THE DIABETES AND CELIAC LINK

By Janis I. Monroe Soucie

If you have Type-1 diabetes, you probably would never imagine you could have Celiac's Disease too. It has been estimated that one-in-twenty diabetics also has Celiac Disease.

Catherine Oddenino has had Type-1 diabetes since she was eleven. She is thirty-one now and is adept at counting carbohydrates and dosing insulin. However, when she was in her 20s she hit something new with her health. Whenever she ate, she felt like she had food poisoning. She visited her doctor and was told to cut dairy from her diet. She was then sent to a gastroenterologist. The gastroenterologist was tipped off by her diabetes and so then tested her for Celiac Disease. Two weeks later the results of the test came back and the culprit of Catherine's "poisoning" was gluten and not dairy. Now, with being careful of how many carbohydrates she eats, Catherine also has to make sure she doesn't eat even a speck of gluten.

Both diabetes and Celiac disease are autoimmune disorders. Thyroid disease, Multiple Sclerosis, and Rheumatoid Arthritis, among other conditions, also belong in this group. In autoimmune disorders, the immune system is overactive and causes the body to attack its own cells.

The science on how Type-1 diabetics and Celiac Disease are related is still emerging. Dr. Alessie Fasano, the medical director of the center of Celiac research at the University of Maryland, has two thoughts: (1) the diseases share common genes; and (2) some patients have Celiac Disease, which later turns into diabetes.

A study was conducted and published in the New England Journal of Medicine in 2008, which study found that the genes involved in Celiac Disease are also in Type-1 diabetes.

It might seem impossible that Celiac Disease can cause diabetes, but typically a Celiac-Disease diagnosis comes after a diabetes diagnosis. For every person diagnosed with Celiac Disease at least another fifty are not even aware they have it. With those that are undiagnosed, experts think that the chronic "leaky gut" present in Celiac patients allows triggers like food proteins and viral and bacterial particles to enter the body by way of the intestine and into the space beneath. A large number of autoimmune cells reside in this area and this causes the person to "develop secondary autoimmune conditions if genetically predisposed," says Fasano. Even though this question has not been fully answered, a fact that remains is that most of people diagnosed with Celiac Disease are already on diets for diabetes.

Gluten-free foods can vary significantly in the amount of carbohydrates they contain. For example, regular wheat noodle contain 23.8 grams of carbohydrates per 150ml of pasta. Rice spaghetti has 42 grams for the same serving size.

Foods can also have different fat and protein ratios, which can delay the rate of carbohydrate absorption. "People may end up requiring more insulin, or less insulin," said Suzanne Simpson, a dietician at the Celiac Disease Center at Columbia University in New York.

Devon Carlson has had Type-1 diabetes since she was a child. At the age of twenty-six, routine blood tests found antibodies for Celiac Disease. An intestinal biopsy confirmed Celiac Disease. With this diagnosis, she transitioned to a gluten-free diet and her blood sugar spun out of control. She had been trying several gluten-free foods but found they have a lot sugar and fat. The sugar and fat can delay the rate of the absorption of the carbohydrates. The increased fat in Carlson's body caused her body to absorb carbohydrates at a different rate, thereby in turn causing the dose of insulin to be off. She says, "Once I figured out which gluten-free processed foods I would keep in my diet and stopped trying all these different foods, I got my blood sugar back under control." Carlson began choosing whole foods, fruits and vegetables, and gluten-free grains. Because she did this, it made her insulin dosing a simpler task.

Having both Celiac Disease and diabetes causes a new set of challenges if you are traveling or dining out, so it is important to monitor your blood sugar carefully.

Catherine Oddenino has both Celiac Disease and diabetes and held a job where she had to travel weekly. She has this to say, "Traveling with both Celiac and diabetes requires thinking ahead in terms of where your next meal is going to be, and what you're going to have to eat."

It is hard to find gluten-free foods on the road; but if you also have diabetes, this means you cannot leave anything to chance. Diabetics need to eat at regular intervals to keep their blood-sugar levels stable.

Symptoms are often vague for Celiac's Disease and because of this people who have Celiac's Disease often go undiagnosed for years. The symptoms of Celiac's are diarrhea, bloating, and fatigue, among other symptoms. Most family doctors do not even know how common Celiac's Disease is. This issue warrants concern because undiagnosed Celiac's Disease increases the risk of osteoporosis, intestinal cancers, neurological disorders, and infertility. Increasing numbers of diabetics are being screened for Celiac's Disease since there is a strong association between the two autoimmune diseases. This means that silent Celiac's – that is, those who show no symptoms – are being put on a gluten-free diet.

Researchers are continuing to search for and discover the origins of the two diseases. Therefore, over time, the relationship between them should become clearer. The hope we have here is that diagnoses can be made to help more people live to their healthiest potential.

