

**Omega-3 fatty acids, found primarily in fish oil, have been associated with several potential benefits for oral, dental, and periodontal health:**

1. **Anti-Inflammatory Properties:** Omega-3s have well-documented anti-inflammatory properties. Chronic inflammation plays a significant role in periodontal (gum) disease and can lead to tissue damage and tooth loss. Omega-3s may help reduce inflammation in the gums, potentially slowing the progression of gum disease.
2. **Gingival Health:** Omega-3s may contribute to improved gingival (gum) health. They can help maintain the integrity of gum tissues, reducing the risk of gingivitis and gum bleeding.
3. **Reduced Risk of Periodontitis:** Some studies suggest that regular consumption of omega-3 fatty acids may be associated with a reduced risk of developing periodontitis, a severe form of gum disease that can lead to tooth loss.
4. **Bone Preservation:** Omega-3s may help preserve bone density and prevent bone loss, which is essential for supporting teeth and dental implants. In cases of periodontal disease or tooth extraction, maintaining bone density is crucial for dental health.
5. **Dry Mouth Relief:** Omega-3s may alleviate symptoms of dry mouth (xerostomia), a common condition that can lead to dental problems such as tooth decay. Adequate saliva production is essential for oral health, and omega-3s may help stimulate saliva flow.
6. **Immune System Support:** A healthy immune system is essential for fighting oral infections. Omega-3s can support the immune system's ability to combat bacteria and pathogens in the mouth.
7. **Improved Healing:** Omega-3s may promote faster and more effective wound healing after dental procedures, such as tooth extractions or oral surgeries.
8. **Reduction in Tooth Loss:** By addressing gum disease and promoting overall oral health, omega-3s may contribute to a reduced risk of tooth loss.

It's important to note that while omega-3 fatty acids offer potential benefits for oral and dental health, they should be considered as part of a comprehensive approach to oral hygiene and overall well-being. Maintaining a balanced diet, practicing good oral hygiene (regular brushing, flossing, and dental check-ups), and avoiding risk factors such as smoking and excessive alcohol consumption are all crucial for oral health. Before starting any dietary supplement regimen, including omega-3s, it's advisable to consult with a healthcare provider or dentist to ensure it's appropriate for your individual health needs.

## What is the impact of the adjunctive use of omega-3 fatty acids in the treatment of periodontitis? A systematic review and meta-analysis

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### Abstract

**Background:** Host modulation therapy has gained increasing interest in periodontal therapy. This systematic review aimed to evaluate the effects of adjunctive administration of omega-3 fatty acids in periodontal therapy.

**Methods:** The search strategy was determined using the "patient, intervention, comparison, outcome" model. A resulting search term was generated using keywords, and the databases were fed. The databases PubMed, Cochrane Library, and LIVIVO were used. Studies were selected for the literature review based on previously specified inclusion and exclusion criteria. Randomized, controlled, blinded studies, longitudinal studies, comparative studies, and clinical studies were included in the review. Additionally, they used omega-3 fatty acids in the treatment of periodontitis. The following parameters were observed: clinical attachment level (CAL), probing depth (PD), gingival index (GI), bleeding on probing (BOP) and plaque index (PI). A meta-analysis was performed for PD and CAL after 3 months. By analyzing the risk of bias, the validity of the results of each study was demonstrated, and its credibility and quality were assessed.

**Results:** Of 14 studies found, six were included. The results showed a significant reduction in PD and CAL compared to that in the placebo groups in four out of six involved studies, which was confirmed by the meta-analysis. In one study, a significant reduction in BOP was found. GI was significantly reduced in three included studies. PI also showed a significant reduction in three studies.

**Conclusions:** Within the study limitations, omega-3 fatty acids appear to have a positive effect on periodontal wound healing with regard to reduction in CAL and PD. Based on the results, patients receiving periodontal treatment might benefit from nutritional counseling.