

Olive oil protects liver

29 October 2010

Extra-virgin olive oil can protect the liver from oxidative stress. Researchers writing in BioMed Central's open access journal *Nutrition and Metabolism* exposed rats to a moderately toxic herbicide known to deplete antioxidants and cause oxidative stress, finding that those rats fed on a diet containing the olive oil were partially protected from the resulting liver damage.

Mohamed Hammami from the University of Monastir, Tunisia and King Saud University, Riyadh, Saudi Arabia, worked with a team of researchers to carry out the experiments in a group of 80 rats. He said, "Olive oil is an integral ingredient in the [Mediterranean diet](#). There is growing evidence that it may have great health benefits including the reduction in [coronary heart disease](#) risk, the prevention of some cancers and the modification of immune and inflammatory responses. Here, we've shown that extra [virgin olive oil](#) and its extracts protect against oxidative damage of hepatic tissue".

The researchers separated the rats into a control group, an olive oil group, and 6 groups that were exposed to the herbicide '2,4-Dichlorophenoxyacetic acid' with or without either whole olive oil, or one of two oil extracts - the hydrophilic fraction or the lipophilic fraction. All rats given the herbicide showed signs of significant [liver damage](#). However, extra virgin olive oil and hydrophilic fraction intake induced a significant increase in antioxidant enzyme activity and a decrease in markers of liver damage.

Speaking about the results, Hammami said, "The hydrophilic fraction of olive oil seems to be the effective one in reducing toxin-induced oxidative stress, indicating that hydrophilic extract may exert a direct antioxidant effect on hepatic cells. However, more detailed studies about the effect of antioxidant compounds separately and/or their interactions are necessary to substantiate these observations".

fractions on oxidative stress and the liver's fatty acid composition in 2,4-Dichlorophenoxyacetic acid-treated rats, Amel Nakbi, Wafa Tayeb, Abir Grissa, Manel Issaoui, Samia Dabbou, Issam Chargui, Meriem Ellouz, Abdelhedi Miled and Mohamed Hammami, *Nutrition & Metabolism* (in press), www.nutritionandmetabolism.com/

Provided by BioMed Central

More information: Effects of olive oil and its

APA citation: Olive oil protects liver (2010, October 29) retrieved 15 June 2021 from <https://medicalxpress.com/news/2010-10-olive-oil-liver.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.