Reference:

n-3 Fatty Acids and Periodontitis in US Adults


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Summary:

Periodontitis is a common inflammatory disease due to bacterial infection which can lead to bone and tooth loss. The present study examined the relationship between the occurrence of periodontitis as assessed by dental examination in 9,182 adults and dietary fatty acid intakes as determined by 24-hour dietary recalls.

The total prevalence of periodontitis was 8.2% with a significantly lower frequency of the condition being found (after adjusting for multiple confounding factors) in the tertile of the population with the highest DHA omega-3 intake (top 33%) as compared to those in the lowest tertile. The prevalence of periodontitis was 22% lower in the highest tertile with respect to DHA (docosahexaenoic acid) intakes whereas no such statistically-significant relationship was found for the other two omega-3 fatty acids - as EPA (eicosapentaenoic acid) or ALA (alpha-linolenic acid). The EPA results did approach borderline significance with respect to a potential beneficial trend.

Dr. Holub’s Comments:

The present encouraging results from this population study indicate justification for a randomized - controlled clinical trial which employs intervention with a fixed supplementation of
given amounts daily of (DHA plus EPA) versus placebo (control) over extended time periods to
determine if such a strategy can prevent and/or delay the onset of periodontitis. The known
anti-inflammatory effects of DHA/EPA via various mechanisms likely underlie the evidence
presented in support of a preventive effect of DHA (and EPA to a lesser degree) on
periodontitis.