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Paul McDougall opened his fridge to show a well-rounded stock of groceries for a health-conscious family with two young kids. "I have moved back to eating bread and some of the other restrictions because it's mostly under control," said the 46-year-old Toronto-based TV producer, who was diagnosed with Hashimoto thyroiditis 4 years ago.

The diagnosis explained a lot to Paul, whose wife Maria says he was on an "emotional roller coaster" of fatigue and depression.

"When I got the diagnosis, I was foggy," he said. "For a live television producer, that is bad. We were gearing up for the Olympic Games, and it got to the point that I couldn't understand what was going on. I felt like I had banged my head and had a concussion."

"The emotional suffering and the burden was so bad that we wondered if he could continue to work," recalled Maria, adding that "the most worrisome thing was when he would just break down crying."

Instead of choosing the standard medical treatment for his autoimmune disorder, Paul chose the unconventional path to recovery — an elimination diet plus supplements.

Alternative medicine has embraced nondrug treatments for autoimmune thyroid disease. One of the most popular dietary prescriptions is the Autoimmune Protocol Diet (AIP), an even stricter version of the Paleo or "ancestral" no-grain diet.

Neither the American Association of Clinical Endocrinologists (AACE) nor the American Thyroid Association gives the AIP their blessing. So what can physicians tell patients who want to give it a try, either because they don't want medications or are taking them but are still having symptoms?

Folly or Science?

The theory behind the AIP is that autoimmune symptoms — and possibly even antibodies — can be lowered by eliminating certain foods from the diet. The goal is to lower inflammation, which is recognized as the underlying pathologic mechanism behind autoimmunity.

But the diet is not easy. The list of foods to avoid is long: all grains, legumes, nightshades, dairy, eggs, coffee, alcohol, nuts, seeds, refined/processed sugars and oils, and food additives.

So, is it folly for patients to embark on such an epic diet that has no backing from the experts? Here's a look at the science behind the AIP.

At the root of the diet is the theory that intestinal barrier dysfunction, or leaky gut, is allowing toxins into the system, triggering inflammation and autoimmunity. Though once eyed with skepticism, "intestinal barrier dysfunction" has received growing interest in the medical world. Indeed, a PubMed search of this term reveals close to 450 publications — the first appearing in 1993. A growing body of research links intestinal permeability to a dizzyingly wide range of conditions, including inflammatory bowel disease, multiple sclerosis, diabetes, cardiovascular disease, autism, depression, Parkinson disease, and dementia.

Despite growing recognition that leaky gut triggers many illnesses, including autoimmunity, there is surprisingly little science on how to staunch the leak. Although restoring healthy gut microbiota is considered key, conventional doctors debate how best to achieve this.

Enter the "unconventional doctors," whose solution is the AIP.

Various versions of the AIP have been championed by bestselling physician authors, many of whom have personal stories of autoimmune illnesses that did not respond to conventional medicine.

Amy Myers, MD, an emergency physician, is one. Cynthia Li, MD, an internist, is another. Both women were sidetracked from conventional medicine by autoimmune thyroid disease that did not respond to medical therapy.

Myrto Ashe, MD, MPH, is a California-based family medicine doctor who followed a similar path when her son's condition did not improve.

"For those of us conventional MDs who have gone 'over to the other side,' it has almost across the board been because either ourselves or a family member had a medical issue that could not be resolved with the tools that we are already familiar with," she said.

The cornerstone of the AIP diet is elimination of gliadin, a notoriously indigestible component of gluten that is found in wheat, rye, barley, and triticale and is hidden in countless processed foods.

"Gluten damages the gut every time you eat it," explained Ashe, citing a number of studies linking gliadin-induced zonulin release to intestinal barrier dysfunction. Gluten-induced intestinal damage is well recognized in people with celiac disease, although there is evidence that it causes transient damage in people without celiac disease, she added.

