

Wine polyphenols could fend off bacteria that cause cavities and gum disease

February 21 2018



Credit: CC0 Public Domain

Sipping wine is good for your colon and heart, possibly because of the beverage's abundant and structurally diverse polyphenols. Now researchers report in ACS' *Journal of Agricultural and Food Chemistry*

that wine polyphenols might also be good for your oral health.

Traditionally, some health benefits of polyphenols have been attributed to the fact that these compounds are antioxidants, meaning they likely protect the body from harm caused by [free radicals](#). However, recent work indicates polyphenols might also promote health by actively interacting with bacteria in the gut. That makes sense because plants and fruits produce polyphenols to ward off infection by [harmful bacteria](#) and other pathogens. M. Victoria Moreno-Arribas and colleagues wanted to know whether wine and grape polyphenols would also protect teeth and gums, and how this could work on a molecular level.

The researchers checked out the effect of two red wine polyphenols, as well as commercially available grape seed and red wine extracts, on bacteria that stick to teeth and gums and cause dental plaque, cavities and periodontal disease. Working with cells that model gum tissue, they found that the two wine polyphenols in isolation—caffeic and p-coumaric acids—were generally better than the total wine extracts at cutting back on the bacteria's ability to stick to the cells. When combined with the *Streptococcus dentisani*, which is believed to be an oral probiotic, the polyphenols were even better at fending off the pathogenic [bacteria](#). The researchers also showed that metabolites formed when digestion of the polyphenols begins in the mouth might be responsible for some of these effects.

More information: "Inhibition of Oral Pathogens Adhesion to Human Gingival Fibroblasts by Wine Polyphenols Alone and in Combination with an Oral Probiotic" *Journal of Agricultural and Food Chemistry* (2018). pubs.acs.org/doi/full/10.1021/acs.jafc.7b05466

Provided by American Chemical Society

Citation: Wine polyphenols could fend off bacteria that cause cavities and gum disease (2018, February 21) retrieved 24 May 2024 from <https://phys.org/news/2018-02-wine-polyphenols-fend-bacteria-cavities.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.