

Too many chronic ailments have been pronounced "incurable." Here's how some forward-thinking practitioners are resolving such conditions — and transforming their patients' lives.

By Anjula Razdan

n his nearly 20 years as a functional-medicine practitioner, neurologist David Perlmutter, MD, has treated hundreds of patients with chronic illnesses. Many came to him as a last resort after years of searching for relief and being told repeatedly that their conditions were incurable, or that the underlying causes were unknown. Tremors, rashes, debilitating pains — Perlmutter's files are full of "mystery" cases that turned out to be not so mysterious after all.

"Headaches almost ruined my day-to-day life," one woman wrote to Perlmutter after 30 years of suffering. Jill (not her real name) was a computer programmer, but had to quit when her migraine headaches — which made her nauseated and intolerant of light — became too severe. She consulted several doctors but found only short-term relief with the prescription drugs they offered.

Jill eventually discovered that by following a gluten-free, low-carb, high-fat diet, she could eliminate her headaches — permanently.

While relieved to be rid of her migraines, Jill found it maddening that this relatively simple "cure" was so long in coming. During all her medical searching, she recalls, "not once did any doctor ask what I was eating."

Because conventional doctors receive little training in nutrition or lifestyle-based treatments in medical school, it makes sense that none had explored potential food triggers. They just provided a diagnosis and offered whatever symptom relief they could.

This is how many chronic conditions wind up classified as having no known cause or cure, when in fact they may have both. While adept at dealing with infectious diseases and acute conditions like broken bones and heart attacks, conventional medicine often falters when faced with chronic conditions driven by a complex collection of genetic, environmental, and lifestyle factors.

"If you read the neurology journals about treating migraines," Perlmutter explains, "you'll see a handful of recommended drugs. But all those drugs are treating the symptomatic smoke and ignoring the underlying fire.

"A migraine headache could be coming from an inherited food sensitivity, issues related to lack of sleep, or even a consequence of having eyeglasses that don't fit appropriately," Perlmutter continues. Of course, not all serious conditions can be so easily resolved. And some diseases really are incurable.

"The point is, we are too often offered one treatment for the end-product diagnosis — the migraine headache — and basically told to ignore the contributing factors."

Yet those contributing factors are often the missing link. This is why a growing number of progressive physicians are shifting their treatment approach, looking first to causal factors instead of simply addressing symptoms.

"In functional medicine, we understand that people can get to a similar diagnosis by many different paths," says Perlmutter, author of the best-selling books *Grain Brain* and *Brain Maker*.

The three case studies that follow share a common denominator: What's being treated are people, not diseases. While each example involves skill, patience, experimentation, and effort, the end result looks a lot like a miracle.

And to the people who are no longer suffering, it probably feels like one, too.



PATIENT: Jessica, 37

ADVISER: Thomas Sult, MD, medical director of 3rd Opinion, a functional-medicine clinic in New London, Minn.

essica had been seeing various dermatologists for 12 years, trying to cure the cystic acne covering her face and upper body. She worked her way from local doctors to the Mayo Clinic. They put her on antibiotics and on Accutane (which was first developed as a chemotherapy drug). Nothing worked.

Having exhausted her conventional-medicine options, Jessica found Thomas Sult, MD. "Her face was red," he recalls. "It basically looked like she'd been slapped — and she had pustules and scarring. Her upper back and shoulders were inflamed."

Sult asked Jessica when she last had felt truly well. "She said, 'I'm here for my acne.' I told her, 'I know about your acne, but let's talk about your history."

Functional-medicine practitioners always create a detailed timeline of a patient's history to uncover any potential triggers for the illness, Sult says. In addition to revealing leverage points for treatment, this helps the patient understand his or her trajectory from wellness to illness. (For more on the timeline, see ELmag.com/functionalmedmatrix.)

"Most of the time, medicine is passive — you see a doctor, you get a pill," Sult says. "In functional medicine, we ask patients to do proactive things in terms of changing their lifestyle. Unless they understand their own narrative, it's difficult for most people to do that."

Jessica told Sult she'd had perfect skin as a teenager and no discernible health problems. But in college, she began suffering from irritable bowel syndrome (IBS), including alternating constipation and diarrhea, plus cramping, gas, and bloating.

When she was 21, fatigue set in, followed by joint pain. Then, around 25, Jessica got mild acne, which deteriorated quickly into severe cystic acne.

Sult learned that Jessica's family history showed significant gastrointestinal problems, anxiety issues, and arthritis on both sides.

