

GUT WARS:

One Solution to the Battles Raging in Our Digestive Tracts

by S.M. Stevens

March 2019

Chances are, you know someone suffering from a digestive ailment, whether it's an annoying gluten sensitivity or a full-blown, life-threatening case of ulcerative colitis. My small circle of friends reads like a who's who of gastrointestinal (GI) disorders. Karen* almost died from malnutrition at age five because she was unable to keep food down due to undiagnosed Celiac disease. Sandy found her colon in the grip of the tenacious *C. difficile* bacteria after routine antibiotic treatment for a tooth infection. Joan's* teenage daughter, after years of abdominal distress and weight loss, was finally diagnosed with Crohn's disease.

Others, like me, suffer from undiagnosed, chronic abdominal pain and cramping. Eliminating gluten from my diet curtailed but didn't cure my GI problems. So I stopped soy and then dairy, which also helped but not enough. For now, I'm left in the category of irritable bowel syndrome (IBS), a catch-all for "upset stomachs" with no clear cause or correction.

Despite differing origins and severity of symptoms, many of these GI disorders are related to an imbalance in the "gut microbiome"—the community of helpful and harmful bacteria co-existing in our GI tracts. While patients worldwide wait for clinical studies to identify *why* imbalanced microbiomes are wreaking havoc in our intestinal tracts, a simple solution exists for many 21st century GI ailments. The [Specific Carbohydrate Diet](#) (SCD) has helped thousands alleviate their symptoms and, in some cases, eliminate them altogether.

[David L. Suskind](#), M.D., a professor at the University of Washington and gastroenterologist at [Seattle Children's Hospital](#), has a 60-70 percent success rate with his inflammatory bowel disease (IBD) patients who try the SCD alone or in conjunction with other treatments.

Trina M. Seligman, a naturopathic doctor and owner of [Evergreen Integrative Medicine](#) in Bellevue, Washington, prescribes the SCD regularly to

IBD patients. One woman's fecal calprotectin test (which measures intestinal inflammation) dropped from 1,241 to 96 within a month of starting the SCD as her sole treatment. (Normal calprotectin at her age is less than 51.)

Given these success stories, you would think the SCD would be well-established as a treatment option. But clinical research stalled for years and has only recently picked up again. Until more data is in, many doctors remain unconvinced.

In the meantime, testimonials and statistics from those who swear by the SCD may convince you that the treatment, which has no real risk, is worth trying.

INCREASING DISTRESS

GI disorders and diseases are increasingly common. More than 1.6 million Americans suffer from IBD, and 70,000 new cases are diagnosed each year, according to the [Crohn's & Colitis Foundation](#). (IBD encompasses Crohn's disease and ulcerative colitis.) Seligman believes cases of the less severe IBS are also increasing based on her clinical observations.

The causes of some of these conditions are only vaguely understood, but the impact on real lives is clear and downright scary. Jennifer Amabile of Philadelphia was diagnosed with ulcerative colitis (UC) at 32, after years of symptoms including severe bleeding. "It was affecting my job, my love life, and most especially my social life. I couldn't eat for a week. I couldn't leave the house. I was ultimately hospitalized and I was terrified."

ONE WOMAN'S CRUSADE

Cases of these ailments are growing, but they've been around for years. So has the SCD. New York doctor Sidney Haas presented the diet as a treatment for Celiac disease in a 1951 book. But it was Elaine Gotschall, in her 1987 book known today as [Breaking the Vicious Cycle: Intestinal Health through Diet](#), who introduced the SCD to a broader audience. Gotschall connected the SCD to additional GI problems including Crohn's disease, UC and diverticulitis.

Before becoming the leading voice of SCD, Gotschall was a frightened parent facing the complete removal of her daughter Judy's colon, due to

“incurable” UC. It was 1958 and 8-year-old Judy had been experiencing extreme bouts of bloody diarrhea and nighttime seizures for years. A chance encounter brought the Gottschalls to Dr. Haas, who recommended a change in diet.

Within 10 days of restricting specific carbohydrates, Judy’s seizures stopped. (The gut’s impact on neurological dysfunction is another new frontier in microbiome research.) Within three months, her intestinal symptoms were gone. “I certainly am proof of the power of SCD,” Judy (now Judy Herod) says today.

This dramatic result prompted the 47-year-old Elaine to enroll in college, ultimately achieving master’s degrees in nutritional biochemistry and cellular biology. Years of research and *Breaking the Vicious Cycle* followed. But when she died in 2005, much of the initiative to research the SCD died with her. Little if any research was conducted between 2005 and 2014.

However, the patient communities that developed on the back of her work continued to grow -- first an online “listserv” discussion group, then a Yahoo group, then numerous Facebook pages, all with thousands of followers. Those online resources, and the companion website for Gottschall’s book, are the go-to sources for SCD information, guidance and support. With few doctors prescribing the SCD, it has been the online communities that have introduced many patients to the diet.

