People with peripheral artery disease have lower Omega-3 Index, shows research

New research published in the March 18th edition of Lipids showed that people who have peripheral artery disease (PAD) have a lower Omega-3 Index compared to those who don’t have the disease.

PAD is a disease that affects the blood vessels outside the heart and brain. Evidence from other studies suggests that omega-3s affect many steps of the atherosclerotic process. More specifically, they improve endothelial function; promote vasodilatation through relaxation of smooth muscle cells; exert antioxidant, anti-inflammatory, and antithrombotic actions; delay development of plaques and increase their stability; and decrease wall stiffening.

Because PAD is essentially atherosclerosis of the leg arteries, researchers in this study believe that patients with PAD may have an omega-3 fatty acid deficiency.

To study the relationship between the Omega-3 Index and PAD, the investigators compared the Omega-3 Index in 145 patients with PAD to 34 controls without PAD.

They found that the Omega-3 Index was significantly lower in the PAD patients than the controls (5% vs 6%). When they controlled for other patient characteristics that might have influenced these findings (like age, smoking, blood pressure, diabetes, drugs, etc.), the Omega-3 Index was still lower in the cases vs. the controls.

In the final analysis, for every 1% unit reduction in the Omega-3 Index, the odds of being a PAD patient increased by 39%, and for every additional pack-year of smoking the odds of being a PAD case increased by 4%.

“"It is likely that the lower inflammatory burden associated with a higher Omega-3 Index may be part of the explanation for these results," said Bill Harris, Ph.D., one of the study’s authors. “Whether long-term use of omega-3 supplements and/or increased consumption of oily fish could prevent the development of PAD should be examined in future studies.”

Posted in: Medical Research News | Medical Condition News

Tags: Anti-Inflammatory, Antioxidant, Atherosclerosis, Blood, Blood Pressure, Blood Vessels, Brain, Breast Milk, Diabetes, Drugs, Fatty Acids, Fish, Heart, Lipids, Muscle, Omega-3 Fatty Acid, Peripheral Artery Disease, pH, Research, Smoking, Supplements