

The Un-Silent Killer: "Omeganemia"

Low dietary omega-3 intake is ranked sixth among the top 10 preventable causes of death.

BY MICHAEL B. GROSS, MD

A recent study, jointly funded by the Centers for Disease Control and Prevention through the Association of Schools of Public Health and drawing on 2005 data from the US National Health Center for Health Statistics revealed there are between 72,000 and 96,000 preventable deaths each year due to omega-3 deficiency.¹

This study observed dietary, lifestyle, and metabolic risk factors, such as tobacco smoking and hypertension, and used a mathematical model to determine how many fatalities could have been prevented if better lifestyle practices had been observed.

Preventable deaths attributed to individual risks occurred in the following order: smoking, hypertension, obesity/physical inactivity, elevated blood glucose, elevated low-density lipoprotein cholesterol, low dietary omega-3 fatty acid consumption from marine sources (seafood), high dietary sodium intake, high dietary trans fatty acid consumption, alcohol use, low intake of fruits and vegetables, and low intake of polyunsaturated fatty acids in place of saturated fatty acids.

The data in this study highlighted that consuming greater than 250 mg of eicosapentaenoic acid/docosahexaenoic acid from fish per day reduced by more than 50% the risk of coronary heart disease and stroke. Therefore, the authors found that it was the "low dietary omega-3 fatty acid consumption from marine sources" that had the highest correlation to the increase of cardiovascular risk. Respected authorities have previously referenced significant peer-reviewed evidence reinforcing the hypothesis that a diet deficient in marine derived anti-inflammatory omega-3s in association with the dramatic increase of pro-inflammatory omega-6s in the Western diet may ultimately be the etiology for the increased rate of chronic inflammatory disease in the United States including age-related macular degeneration (AMD).

In this regard, a recent study published in the *British Journal of Ophthalmology* showed that people suffering specifically from AMD, the most common eye disease in older adults, are at greater risk of myocardial infarction or stroke. This study concluded that those individuals with

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early-stage AMD at the start of the study had twice the risk of dying from a myocardial infarction or stroke over the next 10 years. Those with more advanced AMD had a still greater risk.² More recently, a study appearing in *Ophthalmology* correlated Drusen and retinal pigment epithelial changes resulting from slow degenerative processes associated with age may be related to local choroidal vascular ischemia caused by the same risk factors that induce atherosclerosis. The conclusion was that the association of AMD and coronary heart disease may be explained by common and broad underlying pathogenic mechanisms shared with both conditions.³

These studies are strongly supportive of the hypothesis that omega-3 deficiency from marine sources is likely a potential underlying cause and connecting factor in the epidemic of chronic systemic inflammatory disease (including AMD) in North America. Accordingly, we have termed this epidemic of omega-3 deficiency from marine origins *omeganemia*. The sixth leading cause of preventable death in North America. To emphasize the importance of this killer, we have trademarked *omeganemia*. ■

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