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Take Control of Your Health

Simple Remedies to Optimize Your Energy and Combat Fatigue

Analysis by Dr. Joseph Mercola ✔ Fact Checked

STORY AT-A-GLANCE -

- One of the most effective ways to optimize your energy and combat fatigue is to implement time-restricted eating (TRE), as it improves your mitochondrial health and metabolic flexibility
- TRE is a form of intermittent fasting in which you restrict all of your food intake to a certain number of consecutive hours each day. Keeping your eating to a window of six to eight hours a day is an achievable goal for most people
- Your food intake, which impacts the circadian rhythm of your gut microbiome, and other circadian rhythms are intricately connected, and the more you can realign these circadian rhythms, the better your whole body will function, including your mitochondria
- You also need to remove dietary and lifestyle factors that cause the energy depletion in the first place. Electromagnetic field exposure is one environmental factor. Leaky gut, caused by lectins in your diet, is another factor that needs to be addressed
- When food particles are able to cross your gut lining, they cause chronic inflammation that requires a lot of energy to combat, thus causing fatigue and general malaise

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Dr. Steven Gundry, a cardiologist, heart surgeon, medical researcher and author, is perhaps best known for his "Plant Paradox" book, which was a massive bestseller. He

has now published another book called "**The Energy Paradox: What to Do When Your Get-Up-and-Go Has Got Up and Gone**."

As the name implies, this book delves into the origins of fatigue and how to improve your energy at the molecular level. While he had not planned on writing a book about energy optimization, upward of 60% of his patients suffer from fatigue and a feeling of general malaise, so, clearly, this is something that affects an enormous number of people.

Time-Restricted Eating

The good news is there's a lot you can do to improve your energy levels. One such strategy, which I embraced years ago, is time-restricted eating (TRE), a form of intermittent fasting in which you restrict all of your food intake to a certain number of consecutive hours each day.

As an added boon, this strategy doesn't cost you a penny. If anything, it'll save you money. Gundry was ahead of the curve on this one, having written about TRE in his first book, "Dr. Gundry's Diet Evolution," published in 2006.

> *"I had an entire chapter in that book devoted to time-restricted eating, and my editor at Random House at the time, Heather Jackson, said, 'This is so crazy that I'm not going to let you do this.'*
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> *She said this. True story. And I said, 'Look, I'm telling you, I've been doing this now for four years and I've been using it on my patients and it's not crazy. Here's the research.' And she said, 'OK. I'm going to give you two pages to make your case. I'm throwing the rest of the chapter away.'*
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> *So, I got two pages. I saw her at the mindbodygreen symposium last summer, before the COVID-19 outbreak. She came up to me and said, 'You were right. I apologize. You weren't crazy, you weren't nuts. Everybody now knows.'"*

Indeed, in recent years, TRE has gained a lot of recognition as mounting evidence shows the simple act of restricting the number of hours during which you consume food during the day will improve your health in a variety of ways, primarily by improving your mitochondrial health and metabolic flexibility.

As noted by Gundry, keeping your eating to a window of six to eight hours a day is an achievable goal for most people. However, most need to gradually ease into it.

> *"Metabolic flexibility is probably the underlying problem in the vast majority of diseases that we see and I wrote the book to try and make it easy,"* Gundry says. *"What I see in my practice is that a lot of people go, 'OK. I usually eat breakfast at 7 and starting tomorrow I'm going to start eating breakfast — break-fast — at noon.' And they fall flat on their faces.*
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> *They get headaches, they get hungry, they don't think right. They have no energy and they decide 'This isn't for me.' That's because they have a high insulin level, they're insulin resistant and can't use stored fat as an energy source …*
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> *So, in the book, what I do is, over a six-week period, I get them used to eating during a shorter and shorter time window. It's very much like learning a new exercise program. I couldn't run a marathon right out the gate, but I can train and get there. So that's what we do."*

Part of the process involves retraining your circadian rhythm. Your food intake, which impacts the circadian rhythm of your gut microbiome, and other circadian rhythms are intricately connected, and the more you can realign these circadian rhythms, the better your whole body will function, including your mitochondria.

