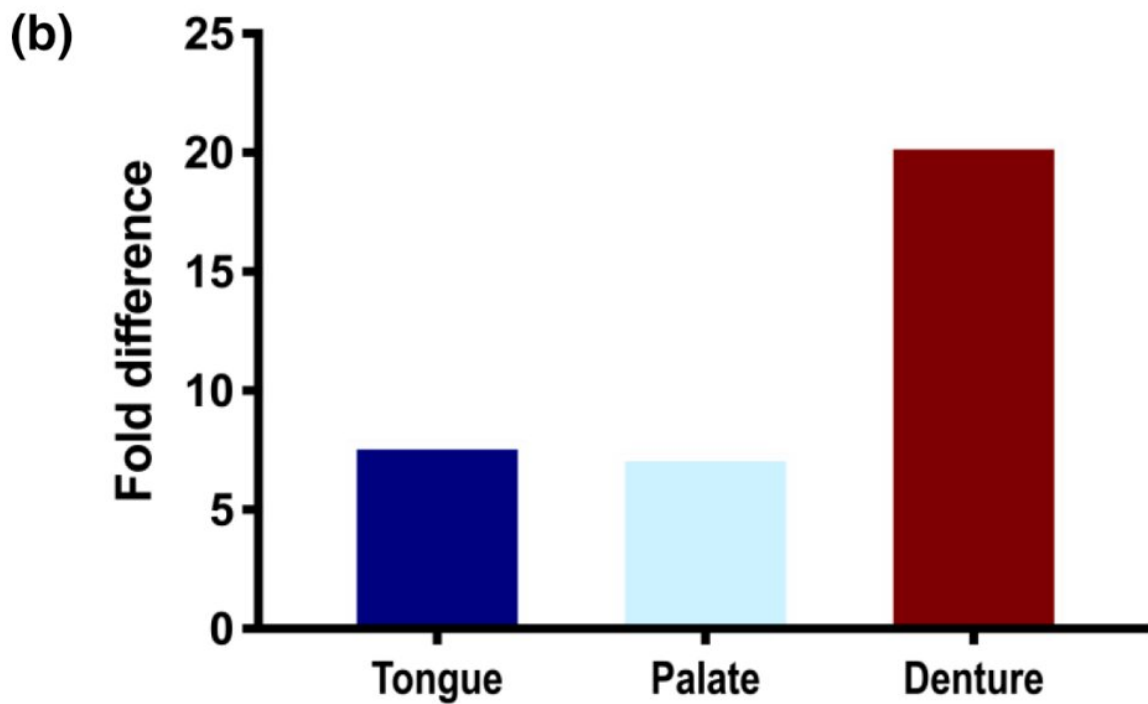
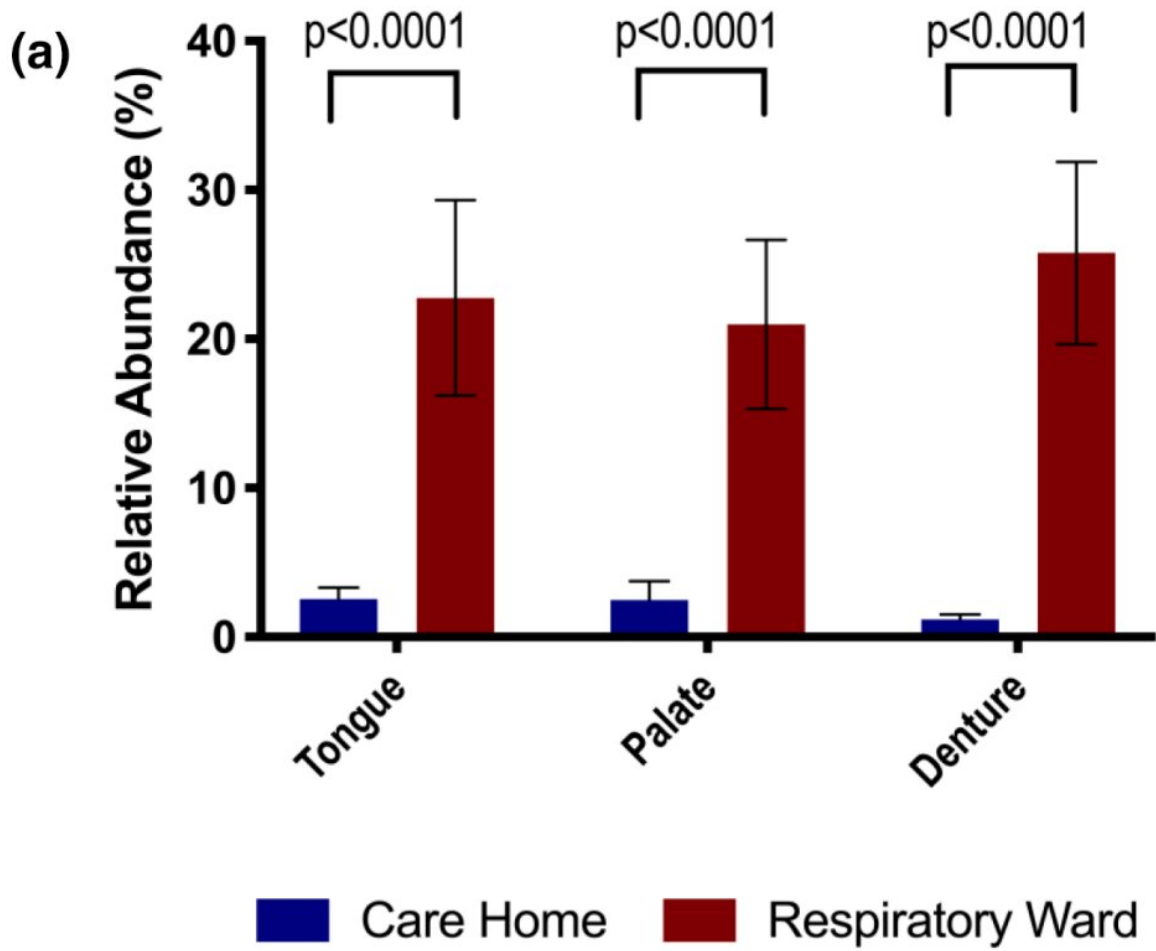


