

## THE BIG IDEAS

### Bad Energy

The root cause.

### The Right Diet

For YOU.

### Nutrition Education

And research...

### The Unholy Trinity

Added sugars, refined grains,  
vegetable oils.

### Good Exercise

And sleep and...

# Good Energy

The Surprising Connection Between Metabolism and Limitless Health

BY CASEY MEANS, MD · AVERY © 2024 · 400 PAGES

“Good Energy is the goal, and the state of mind—and what it can create—is incredible . . . a world where we are eating beautiful food, moving our bodies, interacting with nature, taking pleasure in the world around us, and feeling fulfilled, vibrant, and alive. The view is exciting, because living with Good Energy means good food, happy people, real connections, and expanding into the most beautiful expression of our precious lives.

It’s true that the challenges we’re up against on the quest for upleveling our health are enormous. Yet I have seen that all of this can start to change *right now*. It starts when you simply ask one question: What would it feel like to have Good Energy? I invite you to ask that question now: What would it feel like to have your body functioning optimally, for your body to just be at ease enjoying this human experience, for your mind to be working clearly and creatively, and to feel that your life is established on a steady and strong source of inner power? Imagine a powerful life force from within that allows you to take on each day with pleasure, energy, gratitude, and joy. Take a moment. Really feel it. Imagine it. Let yourself.

My hope for this book is to change your life by enabling you to feel better today and prevent disease tomorrow. It all begins by understanding and acting upon the science of Good Energy.”

~ Casey Means, MD from *Good Energy*

Casey Means, MD, is the co-founder of Levels, a health technology company with the mission of reversing the world’s metabolic health crisis.

As per her bio: She has served on the faculty at Stanford University, lecturing on metabolic health and health technology. She received her undergraduate degree with honors from Stanford, where she was president of her class; she then graduated from Stanford Medical School ... before leaving traditional medicine to devote her life to tackling the root cause of why Americans are so sick.

I got this book during my recent binge on the latest and greatest books on nutrition/longevity/optimal Energy. That deep dive included [Change Your Diet, Change Your Mind](#) by [Georgia Ede](#), [Outlive](#) by [Peter Attia](#), [Forever Strong](#) by [Gabrielle Lyon](#), and [Metabolics](#) by [Robert Lustig](#).

I’m not sure how I found it but when I saw this testimonial by Admiral Michael Mullin, the retired 17th Chairman of the Joint Chiefs of Staff, I got it immediately: “For too long we have created a ‘health care’ system that is really a ‘sick care’ system. Improving the metabolic health of Americans is an urgent national security priority. The path prescribed herein optimizes our metabolic habits while modernizing our health system to fix the root causes. Brilliant, timely, and remarkably impactful. Read this book. Tell your friends.”

That’s a GREAT description of the book—which is FANTASTIC. Get a copy [here](#).

*“The truth: we should consider listening to the medical system if we have an acute issue like a life-threatening infection or a broken bone. But when it comes to the chronic conditions that plague our lives, we should question almost every institution regarding nutrition or chronic disease advice.”*

~ Casey Means, MD

As you'd expect, it's packed with Big Ideas and I'm excited to share some of my favorites, so let's jump straight in!

## THE ROOT CAUSE OF BAD ENERGY

*"Our body has simple ways to show us whether we are brewing metabolic dysfunction: increasing waist size, suboptimal cholesterol levels, high fasting glucose, and elevated blood pressure."*

~ Casey Means, MD

"About 74 percent of U.S. adults are overweight or obese, and 93.2 percent have metabolic dysfunction. These numbers sound high until you realize how many levers of modern society are stacked against our mitochondria and metabolism: too much sugar, too much stress, too much sitting, too much pollution, too many pills, too many pesticides, too many screens, too little sleep, and too little micronutrients. These trends—with trillions of dollars behind them—are causing epidemic levels of mitochondrial dysfunction and underpowered, sick, inflamed bodies.