So, what happened? When Jessica moved from home to college, Sult believes, the stress of a new life, coupled with academic pressure and a genetic predisposition to inflammation, caused her gut to become "leaky." Food particles escaped into

her bloodstream to trigger systemwide inflammation. (For more on leaky gut, see ELmag.com/ leakygut.)

As a result, Sult believes, Jessica's liver became so

overburdened by the substances leaking out of her gut that the detoxification process shifted to her skin.

The skin is the largest organ in the body and one of the key organs for detoxification, Sult says. "In Jessica, we have altered microflora in the body with an altered immune response — the undercurrent that contributes to an acne flare-up."

Sult put Jessica on an elimination diet, with fish oil and probiotics to quell the inflammation and heal her gut. (For more on elimination diets, see ELmag.com/ifmdetox.)

When Jessica returned three months later, she still had the acne, but it was less inflamed. Sult suspected food sensitivities, so he ordered a digestive stool analysis and a test for nutrient deficiencies. The results were eye-opening: Jessica had significant gut dysbiosis from yeast overgrowth, plus low levels of omega-3 fatty acids and elevated persistent organic pollutants (POPs) in her blood.

Sult treated her yeast overgrowth with a probiotic. To help detoxify the POPs, he increased her intake of healthy fats, especially omega-3 fatty acids and coconut oil. "I basically gave her an oil change," Sult says.

Jessica continued to avoid dairy and gluten, which she'd discovered she was sensitive to after the elimination diet. She consumed a low-carb diet for six weeks, and then transitioned to a paleo diet rich in veggies and healthy meats.

Sult explains: "In order to change the microbiome, you have to hit the reset button — you have to start with a low-carb diet to keep the candida and other opportunistic bugs at bay — and then splash the gut with a rich diversity of vegetable matter to



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support a diverse microbiome."

After another three months, Jessica reported fewer IBS symptoms, and "her skin, although not completely cleared up, had improved by another order of magnitude," Sult says.

At that point, Sult ran another test for POPs. Her results still showed high levels of a common pesticide: The detox process had mobilized the toxin, releasing it into her system, so Jessica continued with her "oil change" to help flush it out. Three months later, her skin was 95 percent better. Three months after that, it was totally clear.

All in all, it took Jessica a year to regain her health, and Sult says this is not uncommon. It can take time to test out various theories about underlying causes, he notes, and also time for the body to heal.



AUTISM SPECTRUM DISORDER

PATIENT: Jason, 12

ADVISER: Neurologist David Perlmutter, MD, author of *Grain Brain* and *Brain Maker*, and medical director of the Perlmutter Health Center in Naples, Fla.

hen Jason went to see David Perlmutter, MD, he could not remain seated, maintain eye contact, or speak in full sentences. His mother, Melinda, had taken him to numerous doctors who performed MRI scans of Jason's brain, EEG monitoring, and multiple blood tests — all of which turned up nothing.

As Perlmutter discussed Jason's history with Melinda, he took note when she said she had been on antibiotics throughout her third trimester for a chronic bladder infection.

"We now understand that antibiotics not only play a significant role in altering the microbiome of a mother, which can affect the development of the baby, but also change the microbiome of the birth canal," Perlmutter says.

Although Jason was born naturally, Perlmutter believes he missed out on the microbial transfer normally conferred by a vaginal birth because antibiotics had eradicated the normal flora from the birth canal.

To make matters worse, Jason was put on multiple courses of antibiotics for chronic ear infections shortly after birth. In fact, Melinda said, during Jason's first year of life he was on antibiotics "more often than not."

Over the next few years, Jason

continued to take antibiotics for various infections, including pneumonia and strep throat.

Meanwhile, his parents became increasingly concerned about his development: He had an extreme speech delay, experienced severe anxiety, had a hard time interacting with others, and developed repetitive behaviors and obsessions with things like turning lights on and off.

In reviewing Jason's records, Perlmutter discovered that doctors had repeatedly noted gastrointestinal issues plaguing the boy, including recurrent stomachaches and projectile vomiting. There was obviously a lot going on in his gut.

"There's not a single case that I have seen in my practice of treating an autistic child where the parents did not talk about severe digestive issues," says Perlmutter.

Although many physicians think of autism as a brain-based disorder, Perlmutter says, there have been several recent studies showing significant differences in the gut bacteria (as well as increased gut leakiness) of autistic children.



We all have the opportunity to rewire our brains and make different connections. Nothing about the brain is indelible."

"The changes in the gut bacteria impart changes in the body that are reflected in compromised functionality of the brain," he explains. This insight has allowed for a totally new approach to the symptoms of autism. (For more on the link between gut and brain health, see ELmag.com/healthygutbrain.)

