The Surprising Link Between Carbs and Depression

Refined carbohydrates — such as those found in white bread, white rice and sodas may harm more than the waistlines of older women. New research shows that eating too much of these highly processed foods might also raise their risk of depression.

Luckily, the opposite also appears to be true: The analysis also found that those who ate lots of whole grains, vegetables, fruits and dietary fiber appeared to see their risk for depression drop.

The study involved more than 70,000 women aged 50 to 79. The findings, the investigators said, only show an association between “refined” carbs and elevated depression risk, rather than a direct cause-and-effect relationship.

“[But] it is already well known that people who suffer from depression tend to crave carbohydrates,” said study author James Gangwisch, an assistant professor in the department of psychiatry with the College of Physicians and Surgeons at Columbia University in New York City.

So the researchers set out to look at the dynamic in reverse. The goal: to see whether consuming refined carbs — a known driver of high blood sugar levels — actually raises depression risk among women with no recent history of mental illness.

The apparent answer: Yes. Gangwisch and his colleagues reported their findings Aug. 5 in *The American Journal of Clinical Nutrition*. The investigators reviewed nutrition and mental health records collected at 40 clinical centers across 24 states and the District of Columbia during the well-known Women’s Health Initiative (WHI) study.

None of the women had any history of substance abuse, depression or any other form of mental illness in the three years leading up to their enrollment in the study.

The result at the end of the study: The more refined sugars a woman ate, the higher her blood sugar levels and the greater her risk for a bout of depression.

As to why, Gangwisch said that “one likely explanation is spikes and troughs in blood sugar [levels] that result from the consumption of these foods. Blood sugar that is too high induces an elevated
insulin [hormonal] response that can lower blood sugar to levels that induce a hormonal counter-regulatory response.”

The result can be a rise in anxiety, irritability and hunger. Similarly, plunging blood sugar levels often translate into fatigue, he said.

Asked whether refined carbs might drive depression risk among other groups of people, Gangwisch said that he “would presume that our results could also apply to men, although I cannot say definitively.” But Connie Diekman, director of university nutrition at Washington University in St. Louis, cautioned that the dynamic could shift, depending on age and gender.

“The outcomes could be very different in younger women due to hormones, and of course in men,” she said. But “the important outcome to me, as a registered dietitian, is that the women who consumed diets higher in vegetables, fruits and whole grains had a lower incidence of depression. So, the question is not: do the [highly refined] foods contribute to depression? It is: do women at risk for depression simply choose these foods?”

That point was seconded by Lona Sandon, a registered dietician and assistant professor of clinical nutrition with the University of Texas Southwestern Medical Center at Dallas.

“When you feed your body and brain healthy, whole, nutrient-rich foods, you feel better,” she said. “You may feel better and have a better mood, simply because you know you are doing something good for your body,” Sandon suggested.

“What is not clear from the report is whether or not the depression or consumption of refined carbohydrates came first,” she added. “Many people make poor food choices when they are depressed or even stressed, and may reach for refined carbohydrates — like chocolate — in an attempt to improve their mood.”

Regardless, registered dietitian Penny Kris-Etherton, a professor of nutrition at Penn State University in University Park, Pa., said the current study is “part of an important piece of emerging literature.”
“People are just starting to explore the connection between nutrition and mental health,” she said. “And I think this work will add fuel to a fascinating area of study, which is certainly worthy of more investigation.”