If my mother were still alive, she would be able to relate to this article. She too was diabetic and had problems with gluten. Whenever she ate gluten-filled products her eczema would flare up. She never did go and get tested for Celiac's Disease. She just knew that when she ate something with wheat she would not do so well afterward. Unfortunately, she never did change her diet. Perhaps, she didn't have enough knowledge and guidance to do so. Not like there is today. She also had trouble controlling her blood sugar and several times had to

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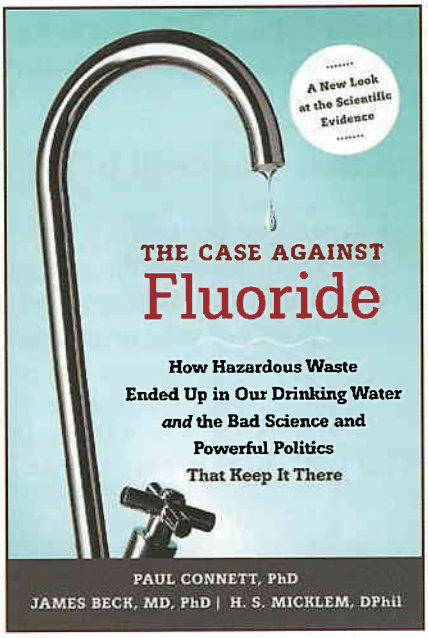
Book Review

By C. Vyvyan Howard, M.B., Ch.B, Ph.D

The Case Against Fluoride: How Hazardous Waste Ended up in our Drinking Water and the Bad Science and Powerful Politics that Keep It There by Paul Connett, James Beck, and H. Spedding Micklem (ISBN 978-1603582872; Chelsea Green Publishing, White River Junction, Vermont USA; ***www.chelseagreen.com***; paperback, 392 pages; $24.95)

If you are interested in the fluoride debate, you should read this book. However, more importantly, if you are disinterested in the fluoridation of drinking water or are strongly pro-fluoridation, you must also read this book. The authors have produced a well-researched, cogently argued, and very readable text that summarizes historical, political, ethical, toxicological, and epidemiological scientific data behind drinking water fluoridation. The text is approachable by non-scientists and specialists, although an extensive technical bibliography is provided for those who wish to delve deeper.



A complete discussion of water fluoridation requires knowledge of its history, the political pressures during that period of history, the toxicology of fluoride, and the epidemiological impact on exposed populations. This undertaking requires a great deal of effort on behalf of the non-expert. In this respect, the authors have done an excellent job in analyzing the current knowledge base and presenting it in a fairly non-technical manner.

The ethical basis for exposing a whole population to a therapeutic agent without informed consent has to be called into question in the 21st Century. We live in a far less paternalistic society now. The idea that a "one dose fits all" can be applied to a whole population makes a mockery of all that is currently happening in medicine, where tailoring therapies to the individual is a major thrust of research. The admission that infants being fed formula milk made up with fluoridated tap water are being overdosed is a key example of the failure of that approach. We now know that fluoride acts topically on dental enamel, not systemically, which is another good reason for not administering it by ingestion. The margin of safety of fluoride is much lower than was originally envisaged. If any of the toxicological sequelae highlighted in the book – lowering of IQ in children, increased incidence of bone cancer in teenage boys, increased incidence of bone fractures, and thyroid-gland dysfunction – are likely, then the argument for adopting a precautionary stance becomes overwhelming.

After reading the book, one is left with the strong impression that water fluoridation is an idea that is well past its "sell by date" and that it should be rapidly phased out. What is now clear is that, if proposed today, fluoridation of drinking water to prevent tooth decay would stand virtually no chance of being adopted, given the current status of scientific knowledge. HFN

Professor C. Vyvyan Howard, M.B., Ch.B, Ph.D, FRCPath is a professor of bioimaging at the Biomedical Sciences Institute at the University of Ulster, in Coleraine, United Kingdom. Dr. Howard is a medically-qualified, toxico-pathologist specialising in the problems associated with the action of toxic substances on the fetus and the infant. He has written a number of papers and book chapters and spoken in a variety of forums to draw attention to the threat posed by environmental pollutants to the developing fetus. He is an internationally-recognized expert in his field, and a Fellow of the Royal College of Pathologists, Past President of the Royal Microscopical Society, Member of the British Society of Toxico-Pathologists, Immediate Past President of the International Society of Doctors for the Environment, and Member of the European Teratology Society. He has also completed 6 years as a toxicologist on the UK Government DEFRA Advisory Committee on Pesticides.

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wild chaga syrup in a raw-honey and muscadine-berry base can be consumed. So take advantage of wild chaga in its various forms. But beware of cheap imitations made in a lab. Only wild chaga grown on trees should be consumed internally. Use wild chaga and enjoy vital health, through the power of raw nature. HFN

Dr. Cass Ingram is a renowned expert, speaker, and lecturer on the nutritional and medicinal benefits of chaga mushroom. He is the author of over 20 books, including Natural Cures for Health Disasters, The Cure in the Cupboard, *and most notably* The Cure is in the Forest. *Dr. Ingram travels the World extensively in his research and quest for holistic remedies and cures. He is committed to providing the safest and most natural medicines for the benefit of human health.*

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have her medication adjusted. Still, she struggled with her diabetes right on up to the time of her passing. I wish she was here now so I could show her this article and maybe it would have opened her eyes to gluten intolerance. HFN

Janis I. Soucie is a health writer living in Vermont. Janis has been writing poetry and lyrics since 1999, but in 2006 she began periodically writing articles on various topics, mostly health, for the website AssociatedContent.com. She also writes short stories. In her free time, she enjoys a wide variety of activities, including sports. She can be reached at ***jisoucie@gmail.com****. Among other resources, she recommends the following:* Allergic Living Magazine, *"The Diabetic Link" by Claire Gagne at pgs 37-38 (2010).*