

Cancer cells slurp up fructose, US study finds

* Findings challenge common wisdom about sugars

Mon Aug 2, 2010 5:20pm EDT

Aug 2 (Reuters) - Pancreatic tumor cells use fructose to divide and proliferate, U.S. researchers said on Monday in a study that challenges the common wisdom that all sugars are the same.

Tumor cells fed both glucose and fructose used the two sugars in two different ways, the team at the University of California Los Angeles found.

They said their finding, published in the journal *Cancer Research*, may help explain other studies that have linked fructose intake with pancreatic cancer, one of the deadliest cancer types.

"These findings show that cancer cells can readily metabolize fructose to increase proliferation," Dr. Anthony Heaney of UCLA's Jonsson Cancer Center and colleagues wrote.

"They have major significance for cancer patients given dietary refined fructose consumption, and indicate that efforts to reduce refined fructose intake or inhibit fructose-mediated actions may disrupt cancer growth."

Americans take in large amounts of fructose, mainly in high fructose corn syrup, a mix of fructose and glucose that is used in soft drinks, bread and a range of other foods.

Politicians, regulators, health experts and the industry have debated whether high fructose corn syrup and other ingredients have been helping make Americans fatter and less healthy.

Too much sugar of any kind not only adds pounds, but is also a key culprit in diabetes, heart disease and stroke, according to the American Heart Association.

Several states, including New York and California, have weighed a tax on sweetened soft drinks to defray the cost of treating obesity-related diseases such as heart disease, diabetes and cancer.

The American Beverage Association, whose members include Coca-Cola ([KO.N](#)) and Kraft Foods ([KFT.N](#)) have strongly, and successfully, opposed efforts to tax soda. [ID:nN12233126]

The industry has also argued that sugar is sugar.

Heaney said his team found otherwise. They grew pancreatic cancer cells in lab dishes and fed them both glucose and fructose.

Tumor cells thrive on sugar but they used the fructose to proliferate. "Importantly, fructose and glucose metabolism are quite different," Heaney's team wrote.

"I think this paper has a lot of public health implications. Hopefully, at the federal level there will be some effort to step back on the amount of high fructose corn syrup in our diets," Heaney said in a statement.

Now the team hopes to develop a drug that might stop tumor cells from making use of fructose.

U.S. consumption of high fructose corn syrup went up 1,000 percent between 1970 and 1990, researchers reported in 2004 in the *American Journal of Clinical Nutrition*.