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Upfront

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Avocados May Help Prevent Oral Cancer, OSU Study Shows

Nutrients taken from avocados are able to thwart oral cancer cells-killing some and preventing precancerous cells from developing into actual cancers-reported researchers at The Ohio State University in the journal *Seminars in Cancer Biology*.

Researchers found that extracts from Hass avocados-the most readily available at supermarkets nationwide-kill or stop the growth of precancerous cells that lead to oral cancer.

"As far as we know, this is the first study of avocados and oral cancer," said Steven M. D'Ambrosio, study lead author and a member of the molecular carcinogenesis and chemoprevention program at Ohio State's Comprehensive Cancer Center. "We think these phytochemicals either stop the growth of precancerous cells in the body or they kill the precancerous cells without affecting normal cells."

D'Ambrosio, who collaborated with researchers in Ohio State's College of Pharmacy, found that phytochemicals extracted from avocados target multiple signaling pathways and increase the amount of reactive oxygen within the cells, leading to cell death in precancerous cell lines. But, importantly, the phytochemicals did not harm normal cells.

Avocados are cock-full of beneficial antioxidants and phytonutrients, including vitamin C, folate, vitamin E, fiber, and unsaturated fats. They are naturally sodium-free, contain no trans fats, and are low in saturated fat, making them a health addition to any diet, said D'Ambrosio.

D'Ambrosio also authored an accompanying editorial in *Seminars in Cancer Biology* entitled "Phytonutrients: A more natural approach toward cancer prevention." "The future is ripe for identifying fruits and vegetables and individual phytonutrients with cancer preventing activity," wrote D'Ambrosio in the editorial. "As we identify the molecular mechanisms and targets by which individual phytonutrients prevent cancer, we may be able to improve upon nature by formulating phytonutrient cocktails for specific cancer and individual susceptibility risk."

According to the researchers, previous research has found an association between the consumption of fruits and vegetables and reduced risk for various types of cancers. This reduced risk is attributed to the high levels of phytonutrients and phytochemicals found in dark colored fruits and vegetables.

"Our study focuses on oral cancer, but the findings might have implications for other types of cancer," said D'Ambrosio. "These are preliminary findings, and more research is needed."