

## Pine-bark extract has no effect on blood pressure, study finds

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Add pine-bark extract to the list of dietary supplements that don't live up to their promises of improved health. A new study from the Stanford University School of Medicine shows that pine-bark extract had no effect in lowering blood pressure or reducing other risk factors for heart disease.

Senior author Randall Stafford, MD, PhD, said the findings are part of a growing body of evidence that antioxidant supplements don't improve [heart function](#).

"While there's a good biological basis to presume that antioxidant supplements might have a beneficial effect on heart health, this study is another example that they don't," said Stafford, associate professor of medicine at the Stanford Prevention Research Center. "There's also a broader message that many dietary supplements don't have the data to back up their claims of providing health benefits."

The study, which will be published in the Sept. 27 issue of the [Archives of Internal Medicine](#), is the largest randomized, placebo-controlled clinical trial to date examining the effects of pine-bark extract on [blood pressure](#) and other [heart disease](#) risks.

Pine-bark extract has been reputed to have beneficial properties because it is an antioxidant, meaning that it counters the effects of free radicals - [oxygen molecules](#) that can damage cells in the body. While some previous studies linked pine-bark extract to reductions in blood pressure,

Stafford said most of those studies were "open-label" (meaning that participants knew they were taking the extract) and didn't have control groups of patients who were given placebos. In some cases, participants took the extract in conjunction with other medication, so it wasn't possible to determine the effects of the pine-bark extract alone.

For the Stanford study, the researchers recruited 130 overweight individuals who had blood pressure above an optimal level but were not taking medication for it. Stafford said the researchers felt these were the types of people who would be more likely to seek out dietary supplements as an alternative therapy.

The participants were randomly assigned to take either a Japanese-produced pine-bark extract or a placebo. The extract dosage was 200 mg per day, which researchers said was in the middle range of dosages used in previous studies.

Blood-pressure readings and blood samples of the participants were taken before the study began, at six weeks and then again at the end of the 12-week study period. Additionally, participants were monitored to ensure that their diets, medications and weight didn't change during the study.

In analyzing the results, the researchers found that the participants' blood pressure levels - as well as other risk factors for heart disease, including cholesterol, blood glucose, body weight and C-reactive protein levels - remained virtually the same in both groups throughout the study.

"We conducted additional analyses to see if there were subgroups of patients who might have received a benefit from the supplement, but none of them did," Stafford said.

The study did confirm that the pine-bark extract was safe for

consumption even though it didn't improve heart health, but Stafford said many other dietary supplements haven't undergone the same rigorous safety testing. He pointed to a U.S. Food & Drug Administration decision in 2004 to ban over-the-counter sales of ephedra, an herbal supplement that contained amphetamine-like drugs, because it caused heart problems.

"Most consumers presume that the supplements on the market are safe, but there isn't rigorous information to back up those presumptions," said lead study author Rebecca Drieling, MPH, research director for the SPRC's Program on Prevention Outcomes and Practices. "That's because federal regulations treat dietary supplements more like food than like drugs. Also chemical composition varies among [dietary supplements](#), making standardized testing difficult."

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