The trifecta of cellular dysfunction that is the root of virtually every symptom and disease plaguing modern Americans may not be the stuff of dinner table conversation. They may not be the most posted about topics on Instagram. But you need to know what they are—because when you know them, you get closer to understanding the root of the U.S. healthcare epidemic, more so than almost any doctor, and closer to helping yourself and your loved ones to heal, stay healthy, and be limitless during this precious lifetime."

Good Energy.

That's what we're looking for.

Then...

There's Bad Energy.

Casey tells us that *"Disease isn't some random occurrence that might happen in the future. It is the result of choices you make and how you feel today. If you are battling annoying and seemingly nonlethal health issues—like fatigue, brain fog, anxiety, arthritis, infertility, erectile dysfunction, or chronic pain—an underlying contributor to these conditions is generally the same thing that will lead to a 'major' illness sometime later in life if nothing changes in how you care for your body. This information stings and can be scary, but it's crucial to convey: if you ignore the minor issues that are signals of Bad Energy brewing inside your body today, you could get much louder signals in the future."*

She also tells us that the "trifecta" we need to be worried about are mitochondrial dysfunction, chronic inflammation, and oxidative stress.

She also tells us that our bodies have a sort of "check engine" alert system to let us know how we're doing with those variables and whether or not we have the metabolic dysfunction that puts us at risk for Bad Energy now and even worse chronic diseases later.

She says: *"Metabolic syndrome means cells are struggling to get their jobs done because of problems in their energy production system. Metabolic syndrome is clinically defined as having three or more of the following traits:*

- *Fasting glucose of 100 mg/dL or higher*
- *A waistline of more than 35 inches for women and 40 inches for men*
- *HDL cholesterol less than 40 mg/dL for men and 50 mg/dL for women*
- *Blood pressure of 130/85 mmHg or higher"*

Personal question time...

How are YOU doing with those variables?

Good news no matter where you're currently at...

We can flip the switch and optimize them.

*"Compared to one hundred years ago, we are consuming astronomically more sugar (i.e., up to 3,000 percent more liquid fructose), working in more sedentary jobs, and sleeping 25 percent less."*

~ Casey Means, MD

*"Every institution that impacts your health makes more money when you are sick and less when you are healthy—from hospitals to pharma to medical schools, and even insurance companies."*

~ Casey Means, MD

P.S. Are you a parent with kids wondering how your kids are doing with *their* metabolic health?

Casey tells us: "Many friends who are parents have complained of having to take off work to take their kids to the doctor for recurrent throat, ear, and viral upper respiratory tract infections. Few, if any, understood that the way their kids' bodies were producing energy had a significant impact on the propensity for illnesses given that just like the function of any other cell type, immune cell function is regulated by how well they can make and utilize energy."

Kids with metabolic dysfunction are at a significantly higher risk for infections—such as strep throat and ear infections—than kids without metabolic dysfunction or who are at a healthy weight."

Wonder what might be driving issues for both the parents AND the kids?

How about this: "Ultra-processed foods make up 60 percent of calories consumed by adults and 67 percent consumed by children and they drive Bad Energy diseases like obesity, high blood pressure, dementia, type 2 diabetes, and insulin resistance."

## THE RIGHT DIET FOR YOU

"Diet controversies are a charade."

I personally know brilliant, hardworking, highly educated people who believe polar opposite ideologies about nutrition. One group feels that a low-fat, high-carb diet is the only diet that yields Good Energy, and another feels that a high-fat, low-carb diet is the best way. Both have data that show that these diets reduce liver fat (a key marker of insulin sensitivity), lower weight, lower triglycerides, improve insulin sensitivity, and lower inflammation. And both are right. And in between is the Mediterranean diet, which also has masses of literature to support a more omnivorous approach. All these diets can 'work' for good health because *all* emphasize primarily unprocessed, whole foods to give the cells what they need to function and cue satiety mechanisms so that we don't overeat.

