



NUTRITION

HOW MUCH DO YOU KNOW ABOUT GLUTEN?

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You've probably noticed that there are more gluten-free products and options at grocery stores, restaurants, and back-yard barbecues. You've also probably heard about—and maybe even read—popular diet books like *Wheat Belly* and *Grain Brain* or viewed articles or websites that have made you wonder about wheat and other grains. Ten years ago, most people had never even heard of gluten. Now it's estimated that one in three Americans are trying to avoid it (1, 2).

I used to think that the gluten-free craze was a bit extreme and even irrational (some days, I still think that). I used to also get a little irritated with people who requested certain dietary accommodations at social gatherings or events. Then I met my husband. When he told me that he had celiac disease and explained that he and his kids adhered to a gluten-free diet, I told him that I was okay with that. I was, after all, a dietitian. But as we progressed in our relationship and I started to realize that he really did react to very tiny amounts of gluten and that I would also need to change my diet once we were married, I started to panic. How

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would I give up whole wheat bread and my favorite cereals and cream-based soups? How was I going to cook for a family if I couldn't use flour? How were we going to ever afford the extra cost of gluten-free products? And how would this new eating style affect food-related social functions with our family, friends, and neighbors?

Thankfully, a dear friend—who also has celiac disease and who is a mom to two children with celiac disease and Type 1 diabetes—mentored me through the process. She reassured me that, thanks to the gluten-free trend (whether it was justified or not), there were lots of options—*many* more than she had had when she had first been diagnosed. She was right. There are a lot of options now. Personally, I'm really thankful that Cheerios are finally gluten-free. I'm also glad that they make better tasting gluten-free tortillas that are actually big enough for

“normal” enchiladas, burritos, and tacos. And, I'm grateful that my husband can still enjoy desserts and other treats that he used to miss out on.

Still, I have mixed feelings about the gluten-free trend and the messages that consumers are believing about gluten, wheat, and other grains. Here are a few examples of statements that are sometimes confusing or misleading. Do you know the answers?

TRUE OR FALSE?—GLUTEN IS IN WHEAT AND WHEAT PRODUCTS.

Yes, gluten is a compound in wheat. But it is also in barley, rye, and various crossbreeds of those grains. Gluten is composed of two different proteins—gliadin and glutenin—and is the ingredient that gives elasticity to dough, helps it rise and keep its shape, and results in a chewy texture. Since it's a source of protein, gluten is often an additive in foods that are otherwise



low in protein or is used as a stabilizing agent in many non-grain products (i.e. ice cream, ketchup, soy sauce, imitation meats, etc.). This is one of the reasons why gluten is difficult to avoid.

Up until last year (August 2014), the term “gluten-free” had not been officially defined or regulated on food labels. As a result, food manufacturers made their own decisions about what that term meant and there was no guarantee that gluten-free claims were honest (3). The current standard now states that a gluten-free product must be free of wheat, rye, and barley and contain no more than 20 parts per million of gluten. It also ensures that companies can’t label products “gluten-free” if they are cross-contaminated from other products made in the same manufacturing facility. Oats, for example, don’t contain gluten. However, since they are often grown, harvested, processed with wheat and

other grains, they don’t always meet the gluten-free labeling standard (4).

The answer to this statement is technically **TRUE**—but gluten is also found in many non-wheat products.

TRUE OR FALSE?—WHEAT CAUSES WEIGHT GAIN, DIABETES, HEART DISEASE, FATIGUE, AND MENTAL “FOGGINESS”.

The gluten-free trend is often attributed to *Wheat Belly*, a book written by Dr. William Davis and published in 2011. However, in a rebuttal to a *Consumer Reports* article that cautioned readers about going gluten-free, Dr. Davis emphatically stated that his book is not about choosing gluten-free products. Instead, he says it’s about eliminating *all* grains from our diet (which is something that I take issue with).

The premise of his book is captured in one of his opening statements: “I’d like to make the case that foods made with wheat make you fat. . . . I’d go as

far as saying that overly enthusiastic wheat consumption is the main cause of the obesity and diabetes crisis in the United States” (5).

Like most popular diet-book authors, Dr. Davis is a good writer. He’s also a cardiologist and appears to be a credible source. In his book, he includes scientific statements and other indisputable facts, refers to hot nutrition topics, makes bold statements, and mixes in buzzwords and medical jargon. That’s probably why his anti-wheat theory sounds so convincing and intriguing. But that’s all it is—just a theory. A closer examination of most of his claims reveals false and misleading ideas, conflicting information and contradictions, and insufficient research and scientific evidence (1, 5, 6).

An online article entitled, “Wheat Belly—An Analysis of Selected Statements and Basic Theses from the Book” by Julie Jones (published



August 2012), provides a more complete review and includes specific counter-arguments to many of his claims. The Washington Grains Commission also addresses many misperceptions about wheat on their website (www.thebestgrains.com).

