

MY
MYNDPROJECT
OUTSIDE YOUR MIND WHERE IS THE PROBLEM?

THE BETTER BRAIN



WHAT'S IN IT FOR ME?

Learn how food impacts your mental health.

There's a mental-health crisis brewing in the United States. One in five people reports suffering from a mental condition – whether that's depression, anxiety, or ADHD. When you add in the families of each of these people, you realize that's half the country suffering from the effects of mental ill-health.

More prescriptions are being written than ever, yet recovery rates are unchanged and the number of suicides has actually gone up. What's more, the stigma around mental health means that research funding is limited.

On the bright side, there's a simple way you can support your brain and mental health. It's cheap, with far fewer negative side effects than a cabinet full of pharmaceuticals, and can be found in your kitchen. That's right – we're talking about food.

In these MYNDSETS, you'll learn

- ✓ why eating sushi makes you happy;
- ✓ how a bee's diet determines whether it will end up as a queen or worker; and
- ✓ why what you eat during pregnancy can affect your toddler's smarts.



The following applications are now being studied, either clinically or via community / citizen science

GOOD NUTRITION CAN DO MORE FOR YOUR MENTAL HEALTH THAN PHARMACEUTICAL POTIONS.

The notion of curing sickness through food is not a new concept. More than 2,000 years ago, Hippocrates wrote, “Let food be thy medicine and medicine thy food.” And just a century ago, an article in The People’s Home Library advised readers to tackle mental-health problems by eating better.

The problem is that the message hasn’t always gotten through.

Take the story of ten-year-old Andrew, who had symptoms of anxiety, obsessive-compulsive disorder, and psychosis. His parents were getting increasingly desperate. Andrew had been treated, medicated, even hospitalized. Nothing seemed to work – until he was prescribed multinutrients, which included an array of vitamins and minerals. Within ten months, his OCD was gone.

The key message here is: Good nutrition can do more for your mental health than pharmaceutical potions.

It wasn’t just Andrew’s OCD that went away. Next, his symptoms of psychosis vanished. Now an adult, Andrew has graduated from high school and has a job. What’s more, the nutrients cost just 2 percent of what his parents had been paying for his inpatient care.

If such an easy, affordable, and available cure can be found right in your pantry or local grocery store, why isn’t food touted more? Why don’t psychiatrists prescribe multinutrients or a change in diet instead of a drug regimen?

The answer is simple: money. The committees that write the clinical practice guidelines are tied to drug companies through funding. And there’s another problem, too: societal norms mean we’ve grown used to treating everything with medicine.

From their earliest years in medical school, psychiatrists are trained to prescribe drugs. And since 1985, when direct-to-consumer advertising started, our population has been increasingly eager to consume them. The change in advertising laws didn’t just mean that people were suddenly inundated with ads for medications; it also meant they were discovering more and more conditions for which they could get a magic pill.

Some medications have only been approved based on 6–12-week clinical trials but are regularly prescribed to patients for life. They often have side effects or are extremely addictive. And yet we rarely stop to ask whether drugs are the best answer.

It’s time to take a step back. In the next MYNDSETS, we’ll look at how to fix your nutritional habits and build better mental health without relying on pharmaceuticals.



THE BETTER YOU FEED YOUR BRAIN, THE BETTER YOUR BRAIN WILL SERVE YOU.

Picture the inside of a beehive. In each cell of the hive, an egg is hatching. The larvae that emerge are all genetically identical. By the time the bees reach maturity, every one will be sterile – except for the queen. And it all comes down to nutrition.

What happens is that the colony selects the individual larva that will become the queen and feeds it a diet rich in royal jelly. The others are fed pollen, nectar, and honey. These contain plant chemicals that affect the DNA of the larvae – chemically castrating what will become the hive's worker bees.

Of course, humans aren't bees! The results of diet aren't quite so marked in us – but what we eat can affect how our genes are expressed, and determine how we think and feel.

The key message here is: The better you feed your brain, the better your brain will serve you.

Take serotonin, for example. It's the "feel good" hormone, but whipping up a batch isn't easy. To create serotonin, the brain goes through a multistep process that requires calcium, iron, phosphorus, potassium, zinc, copper, vitamin B6, niacin, riboflavin, molybdenum, and vitamin B1. That's four vitamins and seven minerals for just one hormone.

Your brain relies on raw materials to build the countless substances it needs to support its mental functioning. Every minute, about a quart of blood bathes your brain. Think of all the nutrients that pass through your blood – your brain consumes 20 to 40 percent of these nutrients and oxygen.

