

Public release date: 2-Jan-2008

Contact: Cody Mooneyhan

cmooneyhan@faseb.org

301-634-7104

[Federation of American Societies for Experimental Biology](#)

New discovery could reduce the health risk of high-fat foods

Chemical in red wine, fruits and vegetables counters unhealthy effects of high-fat foods

Just as additives help gasoline burn cleaner, a research report published in the January 2008 print issue of The FASEB Journal shows that the food industry could take a similar approach toward reducing health risks associated with fatty foods. These "meal additives" would be based on work of Israeli researchers who discovered that consuming polyphenols (natural compounds in red wine, fruits, and vegetables) simultaneously with high-fat foods may reduce health risks associated with these foods.

"We suggest a new hypothesis to explain polyphenols," said Joseph Kanner, senior author of the report. For the first time, these compounds were demonstrated to prevent significantly the appearance of toxic food derivative compounds in human plasma."

For the study, six men and four women were fed three different meals consisting of dark meat turkey cutlets. One meal, the control, consisted of turkey meat and water. The second meal consisted of turkey meat with polyphenols added after cooking (one tablespoon of concentrated wine) followed with a glass of red wine (about 7 ounces). The third meal consisted of turkey meat with polyphenols added before cooking and then followed by a glass of wine.

At various points during the study, researchers took blood and urine samples to measure levels of malondialdehyde (MDA), a natural byproduct of fat digestion known to increase the risk for heart disease and other chronic conditions. The researchers found that MDA levels nearly quintupled after the control meal, while MDA was nearly eliminated after subjects consumed the meals with polyphenols.

As long as deep fried candy bars are on menus, scientists will need to keep serving up new ways to prevent the cellular damage caused by these very tasty treats, said Gerald Weissmann, MD,

Editor-in-Chief of The FASEB Journal. "This study suggests that the time will come where people can eat french fries without plugging their arteries."

###

The FASEB Journal (www.fasebj.org) is published by the Federation of American Societies for Experimental Biology (FASEB) and is consistently ranked among the top three biology journals worldwide by the Institute for Scientific Information. FASEB comprises 21 nonprofit societies with more than 80,000 members, making it the largest coalition of biomedical research associations in the United States. FASEB advances biological science through collaborative advocacy for research policies that promote scientific progress and education and lead to improvements in human health.
