

A woman with long dark hair, wearing a white t-shirt, is shown from the chest down to the waist. She is holding her stomach with both hands, looking down with a slightly pained or uncomfortable expression. The background is a warm, out-of-focus wooden wall. The text "Pro Tips to Heal Leaky Gut" is overlaid on the left side of the image in a teal color.

Pro Tips to Heal Leaky Gut

What is Leaky Gut?

Twenty-five hundred years ago, when Hippocrates stated that “All disease begins in the gut”, he had an incredible intuition that only recently has been fully appreciated. At about 8 to 9 meters in length, the human intestine provides the largest interface between our body and the outside world.

The tight lining that covers the internal and external surfaces of our intestinal mucosa plays a key role because it basically negotiates the interaction of the intestine with its surrounding environment. This lining is made up of a single-layer of cells that are held together by tight junctions. Food particles that are fully digested and broken down properly can be transported through the cells in a controlled manner and delivered to the bloodstream where they can nourish the body.

So, a healthy intestinal track acts like a barrier between the food that travels through it and the rest of the body. It regulates water and nutrients absorption and prevents the entrance of pathogens and toxins into the track. The problem is when stress, toxins, chemicals, infections, and a diet loaded with processed foods, can damage the barrier integrity causing a breach. **This is called LEAKY GUT.**

A damaged intestinal track allows for large food pieces to cross the gut's wall before being break down for digestion. These pieces enter the cell, are rejected and pushed back to the cell surface to be recognized and destroyed by killer cell

Leaky gut is a phenomenon that affects people's health on many levels and can impact every system in the body.

So... HOW CAN WE RETURN TO OPTIMAL GUT HEALTH?

What are the symptoms?

Symptoms of leaky gut vary from person to person. Most people associate leaky gut with gastrointestinal distress like constipation, diarrhea, bloating, gas, Candida overgrowth (yeast), nausea, acid reflux, indigestion and food intolerances. However, people can have leaky gut with no digestive issues whatsoever.

Symptoms can manifest anywhere in the body as rashes, acne, rosacea, eczema, psoriasis [2], arthritis, joint or muscle pain and stiffness, fatigue, hypothyroidism, difficulty concentrating, anxiety, depression [3], headaches, allergies, asthma, excess weight, fibroids, frequent infections, insomnia, chronic coughing, hormonal imbalances and in many other ways.

A symptom is what tells a person that something is wrong. That's why with Functional Nutrition we don't treat symptoms but rather treat the ROOT CAUSE of the problem.

Healing leaky gut involves removing inflammatory gut stressors, removing bad and overgrown bacteria, replacing what is needed for proper digestion, repairing damaged tissue, repopulate with good bacteria, rebuilding a healthy and balanced gut, and finally, exploring how sleep, exercise and stress impact a person's gut health.

In short:

We REMOVE the FOODS and HABITS that HURT OUR GUT

We REPLACE with whole unprocessed foods

We REMOVE the bad bugs

We REPOPULATE with good bugs

We REPAIR the lining of your gut –repair leaky gut

We RELAX our judgmental thoughts about food and ourselves

Tips to Improve a Leaky Gut

Go Grain & Gluten Free



Despite the skepticism, during the past decade, there has been an impressive increase in popularity of the gluten-free food (GFD), now the trendiest alimentary habit in the United States and other countries.

Gluten is a general name for the proteins found in wheat, rye, barley and triticale (a cross between wheat and rye). Gluten helps foods maintain their shape, acting as a glue that holds food together - it's actually responsible for the strength and elasticity of the dough made from wheat flour - and that's why gluten is commonly used as an additive in processed foods for improved texture, moisture retention and flavor.

Wheat and gluten stimulate the release of the blood protein zonullin, that causes the opening of the tight junctions in the intestine lining. **This leads to intestinal permeability, allowing unwanted contents of the gut to leak into the bloodstream.** This triggers the immune system that respond by increasing inflammation and the release of chemicals that damage cells.

That is why gluten-free foods have been gaining popularity and more health specialists are recommending to either avoid gluten (specially if you have a gluten-related disorder such as Celiac disease, wheat allergy or gluten sensitivity) or to keep gluten consumption to a minimum.

8 MOST COMMON SOURCES OF GLUTEN

- **Bread:** Bread, rolls, buns, bagels, biscuits and flour tortillas.
- **Baked Goods:** Cake, cookies, doughnuts, muffins, pies, pancakes and waffles.
- **Pasta:** Spaghetti, fettuccine, macaroni, lasagna and ravioli
- **Cereal:** Breakfast cereals and oats are often raised and processed with wheat, so **unless they are labeled gluten-free, oat products will also contain gluten.**
- **Crackers:** Crackers, pretzels and chips that have **seasonings made with malt vinegar or wheat starch.**
- **Beer:** Beer and some liquors have added wheat.
- **Gravy:** Powdered gravy mixes, gravies and oven-ready meals containing gravy.
- **Soup:** Most canned and boxed soups use wheat flour as a thickening agent.

