

# Certain mouth bacteria signal pancreatic cancer

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Particular types of mouth bacteria, some of which are found in gum disease, are associated with the development of pancreatic cancer, indicates a small study published online in the journal *Gut*.

The finding opens up the possibility of curbing the progress of one of the most difficult cancers to treat, by altering the balance of bacteria, say the authors. Pancreatic cancer usually spreads very quickly, and only around one in 20 patients is still alive five years after diagnosis.

The authors base their findings on an initial comparison of the bacteria found in the spit of 10 patients with pancreatic cancer, which had not yet spread, and 10 healthy people, matched for age and sex.

They found significant differences between the [bacterial colonies](#) in the two groups, with 31 additional species and 25 fewer species in the spit of the cancer patients.

They then checked spit samples from a further 28 pancreatic cancer patients and 28 healthy people to verify their findings.

And they checked [tissue samples](#) from 28 patients with [chronic inflammation](#) of the [pancreas](#) ([chronic pancreatitis](#)), which is associated with an increased risk of developing pancreatic cancer. Among six suspicious species, two - *Neisseria elongata* and *Streptococcus mitis* - showed up significantly less often in the mouths of the cancer patients than in those of their healthy peers, while levels of another species - *Granulicatella adjacens* - were significantly higher.

The combination of *N Elongata* and *S mitis* accurately differentiated between healthy patients and those with cancer in more than 80% cases.

Furthermore, they found similar differences in the prevalence of *S mitis* and *G adjacens* between the

chronic pancreatitis samples and the spit of healthy people.

It is as yet unclear whether the presence of particular types of bacteria are a cause or effect of pancreatic cancer, say the authors. But their findings back previous research, which has implicated bacteria in the development of pancreatic diseases.

They go on to suggest that levels of certain bacteria could be used as a non-invasive and credible screen for [pancreatic cancer](#), with the promise of earlier detection for a disease that has no clear symptoms in its early stages.

Provided by British Medical Journal

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