*How Fasting and Minimizing Lectins Can Benefit Your Health*

***By Dr. Mercola***

Dr. Steven Gundry’s book, “The Plant Paradox: The Hidden Dangers in ‘Healthy’ Foods That Cause Disease and Weight Gain,” which spent 13 weeks on The New York Times best sellers list, reveals the deleterious effects of lectins on health. I’ve previously [interviewed him on this topic](https://articles.mercola.com/sites/articles/archive/2017/08/06/plant-paradox-healthy-foods-hidden-dangers.aspx). Here, we continue that conversation, while also delving into a few other complementary strategies, including the importance of vitamin D for autoimmune diseases and the benefits of fasting.

*“Certainly, when the book began to get traction, it clearly started to bother a lot of people … As a general category, a lot of them fall into the low-fat vegan community. The ‘grains and beans are the cornerstone of a healthy diet. How dare you question what everybody knows?’ … I’m not against [grains and beans].*

*In fact, I’ve got a bean recipe in my book. All I’m saying is that we have to be very cognizant of the lectin content in grains and beans, and that there are ways to destroy lectins. Pressure cooking the beans makes them perfectly safe if you want to eat beans,”* he says*.*

*Testing Reveals the Impact of Lectins on Health*

Gundry isn’t guessing when he talks about the [health effects of lectins](https://articles.mercola.com/sites/articles/archive/2017/08/14/reduce-lectins-in-your-diet.aspx). He’s done a tremendous amount of research in his clinic over the past 17 years, and measures the effects of lectins on biochemical pathways using laboratory testing. This way, he’s been able to determine, scientifically, what the responses are. Gundry explains:

*“When I resigned my position as professor and chairman of cardiothoracic surgery at Loma Linda University 17 years ago … I decided to make my practice a research project. Everyone who came into play with me, I asked them to let me have a few tubes of blood … every three months [which are sent] off to labs that I think are doing cutting-edge work.”*

One of the many things Gundry has looked at is the effect of [supplements](https://articles.mercola.com/vitamins-supplements.aspx), and the differences quality makes. Here, the proof is in the blood work. “I could even tell when people were changing brands of supplements based on their blood work,” he says. Over the years, Gundry amassed files on thousands of patients, and as time went on, increasingly better tests became available allowing him to assess inflammatory responses in a number of different ways.

*“I didn’t do this with an agenda. I didn’t have a grudge on my shoulder against lectins. If I could eat mashed potatoes, french fries and phenomenal French bread every day, I’d probably be a happy guy. I would probably be a lot sicker, like I used to be, but I have nothing against these things.*

*It’s just that as the data came forward from thousands of people, very distinct patterns emerged. Reproducible patterns. I could reintroduce [lectins] and watch the immune system get turned on again. Then I could remove some of these factors and watch the immune system calm down. There was clearly a cause and effect,”* he says.

*Human Body Has Self-Defense Mechanisms Against Lectins, but Few Are Healthy Enough to Benefit From Them*

From my perspective, it is clearly rational to recommend a lectin-free diet to patients with autoimmune conditions, and many autoimmune specialists do. Gundry recently submitted a paper which was accepted for presentation to the American Heart Association EPI Lifestyle Scientific Sessions for March 2018, showing 90 of 102 patients had complete remission of all biomarkers for autoimmune disease by removing lectins, and all within a six-month period.

Interestingly, while lectins can trigger inflammation, they’re often found in vegetables that also contain beneficial micronutrients and polyphenols. So, how do you achieve a healthy balance of nutrition, and do you really have to stay on a lectin-free diet forever? According to Gundry, lectins are nowhere near as problematic if you’re healthy, as your body has built-in defense systems against lectins.

“We have an amazing mucosal system that can bind lectins. We have acid in our stomach; it’s pretty good about breaking down proteins. We have an amazing microbiome, much of which enjoy eating lectin proteins. We have all these defense systems,” he says. The problem is that few people these days have fully functioning defense systems, thanks to the overuse of antibiotics, nonsteroidal anti-inflammatory drugs, proton pump inhibitors and poor diet.

*“Our defense system in the West has been decimated, so we’re seeing more of the effect of what these lectins can do … Everybody’s a little bit different, but … once we get the gut back in shape [and] solve the* [*leaky gut problem*](https://articles.mercola.com/sites/articles/archive/2012/01/21/grains-causing-gut-leaks.aspx) *… then it’s time to — if you want to reintroduce dietary lectins — start with small vegetables; peel and deseed them if you want to. Certainly, pressure cooking solves the problem for most people. But I … actually urge people to start reintroducing dietary lectins,”* Gundry says.

