

Asian spice could reduce breast cancer risk in women exposed to hormone replacement therapy

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Previous studies have found that postmenopausal women who have taken a combined estrogen and progestin hormone replacement therapy have increased their risk of developing progestin-accelerated breast tumors. Now, University of Missouri researchers have found that curcumin, a popular Indian spice derived from the turmeric root, could reduce the cancer risk for women after exposure to hormone replacement therapy.

"Approximately 6 million women in the United States use [hormone replacement therapy](#) to treat the symptoms of menopause," said Salman Hyder, the Zalk Endowed Professorship in Tumor Angiogenesis and professor of biomedical sciences in the College of Veterinary Medicine and the Dalton Cardiovascular Research Center. "This exposure to progestin will predispose a large number of post-menopausal women to future development of breast cancer. The results of our study show that women could potentially take curcumin to protect themselves from developing progestin-accelerated tumors."

In the study, researchers found that curcumin delayed the first appearance, decreased incidence and reduced multiplicity of progestin-accelerated tumors in an [animal model](#). Curcumin also prevented the appearance of gross morphological abnormalities in the mammary glands. In previous studies, MU researchers showed that progestin accelerated the development of certain tumors by increasing production of a molecule called VEGF that helps supply blood to the tumor. By

blocking the production of VEGF, researchers could potentially reduce the proliferation of breast cancer cells. Curcumin inhibits progestin-induced VEGF secretion from [breast cancer cells](#), Hyder said.

"Curcumin and other potential anti-angiogenic compounds should be tested further as dietary chemopreventive agents in women already exposed to hormone replacement therapy containing estrogen and progestin in an effort to decrease or delay the risk of breast cancer associated with combined hormone replacement therapy," Hyder said.

The study, "Curcumin delays development of MPA-accelerated DMBA-induced mammary tumors," has been accepted for publication in *Menopause*, a journal of the North American Menopause Society.

Source: University of Missouri-Columbia ([news](#) : [web](#))

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