

The Detoxing Duo

WITH NIC & DEL

The TDD Detox Course



Hi! We're The Detoxing Duo



We're Nic (on the right) and Del (on the left)! Our quest to optimize our health began after we were exposed to toxic mold which triggered all sorts of health issues. We spent 5 years healing with a root cause approach, not only addressing the physical symptoms but also nurturing the entire mind, body and spirit. We detoxed our bodies, healed our guts, balanced our hormones and regulated our nervous systems. We overhauled our entire way of eating, stopped using conventional hormone disrupting products and made the switch to a non-toxic lifestyle.

We chronicled our journey along the way ([@thedetoxingduo](https://www.instagram.com/thedetoxingduo)), empowering and inspiring our community and becoming thought-leaders in the health space. Our health journey also sparked a deep passion for functional medicine and nutrition, so much so that we pursued a masters degree and now have our own private practice helping others heal and thrive.

CREDENTIALS

M.S. in Functional Medicine and Human Nutrition

B.A. from the University of Southern California

Certifications in Smart Mold Assessment from the Indoor Air Quality Association (IAQA)

Specialized education in mold toxicity through Dr. Jill Crista's mold literacy program for practitioners

Welcome to the TDD Detox Course

In today's world, our detox organs are often overburdened because of how many toxins and chemicals we are exposed to on a daily basis. Our body's natural detoxifiers need some help.

What to expect in this course?

Why do we need to detox

Toxins in our daily life

How to detox

Food focused detox

Supplements for detox

Environmental toxicities - mold, heavy metals, MCAS, MCS

Other issues - thyroid, hormones

Functional testing

Why do we need to detox?

“You don’t need to detox, you have a liver”

While that may be true, studies show that when babies are born they have over 200 chemicals in their umbilical cords. In today’s world, our livers are often overburdened because of how many toxins and chemicals we are exposed to on a daily basis.

Our bodies are constantly being bombarded with chemicals

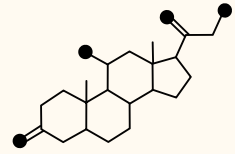
Every day, our bodies are exposed to chemicals – from our water supply, food supply, air quality, products we use and more. As these daily repeat exposures pile on, they contribute to our toxic load. Our bucket continues to fill and if we don’t support our bodies ability to drain the bucket, it can overflow.

Toxins in personal care products

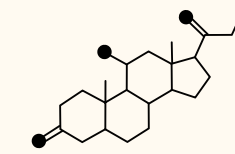
There is a huge lack of government oversight over personal care products and companies are allowed to use whatever adjectives they please when it comes to describing their products, even if it's blatantly inaccurate. Meaning that products branded as "natural" or "organic" could actually contain harmful toxic chemicals. Because of this lack of regulation in the beauty and personal care industry, it's very important to vet your products for toxic ingredients.

Below is a list of some of the most toxic chemicals to keep an eye out for:

- **Fragrance:** Companies are not required to disclose the ingredients that constitute as "fragrance" - its usually made up of tons of other toxic chemicals including phthalates
- **Parabens:** A toxic preservative and endocrine disruptor. Look out for any words that end in 'paraben'
- **Sodium laureth sulfate (SLES):** Can cause irritation and allergies
- **Pthalates:** Abbreviated to DBP, DEHP, and DEP. These are endocrine/hormone disruptors commonly used in nail products, and they hide in 'fragrance'



Hormone disrupting chemicals



Have you heard of endocrine disrupting chemicals (EDCs) like BPA and Phthalates? These chemicals have hormone disrupting effects because of a concept known as hormone mimicry. In short, it's when chemicals mimic the effects of hormones. This is especially problematic because they can bind to hormone receptors, blocking other hormones from being bound as they normally would and disrupting our delicate balance of hormones.

Bisphenol A (BPA), which is most commonly thought to be in plastic but is also used in food cans (as the inner coating), feminine hygiene products, receipts and even children's toys and clothing, has an estrogenic effect on the body- in other words, BPA can mimic estrogen and bind to estrogen receptors, blocking other hormones from being bound. This is why BPA can contribute to endocrine disorders including but not limited to infertility, PCOS and breast and prostate cancer.

