

Bacteria in mouth may diagnose pancreatic cancer

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Patients with pancreatic cancer have a different and distinct profile of specific bacteria in their saliva compared to healthy controls and even patients with other cancers or pancreatic diseases, according to research presented today at the annual meeting of the American Society for Microbiology. These findings could form the basis for a test to diagnose the disease in its early stages.

"Our studies suggest that ratios of particular types of bacteria found in [saliva](#) may be indicative of pancreatic cancer," says Pedro Torres of San Diego State University who presented the research.

In the United States, approximately 40,000 people die every year due to [pancreatic adenocarcinoma](#), making it the fourth leading cause of cancer related death. Patients diagnosed in the early stages of pancreatic cancer have a 5-year survival rate of 21.5%. Unfortunately symptoms do not appear until after the cancer has become untreatable in the vast majority of cases, says Torres.

In the study, Torres and his colleagues compared the diversity of saliva bacteria across 131 patients, 63 female and 68 male, being treated at the University of California, San Diego (UCSD) Moores Cancer Center. Of these patients, 14 had been diagnosed with pancreatic cancer, 13 with pancreatic disease, 22 with other forms of cancer and 10 disease free. Results showed that [patients](#) diagnosed with pancreatic cancer had higher levels of two particular oral bacteria, *Leptotrichia* and *Campylobacter*, when compared to any other healthy or diseased state

including non-cancerous pancreatic disease. Those with pancreatic cancer also had lower levels of *Streptococcus*, *Treponema* and *Veillonella*.

"Our results suggest the presence of a consistently distinct microbial profile for pancreatic cancer," says Torres. "We may be able to detect [pancreatic cancer](#) at its early stages by taking individuals' saliva and looking at the ratios of these bacteria."

Provided by American Society for Microbiology

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