GLUTEN-FREE GRAINS

- **Quinoa:** Rich in fiber and considered a complete protein.
- **Teff:** Has a mild nutty flavor profile and is rich in iron, calcium, magnesium and zinc.
- **Flax:** A nutritional powerhouse, containing antioxidants, dietary fiber, protein, micronutrients and omega-3 fatty acids.
- **Millet:** A tiny round grain high in fiber and protein.
- **Sorghum:** Rich in B vitamins and minerals like magnesium, iron and phosphorus.
- **Buckwheat:** Not related to wheat even though wheat is in its name. It's loaded with protein.
- **Amaranth:** An ancient grain that has been cultivated for nearly 8,000 years.
- **Oats:** Naturally gluten free, but they are often cross-contaminated when processed in gluten-containing processing plants.
- **Corn:** Most corn is genetically modified and inflammatory.
- **Rice:** Great alternative to wheat but be careful because many rice products are high in arsenic. Arsenic in large amounts can be lethal, but even smaller amounts can lead over time to not only cancer and other health problems

Repair the Gut Lining with Collagen

Collagen is the main structural protein in skin, cartilage, bone and connective tissue, including the tissue that lines the gut. A good quality collagen supplement has amino-acids that help to heal the gut tissue. Add collagen powder to beverages like tea or broth to repair your gut and boost your protein intake.

Remember that quality here is key. Quality collagen comes from grass-feed animals or wild-caught fish, and it shouldn't contain any kind of fillers. There are many supplements out there that are not transparent about sourcing and production, this results in supplements that are not effective and have little to no effect on the body.

Add L-Glutamine to Your Routine

Glutamine is an essential amino acid with many functions in the body, it's also a building block of protein and critical part of the immune system. What's more, glutamine has a special role in intestinal health.

Glutamine is the number one nutrient in healing leaky gut because it supports and protects intestinal cells, it encourages the growth of new gut cells, improves the protective layer on the gut's surface, reduces inflammation and it helps maintain the barrier between the inside of your intestines and the rest of your body therefore reducing intestinal permeability.

The form found in foods and supplements is L-glutamine. The most convenient form of this important nutrient is a powder supplement, **once more quality is key**. Make sure to get a high quality supplement from a reputable company, it shouldn't contain any fillers or sweeteners.

Support Digestion

Poor digestion means that food particles are not properly break down into individual molecules to be assimilated in the gut barrier. This results in nutrient deficiencies, fatigue, food sensitivities, infections, inflammation, and other immune system reactions.

Good digestion needs adequate stomach acid, digestive enzymes, and bile. The safest place for most people to start is with the digestive enzymes which aid the break down of food in both the stomach and the gut, and are important for complete digestion and assimilation of nutrients. The three main enzymes involved in the digestion of macronutrients are amylase, protease, and lipase. If digestion by enzymes is incomplete, byproducts of partially digested and undigested food can cause symptoms of occasional gas, bloating, belching, or nausea. Supplementation with digestive enzymes can support healthy enzyme levels.

On the other hand, the gallbladder releases bile acids to emulsify fats. If it's not working properly, the body cannot assimilate fat-soluble vitamins, and the fats that are not break down pass through to the gut and affect the gut microbiome. People with impaired gallbladder function can consider gallbladder support supplements,



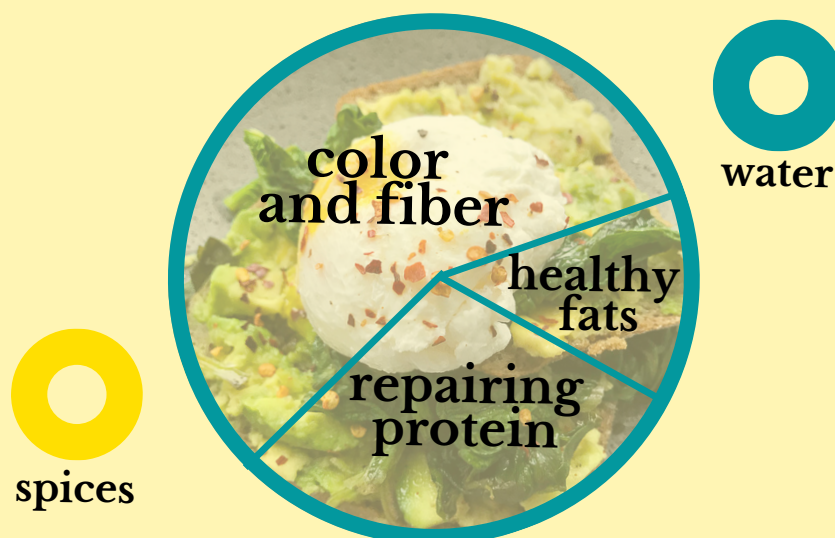
Avoid Pro-Inflammatory Foods

Inflammation is at the root of many health issues and the gut is no different. The inflammatory process manifest in the body with pain, heat, redness, and swelling. This process damages the lining and tissue of the gut, damaging the cells and the integrity of the barrier that separates the inside of the gut from the rest of the body.