The dangers of BPA have become pretty mainstream, which is probably why you've now noticed so many "BPA-free" options in stores. Unfortunately, these aren't any better as they've simply been replaced with chemicals (namely BPS and BPF) that have been shown to have virtually identical hormone disrupting effects as BPA.

So, how can you reduce your exposure to these hormone disrupting chemicals?

The key is avoiding repeated, daily exposure as that is how these toxins accumulate!

- ✓ Reduce consumption of canned food and packaged food
- ✓ Use glass and stainless steel instead of plastic (for food storage, water bottles and especially for cooking as chemicals are more likely to leach into the food)
- ✓ Decline paper receipts! (100% of people who handled receipts had BPA detected in their urine. (Erlich, et al. 2014, JAMA)
- ✓ Never heat up food in plastic or store hot food in plastic



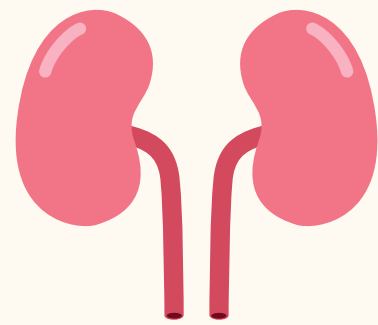
Feminine care products that are toxic and hormone disrupting

- Birth control: oral contraceptives suppress natural hormone production. We opt for fertility awareness methods instead.
- Conventional scented tampons: these often contain fragrance, dioxin from bleach and pesticide residues from non organic cotton. Swap these out for organic fragrance free tampons instead!
- Feminine wash: these contain harsh chemicals and fragrances that disrupt the natural balance of bacteria in your vagina which can contribute to infection and inflammation.

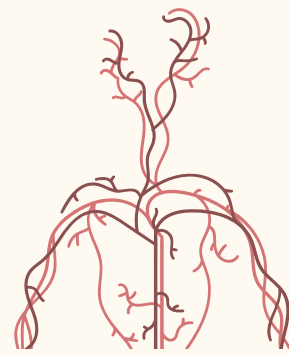


What are the primary detox pathways and how do we support them?

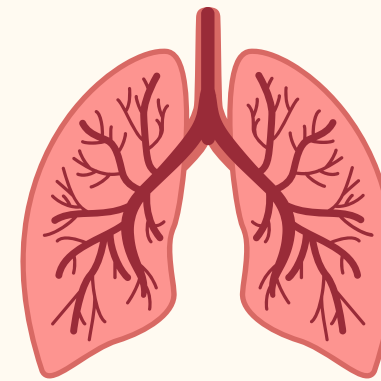
Our liver, kidneys, digestive tract, lymphatic system, respiratory system, and skin make up our detoxification pathways. All of these systems work to flush toxins out of the body. When we are dealing with a full toxin bucket, these pathways often turn sluggish and need some extra support.



kidneys



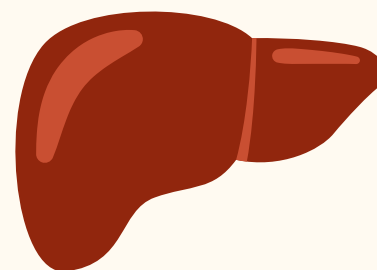
lymphatic system



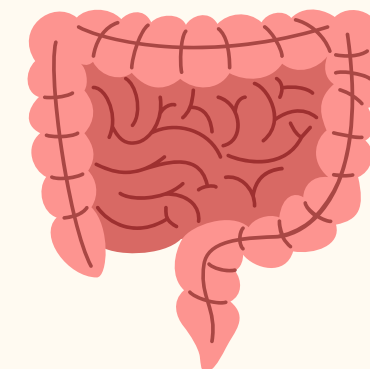
lungs



skin



liver



colon

So, how do I open my detox pathways?

There are so many effective modalities and supplements that are helpful for this.

Detox Modalities

Infrared sauna

Coffee enemas

Epsom salt baths

IV meyer's cocktail and glutathione pushes

Dry brushing

Lymphatic drainage massage

Castor oil packs

Daily, gentle movement



Using food to detox: food as medicine

Food First:

Before engaging in any supplement protocol, it's important to consider the power that food can have to act as medicine.

Different foods are rich in antioxidants, phytonutrients, detox abilities, repair abilities and more. Foods can be strategically utilized throughout the journey as a strategy to detox

Consuming a diet rich in antioxidants, phytonutrients and nutrient density is key.



