

A new study has shown a reduction in smoking and tobacco cravings among smokers receiving omega-3 fatty acid supplements.

Supplementation with EPA and DHA reduces smoking and tobacco craving

Cigarette smoke induces polyunsaturated fatty acid (PUFA) peroxidation and oxidative stress. Inadequate brain concentrations of omega-3s are known to potentially influence neurotransmission, negatively affecting the reward and dependence mechanism. This could increase cigarette cravings and hamper smoking cessation efforts. Although stress is well linked to smoking urges and behavior, no research to date has examined the effects of PUFA supplementation on tobacco cravings.

In a recent study published online in the Journal of Psychopharmacology, the effects of PUFA supplementation on tobacco cravings were examined. In the placebo-controlled, double-blind study, 48 adult smokers were given either a daily supplement with EPA (2710 mg) and DHA (2040 mg) or a placebo for one month. The number of cigarettes smoked per day, and the tobacco cravings following cigarette cue exposure were assessed at the beginning, end, and again 30 days after the end of treatment.

The smokers who received the omega-3 supplement had significantly less cravings and smoked 11.2% fewer cigarettes after one month in comparison to the amount smoked at the outset of the study. In contrast, participants who received the placebo reported similar craving levels at all time points evaluated.

The author commented that the re-establishment of the PUFA levels in the brain may have positively affected dopamine transmission which is compromised by smoking induced oxidative stress. The improvement in function could therefore decrease tobacco cravings, making it easier to quit.

This is the first study to show a reduction in tobacco cravings resulting from omega-3 supplementation. Omega-3 fatty acids may be of benefit in managing tobacco consumption, but further studies are warranted to study larger populations and assess the possible therapeutic value for heavy cigarette smokers.

Sharon Rabinovitz. Effects of omega-3 fatty acids on tobacco craving in cigarette smokers: A double-blind, randomized, placebo-controlled pilot study. 2014. Journal of Psychopharmacology 28(8):804-809.