Some foods contribute to inflammation throughout the body and affect gut health: Industrial seeds oils (like canola, corn, peanut, grapeseed, or soybean), processed foods stripped of nutrients but loaded with fats, packaged foods containing chemicals, dyes, additives and GMOs. And specially sugars, artificial sweeteners, high-fructose corn syrup and sugary foods that feed harmful bacteria that overpopulate the gut and result in an imbalanced gut.

It's specially important to avoid alcoholic drinks. While an occasional drink is ok, regular alcohol use damages the gut barrier, allowing harmful bacteria into the blood stream triggering an inflammatory response.

The Anti-Inflammatory Plate



Relax!

De-stressing is one of the most important parts of gut health. In many occasions, leaky gut is accompanied by depression, anxiety and brain fog or inability to focus, these are just symptoms of stress. No matter how many harmful foods you remove and how well you start eating, you won't be able to heal leaky gut unless you manage your stress.

Stress slows digestion and affects the gut's movements, resulting in poor nutrient absorption and damages to the gut barrier. Furthermore, stress releases cortisol, an hormone that increases inflammation and promotes gut imbalance by decreasing the bacteria diversity.

There are several ways to manage stress and you should find what works for you. A good way to start is to do a list of the areas of your life where you experience stress and think of ways to reduce the triggers that promote stressful responses. You can reevaluate your goals and priorities, giving yourself permission to take a break and say 'no' to things that are bringing you stress.

You can also make a list of friends and connections you can reach out for support. Remember that connection is key to reduce stress, this can be a connection to others, but also to animals or nature. Remember to practice self-care by taking time to relax and practice activities that bring you joy, such as dancing, laughing, walking, going to the cinema, meditate or practice spirituality.

PRO TIP: Practice 4-7-8 breathing. Inhale to the count of 4, hold your breathing to the count of 7, and slowly exhale to the count of 8. This type of breathing slows the breath, engages the diaphragm, calms the nervous system and sends the brain the message that you are no longer experiencing stress.

Remove Food Triggers and Add Healing Foods

Many people don't realize that certain foods are making them feel worse, triggering inflammation and hurting their gut. In order to find your food triggers you can eliminate some of the most common inflammatory foods to see how your body feels and test how these foods are influencing your symptoms. This is what is called an 'elimination diet' and it can be better done with the support of a nutritionist. Some examples are eggs, dairy, nuts, seeds, coffee and even nightshades like potatoes, tomatoes and peppers.

In the meantime, you can enjoy whole, nutrient rich foods that promote gut health such as vegetables, leafy greens, herbs, fruits, grass-fed beef, chicken, pork and turkey, olives and olive oil, avocados and coconut oil.

Some of these foods are great at promoting gut health. For example, coconut oil is made up of medium-chain fatty acids. These have antimicrobial and antifungal properties which help to balance the gut bacteria, support the gut lining. Other example are apples, which contain polyphenols, compounds that act as antioxidants in the body and can lower inflammation in the gut lining and support a healthy immune response.

Adding nutritious foods means that you are fighting inflammation. Vitamin D with K2 is key for immune health, lowering inflammation, gut barrier function and gut diversity. Omega-3 fatty acids are used in the lining of every cell in the body and are powerhouses in reducing inflammation. Zinc helps to stabilize the protective mucous layer of the gut. Vitamin A improves the gut barrier, including the functioning of tight junctions.

Adding nutrient rich foods promotes gut health in a variety of ways. Be sure to add a variety of whole foods to your plate and avoid processed and anti-inflammatory foods in order to heal your gut.

Foods for Gut Health



- Coconut oil helps to reduce inflammation, and improve absorption of fat-soluble vitamins like vitamin D, calcium and magnesium. An easy way to incorporate coconut oil is to use it to cook, but it can also be added to smoothies, soups and tea.



- Omega-3s have positive effects on beneficial gut microbes. Eating wild-caught fatty fish is a great way to add some Omega-3 to your meals, go for salmon, mackerel, anchovies, sardines and herring. You can also take a good quality supplement.



