

Gut and Physiology Syndrome

Dr. Natasha Campbell-McBride is a formally trained Russian neurologist whose child developed autism.

As a result of her own research into autism, she ended up developing what might be one of the most profoundly important treatment strategies not just for autism, but for a wide range of neurological-, psychological-, and autoimmune disorders as well.

The majority of people have poor gut health due to poor diet and toxic exposures. The Gut and Physiology Syndrome (GAPS) Nutritional program is therefore, vitally important for MOST people. The [GAPS program](#) can help those with autism and other neurological- and psychiatric disorders, such as:

- Dyslexia and dyspraxia
- Depression
- Obsessive-compulsive disorder
- Bipolar disorder
- Epilepsy

What is Gut and Physiology Syndrome?

Your gut affects your immune system, as there's profound dynamic interaction between them. Dr. McBride covers the problems related to Gut and Psychology Syndrome in her first book by the same name. Her next book will cover Gut and Physiology Syndrome, which relates to diseases that are not located in the nervous system but rather elsewhere in your body, such as:

- Arthritis
- Asthma and allergies
- Skin problems

- Kidney problems
- Digestive issues, and
- Autoimmune disorders

Abnormalities in your immune system are a common outcome of GAPS, and such immune abnormalities are at the root of virtually all degenerative diseases.

“Why is that? It’s because about 85 percent of our immune system is located in the gut wall,” she says. “This fact has been established by basic physiology research in the 1930s and the 1940s. Your gut, your digestive wall, is the biggest and the most important immune organ in your body. There is a very tight conversation and a relationship going on between the gut flora that lives inside your digestive system, and your immune system...

Your gut flora—the state of the gut flora and the composition of microbes in your gut flora—has a profound effect on what forms of immune cells you will be producing on any given day, what they’re going to be doing, and how balanced your immune system is.”

How Your Gut Flora Directs Your Immune System

There are two primary “arms” in your immune system:

1. **Th1 immunity** is responsible for normal reactions to anything in your environment, from pollen to animal dandruff, dust mites, chemicals, food and anything else you come into contact with. Th1 is kept robust and healthy by your gut flora. As long as your gut flora is normal, you will have no adverse symptoms when exposed to these types of environmental influences, but if your gut flora is abnormal, your Th1 become increasingly disabled.
2. **Th2 immunity** is designed to address immune functions inside your body, and is not equipped to handle environmental influences. However, it will try to compensate if your Th1 becomes disabled. Unfortunately, since it’s not properly equipped for this job, it ends up

dealing with environmental influences like pollen and foods in an inappropriate way; the end result of which is allergies and intolerances.

It's important to realize that food allergies and intolerances are a very different group of allergies from the more acute anaphylactic allergies. Food intolerances caused by disabled Th1 (due to abnormal gut flora) are not mediated by the same immunoglobulin as the true allergies are. Food intolerances can also manifest hours, days, or even weeks later, making identifying food allergies very difficult.

“Different reactions can also overlap on top of each other. For example, on any given day you can be reacting to broccoli that you have just had for lunch, and to lamb that you've eaten yesterday, and to egg that you've eaten two days ago, and to a piece of bread that you've eaten 10 days ago. All of these reactions overlap on top of each other. On any given day, you have no idea what exactly you're reacting to,” Dr. McBride explains.

Making matters even more difficult, these food allergies and intolerances can result in all sorts of reactions, from headache, to sneezing, to rashes, or abdominal pains or swollen joints. Or they may result in psoriasis, or cause eczema to flare up.

*“Or, it can be an episode of depression, anxiety, or a panic attack. **Any** kind of symptom can be brought up by food allergies and intolerances,”* Dr. McBride says.

At the same time, because your gut flora is abnormal, your gut lining begins to deteriorate, since it is actively maintained by our gut flora. (The beneficial bacteria in your gut make sure the cells that line your entire digestive tract are healthy, well-fed, and protected from chemical- or microbial attacks.) As your gut lining deteriorates, the junctions between the cells open up, causing your gut to become porous, or “leaky.”

