

# Advance toward first saliva test for Type 2 diabetes

January 19 2009

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Scientists in Oregon and India are reporting an advance toward developing the first saliva test to diagnose and monitor effectiveness of treatment for Type 2 diabetes. Their report was published in the Jan. 2 issue of *ACS' Journal of Proteome Research*.

The number of cases of that disease (18 million in the United States alone) has doubled during the last 30 years in parallel with the epidemic of obesity. Researchers say their work represents the first comprehensive description of the proteins in the saliva of patients with Type 2 diabetes, also called non-insulin dependent diabetes.

In the study, Paturi V. Rao and colleagues note that early diagnosis and effective treatment is critical for preventing the disease's complications, including loss of vision, nerve damage, and kidney damage. One important barrier is the need for sometimes-painful needle sticks to draw blood for tests. The discomfort can discourage patients from properly monitoring their blood sugar levels, the scientists say.

The researchers analyzed saliva samples from individuals with and without Type 2 diabetes for protein biomarkers of diabetes. They identified 65 proteins that appeared twice as often in the diabetic samples than the non-diabetic samples. These newly identified proteins could lead to new, noninvasive tests for diabetes screening, detection, and monitoring, the researchers say.

Paper: "Proteomic Identification of Salivary Biomarkers of Type-2

Diabetes" [pubs.acs.org/stoken/presspac/p.../10.1021/pr8003776](https://pubs.acs.org/stoken/presspac/p.../10.1021/pr8003776)

Source: ACS

Citation: Advance toward first saliva test for Type 2 diabetes (2009, January 19) retrieved 26 April 2024 from <https://phys.org/news/2009-01-advance-saliva-diabetes.html>

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