

# Leaky Gut Syndrome

The digestive system is vitally important to health as it is the foundational root of our tree of life, and when this capacity to receive nourishment doesn't function as it should the entire rest of the body, mind, and spirit often has great challenges. The digestive system is deeply connected to the earth element, it is similar to the soil, it's the environment in which the entire organism lives within, contacts the world outside of itself, and receives life sustaining nourishment. And if the environment is toxic, then health cannot thrive as the nutrients cannot flow and the wastes cannot get out; it facilitates cellular metabolism which is essential for absolutely all life processes.

Many, if not most, of today's chronic and degenerative diseases have elements of significant digestive issues, and by getting our digestive systems right there is often a radical and profound shift. In our modern culture we are seeing a rapid onset of diseases that have never existed before at such numbers and intensity, and considering this rise in illness perhaps one of the most important conditions to explore is leaky gut syndrome. Many chronic diseases, maybe all, are rooted in chronic systemic inflammation that simply presents in different body systems. From heart disease, stroke, autoimmune conditions of many types, chronic pain, skin conditions, lack of mental clarity, to chronic fatigue and so much more, there is always a pattern of long term inflammatory responses at the root, and the digestive system is often involved. The inflammatory response is a healthy, essential, normal response, but causes great challenges when it is continually occurring.

Leaky gut syndrome is essentially an increased permeability in the gut wall. Things that normally shouldn't cross that barrier are allowed to cross. What happens in this process is that it triggers a systemic immune and inflammatory response as foreign materials that normally should not enter the body cross over this permeable membrane. This causes the body to respond to these foreign particles via the immune system that lines the digestive system; roughly 80% of our lymphatic tissue is located in the digestive tract. Critically important to understand is that this gut inflammatory immune response then sends signals to the entire immune system throughout the entire body causing a cascade of systemic inflammation. This can present in many different body systems depending on the individual, lifestyle, past history, and so on. This often causes the liver (which processes wastes and cleans the blood and fluids) to become overwhelmed and cause all kinds of body pain as the normal channels of circulation and elimination become obstructed, inflammatory and normal wastes from cellular metabolism spill into fluids of the body. Perhaps it's a bit like the shifting of a normal healthy flowing river into a swamp! And this gunk is felt in the body, mind, and emotions, and we commonly chase symptoms around without understanding the root cause. This buildup has to go somewhere, the swamp drains to a region, then the immune system creates further inflammation to try to clean up the unnatural stagnant obstruction, this is why so many different conditions can result from chronic inflammatory conditions, especially when the digestive system isn't fully functioning as it is the foundation of vital, the digestive fire combusts and transforms what we take inside, but if we can't receive and process food, fluids, and experience then it turns to stagnation. Leaky gut must be considered when there are chronic digestive issues presenting alongside chronic musculoskeletal pains and aches, skin conditions, or autoimmune conditions, as well as mental conditions such as chronic fatigue, anxiety, depression, insomnia, brain fog or headaches.

Another critical factor to keep in mind when dealing with chronic digestive system issues is the depth to which the nervous system innervates and mediates all digestive processes. We have a sympathetic and parasympathetic nervous system state, being activity and function and movement compared with rest and digest, and the entire digestive process is regulated and controlled by the nervous system. We must chew and secrete the proper enzymes in the mouth, then the right sphincters must open at the proper time, the stomach then secretes just the proper amount of enzymes, then when that is done the pancreas and the liver and gallbladder must act upon the foods in the small intestine. The digestive tract is coated with immune system tissue and signals are sent to the systemic immune system and body about what is

occurring in the small intestine and what nervous system response is needed. This is simply to say it is this weaving of the nervous and digestive functions that enables it to function as a unified whole, with each step in the process being overseen by our higher regulatory centers, which coordinate the timing of every single aspect of digestion and we simply cannot process food in a stressed state! This is perhaps a big part of the epidemic of digestive system issues in the modern world. There is also the now widely known concept of the neural gut. It is the idea that the capacity for mental processing and emotional states are deeply coupled with the health of the gut microbiome. There's actually more serotonin produced in the gut than there is in the brain, so just consider the impacts if our gut health is impacted. Depression, anxiety, and mental conditions are often rooted in a gut imbalance.

