

The dangers of going gluten-free

It's the biggest health craze of our time, though some doctors fear it's creating real problems. (Even the Wheat Belly guru is worried)

by [Cathy Gulli](#) on Tuesday, September 10, 2013 7:00am -



Liam Mogan

The first time Margaret Dron organized the [Gluten Free Expo](#) early last year, it was inside the gymnasium of a small community centre in east Vancouver. She had recruited one volunteer, two speakers, 38 vendors and expected 500 attendees. There was no entrance fee—instead, people were to bring gluten-free goods for the local food bank; three boxes were set aside for the collection. Six hours later, more than 3,000 people had turned out, and the volunteer had to call a one-tonne truck to pick up the donations. In one Sunday afternoon, Dron realized, “there is some serious

potential here. So I quit everything I had, got an extension on my mortgage, and just dove in.” Since then, “it has blown up.”

That is to say, the Gluten Free Expo is now an annual affair in Toronto and Calgary, besides Vancouver. Next year, Edmonton and Ottawa will join the roster. About 10,000 people attend each weekend-long event, which is usually held inside a 60,000-sq.-foot convention centre. “And that’s getting tight,” says Dron. More than 200 vendors sell their offerings, mostly food items but also skin-care products and nutritional supplements—all made without gluten, a protein found in wheat, barley and rye, and blamed for many digestive problems. Food donations are still accepted, but a \$12 to \$15 entrance fee has been implemented. “It’s gone from me begging [for] volunteer speakers to chefs and authors from all over North America requesting to come out,” says Dron. “It’s amazing.”

“Amazing” meaning lucrative, of course. Gluten-free products are a \$90-million enterprise in Canada alone, and the sector is expected to grow at least 10 per cent each year through to 2018—an astounding feat for what is primarily a food-based category. In the United States, the market is valued at \$4.2 billion and climbing. A landmark study by researchers at Dalhousie University in Halifax, [published in the *Canadian Journal of Dietetic Practice and Research*](#) in 2008, revealed that gluten-free foods were, on average, 242 per cent more expensive than their “regular” counterparts, and up to 455 per cent pricier in some cases. “If I was to

manufacture a product,” says Dron, “there is no way that I would not have a gluten-free option in today’s day and age.”

Manufacturers are getting the message—and not just small fringe businesses, but behemoth multinational corporations, too. Kellogg’s revamped its Rice Krispies recipe, first concocted in 1927, by removing barley malt (the source of gluten in the original) from its gluten-free version so it could advertise as a cereal “that’s easy for kids to digest.”

Campbell Company of Canada claims to be the “first mainstream brand” to feature a gluten-free symbol on its soups and chilies. Tim Hortons hailed the introduction of a gluten-free menu item in mid-July—a chewy coconut macaroon drizzled with milk chocolate—as nothing short of a “defining moment in our Canadian dining history.” Wal-Mart Canada started selling gluten-free goods online this summer and offers free shipping no matter the order size. “They want to be the Amazon.com of gluten-free,” says communications specialist Tricia Ryan, who founded the [Gluten-Free Agency](#) in Toronto last August to help companies market their new products.

Business is booming for her, too, as the variety of products expands far beyond the oxymoronic “gluten-free pasta” and “gluten-free bread” lines. Items that consumers might never even think of as containing gluten are being tweaked, or at least rebranded, to meet the demand: soy sauce, salad dressings, potato chips, hot dogs, veggie burgers, licorice, pickles, spices, beer, vodka, toothpaste, makeup, protein powders, medicine, even playdough. Indeed, nothing is so

sacred it can't be reworked. Canadian churches can now purchase gluten-free or low-gluten Eucharistic wafers: \$22.95 for 100 pieces.

With all these products, one might assume the need for gluten-free items is epidemic in Canada, that without them a public health crisis could emerge. In reality, the explanation for the recent explosion in demand is a spectacular mix of real medical concerns, changing views on what accounts for a healthy diet, savvy marketing and celebrity influence. Sports stars [Steve Nash](#) and [Novak Djokovic](#) insist going gluten-free has turned them into the finest and leanest athletes in the world. Public health messages have shifted focus from low fat and sugar-free to low-carb, partly to stave off rampant obesity. And the best-selling book [Wheat Belly](#), by American cardiologist William Davis, published in 2011, has convinced millions to stop eating, as the author puts it, “a perfectly crafted Frankengrain” that “has exerted more harm than any foreign terrorist group can inflict on us.”