Crucial Notes on Meal Timing

At the most extreme end of TRE is the one meal a day (OMAD) routine, which can work well if you're young and healthy. However, once you get into middle age and older, I believe it can start to backfire. I'm also not convinced that it's healthy to remain on an

OMAD diet in perpetuity, for the simple reason that your body will typically work best when you challenge it now and then.

During winter months, about six months out of the year, Gundry promotes using a two-hour, or even as short as a single-hour eating window during weekdays, and then eating during a much longer window during weekends. He's been doing this for the past 21 years.

For me, cycling — mixing longer and shorter fasting intervals — has been a key to long term success, and taking the weekends off from this strict regimen may be part of why this strict regimen has worked so well for so long for Gundry.

"I think you've got to break it up. I don't do it all year around, and I break it up on the weekends, and the reason I do that is so I won't go mad," Gundry says. Another important detail with regard to timing is to avoid eating at least three hours before bed. Even if you restrict your eating to six hours or less, if you eat too close to bedtime, you're canceling out many of the benefits. As explained by Gundry:

> *"It's really important to stop eating at least three hours before bedtime for a couple of really important reasons. No. 1, you've got to undergo mitochondrial repair during the night.*
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> *You have to undergo brain cleaning during the night from the glymphatic circulation. Digestion takes huge amounts of blood flow, and if you're eating, all that blood flow is heading down to your gut when it should actually be going up to your brain."*

TRE Makes Most Diets Better

Gundry quotes data from Satchin Panda, which shows that rats raised on a standard American diet equivalent that also are put on a TRE regimen fare much better than those who are not on TRE. This despite the fact that they're eating the same thing. The same has been shown to hold true in humans.

Remarkably, Panda has shown the average American eats for 16 hours a day. Essentially, they're grazing all day long, stopping only while sleeping. About 90% eat for more than 12 hours.

Simply reducing your eating window to 12 hours would be an improvement. As noted by Gundry, "Big Food, Big Agriculture have convinced us that this is the proper way to eat." In reality, the only thing these big businesses and their recommendations are good for is disease.

The Case for EMF Avoidance

Gundry and I are also in agreement about the dangers of electromagnetic fields (EMFs). I've previously written about how magnesium can help mitigate some of the damaging effects from EMF, and Gundry has a patient who appears to have had success using this strategy. Melatonin, which is a very potent mitochondrial antioxidant, is another potential mitigator.

> *"Melatonin is a very interesting way of mitigating against the bad effects of EMF,"* Gundry says. *"Now, as I talk about in the book, I used to think that people who said that they were sensitive to these invisible rays [EMFs] were out on the lunatic fringe.*
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> *But the longer I've been doing this, I've had some fantastic experiences with very credible people, who when we mitigated EMF got well. One patient was profoundly affected by her husband's AICD, a defibrillator, which was communicating his EKG with a satellite.*
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> *As soon as it went into him, she couldn't sleep next to him. She had migraine headaches. We finally turned off the transmitter in his AICD, and just like that, all of [her symptoms] went away. So, these people are canaries in a coal mine and we have to believe it."*

Leaky Gut Underlies Most Chronic Disease

While antioxidants like melatonin can certainly help improve mitochondrial function, I think there are better ways than simply piling on antioxidants. You also need to remove dietary and lifestyle factors that cause the energy depletion in the first place. EMF exposure is one environmental factor. Leaky gut, caused by lectins in your diet, is another factor that needs to be addressed.

> **“ Leaky gut is an underlying condition of most chronic disease, so, if you have a chronic ailment, chances are you have leaky gut.”**

According to Gundry, leaky gut is an underlying condition of most chronic disease, so, if you have a chronic ailment, chances are you have leaky gut. Thanks to Dr. Alessio Fasano, who heads up the Celiac Research Center at Harvard, we now have sophisticated tests that can diagnose this problem.