Countless Instagram and blog posts from vegan health professionals blast the carnivores for ruining the planet. And the vitriol from the ketogenic and animal-based crowd toward the vegans is some of the cruelest stuff I've seen on the internet. Both are wrong in their attacks and right in their dietary choices. I know vegan and carnivore athletes, both of whom are absolutely thriving with low insulin levels, low glucose, low triglycerides, and low visceral fat.

I am so grateful that I have had a foot in both worlds. I know that both movements have merit and are championed by science-focused, mission-driven people. And I'm not being wishy-washy. The reality is that eating unprocessed, clean, natural foods—in a pattern that keeps you energized, symptom free, and with optimal biomarkers—is the right diet for you."

That's from a chapter focusing on the principles of Good Energy Eating.

Want to know what THE "one" right diet is?

Simple. The one that works for YOU.

Want to know what diet DOESN'T WORK?

Simple. The Standard American Diet—appropriately known as SAD.

If you're like most adults and getting 60% (!) of your calories from processed foods while feeding your kids (sigh) processed food for 67% (!!!) of \*their\* diet, you (and your kids!) (sigh!) are almost certainly going to experience Bad Energy and all the negative physical and mental effects of that Bad Energy.

As Casey says: "In order to be metabolically healthy, unprocessed and minimally processed foods must comprise the vast majority of what you eat."

*"Our modern, Western, technology-driven culture distorts our natural schedules—our circadian rhythms. We no longer eat or sleep at times and with patterns in line with how our cells are biologically programmed to thrive. These changes to a natural schedule of eating and sleeping represent a profound contributor to Bad Energy."*

~ Casey Means, MD

## NUTRITION EDUCATION & RESEARCH

*"Up to 73 percent of physicians are overweight or obese, and the leading cause of death for doctors are all largely preventable Bad Energy killers, with heart disease, cancer, and stroke at the top."*

~ Casey Means, MD

"At Stanford Medical School, I didn't take a single dedicated nutrition course. In fact, 80 percent of medical schools to this day do not require their students to take a nutrition class, despite food-driven diseases decimating our population. ...

Only after leaving medicine did I learn that so many of these studies were funded by food companies, which spend eleven times more on nutrition research than the NIH. Unsurprisingly, this money slants findings: 82 percent of independently funded studies show harm from sugar-sweetened beverages, but 93 percent of industry-sponsored studies reflect no harm. When food companies fund research, the studies are six times more likely to have a favorable result about the food in question.

Policymakers use this highly compromised research. It dictates food guidelines, school lunches, and food subsidy decisions. About 95 percent of the academics on the USDA panel that created the 2020 Dietary Guidelines for Americans had conflicts of interest with food companies. The food industry's influence on studies has led the current guidelines to say that 10 percent of a child's diet can come from added refined sugar, which should be unequivocally zero.

In 2022, one of the nation's preeminent nutrition studies (jointly funded by the NIH, the Gerald J. and Dorothy R. Friedman School of Nutrition Science and Policy at Tufts, and processed food companies) reported that Lucky Charms ranks as far healthier to consume than whole foods like lamb or ground beef. And seventy brand-name cereals from General Mills, Kellogg's, and Post were ranked twice as high as eggs. This would be funny if the stated goal of the study wasn't to impact 'marketing to children.'"

*"Dr. Gabrielle Lyon goes as far to say: 'We aren't over fat; we are under-muscled.'"*

~ Casey Means, MD

That's from a chapter called "Creating a Good Energy Plan" in which we learn some of Casey's primary guidelines—which we'll discuss in a moment.

First... Think about the fact that 80% (!!!) of medical schools DO NOT REQUIRE their students to take a nutrition class. THAT IS CRAZY.

Second... Think about the fact that 93% of industry-sponsored studies say that sugar-sweetened beverages do no harm BUT 82% of the independently conducted studies show that sugar-sweetened beverages show harm. THAT IS ALSO CRAZY. (Which studies should we believe?)