- Zinc is found on grass-fed beef and shellfish. Good vegetable sources include spinach, asparagus, beet greens, broccoli and shiitake mushrooms.



- Vitamin A can be found on cod liver oil, fish, sweet potatoes, carrots and spinach. Beef liver is an incredible source of vitamin A, with over 700% of your daily requirements in one serving.

- Pectin is a prebiotic fiber that feeds beneficial bacteria and support healthy bowel elimination. You can find pectin in apples! Grate or dice, and slow cook to release all of these beneficial properties. Adding a few dashes of cinnamon helps blunt the naturally occurring blood sugar impact on insulin.

Pro, Pre & Postbiotics

Probiotics are the beneficial organisms in the gut - that can also be found in supplemental form, fermented foods and in the soil. **Prebiotics** are the vegetable fibers that are the foods for probiotics. **Postbiotics** are produced after the beneficial organisms (probiotics) eat the prebiotics, postbiotics can be vitamins, fatty acids or neurotransmitters like serotonin.

Prebiotics fuel the growth of the beneficial probiotic bacteria that reside in the gut which help to keep harmful bacteria in check. All vegetable fibers are beneficial for the gut, especially plantains, green bananas, pears, apples, sweet potatoes and yams, carrots, radishes, asparagus, Jerusalem artichokes, jicama, leeks and onions.

Probiotics are the live organisms that create the beneficial postbiotics. Probiotics can help reduce inflammation, improve the gut lining, add to the microbial diversity and promote better gut function. It is good to reset the gut with different subcategories of probiotics such as soil-based organisms, which have been shown to decrease leaky gut, lower inflammation and decrease the side effects of antibiotics; they also may help in recolonizing the digestive tract.

Fermented vegetables like sauerkraut, kefir water or kombucha introduce an even greater diversity and quantity of beneficial organisms to help balance the gut and improve barrier function. Most probiotic supplements only contain 2 to 9 common strains. Whereas a tablespoon of fermented foods can yield as many as 28 different strains.

Do you know that a compound called butyric acid is produced when the probiotics break down prebiotic foods in the colon? **Butyric acid** is the preferred form of fuel for the cells that line the colon, and it serves to acidify the environment as well, making it harder for harmful bacteria to survive.

Probiotics Supplements. What to look for

Single strain vs Multi strain

- Research supports both.
- Multistrain is probably better.
- Chose s train specific for your condition.

High potency vs Low potency

- Generally high potency is better although potency seems to improve with multiple strains.
- Lower potency is good for maintenance: 1-10 billion CFU.
- High potency is better for treatment: Up to 900 billion CFU .

With or without food?

- Many strains can survive stomach acid.
- Some are enteric coated but it might not be necessary of strain is hardy and resistant.

Always chose live cultures

Keep refrigerated. Some strains are shelf stable but buy a reputable brand.

Sustained use is important for long term effect.

P R O B I O T I C



Select Only the Best Supplements

Supplements that support healing leaky gut may come in combination products, teas, tinctures or powders. One does not need to take all of these to heal the gut; however, these are known to support gut restoration.

Deglycyrrhizinated licorice (DGL) is an adaptogenic herb that increases the mucous membrane coating and protects the gut barrier. The flavonoids in DGL may also inhibit the growth of *H.pylori*, a harmful stomach bacteria that also reduces stomach acid.

Aloe vera juice is known to improve gastrointestinal symptoms and gut health. It fights inflammation, is very healing to the gut mucosal tissue, boosts beneficial bacteria and provides many vitamins, such as A, C and E.

Slippery elm stimulates nerve endings to secrete more mucus, which neutralizes acid to soothe the gut lining and provides antioxidants.

Turkey tail is an adaptogenic mushroom that cuts back on bacterial overgrowths in the gut, including SIBO (Small Intestinal Bacterial Overgrowth) and Candida.

Marshmallow root coats the digestive tract to protect against inflammation, and it supports the integrity of the tight junctions between gut cells.

Since some of the supplements mentioned can stimulate the immune system, be sure to consult your practitioner before adding anything to your supplement regimen.



Last but Not Least... Remember to Treat the Root Cause and not the Symptoms!

If you suffer from leaky gut, chances are you have other symptoms and underlying causes that can make it difficult to heal a leaky gut or that may be causing other digestive issues.

There might also be other contributing factors such as emotional eating, Candida overgrowth, IBS (Irritable Bowel Syndrome), parasite infections or autoimmune diseases. No doubt these tips will bring relief and improve your gut's health, but it's always good to work with your health specialist to make sure you are addressing the problem at its root.

A health specialist can also help you to tailor a meal plan that adjusts to your specific needs, goals, lifestyle and background. It can be very helpful to have an specialist to brainstorm solutions with you and support you with the food and lifestyle changes that you need.



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body*