Fasano discovered the mechanism by which lectins cause leaky gut, and gluten is a lectin. When these and other food particles are able to cross your gut lining, they cause chronic inflammation, which requires a lot of energy to combat. This is one reason for your fatigue and general malaise. Gundry explains:

> *"If your immune system is distracted down to your leaky gut, first of all, it's not going to be available when [pathogens] come in through your nose or mouth. And secondly, your immune system is so hyperactivated that when it sees something that might not be all that important, it goes crazy and you get a cytokine storm. That, of course, is one of the major lethal consequences [of] the Western diet."*

Linoleic Acid Can Decimate Mitochondrial Health

Another dietary factor that decimates mitochondrial health, and thus energy production, is omega-6 linoleic acid (LA). "In the book, I talk about the Goldilocks effect," Gundry says. However, LA is naturally found in virtually all foods, so it's near-impossible to

become deficient. The problem really is excessive intake, which is near universal in Western countries due to processed food.

The primary culprit here is industrial vegetable oils, which most people eat far too much of. If you're eating a whole food diet, you're more likely to have a healthy ratio of LA, but even then, it may be causing trouble if you're eating too many LA-rich foods, such as conventional chicken, for example.

Olive oil is another food that is high in LA, but it also has other components that may modify some of the risks. Still, I choose to limit my olive oil intake. Overall, I try to keep my LA intake below 5 grams a day, regardless of the sources. Gundry has a more favorable view of olive oil, stating:

> *"If you limit your eating window, you actually stop that process from happening, which is really miraculous, No. 1. And No. 2, shameless plug for myself, with my Gundry MD high-polyphenol olive oil, you only need a tablespoon a day to get the equivalent polyphenols of a liter of olive oil a week."*

Surprising Benefits of Cheese

When it comes to fats, Gundry is a proponent of short and medium chain fatty acids. "For multiple reasons, I've been extolling the virtues of MCT oil since the 'Plant Paradox,'" he says, adding:

> *"I think the saturated fats have other benefits. In particular, the saturated fats in cheeses may be one of the unsung heroes in longevity that I think needs more attention … I take care of a huge number of people who carry the APOE4 mutation, which is the Alzheimer's mutation. I noticed early on that cheese really elevated not only small dense LDLs, but also elevated for most of my patients' oxidized LDL …*
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> *I don't like the traditional cholesterol theory of heart disease. On the other hand, I think oxidized LDL has an interesting place. What's interesting is that when I've*

> *separated my patients into having them eat sheep cheese and goat cheese, I found dramatically different results.*
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> *I initially attributed it to the fact that sheep and goat have casein A2 and not casein A1. And I think casein A1 is a pretty bad actor. So, I said, well, I'm going to start letting my APOE4 [patients] have sheep and goat cheese, but in moderation. When I did that, I didn't see this oxidized LDL."*

One potential mechanism for this might be because casein is a protein that can cause autoimmune reactions and contribute to leaky gut, which in turn contributes to increased LDL oxidation.

While most of Gundry's autoimmune disease patients respond extremely well to Gundry's plant paradox program, about 10% still do not fare well. Food sensitivity analysis has revealed a large number of them are sensitive to both casein A1 and casein A2.

Once their leaky gut is repaired, however, which may take up to a year, their immune systems typically become tolerant to these things again. "So, I think you can retrain the immune system once you get a good microbiome and seal the leaky gut."

What About Meat?

While some autoimmune patients have reversed their conditions using a carnivore diet popularized by Dr. Paul Saladino, who is a leading authority on the science and application of the carnivore diet, Gundry recommends limiting meat because of its effects on your gut microbiome. Interestingly, Gundry interviewed Saladino about his carnivore diet and it is available his website.[1] It's a fascinating discussion.