Then there's that study showing that Lucky Charms is healthier than whole foods like lamb or ground beef? REALLY?

We talk about the systemic challenges with our food system in our Notes on [Mark Hyman's Food Fix](#). Check that out for more. I'm also working on some Notes on [Robert Lustig's](#) great book *Metabological: The Lure and the Lies of Processed Food, Nutrition, and Modern Medicine*.

Now for some Pro Tips on what to eat and what NOT to eat.

Here's the short story... Don't eat added sugar, don't eat industrially processed vegetable and seed oils, and don't eat highly processed grains.

She also tells us: "Ultra-processed foods are created in industrial factories by combining various extracted and adulterated parts from different foods with synthetic ingredients, like preservatives and food colorings. These are 'Frankenfoods' you should never eat and never give to your children. These foods now comprise the vast majority of the calories we eat today in America. They should be zero percent of our diet."

Personal question time... What percent of YOUR (and your kids'!) diets is comprised of Frankenfood? Remember the Heroic Target for those ultra-processed pseudo-foods: ZERO %.

P.S. If you're curious what constitutes "ultra-processed foods," Casey gives a ton of examples. 76

*“Every medical leader should be speaking urgently and plainly: every person should prioritize the quantity, quality, and consistency of sleep like their life depended on it.”*

~ Casey Means, MD

*“The best advice I can give anyone in transforming their health is to find a way—any way—to stick with unprocessed, organic food for just a month or two. By the end of this time, I can guarantee that your preferences and cravings will have changed.”*

~ Casey Means, MD

*“We need to get seven to eight hours a night of good quality sleep for our bodies to protect us from Bad Energy physiology. Sleep deprivation almost immediately impacts our ability to make energy.”*

~ Casey Means, MD

of them in 12 different categories to be precise.

She says: “While these are considered normal foods in our culture, you should avoid them as strongly as if they were illicit drugs. Every item below has either refined sugar, ultra-processed grains, or industrially refined seed and vegetable oils—three classes of foods that need to be avoided for Good Energy.”

Here’s a quick look at just a few of the items on the list: Sweetened beverages (from soda and Red Bull to CapriSun and Gatorade), desserts (from Chips Ahoy! to Cinnabon and Krispy Kreme), cereals and granola (Froot Loops, Pop Tarts, Natural Valley granola bars, etc), dairy (Yoplait, Go-Gurt, Cool Whip, Kraft Singles), meat and poultry (from chicken nuggets and deli meats to hot dogs and beef jerky), snacks (Doritos, Ritz, Cheetos, etc.), frozen foods (Digiorno pizza, Hungry-Man frozen dinners, etc.), sauces (Heinz ketchup, Hidden Valley salad dressings, etc.), packaged meals (mac and cheese, Lunchables, etc.), frozen desserts (Baskin-Robbins, Ben & Jerry’s, etc.), soups (Campbell’s Chicken Noodle, etc.), and spreads (Nutella, Smuckers, etc.).

Wow. I got a workout typing that all out. And, even though I don’t personally eat ANY of that stuff and haven’t in a LONG time, even I felt like a bit of a killjoy laboriously walking through all the things you don’t want to eat if you want HEROICALLY GREAT ENERGY. Sorry. Hah. :)

P.P.S. For the record, Casey doesn’t recommend ANY grains. She says: “You might notice the absence of unprocessed grains from the ‘eat’ list.”

## THE UNHOLY TRINITY

“If you remember one food principle in this book, remember that cutting the unholy trinity of these three ingredients from your diet will completely change your health and ensure you’re making room for more Good Energy foods:

1. Refined added sugar
2. Refined industrial vegetable and seed oils
3. Refined grains.”

We briefly mentioned the things to avoid but when I read things like “If you remember only one food principle from this book” it makes me want to make sure you remember it so...

POP QUIZ. What THREE things do you want to MAKE SURE you avoid? Yep. Refined added sugar. Refined industrial vegetable and seed oils. And, refined grains.

