

# Strawberries protect the stomach from alcohol

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The positive effects of strawberries are linked to their antioxidant capacity.  
Credit: Image courtesy of John Wardell

In an experiment on rats, European researchers have proved that eating strawberries reduces the harm that alcohol can cause to the stomach mucous membrane. Published in the open access journal *Plos One*, the study may contribute to improving the treatment of stomach ulcers.

A team of Italian, Serbian and Spanish researchers has confirmed the protecting effect that strawberries have in a mammal stomach that has been damaged by alcohol. Scientists gave ethanol (ethyl alcohol) to [laboratory rats](#) and, according to the study published in the journal [Plos One](#), have thus proved that the stomach mucous membrane of those that had previously eaten strawberry extract suffered less damage.

Sara Tulipani, researcher at the University of Barcelona (UB) and co-author of the study explains that "the positive effects of strawberries are not only linked to their antioxidant capacity and high content of [phenolic compounds](#) (anthocyanins) but also to the fact that they activate the antioxidant defences and enzymes of the body."

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The conclusions of the study state that a diet rich in strawberries can have a beneficial effect when it comes to preventing gastric illnesses that are related to the generation of free radicals or other [reactive oxygen species](#). This fruit could slow down the formation of [stomach ulcers](#) in humans.

Gastritis or inflammation of the stomach mucous membrane is related to [alcohol consumption](#) but can also be caused by viral infections or by nonsteroidal anti-inflammatory medication (such as aspirin) or medication used to treat against the [Helicobacter pylori bacteria](#).

Maurizio Battino, coordinator of the research group at the Marche Polytechnic University (UNIVPM, Italy) suggests that "in these cases, the consumption of strawberries during or after pathology could lessen stomach mucous membrane damage."

The team found less ulcerations in the stomachs of those rats which had eaten strawberry extract (40 milligrams/day per kilo of weight) for 10 days before being given alcohol.

Battino emphasises that "this study was not conceived as a way of mitigating the effects of getting drunk but rather as a way of discovering molecules in the stomach membrane that protect against the damaging effects of differing agents."

Treatments for ulcers and other gastric pathologies are currently in need of new protective medicines with antioxidant properties. The compounds found within strawberries could be the answer.

**More information:** José M. Alvarez-Suarez, Dragana Dekanski, Slavica Ristić, Nevena V. Radonjić, Nataša D. Petronijević, Francesca Giampieri, Paola Astolfi, Ana M. González-Paramás, Celestino Santos-Buelga, Sara Tulipani, José L. Quiles, Bruno Mezzetti, Maurizio Battino. "Strawberry Polyphenols Attenuate Ethanol-Induced Gastric Lesions in Rats by Activation of Antioxidant Enzymes and Attenuation of MDA Increase". Plos One 6 (10): e25878, October 2011.

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