In Jason's case, a digestive stool analysis confirmed Perlmutter's suspicions: The child's gut was almost devoid of *Lactobacillus* bacteria.

Perlmutter started Jason on aggressive probiotics and vitamin D, which

supports the immune system and helps moderate inflammation.

"Fundamentally, most of the issues with autism come down to inflammation," he notes, adding that inflammatory markers are high in children with autism as well as adults with Alzheimer's.

He also put Jason on fish oil and a low-carb, gluten-free diet with plenty of healthy fats. "Again, this was all to reduce inflammation," Perlmutter says.

When Melinda returned three weeks later, she said Jason had made great progress: His anxiety had decreased, and for the first time in his life, he could tie his own shoes. Five weeks after that, she reported that Jason continued to do well and she wondered if they could amplify his progress.

She and Perlmutter discussed additional treatment options, settling on a fecal transplant to further rebuild Iason's microbiome.

In a fecal transplant, good bacteria are extracted from the fecal matter of a healthy person and transferred to the colon of a person with compromised gut bacteria.

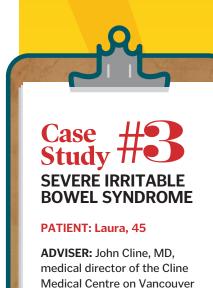
The enema-like procedure is simple and nonsurgical, and it is the most powerful therapy available to recolonize a compromised microbiome.

Several weeks after the fecal transplant, Perlmutter received a video clip from Melinda that brought tears to his eyes: Jason was happily

jumping up and down on a trampoline and speaking more fluently with his mother than ever before. "It was absolutely breathtaking," he says.

After undergoing several more transplants, Jason began speaking in complete paragraphs and interacting socially. He is now mainstreamed at his school. (To see Jason's recovery, check out the video at www.dr perlmutter.com/brain-maker.)

"We all have the opportunity to rewire our brains and make different connections," Perlmutter says. "Nothing about the brain is indelible."



Island, British Columbia

y the time she visited the office of John Cline, MD, Laura was in bad shape. In addition to severe IBS symptoms (including blood in her stool), the Canadian businesswoman had acute joint pain in her wrists and ankles, headaches,

called episcleritis.

Her symptoms had been flaring up every few months, with progressively worse episodes, and then had mostly gone away. She had been admitted to the hospital several times, but no doctor could identify a cause for her symptoms.

night sweats, shortness of breath,

and an inflammatory eye condition

Doctors had prescribed a variety of meds. During one hospital admission, a rheumatologist concluded Laura had arthritis and put her on prednisone, painkillers, and nonsteroidal anti-inflammatory drugs, including ibuprofen.

When Laura went to see Cline, she was swallowing a whopping 4,800 milligrams of ibuprofen daily. (The suggested maximum dosage is 3,200 milligrams.) She had also taken a leave of absence from work.

"She was quite ill," recalls Cline.
"She had symptoms that affected many of the systems in her body. For me, having someone like this come in, it's like entering a jungle. My job is to help them find a way out of that jungle."

The key, he says, is looking at the big picture.

As Cline started taking Laura's history, he learned that she had been pretty healthy until one year prior to the development of her current symptoms, at age 44. Given the episodic nature of those symptoms, Cline asked Laura if she had done anything unusual in the days leading to her flare-ups.

Her answer was a bit like stumbling on the Rosetta Stone: She told Cline that a couple of days before each episode, she had sprayed her yard with malathion, a broadspectrum insecticide.

Cline ordered lab tests, including one to identify chemical sensitivities, and a digestive stool analysis. Not only did he find that Laura had low levels of healthy bacteria in her gut, he also discovered she had a number of genetic variations called single nucleotide polymorphisms, or SNPs (pronounced "snips"), that affected her ability to detoxify. (See our article on SNPs at ELmag.com/snps.)



"She was missing the glutathione pathway, a key pathway for detoxification of metals and chemicals," Cline explains. "When people are missing the glutathione pathway, even small exposures to toxicants are huge. They cannot effectively detoxify, so the toxicant will start to accumulate in the body."

Each time Laura was exposed to malathion, she could not detoxify or metabolize the insecticide. Over time, the toxin built up in her system. It turns out that it was the main cause of all her symptoms.

To help Laura heal, Cline focused on helping her detoxify and repair her gut. He put her on an elimination diet and recommended foods that would support her body's detoxification pathways, including cruciferous veggies (cabbage, cauliflower, and broccoli) and allium veggies (onions, garlic, and leeks).

