

# How your gum health may affect your general health



Did you know that periodontitis (irreversible gum disease) can have an impact on your overall health?

Periodontitis is a chronic inflammatory condition associated with a dysbiotic (unbalanced) plaque biofilm. It is thought to play a role on your general health through 2 key pathways: the spread of bacteria and increased inflammation in the body.

## How bacteria from periodontitis can spread

- In a healthy mouth, the gums and the immune system stop bacteria from spreading into the bloodstream.
- When the gums become inflamed and damaged by periodontitis, bacteria can enter the bloodstream more easily.
- Once bacteria from the mouth get into the bloodstream, they can spread to other parts of the body and may contribute to infections in distant areas.
- Simple actions like brushing your teeth or chewing can also allow bacteria to enter the bloodstream. These usually do not cause issues, but in some cases these bacteria may stay in the body and lead to more inflammation

## Systemic inflammation

- When your gums are inflamed, they release molecules which enter the bloodstream and cause a wider immune response in the body.
- These molecules can cause your body to produce more white blood cells, which are part of your immune system.
- Over time, the bacteria and their by-products can form immune complexes which can settle in different parts of the body, causing more inflammation and potentially damaging tissues.

## Associations with systemic diseases

Research has shown that periodontitis is associated with several serious health conditions, including: adverse pregnant outcomes (e.g. premature birth, low birth weight), heart disease, chronic kidney disease, chronic obstructive pulmonary disease (COPD), cognitive impairment, COVID-19 complications, diabetes, metabolic syndrome, obesity, sleep apnoea, pneumonia, and rheumatoid arthritis

It is important to understand that while periodontitis is linked to these health conditions, this does not mean that periodontitis causes all of them directly. More research is needed to fully understand these connections.

However, managing your gum health is an important part of keeping your whole body healthy. By keeping your gums healthy through regular dental care, you may help reduce your risk of some systemic health problems.

## References

- Van Dyke TE, van Winkelhoff AJ. Infection and inflammatory mechanisms. *J Clin Periodontol.* 2013 Apr;40 Suppl 14:S1-7. doi: 10.1111/jcpe.12088. PMID: 23627321
- Linden GJ, Herzberg MC; Working group 4 of joint EFP/AAP workshop. Periodontitis and systemic diseases: a record of discussions of working group 4 of the Joint EFP/AAP Workshop on Periodontitis and Systemic Diseases. *J Clin Periodontol.* 2013 Apr;40 Suppl 14:S20-3. doi: 10.1111/jcpe.12091. PMID: 23627330.
- Herrera D, Sanz M, Shapira L, et al.,. Association between periodontal diseases and cardiovascular diseases, diabetes and respiratory diseases: Consensus report of the Joint Workshop by the European Federation of Periodontology (EFP) and the European arm of the World Organization of Family Doctors (WONCA Europe). *J Clin Periodontol.* 2023 Jun;50(6):819-841. doi: 10.1111/jcpe.13807. Epub 2023 Mar 22. PMID: 36935200.