Get this: “Refined sugar causes astronomically more deaths and disability per year than COVID-19 and fentanyl overdoses combined.”

And “Consider this: when a kid drinks one bottle of Coke, they ingest as much added sugar as they might have had in an entire year if they were living 150 years ago.”

Note: Casey would agree with our Heroic Food Rule #1: Don’t drink sugar. She tells us that liquids make up 22% (!!!) of the American diet and says: “No liquid calories!” “Eliminate all juice, soda, Frappuccinos, flavored milks, sweetened nondairy drinks, Gatorade and other sports drinks, energy drinks, Slurpees, and sugary liquid toppings like syrup.”

Plus: “These industrially refined seed and vegetable oils include canola, corn, sunflower, soybean, safflower, peanut, and cottonseed. Look at almost any packaged food label from a large processed food retailer, and you’ll almost certainly see one of them. The case against these refined vegetable and seed oils is very simple. These oils are extremely high in omega-6 fats, which skews our omega-6 to omega-3 ratios and increases inflammation in the body.”

And know this: “By avoiding added sugar, industrial seed and vegetable oils, and processed grains, you avoid almost every ultra-processed food.”

## GOOD EXERCISE AND SLEEP AND...

*"We are animals in cages right now, surrounded by encroaching threats that are entering our homes and daily lives through technology, chemicals, and more. Since our brains use a disproportionate 20 percent of the energy in the body despite being just 2 percent of the total weight of the body, dysfunction at the cellular level hits the brain extra hard. Focus on Good Energy habits and slowly, but surely, Good Energy will take over your life."*

~ Casey Means MD

"With food, we covered three simple rules that get you quite far: don't eat added sugar, don't eat industrially processed vegetable and seed oils, and don't eat highly processed grains.

With fitness, I also suggest three simple rules.

1. Walk at least 7,000 steps per day and space these steps out throughout the day. Work up to 10,000 per day.
2. Get your heart rate above 60 percent of your maximum for at least 150 minutes a week. (That's 30 minutes, five days a week.)
3. Lift heavy things multiple times per week in a way that hits every major muscle group."

That's from a chapter called "Replenishing What Modernity Took Away" in which Casey walks us through how to optimize everything \*other\* than nutrition.

In addition to those exercise tips (how are YOU doing with them?), she also tells us: "According to Levels data, adults often see a 30 percent lower glucose spike when they take a gentle walk after eating a high-carbohydrate meal. Muscle contraction is a silver bullet for processing excess food energy that otherwise can clog up our cells and lead to dysfunction. Exercise stimulates the production of more and healthier mitochondria to generate Good Energy."

Note: I got her Levels app and a continuous glucose monitor after reading her book. It's awesome. And, although I rarely do a particularly high-carb meal, I do enjoy my Trail walks more consistently after nearly all my meals.

In addition to the nutrition and exercise, Casey also encourages us to optimize our SLEEP!

Fun fact: Did you know that "In the past hundred years, average sleep duration has decreased 25 percent"? It's true. And that's not a good thing.

Casey tells us we need 7-8 hours of sleep per night. Period.

She also tells us about the importance of experiencing hot and cold and cites Andrew Huberman who recommends 57 minutes for hot sauna plus 11 minutes of cold exposure per week.

And... That's a VERY quick look at how to get some more Good Energy in your life.

What's the #1 thing that YOU think you can dominate to go to the next level in YOUR life?

Get on that.

TODAY.

B

**Brian Johnson,**  
*Heroic Philosopher CEO*

## About the Author of This Note

BRIAN JOHNSON



Brian Johnson is the Co-Founder + CEO of Heroic Public Benefit Corporation and the author of *Areté: Activate Your Heroic Potential*. He's 50% Philosopher and 50% CEO and 101% committed to helping create a world in which 51% of humanity is flourishing by the year 2051. Learn more at [heroic.us](https://heroic.us).

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