

Acid poses rapid risk to wine tasters' teeth

March 25 2015, by David Ellis

New research from the University of Adelaide shows the acid in wine can make teeth vulnerable to erosion within minutes, prompting renewed calls for professional wine tasters to protect their teeth.

Laboratory studies conducted by researchers in the University's School of Dentistry have simulated the kind of short, multiple exposures to wine acid normally experienced by wine tasters.

The results, published in the *Australian Dental Journal*, show that just 10 one-minute episodes of wine tasting are enough to cause softening (erosion) of tooth enamel that is commonly known as acid wear. The affected teeth become vulnerable to mechanical wear just within a few minutes of wine acid exposure.

"With professional wine tasters and winemakers tasting anywhere from 20 to 150 wines per day, and wine judges tasting up to 200 wines per day during wine shows, this represents a significant risk to their oral health," says corresponding author Dr Sarbin Ranjitkar, from the Centre for Orofacial Research and Learning in the University's School of Dentistry.

"Our results reinforce the need for people working in the profession to take early, [preventative measures](#), in consultation with their dentists, to minimise the risks to their teeth."

Such preventative measures are already in practice by staff and students in the University's winemaking programs. Associate Professor Sue Bastian, from the School of Agriculture, Food and Wine, says lectures

on wine erosion have raised awareness among winemaking students of this potential occupational hazard.

"It's extremely important to us to be teaching what we consider to be best practice, and this is informed by the research of our Dental School," Associate Professor Bastian says.

"Typically, the night before a wine tasting session it is best to apply remineralising agents in the form of calcium, phosphate and fluoride to coat and protect the teeth. The morning of a wine tasting, we advise not brushing the teeth or, if that's too unpalatable, chewing gum to stimulate saliva, which is naturally protective.

"After a [wine](#) tasting, the teeth are likely to be much softer, so we recommend rinsing with water, and when it comes time to clean the teeth, just putting some toothpaste on your finger and cleaning with that. Cleaning with a brush when [teeth](#) are soft runs the risk of damaging the enamel," she says.

More information: "Nanoscratch testing for the assessment of enamel demineralization under conditions simulating wine erosion." *Australian Dental Journal* DOI: 10.1111/adj.12277

Provided by University of Adelaide

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