

Gluten-Free Water? A Fad Without a Grain of Sense

By Sophie Egan

Gluten-free foods have swept across America. Millions of consumers are convinced that a diet devoid of gluten—a protein found in wheat, barley and rye—is the cure-all for everything from dementia and schizophrenia to diabetes and obesity. This fear has become so widespread that the market for gluten-free foods is estimated to hit \$15 billion by the end of this year, according to the research firm Mintel. Food marketers have even slapped the gluten-free label on products that never would have contained it: For instance, Hint sells fruit-flavored bottled water that it proclaims as gluten-free. No kidding.

Countless nutritionists and health reporters have called out the gluten-bashing for what it is: overblown. Yet the fad speaks to a long-held American tendency to value foods based on what they lack, rather than on, say, their taste, seasonality or overall nutritional value. That mind-set took hold during the fat-free frenzy of the 1980s and '90s. Over time, being bombarded by nutritional claims on labels has taught Americans to reduce foods to tallies, loading up on or avoiding grams of this or that specific nutrient or ingredient. Gluten is only today's demon.

Let's get some numbers out on the table. According to the National Institutes of Health, about 1% of Americans have celiac disease, a serious immune reaction triggered by gluten that damages the small intestine. About 6% are estimated to have non-celiac gluten sensitivity, a far less severe condition that is not yet well understood but appears to be associated with symptoms such as diarrhea and constipation, headaches and fatigue, according to the Celiac Disease Foundation. One more number: Almost a third of Americans are trying to avoid gluten.

How did this happen? Two best-selling books—"Wheat Belly" by cardiologist William Davis in 2011 and "Grain Brain" by neurologist David Perlmutter in 2013—argued that consuming grains, gluten and carbs leads to obesity and inflammation, causing a wide range of chronic health conditions. The mainstream

movement centers on the belief that a gluten-free diet helps people lose weight. In reality, this notion is not substantiated by data.

Almost a third of Americans avoid gluten. About 1% of them actually have a medical need to.

Most consumers, however, are less than diligent about examining the evidence. Two years ago Jimmy Kimmel conducted a series of man-on-the-street interviews, finding people who professed to shun gluten and then asking them what exactly they thought it was. The best that any of the respondents did was to say that gluten had something to do with wheat or flour. In 2014 the consumer-insights firm Hartman Group

asked 1,728 American grocery shoppers why they purchased gluten-free foods. The most common answer, given by 35%, was "no reason at all."

Furthermore, gluten-free diets might actually be less healthy. In declaring all carbs poisonous and banishing the entire food group of grains, gluten-free evangelists overlook the important distinction between whole grains (i.e., whole wheat flour) and highly processed or refined grains (i.e., white flour) that have been stripped of their healthiest components. Eating whole grains provides much-needed dietary fiber, for one, and has been associated with a reduced risk of heart disease, Type 2 diabetes, some cancers, hypertension, stroke and obesity.

Because gluten is what gives dough its elastic consistency, it's also important to recognize that once gluten is removed from a product, it usually needs to be replaced with something else. That something else

tends to be tapioca starch, potato starch, rice flour and added sugar, which when consumed lead to blood-sugar spikes that don't do the body any favors. Scan the package of a toaster pastry from Glutino, one of the industry's leading brands, and you'll see an excruciatingly long list of ingredients with polysyllabic chemical names.

Ironically, the gluten-free movement was originally started about a decade ago by people who wanted to eat fewer processed foods. If "going gluten-free" means cutting out cookies and sugary cereal, drinking less beer and eating more salad and tofu, then yes, odds are you're feeling like a million bucks right now. But most people are instead looking for labels to signal that their favorite items have been reformulated as gluten-free, or new products have been developed, and that it's safe to plow ahead.

A small subset of the population

has legitimate health reasons to steer clear of gluten, as it can set off a dangerous reaction in their small intestine. Another small subset appears to feel sick after eating foods with gluten. For everyone else, common sense—and the boring but timeless advice of everything in moderation—still applies.

The gluten hysteria is a reflection of something much deeper and more concerning: a lack of food literacy. If Americans had a more intimate understanding of real, whole foods, they would be better equipped to evaluate what they're putting in their grocery baskets. Until then, everyone should take out their adult coloring books and calm the heck down.

Ms. Egan is the author of "Devoured: From Chicken Wings to Kale Smoothies—How What We Eat Defines Who We Are," out last month from William Morrow.

Smart Devices Undone by Dumb Security

By Babak D. Beheshti

A Washington couple was baffled after their 3-year-old son complained of scary voices in his room at night. Then his mother heard them, too. "Wake up, little boy, daddy's looking for you," said a strange voice. Her blood ran cold. The couple soon discovered that a stranger had hacked their baby monitor. Late at night, he would take over commands—and even the night-vision lens—to whisper disturbing messages to their toddler.

Since CBS 2 in New York reported this story in 2015, consumers have become even more connected to the global Internet of Things, a network of personalized web-connected devices and objects. It's a broad category that includes everything from Fitbits to connected vehicles, from smart oil rigs to thermostats. By 2020, the tech industry forecasts a staggering 50 billion things connected to the Internet—roughly seven devices for every human on the planet.

Yet with technology growing

more pervasive each day, all companies that make Internet-connected devices need to anticipate potential security threats and work to neutralize them. If they don't get proactive, they will find themselves regulated by bureaucrats who don't understand their complex technologies.

If hackers can commandeer a baby monitor, you know the Internet of Things needs to wake up to threats.

Billions of Internet-connected devices already have created opportunities for cybercriminals. Tech companies have stepped up security measures for smartphones, computers and tablets. But other web-connected devices, such as thermostats, smart refrigerators and wearables have received less attention. That lag has created dangerous vulnerabilities. Hackers can extract financial information; terrorists can target the digital infrastructure of our cities;

In 2011 a security expert and diabetic named Jay Radcliffe reported that he had hacked into his own insulin pump, writing a code that could potentially change settings or turn insulin off. Cybercriminals also could stop an Internet-enabled pacemaker, supercharge a heart defibrillator or increase the drip on a morphine pump. Imagine the potential these hacks create for any sinister group.

While many companies in the smart-home market have now taken serious security precautions, device companies need to educate their workforces and the public about the risks. Consumers must understand the importance of managing their passwords, installing security updates and safeguarding Wi-Fi networks.

Firms should also get smarter about data storage, especially on the cloud. After reviewing more than a billion data points, on Oct. 6, 2015, security services firm Alert Logic reported that attacks against cloud deployments had skyrocketed by 45% in 2014, as compared with 2013. The trade-off the cloud offers—ease

continuous authentication, a noninvasive alternative to the traditional biometrics such as fingerprints. Basically, it involves monitoring the intricate keypresses, movements and pressures applied by an individual's hands on a mobile device, in order to continuously authenticate the identity of the user and detect and cut off an unauthorized user.

As the Internet of Things expands, and as security vulnerabilities keep pace, companies that make web-connected devices must understand that parents won't idly stand by as some stranger's voice seeps through their baby monitor. If manufacturers fail to address security vulnerabilities, heavy-handed regulators surely will.

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