“It becomes like a sieve, and foods don't get the chance to be digested properly before they are absorbed,” Dr. McBride explains.

“They’re absorbed in this mal-digested or partially broken down form. When the immune system and the bloodstream finds them and looks at them, it doesn’t recognize them as food. It says, “You’re not food. I don’t recognize you,” and it reacts to them. It creates immune complexes, which attack these partially digested proteins. As a result, we’ll get all sorts of symptoms in your body.”

So what’s the answer?

The key to resolving your health issues is NOT to determine which foods you’re reacting to in order to avoid them. Rather you need to focus on healing your gut lining, because this is the most likely root of your problem. This will also be your most cost-effective strategy, as allergy testing can be quite expensive.

“There are many testing methods developed now for food allergies and intolerances,” Dr. McBride says. “... [But] if you had enough money to test twice a day for two weeks in a row, you would discover that you react to everything you eat... The majority of practitioners who are experienced in this area give up on testing... They recommend focusing on healing and sealing your gut lining instead. Then these food allergies and intolerances will disappear, and you will be able to eventually start eating foods that you could not tolerate before.”

GAPS and Autoimmune Disease

Autoimmune disorders are a very common side effect of GAPS. Conventional medicine has identified about 200 different autoimmune conditions so far, and the list is continually growing.

“The testing in autoimmunity is fairly expensive, so not many people get tested,” Dr. McBride says. “But the more we test, the more we realize that pretty much every degenerative condition has got an autoimmune component. Why is that? Because 85 percent of your immune system is located in your digestive wall, in your gut wall, and the state of your gut flora has a direct and very profound effect on the way your immune system functions.”

... Your immune system is a very hungry organ. It needs to be continuously fed... People with abnormal gut flora – GAPS people – do not digest and absorb their food properly, so they develop multiple nutritional deficiencies; their immune system is starving... At the same time, a river of toxicity is flowing from the gut into the bloodstream of these people, because all those pathogenic microbes sitting in their gut flora are converting the food that comes along into hundreds and hundreds of very toxic substances.

The immune system gets quite a lot of this toxicity, so... we have a poor immune system—it is malnourished; it is intoxicated; it is unbalanced, and, at the same time, it is challenged with a huge amount of work to do. Of course, it cannot function properly. Of course, it cannot react appropriately to various things. Autoimmunity is the result of that.”

Abnormal flora in your digestive tract can easily lead to overgrowth of:

- Pathogenic bacteria
- Pathogenic viruses
- Fungi
- Worms
- Protozoa

Once your gut lining begins to deteriorate, these disease-causing agents can be easily absorbed into your bloodstream and circulated throughout your body. Some of them have affinities for certain proteins, and will attach themselves to them. When that happens, it changes the three-dimensional shape of that protein molecule. When your immune system comes across this foreign-looking protein, it will attack it and begin producing antibodies against it.

“This mechanism is particularly at work in multiple sclerosis in patients. We have researched that quite a lot,” Dr. McBride says.

“Mercury, lead, aluminum, other toxic metals and organic molecules that contain this toxic metal have a particular propensity for getting stored in high-fat tissues such as your brain and the rest of your nervous system, particularly the myelin sheath on your nerves... These toxic metals target your brain and your nerves. But when they get accumulated in those high-fat tissues, these toxins attach themselves to proteins in your myelin, in the white matter of your brain, and other parts of your nervous system. Once they’ve accumulated, once they’ve attached themselves to those proteins, they change their three-dimensional structure. Then the immune system develops an antibody against your protein and your myelin.

*That is the number one antibody, which is at work in multiple sclerosis. It is called a myelin-specific protein antibody. It’s an antibody which attacks proteins in your myelin... What the immune system is trying to do is it’s trying to clear out mercury, lead, and other toxic metals out of the nervous system, which got stored in there. Where do they come from? **99.9 percent of anything toxic in your body comes out in the digestive system.**”*

GAPS and Multiple Sclerosis

Interestingly, when your body is unable to clear a particular toxin on its own, it will invite and employ microbes from the environment to help clear these toxins.