*If You Have Autoimmune Disease, Lectins Can Be Disastrous*

People with autoimmune diseases, on the other hand, may indeed have to stick to a lectin-free diet on a more or less permanent basis. This includes people with rheumatoid arthritis, lupus and Sjogren’s syndrome, the latter of which is the most common cause for dry eyes. A commonly prescribed treatment for dry eyes is the drug Restasis, which is actually an immune-suppressing drug used for heart transplants.

“If you have dry eyes, please ask your doctor to do the autoimmune test for Sjogren’s syndrome,” Gundry says. “There are two of them. They’re easy to obtain. You’ll be surprised how many people with dry eyes are positive for Sjogren’s syndrome, an autoimmune disease [that] comes from the gut.” Other common autoimmune diseases that fare better on a lectin-free diet are mixed connective tissue disease, fibromyalgia, [Crohn’s disease](https://articles.mercola.com/crohns-disease/what-is-crohns-disease.aspx), ulcerative colitis and micro colitis, Hashimoto’s thyroiditis and multiple sclerosis (MS).

*When Saturated Fats Do More Harm Than Good*

Interestingly, while I typically recommend a high-fat diet for most people, there are instances where (otherwise healthy) [saturated fats](https://articles.mercola.com/sites/articles/archive/2016/03/06/saturated-fat-diet-heart-disease.aspx) can do more harm than good — until you’ve healed your gut and get healthier. As explained by Gundry, if you have leaky gut from a disturbed microbiome and eat a lot of lectins, saturated fats may actually worsen your health by allowing lipopolysaccharides (LPSs) to piggyback on the fats through your intestinal wall.

LPSs are dead bacteria or, more specifically, the cell walls of dead bacteria, but your immune system treats them as living bacteria and mounts immune defenses against the perceived invaders. Recent research cited by Gundry found that children with juvenile MS who ate more vegetables had far slower disease progression than those who ate a high saturated fat diet. Gundry explains:

*“If you have intestinal dysbiosis, if you have a mixture of saturated fat-loving bugs and simple sugar-loving bugs, which is the [result of the] standard American diet, you’ve got a setup for having a bunch of LPSs in your gut. You’ve got a setup for an intestinal wall that’s constantly being broken by lectins. I think that this is really one of the main reasons that MS and the other autoimmune disease get a total hold.”*

*The Importance of Vitamin D*

Aside from a lectin-free diet, Gundry also recommends higher than normal vitamin D levels for his autoimmune patients, who typically have low levels even when getting plenty of sun exposure. For this group of patients, he typically recommends a vitamin D level between 70 and 100 ng/ml.

To reach this level, some patients may need to take 25,000 to 30,000 international units (IUs) of vitamin D3 per day for months at a time. In fact a new paper proves that T cells in autoimmune patients are resistant to the immune suppression power of vitamin D, and these people may require very high doses to dampen the immune system.

I have enormous respect for Gundry’s clinical acumen, but my review of the literature does not convince me that it is necessary to go above 80 ng/ml, albeit that might be splitting hairs. Clearly, I have been over that level with sun exposure alone so it is possible to get levels that high naturally. However, getting levels that high from the sun and from oral doses are two different things, as many of the epidemiological benefits observed with higher vitamin D levels may be due to other wavelengths like the near-infrared in sunlight.

Gundry continues: “The most I’ve ever had to have a person take is 45,000 IUs a day to get their vitamin D levels up to 70 ng/ml.” He has purposely kept his own vitamin D level above 120 ng/ml for the last 10 years.

*“I learned this from a couple of patients about 10 years ago when we were actually quantifying levels above 100 as toxic. Their vitamin D levels were about 270 ng/ml — a man and a woman in their 70s. I was flabbergasted. I looked at them and said, ‘Why aren’t you dead?’ They said, ‘What?’*

*I said, ‘You have toxic levels of vitamin D.’ They said, ‘Who says?’ I said, ‘Well, everybody says. Conventional wisdom says you ought to have these incredible neuropathies. How long have you been doing this?’ They said, ‘All of our lives. Vitamin D is incredibly important.’ So, I’ve been pushing vitamin D on my autoimmune patients. Quite frankly, once the gut is sealed, their vitamin D level requirements go down quite dramatically.”*

The reason for this may have to do with the fact that bacteria in the small and large intestines act as signaling messengers for stem cells that replete enterocytes, which are constantly shed and replaced. Vitamin D is essential for stem cell proliferation in this area. If you have low levels of vitamin D, they do not proliferate well. In most autoimmune diseases, the gut barrier is decimated; hence, these stem cells need *additional help.*

*Low Vitamin D and Elevated Parathyroid Hormones Often Go Hand in Hand*

He also recommends taking vitamin K2 when taking high-dose vitamin D to avoid kidney calcification and other problems associated with vitamin D toxicity, and he measures serum calcium to ensure a proper balance.

