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Curry Spice May Fight Skin Cancer

Ingredient in Curry May Kill Melanoma Cells

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July 11, 2005 -- The essential curry spice that gives Indian curries their characteristic yellow color may also be a potent cancer fighter.

A new study shows that curcumin, the yellow pigment found in the spice turmeric, kills and stops the growth of melanoma skin cancer cells in laboratory tests. Melanoma is the deadliest and can be the most difficult-to-treat form of skin cancer. According to the American Cancer Society, melanoma accounts for about 4% of skin cancer cases, but it causes about 79% of skin cancer deaths.

It's not the first time that curcumin has been hailed as a potential disease fighter. The spice has both antioxidant and anti-inflammatory effects that may be useful in combating a variety of diseases.

But researchers say this is the first study to demonstrate that curcumin works in both high concentrations for short periods of time and at low concentrations for long periods of time to trigger cancer cell death.

From Curry Spice to Cancer Fighter

In the study, which appears in the Aug. 15 issue of the journal *Cancer*, researchers evaluated the effects of curcumin on three different melanoma cell lines in varying doses and duration.

The results showed that the curry spice inhibited cancer cell viability and triggered cell death in three different melanoma cell samples. While all doses used were shown to decrease cancer cell lines, higher doses were shown to be more effective.

Researchers say curcumin triggered the natural process of cell death, known as apoptosis. The spice suppresses the production of proteins normally found in cancer cells that prevent the cancerous cells

from dying off. The bigger the dose of curcumin that was delivered, the more cancer cells died.

Although curcumin was effective at altering pathways that lead to cancer cell death, researchers say the curry ingredient had no effect on other pathways associated with cancer cell proliferation.

They say further studies to determine the effects of curcumin in animal models of melanoma and human studies are needed before the curry ingredient can be transformed into a potential cancer treatment.

SOURCES: Siwak, D. *Cancer,* Aug. 15, 2005; vol 104. News release, John Wiley & Sons, Inc. American Cancer Society.