You use your brain cells every second of every day. You need them for daily functioning, to produce energy, and to ensure your DNA is expressing itself in a healthy way. That means you need the right brain foods to help you fight inflammation and the effects of toxins in your environment.

Your brain also relies on something called the methylation cycle – a process that creates and transfers methyl groups to your DNA, hormones, and immune cells. In these cells, the methyl groups act like a dimmer switch to "turn down" or "light up" your DNA, resulting in different expressions of that gene.

In effect, eating the right foods can actually reverse numerous genetic diseases, like ADHD or depression. And because the impacts to mental health can be long-lasting, it's especially important to make sure you're eating well at certain developmental stages of your life – such as in your teens, during pregnancy, and in old age.



THE COMPONENTS OF YOUR GUT MICROBIOME AFFECT YOUR EMOTIONS.

Relying on your gut instinct. Feeling butterflies in your stomach. Our emotional reactions are often attributed to the digestive system. And it's no coincidence. Increasingly, research shows that the bacteria in our very complicated gut "microbiome" really do affect how we feel.

In studies done in the 1980s, many mental health patients reported digestive complaints like stomach aches. The reasoning used to be that a stomach ache might be a symptom of anxiety or stress.

But now researchers are starting to think that the reverse might be true. Maybe it's what's going on in our stomachs that's having the dramatic effect on our brains.

The key message here is: The components of your gut microbiome affect your emotions.

Your body is full of different microbiomes, each with its own very specific and diverse set of bacteria – even your eyelashes have their own.

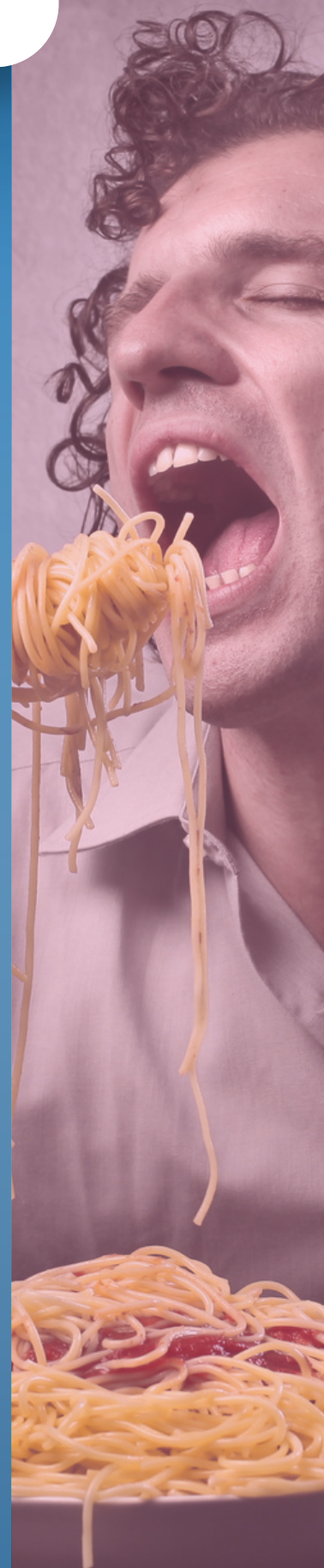
Your gut's microbiome is directly affected by the conditions in which food is grown. Human bodies can't make vitamins – but plants can, and that's why we eat them. The problem is, plants today are grown in soil that's depleted of many minerals.

Modern farming techniques allow plants to grow very quickly, and science hasn't yet determined whether the time these plants spend in the soil is sufficient for them to absorb enough minerals. Genetic modification plays a role, too – as do pesticides and even climate change. For example, a warming planet could result in plants becoming higher in carbohydrates and lower in protein.

And then there are the antibiotics we consume and antiseptics we use, which deplete our gut microbiomes even further. All of these factors lead to a transformed gut microbiome – and a negatively impacted brain.

Compelling evidence for this brain-gut connection can be seen in a gruesome study that transplanted gut microbes from anxious mice into more outgoing mice. The result? The mice switched roles. The happy mice became anxious and vice versa.

Scientists think there may be connections between specific gut bacteria and conditions such as ADHD and schizophrenia. They don't yet know exactly what kind of microbiome makes for optimal mental health, but treatments such as prebiotics, probiotics, and even fecal transplants are showing promising results.



SCIENCE SHOWS THERE'S A DIRECT CONNECTION BETWEEN YOUR DIET AND YOUR MENTAL HEALTH.