In the midst of this frenzy, it's easy to forget the fact that only a tiny segment of the Canadian population is strictly prohibited from eating wheat by medical professionals—the roughly 35,000 people diagnosed with celiac disease. Another 300,000 are believed to be afflicted but undiagnosed. Their plight is severe: Just one bite of a glutenous food damages their small intestine and can cause a range of symptoms including abdominal pain, gas, bloating, diarrhea and constipation. The disease can lead to problems including “osteoporosis, anemia, sterility, even carcinoma,”

says Peter Taylor, executive director of the [Canadian Celiac Association](#). For them, “every day, every meal, every mouthful” is a matter of sickness or health.

But they are a small lot, certainly “not enough to make a business,” says Ryan. Rather, it appears that the gluten-free craze is being fuelled by the dietary choices of a much larger group of individuals known as “gluten avoiders”—seven million strong in Canada alone, the majority of whom do not have celiac disease or any other medically prescribed reason for eliminating gluten from their diet. Many say they experience gut problems, but their doctors can’t explain why or what to do about it. Some of these individuals turn to blogs and books for guidance on how to go gluten-free. In the process, they may learn of other rumoured benefits: weight loss, chief among them. They share their story with family, friends and co-workers, who in turn try going gluten-free, too. It’s for this crowd that the market grows. The gluten avoider group “is the driver for the gluten-free category,” says Ryan. “It’s the one that substantiates businesses making [these products].”

It’s also the segment of the population that has an increasing number of doctors across Canada confused and worried about the possible dangers of patients going gluten-free without talking to a health professional first. Gluten avoiders may spend money on foods that they don’t really need to eat, that may actually be lacking nutrition and causing them other problems. They may also miss out on important diagnoses, especially if they do have celiac disease and aren’t tested. All

this has led doctors to debate in the pages of scientific journals and even out loud: Is Canada facing a new medical emergency about which little is yet understood or is this just the latest health fad gone wild? And most importantly, are gluten avoiders doing themselves more harm than good?

Long before he became the head of the celiac association, Peter Taylor knew all about the torture that gut problems could inflict. For five years, he suffered seemingly inexplicable bowel pain and a terrible skin rash, which he could not cure. He lost 40 lb., because, Taylor later realized, his body couldn't process his "carb-rich diet." When his family physician learned of his symptoms, an assortment of possible causes was considered, including irritable bowel syndrome, gall bladder trouble and an ulcer. It wasn't until a year and a half later that celiac disease came up, and was finally diagnosed. (It's done using a simple blood test; if a particular antibody is detected, a biopsy is done to confirm bowel damage. This is covered in every province, except Ontario, where the blood work costs about \$120.) Within three months of eliminating gluten, his symptoms disappeared. "The irony," says Taylor, recalling his frustration at how long it took to figure out, "is that my doctor at the time was a celiac."

However vexed Taylor felt, his experience was resolved pretty quickly by comparison: It takes, on average, a stunning 12 years for patients to be diagnosed with celiac disease from when they first start feeling sick, according to a study in a recent issue of the *Canadian Journal of*

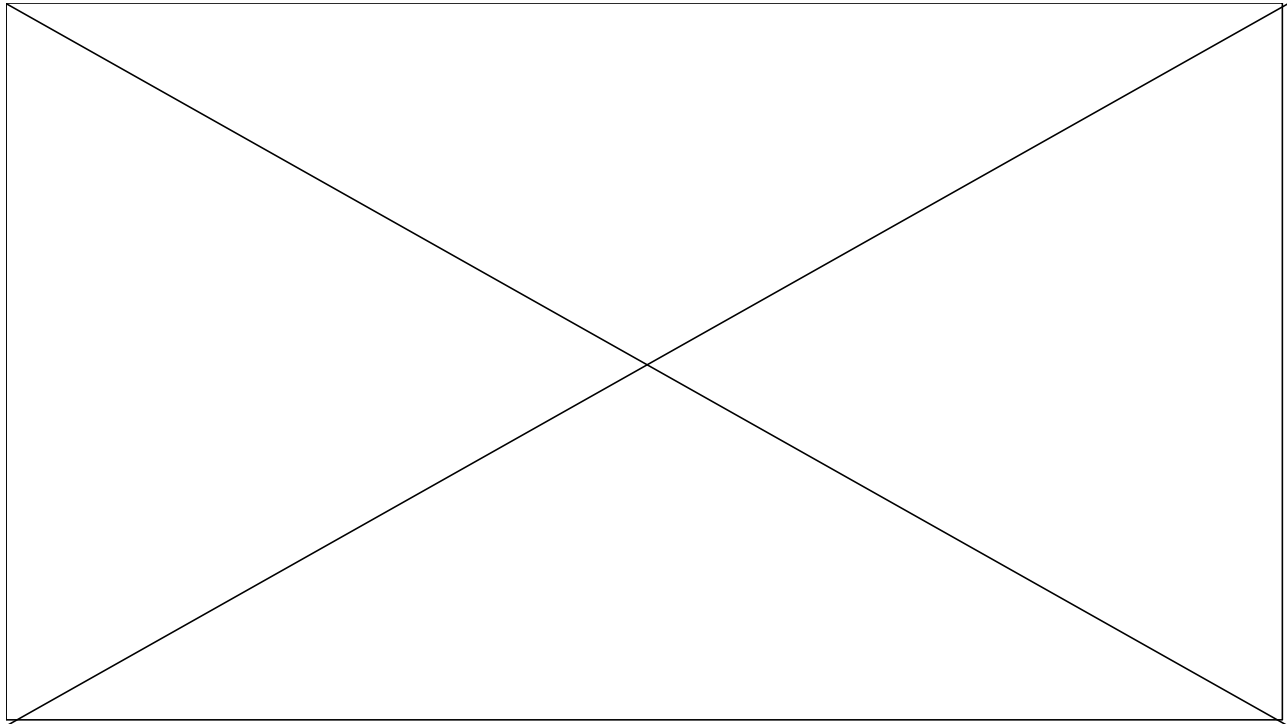
Gastroenterology. That's largely because the symptoms are so ubiquitous they could hint at any number of disorders. "Gut problems are actually the most common symptoms the population has," says Mohsin Rashid, a pediatric gastroenterologist and professor at Dalhousie, who co-authored the gluten-free cost comparison study. "That's why celiac disease is underdiagnosed," adds Taylor. "It's masked by the perception that it's something else." In fact, "essentially two out of three Canadians every year will have some sort of digestive problem," says Catherine Mulvale, executive director of the [Canadian Digestive Health Foundation](#), and many don't know what's wrong. "Because they can't get answers, they are scared."

