

New review article examines mechanisms behind the functional health properties of vinegar

October 19 2016

A review article published in *Comprehensive Reviews in Food Science and Food Safety* summarized the functional properties of grain vinegars and fruit vinegars and compared the functional ingredients, sources, and formation mechanisms of grain and fruit vinegars.

Researchers from Huazhong Agricultural University in China looked at studies showing how both grain vinegars and fruit vinegars, which are fermented by traditional methods, possess a variety of physiological functions, such as anti-bacteria, anti-infection, anti-oxidation, blood glucose control, lipid metabolism regulation, [weight loss](#), and anticancer activities.

The review summarized that the anti-bacteria and anti-infection abilities of vinegars are mainly due to the presence of organic acids, polyphenols, and melanoidins. The polyphenols and melanoidins also provide the antioxidant abilities of vinegars, which are produced from the raw materials and fermentation processes, respectively.

The blood glucose control, lipid metabolism regulation, and weight loss capabilities from vinegars are mainly due to acetic acid. Besides caffeoylsophorose (inhibits disaccharidase) and ligustrazine (improves blood circulation), other functional ingredients present in vinegars provide certain health benefits as well. Regarding anticancer activities, several grain vinegars strongly inhibit the growth of some cancer cells in

vivo or in vitro, but related functional ingredients remain largely unknown, except tryptophol in Japanese black soybean vinegar.

More information: Hengye Chen et al, Vinegar Functions on Health: Constituents, Sources, and Formation Mechanisms, *Comprehensive Reviews in Food Science and Food Safety* (2016). [DOI: 10.1111/1541-4337.12228](https://doi.org/10.1111/1541-4337.12228)

Provided by Institute of Food Technologists

Citation: New review article examines mechanisms behind the functional health properties of vinegar (2016, October 19) retrieved 6 May 2024 from <https://medicalxpress.com/news/2016-10-article-mechanisms-functional-health-properties.html>

<p>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.</p>
--