

## Omega-3 May Help Prevent Obesity-Related Health Conditions.

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Obesity is defined as weight that exceeds 15 percent of normal weight for height and body type. "Morbid" obesity exceeds 20 percent of optimum weight. The long-term health implications are well known, in fact, obesity is considered an outright disease. Life expectancy may be decreased in overweight and obese individuals. An obese or overweight person is at high risk for a number of serious health problems, including heart disease, high blood pressure, stroke, varicose veins, dementia, psychological stress, depression, osteoarthritis, high cholesterol, allergies, psoriatic arthritis, and diabetes.

Omega-3 is an essential fatty acid that is deficient in the diets of many Americans. In the late 1970s, scientists learned that the native Inuits in Greenland, who consumed a diet very high in omega-3 fatty acids, had surprisingly low rates of heart attacks. Since that time, more than 4,500 studies have been conducted in an attempt to understand the beneficial roles that the omega-3 fatty acids play in human metabolism and health.

Scientists from the Fred Hutchinson Cancer Research Center and the University of Alaska-Fairbanks performed a study to examine whether high eicosapentaenoic (EPA) and docosahexaenoic (DHA) acid intakes could modify associations of obesity with chronic disease risk. This cross-sectional study involved 330 Yup'ik Eskimos with an average age of 45 years and that 70 percent of them were overweight or obese. Red blood cell fatty acids were measured and found increases in C-reactive protein (CRP) and triglyceride levels in obese Eskimos with low omega-3 blood levels while such increased levels were not observed in people with high blood levels of EPA and DHA. The researchers commented "Our findings may have important clinical relevance for the prevention of some obesity-related diseases. Obesity prevalence in the US and worldwide has been increasing over the past decades, with subsequent increases in rates of diabetes and other obesity-associated diseases. It is likely that these associations are partly mediated by the positive associations of obesity with triglycerides and CRP, two biomarkers that strongly and independently predict risks of CVD and possibly diabetes."<sup>1</sup>

1 Makhoul Z, Kristal AR, Gulati R, et al. Makhoul Associations of obesity with triglycerides and C-reactive protein are attenuated in adults with high red blood cell eicosapentaenoic and docosahexaenoic acids. *Eur J Clin Nutr.* Mar2011.