

GUT MICROBIOME 101:

IMPROVE YOUR GUT HEALTH
TO IMPROVE YOUR IMMUNITY

MODULE 2 • BALANCED LIFE • WHOLE-PERSON PROGRAM



YOUR GUT AND YOUR HEALTH ARE CONNECTED

Did you know that over 70% of your immune system is located in your gut?

This fact alone highlights the importance of being able to trust your gut – not only for guiding decisions, but for keeping you healthy, too!

The gut microbiome, or the collection of microbes, bacteria, viruses, protozoa, and fungi in the gut, is nothing short of amazing. When the microbiome is balanced with good bacteria, it boosts immunity, prevents disease, and supports emotional well-being. Keeping your gut microbes happy and flourishing will help them help you, a beneficial relationship all around!

We've put together five actionable ways you can help your gut microbes, thus improving your gut health to improve your immunity, too.

Before you dive in, here are a few things to keep in mind. First, at IIN, we believe in bio-individuality, the importance of assessing whether a particular food or health practice is appropriate for your unique body. Just because something sounds good or seems like it should be healthy doesn't mean it's realistic, or even safe, to apply to your own life. Consider this: Humans share 99% of the same genetics, yet 10% or less of the same microbiome! Not all guts are created, nor will respond, equal! Think about each suggestion below and the ways it will work best for you.

Second, even though you might be motivated to dive all in, change is most attainable and long-lasting with small sustainable shifts. You may find it easiest to get your feet wet by trying one or two of the strategies first and then applying others over time.

FIVE WAYS TO IMPROVE YOUR GUT HEALTH TO IMPROVE YOUR IMMUNITY

1. Eat a rainbow of plant-based foods

Not only do colorful fruits and vegetables look beautiful on your plate, they're important for getting diverse sources of fiber, too! These different types of fiber contain microbiota-accessible carbohydrates (MACs), and they set the stage for diverse microbial populations in the gut. When diets lack fiber, beneficial bacteria are lost, and their health benefits are lost along with them. Dietary fiber, gut microbes, and the gut mucosal barrier are our bodies' superheroes. They work together to defeat the bad guys (pathogens) in your gut. With a diet full of varying fiber sources, you'll keep these superheroes strong!

How to incorporate more colorful foods into your diet:

- Take a baseline assessment of how many servings (fist-sized portions) of fruits and vegetables you're eating in a day. Track it for one week to get an average. Set goals to gradually increase the average number of fruits and vegetables you eat daily (bonus points if you track the number of colors eaten, too!).
- Choose two colored vegetables for at least one meal, such as sautéing green and orange peppers for a stir-fry or chopping up yellow squash and red tomatoes for a salad!
- When making a grocery list, write down the produce you plan to purchase by color. What simple recipe swaps can you make to include a rainbow of foods?

2. Pump up the probiotics (if they are a safe choice for you!)

Probiotics are microorganisms that provide health benefits for their host (you!). When it comes to immunity, some probiotics increase lymphocytes (white blood cells) that protect against infection and inflammation. Other probiotics speed up healing from infections, while minimizing inflammation-associated tissue damage in the body.

Probiotics can be found in foods such as kimchi, drinks such as kombucha, and dietary supplements. These foods and supplements are a great reminder to check in with your bio-individuality! Not everyone tolerates probiotic-rich foods (hello, bloating!), and they're actually not recommended at all if you experience immunosuppression or have a histamine intolerance.

If you're able to incorporate probiotics into your routine, start adding them to your diet slowly – a few small servings at a time – and be sure to discuss any probiotic supplementation with your healthcare provider first (especially if you have any gastrointestinal issues, such as SIBO or IBD).

How to incorporate probiotics into your diet:

- If you add milk to cereal, oatmeal, or smoothies, try adding yogurt or kefir with “live active cultures” instead.
- Use fermented vegetables, such as sauerkraut or kimchi, as a flavorful condiment for your meals.
- Use naturally fermented pickles instead of vinegar pickles in tuna salad or on sandwiches and burgers.

