

"Recent Trials Challenge the Benefits of Omega-3"

William S Harris Ph.D.

Recent randomized trials and subsequent meta-analyses have questioned the value of n-3 fatty acid supplementation in cardiovascular disease risk reduction. This lecture will review the clinical trials published between 2010 and 2014 that failed to show benefits of n-3 fatty acids, and on one meta-analysis from 2012 that used a controversial statistical approach to conclude no effect. The question of the extent to which n-3 fatty acid supplementation reduces risk for cardiovascular disease remains open. Future studies must be properly powered, use doses of n-3 fatty acids significantly higher than those provided in background diets, focus on patient populations with low n-3 fatty acid tissue levels, treat for longer periods of time, and consider the effects of these agents in the great majority of patients who are not on guideline-directed therapeutic regimens. The strong evidence-base from prospective cohort studies and the ever-deepening understanding of the cellular effects of long-chain n-3 fatty acids together support the need for these nutrients in reducing cardiovascular risk. Short-term findings from randomized controlled trials need to be interpreted in the light of all the evidence.