Scientific evidence overwhelmingly proves that there is a strong relationship between what we eat and how we feel. And the epidemic of mental health issues rife in America today can be tied to the epidemic of poor eating – especially of ultra-processed foods.

The good news is that the opposite is also true. Eating healthily can actually protect your mental well-being.

The key message here is: Science shows there's a direct connection between your diet and your mental health.

Consider just a few of the many research findings:

People who don't consume much seafood have a 65-times higher risk of experiencing depression throughout their lifetimes. And in a Japanese study of 100,000 people, eating a diet rich in vegetables, fruits, mushrooms, seaweed, and fish was found to result in a 50-percent decreased risk of suicide.

A study of 3,000 Dutch women who consumed lots of meat, potatoes, and margarine – but didn't eat a lot of eggs, vegetables, fish, or dairy – found relatively higher levels of aggression in their children by the age of six.

Conversely, a study of 700 Norwegian mothers and their babies reported that women who ate more fruit while pregnant had infants who showed more cognitive development at age one.

Similar patterns emerge in studies where the patients were given multinutrients, which are pills or capsules containing multiple vitamins and minerals. The combined effect of nutrients seems to deliver more punch than, say, a single vitamin C pill or iron tablet. While they don't conclusively deliver a "cure" for many conditions, multinutrients do seem to help with associated moods and self-regulation.

Take, for example, studies that show taking multinutrients reduces irritability and self-harm in patients with Autism Spectrum Disorders. Or research which indicates that multinutrients can help people struggling with addiction, reduce rage and aggression, and improve sleep and PMS symptoms. In yet another study, scientists in California gave kids extra minerals and vitamins – and noted a subsequent 28-percent decrease in violations of school rules.

Clearly, what we eat can have a dramatic impact on our moods and feelings. In the next MYNDSET, we'll take a look at what you should be putting into your body to get the most benefits.

YOU'RE ON THE RIGHT TRACK IF YOU'RE EATING FOODS YOUR ANCESTORS WOULD RECOGNIZE.

Only eat meat. Never eat meat! Eat frequent, small meals. Only eat from 7:00 a.m. to 7:00 p.m. Try FODMAP. The keto diet. Paleo is the way to go!

In the cacophony of conflicting diet advice, what's the best way to eat to improve how your brain works and how your mind feels?

It's simple: eat real food.

The key message here is: You're on the right track if you're eating foods your ancestors would recognize.

So much of what we eat today is just chemicals bound together in the semblance of food. If you pick up something with a really long list of ingredients, it's not really food. If it can be bought in a box, bag, or can – or is from a gas station or fast-food joint – you're probably better off without it.

But if your great-great-grandmother could take a bite and recognize the raw ingredients, you've hit the jackpot. Previous generations ate foods that were in season. There was no advertising, so kids ate whatever their parents cooked. Time was spent finding and cooking fresh food.

If you follow those same rhythms today, you'll be feeding your brain what it likes – lots of essential fatty acids and omega-3 and omega-6 compounds.

The Mediterranean diet is the one most closely linked to brain-healthy food; it emphasizes fruits, vegetables, lean meat, fish, and whole grains. Other excellent choices include leafy greens, cruciferous vegetables, and peppers. Almost all traditional cuisines are also healthy – they evolved with an eye on local, seasonal ingredients. Another tip is to eat foods of different colors. When you fill your plate, it should be half fruits and vegetables, a quarter carbs, and a quarter protein.

As you probably know, cooking is healthier than eating out – and will save you money. Invest in appliances like an Instant Pot, air fryer, immersion blender, and food processor to make the process easier. Stock your pantry with staples like rice and beans, lentils, broths, whole-grain pasta, nut butters, and olive oil. Supplement your groceries with fresh produce, dairy, and meats.

Never shop without a list or when you're hungry. And remember, the healthiest things in a grocery store are usually located in the outer aisles. That said, a slice of chocolate cake or pizza is fine once in a while. Treats should be enjoyed – in moderation!



CUTTING UNHEALTHY FOODS FROM YOUR DIET CAN HAVE LONG-TERM HEALTH BENEFITS.

You now know what you should eat: lots of fresh foods, preferably homemade. But what about the things you should avoid?

Researchers have identified five steps to help in changing behaviors: precontemplation, contemplation, preparation, action, and maintenance. In terms of creating better eating habits, this might mean first thinking about the lifestyle changes you'd like to make. Then, specifically considering the things you're eating – what's good and what's bad for you? Make a plan to get more of the former and avoid the latter. Next, put your plan into action. And, finally, stick to it!

