

Periodontitis linked to a higher mortality rate in patients with kidney disease

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New findings from the University of Birmingham show that patients with chronic kidney disease patients and periodontitis (severe gum disease) have a higher mortality rate than those with chronic kidney disease alone.

The research, published in the *Journal of Clinical Periodontology*, adds to the growing evidence for poor oral health being associated with other chronic diseases.

Data from 13,734 [participants](#) in the US-based Third National Health and Nutrition Examination Survey (NHANES III) were analysed to show that individuals with both periodontitis and chronic kidney disease had an all-cause mortality rate of 41% at 10 years, compared to 32% for those with chronic kidney disease alone.

To put this into context, the increase in 10 year mortality associated with diabetes in patients with [chronic kidney disease](#), independent of [periodontitis](#), is from 32% in non-diabetics to 43% in diabetics.

Periodontitis is a chronic non-communicable disease, and in its most severe form is the sixth most prevalent human disease, affecting 11.2% of the world's population.

Chronic non-communicable diseases, such as kidney disease, are increasingly prevalent, partly as a result of an aging population and an increase in sedentary lifestyles and refined diets. Their impact upon the

global disease burden and healthcare economy is significant, and evidence suggests that 92% of older adults have at least one chronic disease.

Professor Iain Chapple, from the University of Birmingham, explained, "It's important to note that oral health isn't just about teeth. The mouth is the doorway to the body, rather than a separate organ, and is the access point for bacteria to enter the bloodstream via the gums. A lot of people with [gum disease](#) aren't aware of it, perhaps they just have blood in their spit after brushing teeth, but this unchecked damage to gums then becomes a high risk area for the rest of the body."

Mr Praveen Sharma, a co-author of the study, added, "We are just beginning to scratch the surface of the interplay between gum disease and other chronic diseases; whether that be kidney disease, diabetes or cardiovascular disease. Knowing the heightened risk that gum disease presents to patients who already have another chronic disease tells us that oral health has a significant role to play in improving patient outcomes."

Following this paper, the team are now investigating the link between gum and kidney disease further, to identify if the association is causal, and if so, whether treating gum disease and maintaining oral health can improve the overall health of patients with [kidney disease](#).

Professor Chapple said, "It may be that the diagnosis of gum disease can provide an opportunity early detection of other problems, whereby dental professionals could adopt a targeted, risk-based approach to screening for other [chronic diseases](#)."

Provided by University of Birmingham

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