"This is largely because we have a poorer diet and therefore fewer beneficial bacteria than we used to," she explained. "So it makes sense that while our ancestors could consume a lot of gluten with impunity, we can't."

Most of what's known about gluten and the gut comes from Alessio Fasano, MD, from Harvard Medical School, who believes that some people with autoimmunity could benefit from gluten elimination.

"I am convinced, based on data published in the literature, that there are subgroups of people affected by autoimmune diseases, such as type 1 diabetes, multiple sclerosis, rheumatoid arthritis, etc, in whom gluten can play a pathogenic role by inducing release of zonulin, the molecule that increases gut permeability," he said. "However, contrary to patients with celiac disease in which 100% benefit from a gluten-free diet, only a percentage of people with autoimmunity can benefit from the diet. We do not have validated biomarkers for non-celiac gluten sensitivity, so it is impossible to find the subgroup that would benefit from the diet." Ashe and other proponents of the AIP believe that by healing the gut and restoring healthy microbiota, the diet can help many patients with autoimmunity reduce their medications or abandon them altogether.

Fasano tends to agree. "The results are mainly anecdotal, but improvement in symptoms, decreased autoantibody titers, and a slowing of the progression of the autoimmune process have all been described," he noted.

But, Ashe believes diet shouldn't be the sole approach.

"For a patient with symptomatic Hashimoto's, I would start them on medication — levothyroxine or possibly natural desiccated pig thyroid — then give them a few months to go through a comprehensive functional medicine program [involving diet, lifestyle, and supplements], and then circle back to see what needs to happen with the medication dose over time. I saw someone the other day who was gazing at their vanishing thyroid peroxidase antibody levels."

Conventional Doctors Remain Skeptical

Most conventional thyroid doctors are hesitant to fully embrace the AIP, saying there is no evidence of improved thyroid-stimulating hormone and thyroid antibody levels.

The American Thyroid Association said: "At the present time, there is no published, controlled study that shows that the 'autoimmune protocol diet' can reverse Hashimoto's disease."

John Sistrunk, MD, chair of the thyroid disease state network for AACE, has a similar opinion.

"While the present scientific evidence does not support strict adherence to an 'autoimmune protocol' diet for improving Hashimoto's thyroiditis — clinically, improving dietary habits has proven effects on other disease processes, including quality of life," he said.

Karl Nadolsky, DO, chair of AACE's obesity and nutrition disease state network, said that while he has seen patients with Hashimoto autoimmune thyroiditis and hypothyroidism who have gone "to the extreme" of adhering to the AIP diet, "neither I nor any of my colleagues have had any patients succeed in reducing antibody levels to a clinically significant degree or not needing thyroid hormone replacement if already on it. That said, we certainly do encourage improved dietary habits, which include more vegetables, fruits, legumes/pulses, nuts/seeds, fish, poultry, and unprocessed meats, along with exercise, sleep hygiene, and stress reduction, as those are definitively evidence-based therapies for everyone, including those with Hashimoto's."

Despite their skepticism about the AIP, both groups cautiously acknowledge that there may be some thyroid benefit to eliminating gluten. "Some data do show that in the small subset of people with both celiac and Hashimoto's, the gluten-free diet will improve thyroid antibody levels," said Nadolsky, acknowledging that this deserves more investigation.

As Paul and his family sit down to dinner, the table features a mix of vegetables, meat, and fish dishes, as well as a little gluten. Although he launched into a strictly gluten-free diet at diagnosis, he admits he has lapsed since feeling better. The meal is fuel that powers his physically active lifestyle and fast-paced professional whirlwind — all of which ground to a halt at the peak of his thyroid troubles.

Both he and Maria recognize that medication may still be in the future for his Hashimoto's. "The endocrinologist says there's going to come a time. I'm slowly doing a little bit of damage all the time, which is not recoverable. It's like a car with a bad engine."

But for the time being, he is back to biking, running, and juggling a big job promotion — and feeling great.