The answer to this statement is **FALSE**. It is well-documented that no one food or food group is responsible for obesity or chronic disease. Too many calories (from any food) and inadequate physical activity are typically the primary contributors (5, 6). Eating whole-grain foods—including wheat—is still an important health recommendation (5).

TRUE OR FALSE?—A GLUTEN-FREE DIET IS HEALTHY AND WILL HELP YOU LOSE WEIGHT.

Gluten-free diets *can* be healthy—but they can also be very *unhealthy*. It all depends on what foods you include and how much you actually eat. In a 2010 nationwide survey among people who bought gluten-free foods, most (46%) reported that they avoided gluten because they believed gluten-free foods were healthier. Approximately

30% selected gluten-free foods because they wanted to lose weight. And 22% said that they felt that gluten-free products were higher quality (3). These are all misconceptions.

When you compare the nutrition facts label of most food items against the label on a gluten-free version of the same item (bagels, for example), you'll discover that the gluten-free version often has more calories, less fiber, more added sugar or fat, and fewer vitamins and minerals (since most gluten-free foods aren't fortified) (2, 3). Margo Wootan, a spokesperson for the Center for Science in the Public Interest says it this way, "Ten years ago, a gluten-free diet would have helped you lose weight because you'd cut out a lot of products like muffins, cookies, and cake. . . . The gluten-free fad [now] has actually undermined people's health because we have gluten-free varieties of all of that junk food. Whether your donut is gluten-free or not, it's still a donut" (2).

So, the answer to this one? **TRUE and FALSE**. As a side note, individuals who have celiac disease or who are gluten intolerant typically gain weight

when they adopt a gluten-free lifestyle and usually have a higher body mass index than those who don't because the integrity of their small intestine improves and they're better able to absorb food (3, 5).

TRUE OR FALSE?—THERE IS LITTLE EVIDENCE THAT A GLUTEN-FREE DIET IS BENEFICIAL FOR SOMEONE WHO IS NOT GLUTEN-INTOLERANT.

According to most sources, 1 in 133 people (about 1% of the population) actually have celiac disease and require a gluten-free diet (2, 4, 5). There are others who are gluten intolerant (but non-celiac) or allergic to wheat who also benefit from going gluten-free. Outside of that, most health experts agree that there is no proven benefit to avoiding wheat or other products that contain gluten (2, 3).

Is it true that some people feel better on a gluten-free diet just because they expect to? Yes, there is generally a strong placebo response. When people report feeling better after discontinuing gluten, any number of things could explain that. For some, cutting out gluten could mean that they eat less

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food or less junk food—and either one of those things usually makes a person feel better (3).

One drawback of jumping on the gluten-free bandwagon without an official diagnosis is that a person could miss or delay treatment for a serious health condition other than gluten-intolerance (i.e. Crohn's disease, irritable bowel syndrome, peptic ulcer disease, colon cancer, etc.) (3). One other thing to consider is that the diagnostic tests for celiac disease and gluten-intolerance (a blood test and/or a biopsy of the small bowel) only work for patients who aren't already on a gluten-free diet. Eliminating gluten prematurely could skew the results of those tests (3). At any rate, those who remove gluten from their diet without a medical reason are generally restricting their food options (unnecessarily) and are more likely to miss out on certain nutrients like iron, B-vitamins, and fiber.

If you do choose to cut out gluten, it's smart to consult your doctor or a registered dietitian first. After that, stick with nutrient-dense whole foods that are naturally gluten-free (like fruit, vegetables, lean meat and poultry, fish, most dairy products, legumes, and nuts). Finally, remember that there are lots of whole grains that may be worth a try—including rice, amaranth, corn, millet, quinoa, and teff.

The answer for this statement is **TRUE**—there is very little evidence that suggests that a gluten-free diet

is necessary or beneficial to someone without a gluten-intolerance.

In conclusion, is it good that gluten-free foods are showing up everywhere? Joseph Murray, a gastroenterologist and professor of medicine at the Mayo Clinic says, "Yes, because that makes it a lot easier for people with celiac. The danger with that trend, though, is that it may trivialize a real disease. So while we think, 'Oh, everyone is on a gluten-free diet. It's no big deal,' it is a really big deal for people with celiac [and others who experience] severe complications." (3)

I agree with that statement. For my husband's sake, I'm glad that there are more gluten-free foods on the market. As for me, I still eat wheat and other foods that contain gluten (I just don't eat them at home anymore). There's no simple way to explain the increased incidence of celiac disease and other autoimmune conditions. Is it possible that current wheat production practices contribute? Yes—but I haven't found any conclusive evidence that's convinced me that wheat is toxic or that our food production system is corrupt. Do I think that everyone should eat wheat? No. I realize that some people are sensitive to it and others feel healthier on a wheat-free diet. At the same time, wheat products have certain nutrients that aren't always easy to get otherwise. That's why I still eat sandwiches.

SOURCES

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