You can start putting your plan into action by stepping into your kitchen. Open your pantry door. Grab some trash bags. Now, brace yourself – you're going to throw out everything that's not real food!

The key message here is: Cutting unhealthy foods from your diet can have long-term health benefits.

The easiest villain to identify is sugar. The average American today eats 3 pounds of sugar a week. Compare that to your ancestor 200 years ago, who ate just 2 pounds a year. Clean up your beverage act, and skip the sugary sodas. If it helps, ease into your new sugar-free lifestyle with seltzer sodas or water flavored with lime or lemon.

But there's something worse than sugar – and that's processed food. This so-called "food" is high in sugar, sodium, and trans fats, but is lacking all the healthy minerals, vitamins, omega-3 fatty acids, and phytonutrients.

There are 5,000 chemicals in our food supply that are dubbed "forever chemicals" because they can't be broken down or washed away. Under the current regulations, companies can put whatever they want into our food until it's found to be unsafe. That means we're consuming a lot of potentially harmful substances. So watch out for labels such as "all-natural" or "natural flavors" – they're often the opposite of what you'd think.

To further reduce your intake of toxic chemicals, buy organic produce whenever possible. The Environmental Working Group's annual Dirty Dozen and Clean Fifteen lists can help point out the worst and best of the bunch.

It isn't easy to make these transformations, but it can help to have specific goals. For example, rather than quitting soda cold turkey, start by saying, "I'll stop consuming sugary drinks on weekdays." Pick a good time to start – so, not right before a vacation – and share your goals with others so they can hold you accountable.

And don't be too hard on yourself if you slip up; it happens to the best of us!



TAKING MULTINUTRIENTS CAN IMPROVE YOUR MENTAL HEALTH.

Calcium supplements. Iron pills. B12 tablets. At one time or another, we've all been told to take our vitamins. For those of us who don't yet have a healthy, well-balanced diet, this can be a crucial prescription.

But many of us aren't making the most of our vitamin regimen. To supplement our nutrient-deficient diets, we generally just take single-ingredient tablets. The thing is, besides B-complex formulas, most over-the-counter supplements haven't undergone rigorous testing for benefits and don't cater to individual needs.

When it comes to supplementation, the best option is multinutrients. These packaged groups of vitamins and minerals can benefit everyone – even people who are already healthy.

The key message here is: Taking multinutrients can improve your mental health.

Everyone's definition of "normal" is different – but there are a few general guidelines to follow when deciding on the right supplements to take. The ideal multinutrient will have a broad formula with plenty of vitamins and minerals, as well as amino acids and fatty acids, working in combination.

To determine your correct dose, you can consult the Recommended Dietary Allowances – or RDAs – outlined by the US Food and Drug Administration. These tell you how much of a nutrient you need to avoid a deficiency.

But an RDA doesn't tell you how much you need for optimal brain functioning. It calculates optimal amounts for healthy people and doesn't take into account what someone who is suffering from a condition might need.

The trick is to aim for your tolerable upper RDAs. Taking a tailored multinutrient pack is your best bet. Not only will the doses maximize your brain functioning – the nutrients' synergy will also work as nature intended, providing a sum effect that's greater than its parts.

Multinutrients won't yield instant results – but, as with most things, patience is key. Within a few months of committing to a regimen of good food and multinutrients, you'll likely begin to notice incredibly rewarding changes – your thinking may be clearer, and you may feel more able to tackle life's challenges.

Mental health is a complex issue – but, as you've seen, there are a few simple things you can do to make your brain happier. And it all starts with what you put on your plate.



FINAL

SUMMARY

“While pharmaceutical drugs play a significant role in the treatment of mental-health conditions, you may get better results if you refocus your attention on the kitchen rather than the medicine cabinet. Eating real food can help a host of problems, including ADHD and depression, while neglecting your diet can have the opposite effect and cause mental health to deteriorate. If you can eat well and supplement your diet with multinutrients, you’ll find you get all the vitamins and minerals you need for optimal brain function.

Actionable advice:

Help your children form healthy food habits.

Guide children toward good choices by switching items like baked goods for trail mix, or chips for air-popped popcorn. Another technique is the “thank you bowl.” A few days a week, place a vegetable that your child has rejected on their plate, and a bowl next to it. Get your child to chew the food; if they don’t like it, they can spit it out into the bowl and say thank you. on track for a healthy day.

