

### **How can HBOT aid in gum inflammation?**

Gum inflammation is caused by anaerobic bacteria accumulating in the gum and tissues surrounding the teeth. It has been proven that hyperbaric oxygen eliminates these bacteria.

We chanced on two studies, one conducted on Chinese, the other on Italian patients with periodontal disease; each trying to show how hyperbaric oxygen therapy affects this condition.

### **Measured anaerobes**

In both studies researchers tried different methods of determining the effects of hyperbaric oxygen therapy (HBOT). Their common denominator is that the patients were divided into groups in which they underwent HBOT alone, were subjected to HBOT and another form of treatment or had other treatments alone. The difference was that in the study of Chinese patients there was also a control group.

Both studies tried to determine how each of the therapies (HBOT or other management) as well as a combination of the two, affects the anaerobic organisms that cause periodontal disease and oral health in general.

### **Conclusions**

Each of the mentioned studies showed that combined therapy (HBOT with scaling and root planning) is the most effective in battling periodontal disease. The authors of the first study write: “The therapeutic effect of HBO<sub>2</sub> on AgP is most likely through inhibition of the growth of subgingival anaerobes. Clinical follow-ups suggest that the effect could last more than 2 years.”

Similarly the authors of the second study conclude that “It is also shown that HBO both alone and in combination with SRP reduced the Gingival Index value to zero and gingival health persisted for 3 months at least. Thus, in parallel with the loss of periodontopathogenic bacteria, a substantial improvement in oral health was observed. In conclusion, this study has shown that HBO may represent a useful aid, especially in combination with SRP, as far as non-surgical periodontal therapy is concerned.”

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