Cline also recommended supplements, including fish oil, vitamin D3, manganese, curcumin, and probiotics. In addition, he prescribed a medical food product to support detoxification and urged Laura to avoid any further exposure to malathion and other chemicals and heavy metals.

At the one-month follow-up visit, Laura said she was feeling much better. Her joint pain and swelling had improved dramatically, and her IBS symptoms and night sweats had completely resolved. She still had occasional headaches and some eye inflammation, but she had returned to work and started exercising again.

Three months after her original visit, Laura told Cline she felt "ridiculously well." She had been reintroducing foods into her diet and found that if she ate more than a small amount of gluten every few days, she experienced abdominal bloating and cramping, so Cline suggested she continue to avoid it. She happily complied.

For many patients, being asked to make lifestyle changes is daunting. But struggling for years or decades with chronic conditions can provide powerful motivation. "When people come to my clinic, they've usually been to many practitioners and they're often desperate to feel better," explains Cline. "As a result, they are usually more than willing to take charge of their health."

For those who've been told, in effect, "Sorry, but there's nothing we can do," being empowered to improve their own health can feel like something of a miracle in itself. •

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WEB EXTRA!

To learn how conventional and functional medicine are coming together at the Cleveland Clinic, see ELmag.com/miraclecures.

Make Your Own Health Miracles

Many progressive practitioners take a systems-based approach, exploring how their patients' environment and lifestyle factors interact with their unique physiology. While treatment plans are highly individualized, here are some powerful tips that any of us can employ to safely jump-start our own healing process.

TRY AN ELIMINATION DIET.

Most integrative and functional-medicine experts agree that a comprehensive elimination diet — removing common irritants like gluten, dairy, corn, soy, tree nuts, and sugar — is one of the most effective clinical tools available. Best of all, "it's free," says Bette Bischoff, MD, RD, a Tulsa, Okla.-based functional-medicine doctor.

EAT A WIDE VARIETY OF PLANT-BASED FOODS.

Do your best to eat a diversity of veggies, legumes, and fruits to minimize inflammation, improve immunity, and support a healthy microbiome, suggests Thomas Sult, MD, a functional-medicine doctor in New London, Minn.

MOVE YOUR BODY.

It can be as simple as taking a walk, says Sult. If you're sick or fatigued and exercise often makes you feel worse, he suggests trying "subsymptom threshold exercise": "If an hour of walking makes you sick but 40 minutes does not, then walk for 40 minutes. Simply stay below the threshold that makes you feel worse."

TAKE HIGH-QUALITY SUPPLEMENTS.

A whole-foods-eating program is a cornerstone of functional medicine,

says Bischoff, but soil depletion means our fruits and veggies are less nutritious than they used to be, and most of us don't eat as well as we might intend. As a result, it's estimated that anywhere between 30 and 90 percent of U.S. adults suffer from one or more nutritional deficiencies. Taking a high-quality multivitamin with minerals, plus vitamin D and a fish oil or other omega-3 supplement, can help you avoid that fate.

WORK WITH WHAT YOU'VE GOT.

Even if you are saddled with a family history of chronic disease, know you are not a prisoner of your genes. It's the way your environment and lifestyle choices *interact* with your genes that matter. "People need to understand that their lifestyle choices have a huge role to play when it comes to chronic disease," says neurologist David Perlmutter, MD.

BEWARE OF TOXINS.

"Most people aren't aware of how disruptive environmental toxins can be, especially when it comes to our hormones," says Margaret Christensen, MD, a functional-medicine gynecologist in Dallas, Texas. Some of Christensen's top tips: Use clean, organic personal-care

products. Don't use toxic herbicides or pesticides on your lawn. If you remodel, use low-VOC paint. Don't cook in Teflon or other nonstick pans. Don't microwave plastic. Avoid exposing food to Styrofoam and plastic wrap.

AVOID EXCESSIVE ANTIBIOTIC USE.

Although antibiotics can be lifesaving, they are also powerfully disruptive to your body's microbiome. Let your doctor know you prefer a conservative approach to medication. If you do need antibiotics, ask for a targeted drug versus a broad-spectrum one, Perlmutter suggests. Finally, be sure to add a high-potency probiotic (25 to 50 billion live cultures) while you're taking the antibiotic, he advises. Continue it for at least one week after your prescription, and ideally longer.

DON'T RUSH THINGS.

People with chronic illnesses are often desperate to get better right away, but in most cases, even "miracle cures" take time. "You can't do everything at once," says Bischoff. "I tell my patients to picture a downward spiral: When people finally make it to a functional-medicine practitioner, they are usually somewhere within that spiral. It takes a while to reverse course."