3. Pile on prebiotics

Once you've added probiotics to your diet, they'll need plenty of prebiotics to really help your gut flourish. Prebiotics are nondigestible food ingredients that essentially “feed” the probiotics (remember MACs? These are prebiotics!).

If your gut microbiome were a garden, the probiotics would be the flowers, while prebiotics would be the fertilizer, water, and sunlight that help them grow. By helping probiotics “grow,” prebiotics ultimately determine the bacterial composition of the gut. They also produce short-chain fatty acids (SCFAs), such as butyrate, that play a role in regulating the immune system by positively affecting immune cells.

Just like probiotics, not everyone tolerates prebiotics with ease. Some individuals (including those with IBS) are sensitive to the gastrointestinal effects that occur during prebiotic fermentation in the gut. Start with small doses of prebiotic-rich foods to assess your tolerance.

How to incorporate prebiotics into your diet:

- If you love the classic snack pairing of fruit and nuts, try a prebiotic-rich combo every once in a while. Prebiotic-rich nuts include cashews and pistachios. Fruits full of prebiotic fiber include apricots, dates, figs, and watermelon.
- Swap out one meat-based meal per week for a vegetarian dish made with garlic, onions, and legumes (all great prebiotic sources).
- Love tea? Sip on a cup of prebiotics with chicory root or fennel tea!

4. Stress less

You're likely aware that significant stress can cause unwelcome gastrointestinal issues, but you may not know that stress directly impacts gut microbes. These changes aren't for the better, and research has found that stress may lead to inflammation, possibly by reducing the amount of SCFAs. If you recall, SCFAs are quite important for immune health! Chronic stress can also alter the integrity of the intestinal barrier, leading to a condition known as leaky gut syndrome. Leaky gut increases inflammation and the risk for autoimmune health issues.

How to decrease stress for better gut health:

- Brainstorm a list of people, places, and activities that are comforting to you. Keep the list in a safe place and choose something (or someone) on the list to turn to when you feel overwhelmed.
- Check in with your breath. Are you holding it? Is your breathing shallow? If so, it could lead to increased stress and anxiety. Try this: Take a full breath in, feeling your belly rise. Pause, holding your breath for a moment. Open your mouth and exhale completely. Repeat as needed.

- Step outside! Nature is known for its mood-boosting benefits. Even if you only have time to feel sunshine on your skin for a minute or two, it's likely you'll still find some stress relief.

5. Play in the dirt

Dirt doesn't hurt, and here's why: There are nearly one billion beneficial microbes in one teaspoon of soil! One animal study found that soil exposure modifies gut microbiota, leading to anti-inflammatory and immune-supporting benefits. In fact, overly sanitized environments decrease gut microbe diversity, making another case for spending extra time in the dirt!

Dirt aside, exposure to a variety of natural – especially rural – environments supports microbial diversity and lowers inflammatory disease risk. It's been found that the prevalence of allergies is lower in individuals living in rural areas as they've developed an enhanced immune tolerance.

How to “play in the dirt” more:

- If you're a city dweller, set a goal to visit a natural area a few times per week. Dedicate this time for physical activity, reflection, or even as a weekend activity for you and your loved ones.
- Shift one of your daily activities to an outdoor setting. Set out a picnic blanket for lunch, catch up on work while sitting under a tree, or go for a walk outdoors instead of hitting the elliptical machine.
- Dig in the dirt! Even if you're not interested in starting a garden, potting a few plants on your porch or volunteering at a community garden are great ways to expose yourself to soil microbes! If you have children, let them play in the dirt, and have fun making mud pies alongside them!

TRUST YOUR GUT (MICROBIOME)

When practiced regularly, these ideas will go a long way toward supporting the health of your gut microbiome and your immunity. They'll also take the concept of trusting your gut to the next level! When your gut tells you that something isn't quite right, it can manifest as an emotion, such as fear, or a physical symptom, such as gastrointestinal distress. Listen more often to what your gut is telling you, and perhaps you'll naturally begin to make choices more aligned with health, wellness, and overall immunity.