“The microbes in the environment are not our enemies at all. They’re actually our allies. They’re our helpers. Your body employs them when it needs them,” Dr. McBride explains.

“If you have accumulated certain amount of mercury in your brain and in your nerves... your body might employ a virus... If you got a cold, that virus (many viruses target your nervous system) will go directly to those toxic patches in your brain and your nervous system and attack them. It will start gobbling it up... Of course, your immune system then joins in, trying to attack the virus. It joins in with inflammation, and you [begin to experience] symptoms of multiple sclerosis. You will get tingling. You will get numbness in your face or in your

extremities. You might start wetting your bed, or you might get peripheral loss of vision for a while... That's one of the first symptoms in multiple sclerosis.

in this situation, if you would just feed your immune system properly and leave the work for the immune system to complete, then these symptoms would last for a month or two, and then they would disappear, because... the virus will gobble up the [toxins] and your immune system will clear out the virus. Your nerves will recover naturally.”

Unfortunately, this is not what happens nowadays. Typically, as soon as people get tingling, numbness, and other symptoms, they rush to the doctor, who will immediately put them on some form of medication, which will typically have a dampening effect on the immune system. As a result, the viruses spread and become even more established, and the disease becomes chronic and permanent.

You have Natural Antibodies against Virtually All Autoimmune Diseases...

“What people have to understand is that we all – 100 percent of humans – have in our bodies antibodies to deal with multiple sclerosis, amyotrophic lateral sclerosis, rheumatoid arthritis, osteoarthritis, lupus, or any other autoimmune condition,” Dr. McBride says.

It all begins in utero. As soon as the baby's thymus develops, the proteins floating about in the bloodstream, which is shared between the mother and the baby, begin to educate the baby's immune system, and allocate a particular responder cell to every protein encountered. Autoimmune conditions develop when your immune system attacks particular tissues or proteins in your body because they've been contaminated by toxins or some other environmental influence. And remember, this imbalance, this toxic influence, originates from your digestive system or gut wall.

“Autoimmunity is born in the gut. That’s where it comes from – your gut wall,” Dr. McBride says. “That happens because your gut flora is abnormal. In order to heal any autoimmune condition – whether it’s multiple sclerosis, rheumatoid arthritis, osteoarthritis, lupus, alopecia, psoriasis, or anything else that has got an autoimmune component – you have to focus on healing and sealing your gut lining with the GAPS Nutritional Protocol. And you have to focus on... normalizing your gut flora. You have to drive out the pathogens from the gut flora and replace them with the beneficial flora. Then a lot of healing will happen...”

Unfortunately, conventional medicine is largely ignorant about this research, and does not view autoimmune disorders as digestive disorders, which Dr. McBride is convinced is the case.

The Importance of Fermented Foods

Did you know the number of bacteria in your body outnumber your cells by about 10 to 1? These bacteria in turn are comprised of both beneficial ones and harmful ones. The ideal balance is about 85 percent good bacteria and 15 percent bad. Maintaining this ideal ratio is what it’s all about when we’re talking about the importance of probiotics. It’s important to understand though that probiotics are not a new concept. The only thing that’s new is that you can take them in pill form. But historically, mankind has consumed large amounts of probiotics in the form of fermented and cultured foods, which were invented long before the advent of refrigeration and other forms of food preservation.

“Every traditional culture, when you look at their traditional diet, they ferment their foods. They fermented everything. You can ferment dairy, grains, beans, vegetables, fruits, meats, and fish. Everything can be fermented, and there were fermented beverages in every culture. When the cabbages were ripe in September, you made it a fermented cabbage. Perhaps for a month or two, you were eating fresh cabbage, but then for the rest of the year, 10 months of the year, you ate your cabbage in a fermented form. Quite a large percent of all the

foods that people consume on a daily basis were fermented. And with every mouthful of these fermented foods you consume trillions of beneficial bacteria...”

