

## Treating gum disease helps rheumatoid arthritis sufferers

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Here's one more reason to keep your teeth healthy.

People, who suffer from gum disease and also have a severe form of rheumatoid arthritis, reduced their arthritic pain, number of swollen joints and the degree of morning stiffness when they cured their dental problems. Researchers from the Case Western Reserve University School of Dental Medicine and University Hospitals of Cleveland reported on this new intervention for arthritis in the *Journal of Periodontology*.

"It was exciting to find that if we eliminated the infection and inflammation in the gums, then patients with a severe kind of active rheumatoid arthritis reported improvement on the signs and symptoms of that disease," said Nabil Bissada, D.D.S., chair of the department of periodontics at the dental school.

"It gives us a new intervention," adds Bissada.

This is not the first time that gum disease and rheumatoid arthritis have been linked. According to another researcher in the study, Ali Askari, M.D., chair of the department of rheumatology at University Hospitals, "From way back, rheumatologists and other clinicians have been perplexed by the myth that gum disease may have a big role in causing systematic disease."

He added that historically teeth were pulled or antibiotics given for treatment of rheumatoid arthritis, which actually treated the



periodontitis. The patients got better.

Askari and Bissada are part of a team of researchers that studied 40 patients with moderate to severe <u>periodontal disease</u> and a severe form of rheumatoid arthritis.

The study results should prompt rheumatologists to encourage their patients to be aware of the link between periodontal disease and rheumatoid arthritis, says Askari.

Bissada notes that gum disease tends to be prevalent in rheumatoid arthritis patients.

Both inflammatory diseases share similarities in the progression of the disease over time. In both diseases, the soft and hard tissues are destroyed from inflammation caused by toxins from bacterial infection.

One toxin from the inflamed areas called tumor neurosis factor-alpha (TNF- $\alpha$ ) is a marker present in the blood when inflammation is present in the body. TNF- $\alpha$  can initiate new infections or aggravate sites where inflammation already exists.

The study's participants were divided into four groups. Two groups of patients were receiving a new group of anti-TNF- $\alpha$  drugs that block the production of TNF- $\alpha$  at inflamed rheumatoid arthritis sites. Two groups were not on this new medication. Half of group of the participant on the medication and half not receiving the new drug received a standard nonsurgical form of periodontal treatment to clean and remove the infection from the bones and tissues in the gum areas. The other half of those studied did not receive the treatment until after completion of the study.

After receiving treatment for the gum disease, improvement in



rheumatoid arthritis symptoms was seen in patients who did and did not receive the anti-TNF- $\alpha$  medications, which block the production of TNF- $\alpha$  that aggravate or can cause inflammation. Patients on the TNF- $\alpha$  inhibitors showed even greater improvements over those not receiving the drugs.

"I'm optimistic that someday the biologic agents that we use successfully in treatment of rheumatoid arthritis will lead to improvement of periodontitis and would be available for use and treatment of this perplexing problem," says Askari.

"Again we are seeing another link where good oral health improves the overall health of an individual," says Bissada, who adds that studies have linked <u>gum disease</u> to premature births, heart disease and diabetes.

Source: Case Western Reserve University (<u>news</u>: <u>web</u>)

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