> *"I have nothing against the carnivore diet as an elimination diet,"* he says. *"In fact, when Saladino was first on my podcast, he credited me as being the father of the carnivore diet because all plants are evil. And I went, 'Please don't do that to me.'*

I think one of the mistakes that people make in, particularly, a keto diet where they've eliminated fiber, you actually starve your gut microbiome from making butyrate. The other, I think worrisome, part about a carnivore diet is you tend to make more hydrogen sulfide. I'm a huge fan of hydrogen sulfide, the rotten egg smell … but again, we get the Goldilocks rule …

Some is really good for you, it's really good for mitochondrial function, but a lot is really toxic. And there's some evidence with carnivore diets that you produce too much hydrogen sulfide. Now, I also understand the argument that if we eat a lot of gristle and a lot of mucin, basically nose to tail, that you can make butyrate by fermenting protein-based animal ingredients. I think you can.

But if you look at all the super long-lived folks, one of the things they have is really great production of butyrate. Butyrate, that short chain fatty acid, does so much good for mitochondria, I can't even begin to tell you. Well, I do in the book."

I agree that a strict no-carb diet is a mistake. Healthy carbs — think plant foods rich in fiber — need to be cycled in, there's no question. Not every day, but certainly once or twice a week, even when you're on a ketogenic diet. I recommend restricting carbs to about 50 grams or so for most of the week, and then increasing that to 100 or 150 grams once or twice a week once you're metabolically flexible.

Protein, mTOR Activation and Exercise

Meat, of course, is also a source of protein, and while too much protein can be harmful by activating mTOR (thereby contributing to cancer and other problems), too little can be an unmitigated disaster, as I found out.

For a time, I aggressively restricted protein in an effort to minimize mTOR, and ended up developing sarcopenia (muscle loss). The lesson here is that you need protein, especially if you're working out, and especially as you get older. With regard to mTOR activation, Gundry notes:

"The only way we can actually measure the effect of mTOR long term is insulin like growth factor IGF-1. I take care of a lot of super old people, 95 and above. I have a lot of 105-year-old patients that I study, and they all have very low insulin-like growth factors.

We've tried experiments with patients, really reducing their animal protein and replacing it with plant-based protein. I'm not taking protein away. Their insulin growth factors will drop 50 to 70 points in a matter of months, and I think that's pretty interesting.

The other thing that's interesting is that exercise will actually change your gut microbiome to eat branch chain amino acids before they get into you, and branch chain amino acids are one of the biggest stimulators of mTOR.

That's why, if you're building muscle and you're a body builder, you gulp branch chain amino acids all the time. So, I think, probably Saladino — who exercises and also does TRE and has pretty good IGF-1s — can tolerate a very high animal protein diet.

The other thing that I've written about in all my books is that beef, lamb and pork have a sugar molecule called Neu5Gc, and fish and chicken have Neu5Ac. Many people make an autoantibody to Neu5Gc, so they attack their own blood vessels if exposed to beef, lamb and pork."

Lastly, Gundry points out the importance of exercise. When you work your muscles, especially the big muscle groups, myokines are produced, which help grow new brain cells and aid your mitochondria. However, contrary to popular opinion, you don't need to exercise continuously for 30 to 60 minutes each day, Gundry says. It's OK to break it into smaller segments.

"Even walking up and down stairs for a minute may be as effective as walking 10 minutes on a level surface," he says. *"Doing a plank while you're watching TV for a minute is a phenomenal exercise. My favorite is when you're brushing your teeth, do deep knee bends, do squats."*

More Information

This interview coincided with the release of "**The Energy Paradox: What to Do When Your Get-Up-and-Go Has Got Up and Gone**," so to learn more, be sure to pick up a copy. You can also learn more about Gundry by perusing his websites, **GundryMD.com** and **DrGundry.com**.

He has a **weekly podcast** that you can tune into as well for a wide range of health information from Gundry and his guests. You can also find him on **Facebook**, **YouTube** and **Twitter**.

Sources and References

- [1] Drgundry.com July 8, 2019