In the absence of a definitive diagnosis from their doctors, these individuals invariably take matters into their own hands. That usually involves cutting out foods that have been popularly vilified—especially grains. Often, people perceive an improvement in their symptoms, says Rashid, and return to the doctor's office to confirm that gluten is the problem. Except now, diagnosing celiac disease is all but impossible: A patient must consume gluten every day for at least a couple of months or even up to a year before getting tested. As such, some people are wrongly informed that they don't have the disease. Others refuse to start eating gluten again so they can be tested accurately—they feel their personal experiment is evidence enough of a gluten problem. "That's a big pitfall," says Rashid. "All gastroenterologists are seeing this phenomenon, and family doctors too."

This disconnect between doctors and patients about who should go gluten-free and when prompted a sharply worded article in the April issue of the *B.C. Medical Journal* entitled, [“Gluten elimination diets: facts for patients on this food fad.”](#) Co-authors Kathleen Cadenhead and Margo Sweeny, both Vancouver physicians and members of the British Columbia Medical Association’s nutrition committee, note that, “Wheat, and gluten in particular, has been given pariah status by the millions who are on the low-carb diet bandwagon, particularly those who believe they are allergic or sensitive to gluten.” But, they insist that “there is no need for patients to avoid gluten” or wheat unless they’ve been diagnosed with celiac disease or an allergy because, the doctors argue, “most of the evidence against wheat or gluten is unsubstantiated by science.”

The article ignited a fiery debate. “I did push some buttons in writing this,” admits Cadenhead, but “we were trying not to be wishy-washy and say, ‘Look . . . the evidence is not there yet.’ ” Specifically, when it comes to a new medical phenomenon that’s being called “non-celiac disease gluten intolerance” or gluten sensitivity. Within the last five years or so, a handful of studies have proposed the emergence of this condition, which may affect as many as two million Canadians. They are thought to experience the same symptoms as celiacs after eating gluten. The trouble is diagnosing it; to date, there is no test that can detect gluten sensitivity. Rather, patients may consider themselves to have the condition if they have tested negative for celiac disease

or a wheat allergy, or if they simply “feel better” or symptom-free when they don’t eat gluten.



Given how little is understood about gluten sensitivity, many doctors are hesitant to bring it up with patients, and some even question whether the condition is real. “We are describing a disease that is new altogether. It’s very difficult,” says Rashid. “We don’t know whether it’s a permanent thing; maybe it’s transient. Maybe it’s a dose-related phenomenon, [so] you can take some gluten. [There are] a lot of unknowns.” There is even suspicion that a “placebo effect” may be at play, adds [Vincici Tsui](#), a registered dietitian in Calgary. “Because when people do switch over to a gluten-free diet, a lot of times it does mean eliminating fast foods, processed foods, refined grains, or it means cooking at home more often, eating more vegetables

and fruits,” she explains. “They feel better and they think it is the [avoidance of] gluten when really it may be the fact that they are eating better in general.”