Again, most serious modern health issues have a fundamental disease process rooted in chronic inflammation, so we must ask why there is this constant inflammatory process rather than chasing the symptoms around and suppressing them. The entire digestive system is actually the outside of the body, and in an ideal state it is a semi-permeable membrane that chooses exactly what comes in and how it is received. We take life into the body, process it, assimilate it, understand it, and shed that which is no longer needed. In leaky gut syndrome there is a disharmony, there is a breakdown of the borders of self and non-self, the digestive system is the outside of the inside, it is the meeting place of the self with the world. This is why a huge amount of the immune system tissue resides here, where this border of what is allowed in must be carefully selected for and allowed in if it is safe and welcome. When there is porosity, anything and everything may flow into and out of a being without clear regulation, one cannot know how to make sense of the world. Things make it into the inside that should not be there, at least in the form that they are, and we react to these substances, and we learn that it is unwelcome and unsafe to take life into the body which often leads to further inflammation and digestive issues and further damage to the gut. The fundamental experience of taking life in should not be one of reactivity rooted in the belief that the world itself is hostile and dangerous, instead it could be one of trust and love and connection. This may be experienced as hyper-sensitivity or hyper-reactivity as it is difficult to differentiate what we take in, and we are asked to digest so much in our overburdened modern culture, never before have we had to consume as much as the modern human does. Consider all the sights and sounds, simply the act of driving is an extreme intake of information that needs sorting and processing, technology, frequencies, cities and loud sounds, there is so much to digest every day. Additionally our gut level instincts of simply being clear and knowing become very foggy when the microbiome is not healthy.

So what is at the root of the chronic inflammation in the digestive system? Firstly the strain and stress of our modern world put us into a state where tissue healing simply can't occur in general, so regulating the nervous system is of vital importance. Habitual use of steroid medications puts the body into a sympathetic state as well, but there are many other factors of course such as constant nervous system stimulants like coffee, stressful traffic, and loud city sounds. Regular consumption of processed foods and simple carbohydrates, and especially refined sugar are extremely inflammatory to the body; diet is often the root of the chronic inflammation. The inflammatory impact of sugar cannot be overstated, it spills into all the cells, and again regular long term inflammation slowly damages various tissues, such as the gut wall, especially when the sugars are in the gut microbiome and the immune system responds to them. Some sugar is delicious and a wonderful important food, especially in its more natural forms, but must be considered in any chronic inflammatory condition (most serious health disorders in our modern day).

One thing we clearly see in the modern day is an extremely common and inappropriate use of antibiotics and NSAIDs which very effectively damages the tissues and microbiome of the digestive tract. NSAIDs promote leaky gut syndrome by turning off the regeneration of the gut lining. Even without intensive antibiotic history, regular use of NSAIDs can lead to digestive tract porosity because simply normal living and digestive function causes wear and tear that simply needs continual maintenance repair. The function of antibiotics is to kill off organisms, they wipe life away, both the "bad guys" and our beneficial microbiota. It's very difficult if not impossible to be selective, we take them without much thought about it, but anytime

they are used serious gut damage is done. So much research is clearly indicating that our digestive function is the product of an entire ecosystem of organisms, there are 10 times as many organisms living inside of your digestive system than there are cells in your body and it is the health of this ecosystem that allows for the entire process of assimilating nutrients that you take in. If digestion is challenged and if the integrity of the gut lining and/or microbiome is damaged, it is critical to restore the gut wall tissues and reestablish the microbiome, and this healing commonly results in profound and systemic digestive system healing and vitality that comes from this.

## **Food sensitivities**

It is so common these days to have food sensitivities, certain substances that when the body connects with this food it causes an inflammatory response, essentially the immune system thinks that it is fighting an infection that needs dealing with. So if we think of chronic inflammation in the gut due to the continual presence of a food allergen plus any history of antibiotic use we have a great recipe for digestive system damage. Even if the antibiotic use was quite some time this damage has still been done and until it is intentionally restored it commonly lasts a long time, if not forever. Then combined with habitual NSAIDs use, steroids, and a stressful daily life, we have quite a perfect storm for leaky gut syndrome. Perhaps not everyone has the most extreme version of leaky gut syndrome, but some form of digestive system complaints occur in so many people these days. Again our digestive systems are considered the earth element in Chinese medicine, and just as the health of the earth is of fundamental importance for thriving ecosystems, we all must tend our inner soil to allow for resilient health. We must consider what is going into our digestive system, our inner ecosystem, and if we look at the way the earth is being cared for in our modern age it is no wonder we have an epidemic of digestive system issues. Chronic digestive issues over a long period of time inhibits healthy assimilation of nutrients and the body cannot sustain itself, and all manner of issues may result. It is important to note that damage to the microbiome is not only from Western antibiotics but can and often does result from misuse of botanical agents such as oregano oil, garlic, and other similar concentrated herbal products.

