## ZINC MAY HELP HALT THE GROWTH OF ESOPHAGEAL CANCER CELLS

Esophageal cancer is the sixth leading cause of human cancer deaths around the world.

## Adding seafood into your diet is one way to top up your zinc levels, which a study says could help inhibit the growth of cancer cells.

New US research suggests that zinc may halt the growth of esophageal cancer cells, potentially paving the way for new prevention and treatment methods.

According to the National Cancer Institute, esophageal cancer is the sixth leading cause of human cancer deaths around the world, with almost 16,000 esophageal cancer deaths in the United States in 2016. The average five-year survival rate for the disease is less than 20 percent, however previous research has shown that zinc can protect the esophagus from cancer, as well as being essential for maintaining human health overall.

The new study led by Zui Pan, an associate professor of nursing at the University of Texas at Arlington and a noted esophageal cancer researcher, set out to understand more fully why zinc has the ability to prevent cancer in the esophagus by looking at the effect of zinc supplementation on cells. The results showed that zinc selectively halts the growth of cancer cells, but not normal esophageal epithelial cells, a finding that could now lead to further research and potential new ways of treating and perhaps even preventing esophageal cancer.

"Zinc deficiency has been found in many cancer patients," said Pan, whose study was funded in part by a research grant from the National Institutes of Health - National Cancer Institute. "Both clinical data and animal studies have shown that this mineral is very important for overall body health and for cancer prevention."

"But previously we didn't know why the same physiological concentrations of zinc inhibit cancer cell growth but not normal cells. Our study, for the first time to our knowledge, reveals that zinc impedes overactive calcium signals in cancer cells, which is absent in normal cells, and thus zinc selectively inhibits cancer cell growth," said Pan. "It now appears that zinc and calcium can have a cross talk, meaning that they can be linked."

Pan also added that the results emphasize the importance of a good diet, as an insufficient amount of zinc can lead to the development of other diseases as well as cancers.

As well as taking supplements adding zinc-rich foods such as spinach, flax seeds, beef, pumpkin seeds and seafood like shrimp and oysters into the diet can help boost levels of the nutrient.

The findings can be found published online in The FASEB Journal, the official journal of the Federation of American Societies for Experimental Biology.

