

# Literature review shows inflammation links obesity and gum disease

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Blood on your toothbrush can be a warning sign of gum disease. And, if you are overweight, it can indicate other serious health issues, such as diabetes, heart disease and high blood pressure.

Don't wait. Get to the dentist, advise two faculty members from Case Western Reserve University School of Dental Medicine's Department of Periodontics Charlene B. Krejci, DDS, MSD, and Nabil F. Bissada, DDS, MSD.

After reviewing previous research on [gum disease](#) and obesity, they found an association between both health problems, which they describe in the journal [General Dentistry](#) article, "Obesity and periodontitis: a link."

"Healthcare professionals need to be aware of the complexity of obesity and the role periodontitis has in overall health," said Bissada, professor and chair of the Department of Periodontics.

Periodontitis, commonly called gum disease (and gingivitis in its milder form), affects nearly half the U.S. population over age 30, according to the American Academy of Periodontology. The disease ignites an inflammatory response as the body begins to fight off bacteria present in the [dental plaque](#). If not treated, the inflammation eventually erodes the jawbone and loosens teeth. In severe cases, patients lose their teeth. The bacteria can also cause ulcers in the pocket surrounding the involved teeth and eventually enter the blood and settle in other parts of the body.

Being overweight can compound the problem, the researchers warn. Belly fat contains about 50 bioactive substances, which can set off inflammatory responses that reduce the body's ability to suppress appetite or use insulin to regulate [glucose levels](#)—both of which are linked to diabetes.

Adipose tissue (fat) can also increase production of the C-reactive protein (CRP) involved in the inflammation process and linked to cardiovascular disease.

Bissada first reported the obesity and gum disease link from animal studies in 1977. Several studies have since verified this link in humans.

"Whether gum disease or obesity came first is yet to be determined," said Krejci, an associate clinical professor at the school of [dental medicine](#) who also has a private practice. "What has emerged from the literature is that the association between obesity and gum disease is chronic inflammation."

**More information:** [www.ncbi.nlm.nih.gov/pubmed/23302366](http://www.ncbi.nlm.nih.gov/pubmed/23302366)

Provided by Case Western Reserve University

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