Food intolerances are clearly linked to a multitude of complex systemic diseases that often resolve when removing this intolerant food. For example IBS, chronic constipation and diarrhea, ulcerative colitis, autoimmune conditions such as fibromyalgia, chronic musculoskeletal pain, chronic insomnia, anxiety and depression just to name a few. Of course, these issues can be rooted in other disease processes as well, but chronic inflammatory systemic processes are often at the root. While digestive system lab tests have their place we must not lose sight of the holistic framework, we cannot just kill the “bad” gut microflora with antibiotics and harsh botanicals. Many of these bad organisms are simply opportunistic and when we correct the underlying inflammatory response and heal the gut lining the microbiome finds its balance. Certainly there is a time to cleanse in the right way and at the right time with the right supportive remedies as well, but we absolutely must also resolve the inflammatory causing agents. Food allergen tests are commonly confusing and misleading, if there is systemic inflammation and porosity then food allergen tests often show immune system markers for everything that one is eating! It is also absolutely vital to regulate your stress levels and get enough sleep to be able to put yourself into a calm place so that your parasympathetic nervous system can go about calming the systemic inflammation and healing the tissues.

Leaky gut is so so so commonly linked with food allergens because when your immune system is hypersensitive to a particular food (and especially when you are in a sympathetic state, consider eating on the go, arguing at dinner, while watching screens, not having the time to thoroughly chew) and the digestive immune system comes into contact with even a very very small amount of that food the body goes into a systemic broad reaching reaction. It sees this food as a foreign invader, so when we see digestive symptoms, musculoskeletal symptoms and mood and energy symptoms first and foremost it is vital to screen for a food intolerance. The most common intolerant foods that people have are gluten, milk and

dairy products, soy, eggs, nuts, corn, shellfish and sometimes the nightshade family plants. Again, the smallest amount of foods can trigger symptoms and then the immune system stays active and hyper inflammatory for weeks to months afterwards, so strict avoidance is absolutely critical. It is vital to not just ignore what the body is telling you. Perhaps an intolerant food is the root of your IBS, eczema, achy swollen joints, and brain fog, and by suppressing it with antacids, ibuprofen, and cortisone cream it may lead to an autoimmune condition or something else chronic and making you less than vital.

## **Elimination diet**

We eat so many things across the day it is hard to track it all and it comes and goes from time to time of course, so doing a three week diet diary is absolutely essential to see what is actually being eaten and then working from there. Food changes are difficult and uncomfortable, but elimination diets which then reintroduce the foods are really the best way to be super clear. Yes food allergen tests have their place but elimination diets of at least three weeks are by far superior. It is ideal to remove the food for three weeks at the minimum, preferably six weeks, and commonly if the food was the inflammatory trigger then symptoms will radically reduce within three weeks. There is gluten and dairy hiding in everything so you must learn to read labels, then reintroducing the food is best by eating a normal meal sized portion of the food daily for four days. If it's the trigger, you will know and probably feel terrible. Track your symptoms in a food diary including emotional and mental symptoms as well. We typically reintroduce one food at a time to be clear on which are the triggers and which ones are not.

It can be deeply uncomfortable and bring up a lot and you might be completely resistant to this and can't think how dairy, for example, could possibly be related to your wrist pain and low energy, but it definitely very well could be. There is still so much that we can eat!, it just takes a little bit of creativity and meal preparation. And there are still a ton of comfort foods available, we must make snacks and emergency foods that you will like to have on hand. And it's important to pay attention to food cravings when they come up during this elimination diet as well. Part of this is growth and healing is how to cook at home as well as shop. Typically avoid the center of the grocery store and shop along the edges, whole foods that you cook yourself versus processed foods are necessary for optimal health.

It's not only about taking things away, it's also essential to replace certain foods with healthier, less inflammatory and more nourishing options, think about all the delicious stuff you can eat instead! Try replacing canola and other vegetable oils that have a low smoke point (heat turns them into inflammatory agents) with coconut oil and avocado oil for cooking, and olive oil added on raw. Of course again it's a healthy seasonal balance of foods, but quality fresh nuts (old ones have often gone bad), vegetables and fruits are potent antioxidants (which neutralize excessive inflammation). Consider replacing some of your red meat consumption with more fish, chicken, or lamb, and infusing anti-inflammatory herbs into cooking is really helpful like turmeric, garlic, and rosemary.

