

## Gardening gives older adults benefits like hand strength and self esteem

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Researchers at Kansas State University already have shown that gardening can offer enough moderate physical activity to keep older adults in shape.

In research to be published in February in the journal *HortScience*, the researchers discovered that among the other health benefits of gardening is keeping older hands strong and nimble.

"One of the things we found is that older adults who are gardeners have better hand strength and pinch force, which is a big concern as you age," said Candice Shoemaker, K-State professor of horticulture.

Shoemaker is part of a small team of K-State researchers studying the ways in which gardening affects the health of older adults. She works with Mark Haub, associate professor of human nutrition, and Sin-Ae Park, a research associate in horticulture who earned her doctorate in horticulture from K-State in December 2007.

The research appearing in *HortScience* in February comes from a study that assessed 15 areas of health in older adults, from both those who garden and those who don't. The researchers looked at measurements like bone mineral density, sleep quality, physical fitness, hand strength and psychological well-being.

"We found that with gardening tasks older adults can, among other things, improve their hand strength and self-esteem at the same time,"



Park said.

Although Shoemaker said that differences between gardeners and nongardeners showed up in a few health assessments like hand strength, overall physical health and self esteem, results from some of the other areas were more ambiguous.

"If we had a larger sample I think we would see more health differences between those who garden and those who don't, including in areas like sleep quality and life satisfaction," she said.

The results about the positive impact of gardening on hand strength prompted Park and the researchers to explore this area further. They are now analyzing data from an eight-week horticulture therapy program that targeted hand strength in stroke patients.

"They did tasks like mixing soil and filling pots," Park said. "They had to use their hands all of the time, so that was good exercise -- and they really enjoyed it."

Park, Shoemaker and Haub recently garnered national news coverage for a study published in the journal HortTechnology. The study probed the physical impact of gardeners working in their own gardens. The researchers showed that older adults can use gardening to achieve a moderate activity level and meet the Centers for Disease Control and Prevention's exercise recommendations. News coverage included an article in the Los Angeles Times, <u>tinyurl.com/a7ub4q</u>

The trio of researchers also published a study in the journal Perceptual and Motor Skills of the physical impact of individual gardening tasks. They found that a task like raking, which uses the whole body, had the most exercise benefit, whereas activities like mixing soil or transplanting seedlings give the most benefit to the upper body.



Shoemaker, who also researches gardening as a prevention strategy to childhood obesity, said that studying the physical benefits of gardening is important for older adults because gardening is a physically active hobby that provides an alternative to sports or other exercise.

"There's a lot of natural motivation in gardening," Shoemaker said. "For one thing, you know there's a plant you've got to go out and water and weed to keep alive. If we get the message out there that older adults can get health benefits from gardening, they'll realize that they don't have to walk around the mall to get exercise."

Source: Kansas State University

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