Last summer, my mother picked a fight with me. She didn’t chide me to set my wedding date, as is her usual rant. She told me I should stop eating seven-grain bread.

“Did you know that whole-wheat bread spikes your blood sugar more than table sugar?” she probed. Like the rest of the nation, she’d been devouring Wheat Belly, by William Davis, M.D. In this cult diet book, Davis, a cardiologist, argues that wheat has fundamentally changed since the sixties and that modern-day varieties cause an array of maladies, including obesity, diabetes, autoimmune disorders, arthritis, and heart disease. Davis even blames these strains for the sharp increase in gluten sensitivities, such as celiac disease.

I dismissed my mom’s enthusiasm for the book (a former Atkins devotee, she’s easily swayed by the latest low-carb diet) until weeks later, when an intellectually friend posted on Facebook a clip of Davis indicting whole-wheat bread. “Modern wheat is a perfect chronic poison,” he told the stunned CBS This Morning anchors.

In the ongoing quest to pinpoint the cause of America’s ailments, Davis’s anti-wheat rhetoric has hit a nerve. Wheat Belly is a New York Times best-seller (and has been, at press time, for 37 weeks), and Davis recently published a spin-off cookbook. Yet not one major newspaper has reviewed the book, and surprisingly few of Davis’s colleagues in the world of diet and nutrition have weighed in on his extreme claims. Curious, I investigated his assertions myself.

WHOLE WHEAT = JUNK FOOD

One of Davis’s most provocative claims is that whole wheat is just as bad for you as white bread—or even a chocolate bar. “Aside from some extra fiber,” he writes, “eating two slices of whole-wheat bread is really little different, and often worse, than drinking a can of sugar-sweetened soda.”

To those of us brought up on “heart healthy” whole grains, this sounds sacrilegious. What about all the nutrients—B vitamins, vitamin E, iron, zinc, folate, and magnesium—in whole-wheat bread? Davis is fixating on bread’s glycemic index (G.I.), which measures how quickly sugars are absorbed into the bloodstream. Typically, high-fiber foods have a lower G.I. than sugary, processed foods. Davis writes that two slices of whole-wheat bread have a higher glycemic index than two tablespoons of sugar—or even a Snickers.

Surprisingly, Davis’s claim isn’t completely unfounded. “Most garden-variety whole-wheat breads”—the highly processed kind at the supermarket—“do have a higher G.I. than sugar,” says Jennie Brand-Miller, Ph.D., professor of biochemistry at the University of Sydney and one of the authors of the international table of glycemic index that Davis cites. A close look at the table reveals a coarse wheat-kernel bread with a G.I. of 52. If you’re concerned about blood sugar, look for breads with a coarse grind and flecked with cracked kernels.

Regardless, Amy Lanou, Ph.D., a professor of nutrition at the University of North Carolina, notes that most people don’t eat bread by itself—and any fat, protein, or fiber will reduce its G.I. This explains how a peanuts-studded Snickers could have a lower G.I. than (commercial) whole-wheat bread. Further, you don’t need to watch the G.I. of your foods unless you’re overweight, diabetic, or hypoglycemic, says Lanou. “For most healthy, athletic people, glycemic index is just a complicated way of saying, ‘Eat whole foods.'”

FRANKENWHEAT?

Davis’s other main argument is that modern-day wheat has been genetically altered and that novel gluten proteins are causing adverse health effects. As Davis sees it, over the past 50 years, “wheat has undergone a more drastic transformation than Joan Rivers.”

Wheat breeders like Bob Zemeta, Ph.D., at Oregon State University say that kind of statement may sell books, but it is not accurate. Since the sixties, says Zemeta, breeders have developed new varieties of wheat that have higher yields and better resistance to disease and insects, but these strains don’t contain novel gluten proteins. (Genetically modified wheat is not yet commercially available.)

GRAINS OF TRUTH

Davis introduces some compelling theories for the rise in celiac disease, which epidemiologists say cannot be explained by improved detection alone. One controversial but not implausible theory is that modern wheat may contain greater amounts of gliadins (a gluten component) than older varieties. Alessio Fasano, M.D., director of the Center for Celiac Research at Massachusetts General Hospital, has found a link between gliadins and “leaky gut,” which is a cofactor in many autoimmune diseases—celiac, multiple sclerosis, and type 1 diabetes among them. But Fasano blames this on, among other factors, the amount of gluten we eat today, not on newfangled strains of wheat. “Your grandparents were eating less gluten than we are now.”

utes >484