THE VICTIMS

Jeffrey Berger, himself a Crohn’s patient and longtime SCD follower, created the popular *Breaking The Vicious Cycle SCD Community* [Facebook page](#) in 2016. In a recent survey completed by more than 600 of the page’s 2,400 followers, 73 percent said they have Crohn’s disease or UC. Others run the gamut of GI fun from small intestinal bacterial overgrowth (SIBO) and IBS to diverticulitis and leaky gut.

The majority of people following the SCD are predominantly women ages 30 to 59, but all ages, from infant to senior, are represented by the survey results.

Judy’s rapid recovery wasn’t an aberration. Almost a third of those surveyed had some positive results within a week of starting the SCD, and another third within a month.

Marcy Allen* of San Diego experienced abdominal pain throughout her childhood before being diagnosed with Crohn's disease at 23. Her doctor supported her going on the SCD 18 months ago, and the diet relieved her symptoms almost immediately. "It took away my pain. It was a godsend!" she exclaims.

Susan James* was diagnosed with Crohn's disease 10 years ago but didn't find the SCD until 2016, through a comment on a Crohn's & Colitis Foundation blog. "When I decided to try the diet, I was at a breaking point. Having tried all the medication available to me and having failed with all of them, I knew I had to try something different."

Within three months of starting the diet, the 29-year-old from Gaithersburg, Maryland, had less bloating and gas, less joint pain, clearer skin and weight loss. At the one-year mark, she has stopped using a stool softener, her joints no longer ache at all, and she has more energy.

A LOOK IN YOUR GUT

What's going on in your gut and why does the SCD help?

A healthy gut hosts more than 10 times as many microorganisms as we have cells in our bodies. That equates to about (get ready to say *ewww*) three pounds of bacteria, says Suskind in his book *Nutrition in Immune Balance* ([NIMBAL](#)) *Therapy: Using Diet to Treat Inflammatory Bowel Disease*. In that well-functioning GI tract, food is digested completely by the time it leaves the small intestine for the large intestine, also called the colon.

The SCD is based on the premise that many compromised GI tracts can only digest certain carbohydrates. They do fine with monosaccharides (simple sugars like the fructose found in fruits and honey). But they struggle to digest disaccharides (double sugars -- think lactose and sucrose, which is plain old sugar), and polysaccharides (including starches).

As a result, undigested food molecules remain behind to feed less-friendly gut bacteria, creating an imbalance of good and bad bacteria. The bad actors flourish over time and can inflict substantial damage that results in gas, bloating, diarrhea, constipation, cramping, pain, abnormal bleeding, malnutrition and fatigue.

Gotschall described this scenario as a vicious cycle because a damaged intestinal tract that can't digest certain carbohydrates encourages bacterial overgrowth, and those bacteria then damage the intestines more, making it even harder to digest those troublesome carbs.

More specifically, the bad bacteria release toxins and byproducts that irritate the intestinal lining, causing inflammation and pain. The intestine reacts by making mucus to protect itself. But the mucus makes it harder for the intestines to absorb nutrients, leaving more nutrients in the colon for the bad bacteria to feed on.

As if that's not enough, this assault on your gut also breaks down the microvilli of the intestinal cells that—in a healthy gut—release enzymes that split disaccharides into monosaccharides for easy absorption into the bloodstream. Damaged microvilli further reduce your ability to digest certain carbs.

By this point, a battle is waging in your gut. So intense is the bad bacteria's need for survival—they are living organisms after all—that they protest violently when you try to starve them out. More often than not, they win.

ROOT CAUSES

More questions than answers exist as to why some guts can't digest food properly. Research has pinpointed a genetic component to IBD, but Suskind cautions that genes alone don't cause the disease. Other potential factors include modern-day antibiotic use and dietary changes. "As technology has improved farming techniques, our microbiomes have decreased in diversity and that's likely had an impact on our overall health," Suskind notes.

He also points out that "diets high in sugar and fat and low in fruit and vegetables appear to change the microbiome, by increasing the bacteria that cause inflammation and trigger an overreaction of the immune system."

And it's not just the actual foods we eat. Some food additives like emulsifiers and maltodextrin may break down the healthy intestines' normal protective mucus, allowing the bad bacteria easier access to the GI tract lining where they can do more damage.

THE DIET

As you've probably guessed by now, the SCD eliminates disaccharides and polysaccharides from the diet. That means no grains, sugar, soy, or dairy except butter and special yogurt fermented for 24 hours to remove the lactose. The diet allows virtually all proteins, all fruits although some like bananas must be very ripe, and almost all vegetables except starchier ones like potatoes and corn which are taboo.

SCD isn't a low- or no-carbohydrate diet. Plenty of carbs are consumed through fruit and vegetables and—once the intestines have healed enough—some beans, seeds and nuts. Traditional flours, even gluten-free ones like brown rice flour and sorghum, are not allowed, but it's amazing how well nut flours work in many recipes including soul-soothing desserts.

