

Broccoli a day, keeps cancer away

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Broccoli zaps tumor cells growth



Singapore: A research conducted by the Comprehensive Cancer Center, University of Michigan, found that a naturally occurring compound in broccoli and broccoli sprouts could help prevent and potentially treat breast cancer. Their findings have recently been published in the journal *Clinical Cancer Research*.

The researchers tested the broccoli compound, known as sulforaphane, in animal studies as well as in breast cancer cell cultures in the lab. Sulforaphane not only targeted and killed cancer stem cells, but also prevented any new malignancies from growing.

The scientists pointed out that concentrations of sulforaphane used in the study were higher than what can be normally achieved by eating broccoli or broccoli sprouts. However, research suggests the body can absorb high enough concentrations of sulforaphane from broccoli extract to impact cancer. Currently, the research team is working to develop a method to extract and preserve sulforaphane. They are also planning a future clinical trial to test sulforaphane both as a prevention and treatment for breast cancer.

Dr Duxin Sun, author of the study and associate professor, pharmaceutical sciences, college of pharmacy, Comprehensive Cancer Center, University of Michigan, said that, "Sulforaphane has been studied previously for its effects on cancer, but this study shows that its benefit is in inhibiting the breast cancer stem cells. This new insight suggests the potential of sulforaphane or broccoli extract to prevent or treat cancer by targeting the critical cancer stem cells."

"This research suggests a potential new treatment that could be combined with other compounds to target breast cancer stem cells. Developing treatments that effectively target the cancer stem cell population is essential for improving outcomes," said Dr Max S Wicha, study co-author and distinguished professor of oncology and director, Comprehensive Cancer Center, University of Michigan.