subjects who eat a dinner rich in long chain omega-3 fatty acids feel less hunger and more full directly after and 2 hours after than their counterparts fed with the low long chain omega-3 fatty acids diet," wrote the authors.

"This observation indicates that long chain omega-3 fatty acids modulate hunger signals."

Weight loss market

The slimming ingredients market can be divided into five groups based on the mechanisms of action - boosting fat burning/ thermogenesis, inhibiting protein breakdown, suppressing appetite/ boosting satiety (feeling of fullness), blocking fat absorption, and regulating mood (linked to food consumption).

Numerous ingredients are available with varying levels of supporting scientific evidence, ranging from the well researched ingredients like green tea polyphenols, CLA, Hoodia gordonii, DHEA, hydroxy-methylbutyrate (a metabolite of leucine), and chromium picolinate, to ingredients with only limited available data, like L-carnitine, chitosan, and calcium (with dairy).