

Chili peppers come with blood pressure benefits

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For those with high blood pressure, chili peppers might be just what the doctor ordered, according to a study reported in the August issue of *Cell Metabolism*. While the active ingredient that gives the peppers their heat -- a compound known as capsaicin -- might set your mouth on fire, it also leads blood vessels to relax, the research in hypertensive rats shows.

"We found that long-term dietary consumption of capsaicin, one of the most abundant components in chili peppers, could reduce blood pressure in genetically hypertensive rats," said Zhiming Zhu of Third Military Medical University in Chongqing, China.

Those effects depend on the chronic activation of something called the transient receptor potential vanilloid 1 (TRPV1) channel found in the lining of [blood vessels](#). Activation of the channel leads to an increase in production of nitric oxide, a gaseous molecule known to protect blood vessels against inflammation and dysfunction, Zhu explained.

The study isn't the first to look for a molecular link between capsaicin and lower blood pressure. However, earlier studies were based on acute or short-term exposure to the chemical, with some conflicting results. Zhu says their study is the first to examine the effects of long-term treatment with capsaicin in rats with [high blood pressure](#).

The findings in rats should be confirmed in humans through epidemiological analysis, the researchers said. In fact, there were already some clues: the prevalence of hypertension is over 20% in Northeastern

China compared to 10-14% in Southwestern China, including Sichuan, Guozhuo, Yunnan, Hunan, and Chongqing, where Zhu is from.

"People in these regions like to eat hot and spicy foods with a lot of chili peppers," Zhu says. "For example, a very famous local food in my hometown, Chongqing, is the spicy hot pot."

It isn't yet clear just how many capsaicin-containing [chili peppers](#) a day you'd have to eat to "keep the doctor away," although that's a question that should now be examined in greater detail, Zhu says.

For those who can't tolerate spicy foods, there might still be hope. Zhu notes the existence of a mild Japanese pepper, which contains a compound called capsinoid that is closely related to capsaicin.

"Limited studies show that these capsinoids produce effects similar to capsaicin," Zhu says. "I believe that some people can adopt this sweet pepper."

Provided by Cell Press

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