Could your false teeth give you pneumonia?

June 21 2023



(a) Cumulative relative abundance (%) of PRPs identified in care home residents compared to respiratory ward patients. Mean values are shown. Error bars represent 95% confidence intervals. (b) Fold difference of PRP cumulative relative abundance in respiratory ward patients, normalized to care home residents. Fold difference was calculated using mean values reported in (a). Credit: *Journal of Medical Microbiology* (2023). DOI: 10.1099/jmm.0.001702

For their study, now published in the *Journal of Medical Microbiology*, researchers from Cardiff University, UK, began by taking mouth, tongue and denture swabs from a group of patients in hospital who had pneumonia and wore dentures. They then compared this to samples taken from denture-wearing patients in care homes who did not have pneumonia.

They then analyzed the samples to identify the abundance and types of microbes present in the samples. Researchers were looking for microbes that could cause [pneumonia](#) and whether there were any significant differences between the two groups.

"We were expecting to see a difference but were surprised to see 20 times the number of potentially pneumonia-causing bacteria on dentures in people with pneumonia, compared to people without," said Dr. Josh Twigg, lead author of the study.

Dr. Twigg and his team speculate that the dentures could play a role in causing pneumonia. If they are not cleaned properly, they could provide a new surface where disease-causing microbes can colonize. People who wear dentures may then be aspirating (inhaling) saliva containing harmful microbes into their lungs, where an infection can then take hold.

However, while this study identifies a possible connection, Dr. Twigg says, "You certainly couldn't say that people got pneumonia because they were wearing dentures. It's just showing that there is an association there. This research is an early step in trying to unravel that puzzle of what exactly is the sequence of events."

While more research needs to take place, the public can still learn from the findings, according to Dr. Twigg. "Our research has shown that there are potentially harmful microbial communities on dentures. It is important to clean dentures thoroughly." By attending the [dentist](#) regularly for check-ups and learning about the best way to look after your [teeth](#), Dr. Twigg hopes that more people will avoid needing to wear dentures entirely.

More information: Joshua A. Twigg et al, Compositional shifts within the denture-associated bacteriome in pneumonia—an analytical cross-sectional study, *Journal of Medical Microbiology* (2023). [DOI: 10.1099/jmm.0.001702](https://doi.org/10.1099/jmm.0.001702)

Provided by Microbiology Society

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