

Researchers find possible use for the vine that ate the South

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Kudzu, the fast-growing vine that has gobbled up some 10 million acres in the Southeast, may prove to be a valuable dietary supplement for metabolic syndrome, a condition that affects 50 million Americans, say researchers at the University of Alabama at Birmingham (UAB).

In findings published in the latest *Journal of Agriculture and Food Chemistry*, the researchers say studies on animal models showed that substances called isoflavones found in kudzu root improved regulation of contributors to [metabolic syndrome](#), including [blood pressure](#), high cholesterol and [blood glucose](#). One particular isoflavone, called puerarin and found only in kudzu, seems to be the one with the greatest beneficial effect.

"Our findings showed that puerarin helps to lower blood pressure and blood cholesterol," said J. Michael Wyss, Ph.D., a professor of in the UAB Department of Cell Biology and lead author on the study. "But perhaps the greatest effect we found was in its ability to regulate glucose, or sugar, in the blood."

An excessive amount of glucose in the blood is linked to both diabetes and obesity. Wyss says puerarin seems to regulate glucose by steering it to places where it is beneficial, such as muscles, and away from [fat cells](#) and blood vessels.

Wyss and colleagues added a small amount of kudzu root extract to the diets of lab rats for about two months. Compared to a control group that

did not get the extract, the rats had lower [cholesterol](#), blood pressure, blood sugar and insulin levels. No side-effects were noted.

"We need to better understand the mechanism by which kudzu root has these effects and then conduct human trials before we can recommend it as a supplement," Wyss said. "We also need a better understanding of who would most benefit. Is this something that children should take or perhaps those at risk for stroke or heart disease?"

"Puerarin, or kudzu root, may prove to be a strong complement to existing medications for insulin regulation or blood pressure, for example," said Jeevan Prasain, Ph.D., an assistant professor in the UAB Department of Pharmacology and Toxicology and a study co-author. "Physicians may be able to lower dosages of such drugs, making them more tolerable and cheaper."

Kudzu has long been used as a dietary supplement in Asian countries, most commonly as a tea or a powder. The climate of the American Southeast is ideal for kudzu, which is native to China and Japan and was brought to the United States in the 1930s for erosion control. Kudzu vines can grow as much as a foot per day during the summer and can overwhelm trees, power poles and buildings if left unchecked.

Source: University of Alabama at Birmingham ([news](#) : [web](#))

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