*“One of the things that were fascinating to me early on was that people with low levels of vitamin D almost universally had elevated parathyroid hormones, which of course leach calcium out of bones. As I kicked people’s vitamin D levels up, their parathyroid level came down. When I see people with elevated parathyroid hormone, I don’t immediately go looking for parathyroid adenoma anymore. I push their vitamin D up.*

*If by pushing the vitamin D up, their parathyroid hormone comes down, problem solved. I can tell you that many people who are on a stable dose of vitamin D and then either forget it or they’re traveling and they stop taking it and come back for a blood draw, that even though [they only dropped from 70 to 50 ng/ml], all of a sudden, their parathyroid hormone starts [becoming elevated].”*

*The Many Benefits of Fasting*

Gundry is also an advocate of fasting, both [intermittent fasting](https://fitness.mercola.com/sites/fitness/archive/2017/02/17/intermittent-fasting-promotes-health-longevity.aspx) and longer [water fasts](https://articles.mercola.com/sites/articles/archive/2016/10/16/complete-guide-fasting.aspx), which I’ve recently embraced myself. I now do a five-day water fast on a monthly basis, and since I was used to doing 20-hour daily intermittent fasting, I really had no hunger at all. Most struggle with hunger pangs by Day Two or Three.

This is easily avoided by working your way up to the point where you’re fasting 20 hours a day for at least a month before you try a longer water fast. I personally do not know of any more powerful metabolic intervention than fasting. Gundry agrees, saying:

*“We have an amazing repair system that goes to work when you’re fasting. Not the least of which is [letting] your gut rest. It’s probably one of the smartest things that any of us can do — putting the wall of your gut at rest, not having to absorb nutrients, not having to deal with the constant inflow of lectins or toxins. But I think more importantly, it gives [your body] a chance to finally do some serious cleaning of your brain …*

*Alzheimer’s and Parkinson’s have a unifying cause, and that is the brain is defending itself against perceived threat, a lot of which are LPSs. If you put your gut at rest and don’t have LPSs coming into your system, and the longer you can maintain that, realistically, the better off you are.*

*As Jason Fung would say, intermittent fasting is great; doing a modified calorie-restricted diet is great, but it technically is so much easier to just stop eating … The second level of my modified food pyramid is “Don’t eat anything.”*

Importantly, fasting activates [autophagy](https://fitness.mercola.com/sites/fitness/archive/2016/03/11/autophagy.aspx), which is your body’s way of taking out the trash. Surgeons will typically excise lipomas (soft rubbery bulges beneath your skin that develop when fat starts to grow in soft tissue), but fasting will actually get rid of lipomas without any surgical intervention. Fasting will also trigger the regeneration of [stem cells](https://articles.mercola.com/sites/articles/archive/2017/06/04/stem-cell-therapy-repair-regenerate-body.aspx).

Remarkably, whereas low-calorie dieting will cause morbidly obese people to develop skin folds that must be surgically removed after significant weight loss, this typically does not occur when you’re water fasting. Your body actually eliminates the excess loose skin as you go along, because your body is in such efficient regeneration mode.

Even having as little as 200 or 300 calories a day is enough to abort the autophagy process, though, which is why I now do a complete water fast. For me, it’s been a game changer. The mental clarity it provides is truly profound. Now, if your insulin is high when you start a water fast, you may experience hypoglycemia, which can trigger severe headaches. Gundry suggests taking coconut oil or MCT oil several times a day to counteract this.

That said, if you’ve been doing 18- to 20-hour daily intermittent fasting for some time, you’re not likely to have an insulin sensitivity problem and won’t crash once you begin your water fast. Should you develop either intractable muscle cramps or flu-like symptoms while fasting, know that both of these are symptoms of sodium deficiency. Your body’s sodium requirement actually increases when you’re fasting, so make sure you take some [high-quality unprocessed salt](https://articles.mercola.com/sites/articles/archive/2017/05/29/salt-health-effects.aspx) every day to avoid these side effects.

*It’s Never Too Late to Regain Your Health*

As noted by Gundry, it’s never too late to turn your health around. One of his patients started seeing him when she was 85 years old. She had coronary heart disease, diabetes, arthritis and hypertension. Now age 96, she’s “a vivacious fireball who’s dating an 80-year-old and dyes her hair red.”

*“It’s not rocket science. It really isn’t. There are some fundamental principles that anybody can put into action and change your life. I tell people, ‘You’re probably going to hate me for a couple of weeks, but then you’ll probably start liking me.’ Except for my critics. They’ll never like me,”* Gundry says.