The notion that gluten avoiders are eating more whole foods and cooking healthy meals is really a best-case scenario, though. Many medical professionals are actually seeing eating habits take a turn for the worse once individuals avoid gluten. That’s because they are relying on processed gluten-free foods that often lack important vitamins, minerals and fibre, and are made with substitute starches such as rice and tapioca flour that “really have no nutritional value at all,” says Dron. “But they have really high glycemic indices.” In fact, a forthcoming study examining the nutritional content of gluten-free foods by Rashid found that these products may be higher in fat and lower in protein than their “regular” counterparts. “We have a tendency to think that gluten-free is healthier,” says Meghan Walker, a naturopathic doctor in Toronto. “And that is certainly not the case.” In fact, “a lot of people put on weight when they go on a gluten-free diet,” says Rashid.

Further complicating matters is the fact that “most people who think they’re on a gluten-free diet aren’t, unless they’ve really done their research,” says Cadenhead. “If they’re just avoiding pasta and bread,” that’s not enough. “Gluten is in almost everything.” It may be used as a thickener or stabilizer in soups, spreads and sauces, for flavouring in cereals or noodles, spices, teas and coffees, or as filler in processed meats, imitation seafood or vegetarian substitutes.

Reading labels may not always make the presence of gluten obvious, either. It may appear in Latin as *triticum vulgare* or *hordeum vulgare* or *secale cereale*. Or the label may feature ingredients that people don't realize contain gluten, including bulgur, couscous, farina, malt and seitan. Gluten "can be modified to give you all kinds of different properties," explains [Ravindra Chibbar](#), Canada Research chair in crop quality and a professor at the University of Saskatchewan in Saskatoon. "It is a readily available, inexpensive component and industry want to get their money's worth. That is why people are working to get more and more products out of gluten components."

That makes good business sense, of course. But it may not serve customers so well—those who don't realize that they're consuming gluten, or those who are buying gluten-free foods that are poor substitutes. The whole situation makes doctors such as Cadenhead shudder. "Whenever you see nutritional issues being heavily marketed, it makes me want to protect people from being ripped off," says Cadenhead. "I would like people to be obtaining the best nutritional value for their food dollar." Unbeknownst to many gluten avoiders, that may not be happening.

One of the most baffling aspects of the gluten-free phenomenon is how much influence a singular book has had on the diets of so many people. *Wheat Belly* has been heavily criticized by scores of physicians and lauded by many, many more gluten avoiders as proof their dietary restraint is justified. The irony, however, is that William Davis detests

his new-found role as poster boy for the gluten-free food industry—and actually discourages people from buying these products because of their low nutritional value. “This has nothing to do with gluten,” he tells *Maclean’s*. Instead, he takes issue with how wheat has been grown, and altered through hybridizations over the last several decades, which he believes is harmful to human health. “If we view wheat as nothing more than a vehicle for gluten we are not going to understand all the issues that are important about modern wheat.”

It’s a highly inflammatory view, and crop experts such as Chibbar insist it is without merit. Hybridization means “you take one plant that has a feature you like, you cross it with another one and you get a progeny that has characteristics that you want,” he explains. “It has been going on for tens of thousands of years. It happens with all the crops, it’s not just wheat.” Others, such as Earl Geddes, CEO of the [Canadian International Grains Institute](#), argue that consumers are missing the real problem with the country’s food supply: “Here in Canada we go to the grocery store once a week and we want to buy something that will sit in our cupboard for a week and still be good,” he says. “That’s got nothing to do with the wheat that’s in the product. That’s all the other stuff that we as consumers have insisted gets put into the product.”

While experts debate to what extent the war on wheat is warranted, millions of Canadians are struggling with debilitating gastrointestinal symptoms. Whatever the cause,

their pain can't be ignored or downplayed, says naturopath Walker. "If people articulate that they don't feel well on a type of food and that is dismissed, I think there is a real danger that they will wind up with chronic issues," she says.

But there are signs that the situation may be improving for gluten avoiders. Dron notes that an increasing number of manufacturers have heeded calls for healthier gluten-free options, and are launching nutrient-rich products such as quinoa pasta. And at an international celiac symposium in Chicago in September, Rashid will present his latest cost-comparison study, which shows that gluten-free foods are equalizing in price with regular foods—they are now 162 per cent more expensive, on average, rather than 242 per cent. He believes more competition in the market has driven down cost.

In this way, the more gluten avoiders demand information and options for themselves from doctors and manufacturers, the better their prospects for a healthy future. It just won't happen overnight. "All kind of questions are coming about for which we really don't have good answers," says Rashid. "Our problem is people going [gluten-free] without being properly counselled or checked out. It becomes problematic." He wants patients to request celiac testing before starting this new diet. "It will take some time to sort this out," he acknowledges, and sometimes "patients can't wait. They want to get better." But they may, in fact, make matters worse.

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