

IN EVERY ISSUE

Not So Sweet

BY LACEY MEYER

New research begins to clarify the link between sugar and cancer.

Sugar's connection to cancer has been a subject of medical rumors for years, confusing fact with fiction. Recent research has put sugar and cancer back into the rumor mill, so, for health's sake, here's what sugar can and can't do.

Michael Pollak, MD, a cancer prevention researcher at McGill University in Montreal, describes it simply: Sugar does not directly cause cancer, but people should be careful about the amount of sugar they consume because each person's individual body reacts differently to sugar.

Removing sugar from a person's diet won't prevent cancer, but experts say it may lower the risk of recurrence for some cancer survivors.

Sugar comes in different forms, such as sucrose, fructose, corn syrup, and molasses. Sugary foods and drinks, such as cake, cookies, non-diet soda, and fruit-flavored drinks, tend to be high in sugars and calories, but low in nutrients.

When sugar or empty calories are rapidly absorbed, the blood sugar level spikes and the body responds by increasing insulin, which regulates the amount of sugar in the blood (glucose) by metabolizing it for use as energy or to store as fat. Overrun with sugar, the body starts having trouble getting glucose into the cell to produce energy, says registered dietitian Angela Lemond, of Professional Nutrition Therapists in Dallas.

"It's called insulin resistance when the body is dumping out the insulin, but the sugar is still having trouble coming out of the bloodstream," she says. Insulin resistance can lead to high insulin levels.

At the San Antonio Breast Cancer Symposium last December, Dr. Pollak reported recent research that shows higher insulin levels at diagnosis can be associated with a worse prognosis. In turn, elevated insulin levels also cause the liver to increase production of insulin-like growth factor-1 (IGF-1), a hormone that mimics insulin behavior.

In 2004, Dr. Pollak reported in *Nature Reviews Cancer* that converging results from research show an association between high circulating levels of IGF-1 and an increased risk of a subsequent diagnosis of several common cancers, including breast, colorectal, and prostate. An updated review of research findings is scheduled for publication later this year, says Dr. Pollak.

However, the links within this chain of events don't add up to a simple cause and

effect equation, and further research is needed to clarify the underlying factors involved, one of which may be obesity.

Insulin promotes the storage of fat, and obesity can induce insulin resistance. Research has found that the prevalence of metabolic syndrome—the latest term for the constellation of obesity (high body mass index), borderline or overt diabetes, and insulin resistance—is slightly higher in people with a history of cancer compared with those without a cancer history. According to the American Institute for Cancer Research, obesity is associated with an increased risk and/or worse prognosis for certain types of cancers, including esophageal, pancreatic, colorectal, endometrial, kidney, and breast in postmenopausal women.

Sugar isn't the best source of energy, so for this and many other reasons, it should be consumed sparingly. To satisfy cravings for sweets, Lemond recommends substituting a sugary dessert with vitamin-rich fruits and berries, like a bowl of strawberries with a light whip cream. If a patient is experiencing nausea or weight loss, Lemond's advice is to focus on eating something, even if it's not always whole grains and vegetables.

“Food is there to be enjoyed, and we need to allow ourselves to have a variety of food, and that can include a dessert every once in a while,” Lemond says. “It's the foods that we eat over and over that have a drastic effect on our bodies.”