

A healthy color: Testing for gum disease

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Researchers at Temple University Maurice H. Kornberg School of Dentistry found that a color-changing oral strip is as effective in detecting periodontal disease as traditional methods, and is easier and less costly to administer.

About 80 percent of adults suffer from some form of periodontal, or [gum disease](#), which can result in not just [tooth loss](#), but has also been linked to heart disease, diabetes, [blood infection](#), low birth-weight babies, cancer and most recently, obesity.

Screening for the disease is often costly, time-consuming and sometimes painful for the patient. But researchers at Temple University have found that a simple color-changing oral strip can help detect gum disease in a patient more quickly and easily than traditional screening methods.

Lead researcher Ahmed Khocht, DDS, associate professor of periodontology at Temple's Maurice H. Kornberg School of Dentistry, and his team looked at the strip's effectiveness in detecting periodontal disease among 73 patients divided into three groups: healthy, those with gingivitis (bleeding of the gums) and those with periodontitis (bleeding of the gums and a receding gum line). Color reaction was scored based on a color chart, and those scores were compared with scores from traditional clinical evaluation methods such as plaque index, gingival index, attachment levels and bleeding on probing.

Researchers found strong correlations between the numbers from these tests and the numbers from the oral strip, suggesting the strips would be

a comparable screening method.

"The strip changes from white to yellow depending on levels of microbial sulfur compounds found in the saliva," said Khocht. "A higher concentration of these compounds means a more serious case of gum disease, and shows up a darker shade of yellow."

Because [periodontal disease](#) can affect a person's overall health, Khocht says it's important to have a screening method like the oral strips that are quick and easy for clinicians to use.

"The faster we can find out the disease is present, the sooner we can begin treatment," he said. "And because the strips can change color, they can also act as a benchmark to help doctors find the right treatment for their patient and monitor their progress."

Source: Temple University

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