Fermented foods not only give you a wider variety of beneficial bacteria, they also give you far more of them, so it's a much more cost effective alternative. Here's a case in point: It's unusual to find a probiotic supplement containing more than 10 billion colony-forming units. But when my team actually tested fermented vegetables produced by probiotic starter cultures, they had *10 trillion* colony-forming units of bacteria. Literally, one serving of vegetables was equal to an entire bottle of a high potency probiotic! So clearly, you're far better off using fermented foods.

How the Fermentation Process Works

“Mother Nature is extremely wise and extremely kind. It populated all organic fruit and vegetables, the dust on our soils, and all plant matter with Lactobacilli. The fresh cabbage leaves, if it's organically grown (not the one from chemical farming), will be covered in Lactobacilli—lacto-fermenting bacteria. You don't need to add anything. You just chop it up. Add some salt in the initial stages. (The salt is added in the initial stage in order to stop putrefactive bacteria from multiplying.) Then as the Lactobacillus stop working and start multiplying, they produce lactic acid. That's why they're called Lactobacillus. That's just lactic acid.

If you look at the research in lactic acid, it is one of the most powerful antiseptics. It kills off lots and lots of bacteria.... So as the lactic acid starts producing, it will kill off all those putrefactive and pathogenic microbes and preserve the food. It's a great preservative... A good batch of sauerkraut can keep for five to six years without spoiling or rotting, as long as it is covered by its own juice.”

This anaerobic process (fermentation) does more than just preserve the food, however. It also makes the nutrients inside the food more bioavailable. For

example, according to Dr. McBride, the amount of bioavailable vitamin C in sauerkraut is *20 times higher* than in the same helping of fresh cabbage!

“This is because in the fresh cabbage, vitamin C is bound in the cellulose structure and various other molecules, and our digestive system is just not able to cleave it off and absorb it. Lots of it goes undigested and come out right out of you. So despite the fact that cabbage may be very rich in vitamin C, a lot of it you will not be able to absorb. But if you fermented that cabbage and made sauerkraut, all the vitamin C becomes bioavailable,” she explains.

How to Reduce Chances of “Healing Crisis”

There is one precaution that needs to be discussed here, and that is the potential for a so-called healing crisis, or what Dr. McBride refers to as a die-off reaction, provoked by the massive die-off of pathogenic bacteria, viruses, fungi, and other harmful pathogens by the reintroduction of massive quantities of probiotics. It can significantly worsen whatever health problem you’re experiencing, before you get better.

The reason for this is because when the probiotics kill off the pathogens, those pathogenic microbes release toxins. These toxins are what’s causing your problem to begin with; be it depression, panic attacks, rheumatoid arthritis, multiple sclerosis, or any other symptom. When a large amount of toxin is suddenly released, your symptoms will also suddenly increase.

“If you’ve never had fermented foods in your life, you need to start very carefully and very gradually,” Dr. McBride warns.

She recommends starting off with just ONE TEASPOON of fermented vegetable, such as sauerkraut, with ONE of your meals, and then wait for a couple of days to see how you react. If it’s manageable, you can have another helping, and gradually increase your portion.

“But if the die off is too much, then you need to stop. Let the die off subside, and then have a tiny amount of sauerkraut, or even just a teaspoon of juice from it

first; not the cabbage itself. Then two teaspoons per day and so on, until enough die off happens in your body, and your gut flora has changed enough for you to be ready for having the cabbage itself.”

It's important to realize that besides containing massive amounts of beneficial bacteria, fermented foods also contain many active enzymes, which act as extremely potent detoxifiers.

“Healing goes through two steps forward, one step back, two steps forward, and one step back,” Dr. McBride says. “But you will find that the next layer is smaller. The die off and the detox will not last as long as the previous one... We live in a toxic world, and many of us have accumulated layers and layers of toxicity in our bodies. The body will clean them out, but you will find that each layer will last shorter and not be as severe... Eventually, you will come to complete, radiant health. You will feel 100 percent healthy, no matter how ill you were before.”

More Information

You can find more information on Dr. McBride's website: www.GAPS.me, and on her blog at www.doctor-natasha.com. She recently came back from Australia and New Zealand, where she trained 40 health practitioners to become certified GAPS practitioners. All GAPS practitioners are listed by country on her website.