

# Curcumin may help prevent liver damage from acetaminophen

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(HealthDay)—Curcumin exerts a hepatoprotective effect against

acetaminophen-induced damage in mice, according to an experimental study published in the February issue of the *Journal of Pharmacy and Pharmacology*.

Luis Fernando Granados-Castro, from the National Autonomous University of Mexico in University City, and colleagues evaluated the effect of curcumin (35, 50 or 100 mg/kg) on acetaminophen-induced mitochondrial alterations in the livers of mice. Curcumin was received 90 minutes before acetaminophen injection (350 mg/kg).

The researchers found that in a dose-dependent manner, curcumin prevented acetaminophen-induced liver [damage](#). Curcumin (100 mg/kg) lessened acetaminophen-induced liver histological damage and increment in plasma alanine aminotransferase and aspartate aminotransferase activity. Additionally, curcumin reduced the decrease in oxygen consumption measured using either succinate or malate/glutamate as substrates (evaluated by state 3, respiratory control ratio, uncoupled respiration, and adenosine diphosphate/oxygen ratio), in membrane potential; in ATP synthesis; in aconitase activity; and in the activity of respiratory complexes I, III, and IV.

"These results indicate that the protective effect of curcumin in acetaminophen-induced hepatotoxicity is associated with attenuation of [mitochondrial dysfunction](#)," the authors write.

**More information:** [Abstract](#)  
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