

The tummy's taste for red wine with red meat



Scientists are reporting that red wine can block formation of harmful substances released during digestion of fat in meat. Courtesy of public-domain-photos.com

What happens when red wine meets red meat? If the rendezvous happens in the stomach, scientists in Israel are reporting, wine's bounty of healthful chemical compounds may thwart formation of harmful substances released during digestion of fat in the meat.

The study, which reinforces the benefits of consuming wine and other foods rich in so-called polyphenols during meals, appears in the June 11 issue of ACS's bi-weekly *Journal of Agricultural and Food Chemistry*.

In the study, Joseph Kanner and colleagues point out that scientists attribute wine's health benefits, including protection against cancer and heart disease, to its high levels of polyphenols, powerful antioxidants found in fruits and vegetables. However, the body does not absorb polyphenols easily, and scientists have been puzzled about how and where these substances exert their beneficial effects.

The researchers found an explanation in experiments with laboratory rats fed either red meat or meat combined with red wine concentrate. Wine concentrate substantially reduced formation of two byproducts of fat digestion, malondialdehyde and hydroperoxide, which are toxic to cells.

The researchers say the stomach acts as a "bioreactor" that facilitates the beneficial effects of polyphenols. The polyphenols work not only to prevent generation of cytotoxic compounds, but also as compounds which prevent the absorption of cytotoxic compounds from the gastrointestinal tract into the blood stream.

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