## **Core protocol for leaky gut and food intolerances**

(see my Fullscript online dispensary for product links at a discounted price, link also found on website, [us.fullscript.com/welcome/heartradiance](https://us.fullscript.com/welcome/heartradiance))

Food intolerances and elimination diet – First and foremost, we must consider potential food intolerances. We cannot heal a leaky gut if there are constant inflammatory responses occurring in the digestive system. A full 3 week dietary diary informs us of potential allergens, then a systematic elimination diet is essential, we then intentionally and carefully reintroduce one food at a time to see if any cause inflammation.

Eating – Intermittent fasting can also be very beneficial even if it's just one day a week for 12 to 16 hours and perhaps a slightly longer fast every two weeks or so, it gives the gut a break from digesting to be able to heal. This doesn't have to be a water fast, it could be a broth and liquids fast. Eating at regular times is really

important, ensuring you are in a calm and restful state of mind when eating is essential. Eating meals versus continual snacking gives space to heal tissues.

Protein and fermented foods – It's essential to have adequate protein consumption and a balanced healthy diet to have the building blocks to restore. Fermented foods are great to maintain a healthy gut microbiome, but they are just not strong enough to deeply restore the gut after antibiotic trauma. Sometimes fermented foods can be hard on a weak and damaged digestive system, but the juice can be really helpful still.

NSAIDs – Ideally, we need to wean off the use of NSAIDs as they inhibit gut lining restoration.

Herbal teas – Herbal teas are absolutely essential in this restorative protocol. Teas over tinctures or capsules are needed because we need to directly coat and contact every surface of the gut wall. We use herbs that are soothing to the inflammation that heal damaged tissue, coat and moisten the inflamed tissue as well as support digestive fire when there is insufficient digestive strength, they also help to clear the systemic inflammation from the circulation to resolve the musculoskeletal system aches and resolve backed up channels of elimination. The formula is specific to you, but it is essential to be drinking them as a core part of your daily life. At least 1 quart of tea daily is needed.

Medicinal mushrooms – Medicinal mushrooms also importantly have their place and are commonly mixed in with the herbal teas. Medicinal mushrooms engage with and retrain a healthy immune system response in the gut lining. Think of mushrooms like the deep connected network that they are in the natural world, they link and connect the nervous system and digestion. They can be quite stimulating depending on the mushroom, start with a low dose and let's get you the right kind.

Bone broth – Daily consumption of bone broth (not stock) deeply nourishes, coats, and strengthens the gut wall, it is rich in nutrients that aid in this repair. Beef bones are more healing than chicken, but both are good. We can talk about how to make your own, or purchase a quality organic bone broth.

IntestiNew – I like a product called IntestiNew by RenewLife to also help heal the gut lining. It contains isolated glutamine, which can be irritating in rare cases, but also some good herbs. It's similar in function to the bone broth. Other collagen, glutamine, and glucosamine containing products are available too.

Probiotics/prebiotics – We must incorporate probiotics to restore and increase the gut microbiome, this includes the use of prebiotics. Fairly expensive quality probiotics are necessary, possibly three capsules with every meal for six months is needed, we need more at the beginning, and rotating your products every month is key. Prebiotics feed the probiotics so that they can slowly re-inoculate the micro flora.

Fish oil – High quality (essential, some fish oil causes more inflammation) regular use of fish oil really helps calm inflammation and provides important essential building blocks for tissue regeneration.

Other supplements – Some supplements that can be of extreme help are a high quality vitamin D3, magnesium (glycinate), and a good multivitamin all critically help build the gut wall.

One of the biggest hurdles to healing leaky gut with this protocol is cost, effort, and consistency. It takes time to heal the gut lining and it is of critical importance to know and accept that it has to be a regular continuous process to really make progress. Expect a six month journey for deep change if there is severe damage. Yes teas and probiotics can make big shifts, but commonly people take way too small of doses for not enough time.

And lastly, if you're interested to learn more I have written a personal reflection of my own healing journey with leaky gut. It explores some more mental, emotional, and spiritual experiences of what it means to me to live with leaky gut. I have come a very long way and leaky gut is no longer getting in the way of my fullest expression of vitality. See the article here: [heartradiancemedicine.com/personal-health-journey](http://heartradiancemedicine.com/personal-health-journey)

Blessings on your healing journey!