Gottschall recommended a very restrictive introductory period on the diet, which is the first test of your resolve to try this treatment. As you starve the bad bacteria of their food source, they complain violently. Most people on the intro diet experience a period of “die-off” that can entail increased intestinal discomfort and flu-like symptoms including horrible headache, joint pain and fatigue.

It is not an easy diet. It requires discipline and fanatical commitment, and can be even harder for vegetarians and vegans to adopt. However, the increase in popularity of diets including Paleo and Whole 30—which overlap to some degree with the SCD, including the avoidance of sugar—has also increased the number of SCD “legal” foods found in grocery stores.

The SCD is not a fad or weight loss diet, although it does “right size” people as inflammation weight is lost and a healthier eating approach adopted. And underweight people often gain needed pounds as the digestive system becomes better able to absorb nutrients.

SCD adherents are necessarily philosophical about the diet's difficulty. “Food is our first and most important medicine,” says Amabile, who follows both the SCD and LEAP diets. “SCD is time-consuming and requires a lot of determination, but I've never met a challenge that didn't and my health is worth it. Once I combined LEAP with SCD, I felt wonderful. I dropped 6 pounds of inflammation weight and haven't had bloating since.”

“Now I truly understand what healthy eating is,” says 38-year-old Jennifer Herkert from Evansville, Illinois. “I know that every time I eat something, I'm either feeding my UC or healing my UC.”

While the upsides of the SCD are simple and substantial—a more nutritious diet and better health, the downsides are numerous and discouraging. Marcy Allen sums them up: “I feel hindered when I go out with friends. Either I don't want to go out or I don't want to eat. You feel so different than others and can feel isolated. You can also feel like you are high maintenance when others want to cook for you or have you over. The diet is very time consuming and can make me feel like I am spending more time in the kitchen than I'd like, instead of doing things that I love and enjoy.”

SCD followers routinely spend hours at a time preparing food for the week. “A person on this diet needs to plan, plan, plan, or they are not going to eat,” says Jennifer Herkert.

If, how, and how soon patients can stop the SCD remains a gray area. Many choose to stay on the diet forever, especially when forays into “illegal” foods bring abrupt, unwanted consequences. Others are able to go partially or completely off the diet once healed.

Medical professionals emphasize that the SCD is not for everyone, and that in many cases conventional treatments are absolutely necessary too. Even Seligman says “I’m a naturopath who believes in drugs and surgery” when it comes to IBD.

WHAT’S NEXT

The low number of doctors willing to prescribe SCD can be frustrating for patients desperate for relief. Seligman, who found Gottschall’s book when diagnosed with UC in her teens, was discouraged from trying the diet by her doctor, who said it was too hard. While she understands the reaction, she feels it dismissed the patient’s view. “When they say diet doesn’t matter, it damages the doctor-patient relationship.”

However, more doctors are coming on board as more conclusive research is published. “The mantra 10 years ago was that diet had nothing to do with IBD,” explains Suskind, who is behind much of the current SCD research. “But now, because we know diet has a large effect on the microbiome’s composition and function, there is more openness to the concept of diet in treating IBD.”

Still, much more research is needed to answer questions like: How exactly does the SCD work? Why do only some people respond to it? Which conditions is

it best for? How can we make it easier to follow? How long do patients really need to stay on it? And are the spin-off diets like GAPS and IBD-AID better for some patients?

More clarity would eliminate some of the trial and error that plagues many SCD followers. I admittedly freak out when a symptom flares, wildly trying to pinpoint which food caused it. Which “legal” food gave me cramps today? Was it because I tried it too soon or will I never be able to tolerate it? Or did I unknowingly eat something illegal?

Thankfully, new studies are on the way, and they are broader in scale and geography than any conducted before. The Seattle Children’s Hospital is one of 12 IBD centers around the country sponsoring the [PRODUCE Study](#), which is comparing test results of 120 children and teenagers on several variations of the SCD. The Crohns & Colitis Foundation is running a \$2.5 million, [multi-center study](#) on the impact of the SCD and the Mediterranean diet on Crohn’s disease.

Last year, the [Specific Carbohydrate Diet Association](#) was established to raise awareness of the diet and unify the scientific community, patients and caregivers (many GI patients are children). The first [national conference](#) on the SCD took place in October 2018, and the second is scheduled for this fall.

The fact that Gottschall’s work is finally being expanded upon is music to the ears of those suffering from GI disorders and diseases.

Judy Herod thinks the state of progress would please and upset her mother at the same time, were she alive today. “I think she would be thrilled to see some mainstream doctors accepting and using SCD. However, the diet still lives on the margins of the medical establishment so—after all these years—she might be madder than hell. It was her rage that fueled her passion and led to countless lives being saved, including mine.”

As for me, my life isn’t in danger, but I do prefer to live with as little pain as possible, so I’m sticking to the SCD.

**Name has been changed.*

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