Foods to focus on to boost detoxification

Certain foods can boost detoxification, protect the liver and stimulate bile flow. Eating a diet that enhances the body's ability to detox is critical in this day and age because we are bombarded with more toxins than ever. The diet should be robust in vegetables, aiming to consume all colors of the rainbow.



Some of the most protective vegetables include beets, radishes, broccoli, brussel sprouts, artichokes, microgreens, cabbage, and greens like arugula, watercress and dandelion greens.



Healthy fats found in avocado, extra virgin olive oil and fish are especially important as well. Butter, if well tolerated, can also be helpful for sealing the gut lining.



Green tea is rich in polyphenols and anti-inflammatory bioflavonoids and provides effective protection from different toxins.

Pathogen fighting foods

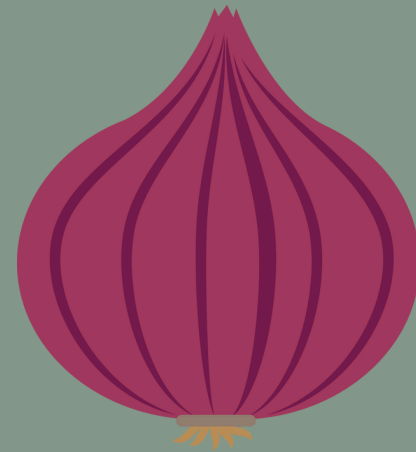
Certain foods have antifungal, antibacterial, antiviral and antimicrobial properties. Some of these include:

Garlic

Onion

Shallots

Leeks



Please keep in mind that many of these foods can also be high fodmap. While these foods are incredibly nutritious by nature, some individuals may be dealing with SIBO, so these foods can trigger their symptoms.

Food as binders: fiber

Different foods, particularly high fiber foods, can act as binders, helping to aid in the elimination of toxins. Utilizing foods that have binding abilities can be especially beneficial for those who are highly sensitive to supplemental binders. Aiming to consume fiber from a variety of fiber sources, including both soluble and insoluble and fermentable and non-fermentable, will ensure you have a variety of fiber to maximize your potential to detoxify.



IMPORTANT!

Aim for 25-35 grams of fiber a day!

Most of us are very deficient in fiber intake which can have all kinds of health consequences (sluggish detox capacity being one of them). When trying to up your fiber intake, remember to go slow (especially if taking fiber supplements) and drink plenty of water.

Foods to avoid when trying to optimize detox:

- Gluten
- Dairy (particularly processed forms)
- Corn
- Processed soy
- Processed foods and seed oils – including high sugar foods
- Alcohol



Foods like these are inflammatory in nature. They can impair your body's ability to detox effectively.

Detox Support Supplements

*a reminder that supplements can be found and ordered at our [Fullscript dispensary](#).

Detox Supplements

Liposomal glutathione

NAC

Vitamin C

Alpha lipoic acid

TUDCA or similar bile support

Phosphatidylcholine

Omega fish oil

Milk thistle

Liposomal glutathione is one of the most important supplements for opening up your drainage pathways.

Bind, Bind, Bind.

A helpful strategy in detoxification can be utilizing binders. Binders contain ingredients that literally bind and grab onto toxins in our body so that they can be excreted out. Different binders bind to different toxins, so it's important to diversify them.

Sometimes binders can be constipating. If you fall into the group of people who find these to be constipating, we would encourage you to consider a motility supplement. Our bowels are one of the key ways we detox and flush toxins out of our bodies, so we want to avoid constipation at all costs.



Titrate your dosage!

When we first start taking a binder, it is not uncommon to experience a detox reaction (or a “herx” reaction – more on that later). It is important to go slow and start with a low dose when taking a binder to gauge how your body responds. You should only increase the dose if your body is tolerating the binder well and your symptoms remain at baseline.

TDD favorites - binders

Below is a list of some of our favorite binders and detox support supplements. A reminder that all of these products can be found in our [Fullscript dispensary](#), which you have access to once you create an account.

Binders

GI Detox by Biocidin Botanicals

Ultra Binder and Ultra Binder Sensitive Formula by Quicksilver Scientific (this is especially helpful if you are prone to constipation)

Binder Blend by Return Healthy

Environmental toxins and their impact

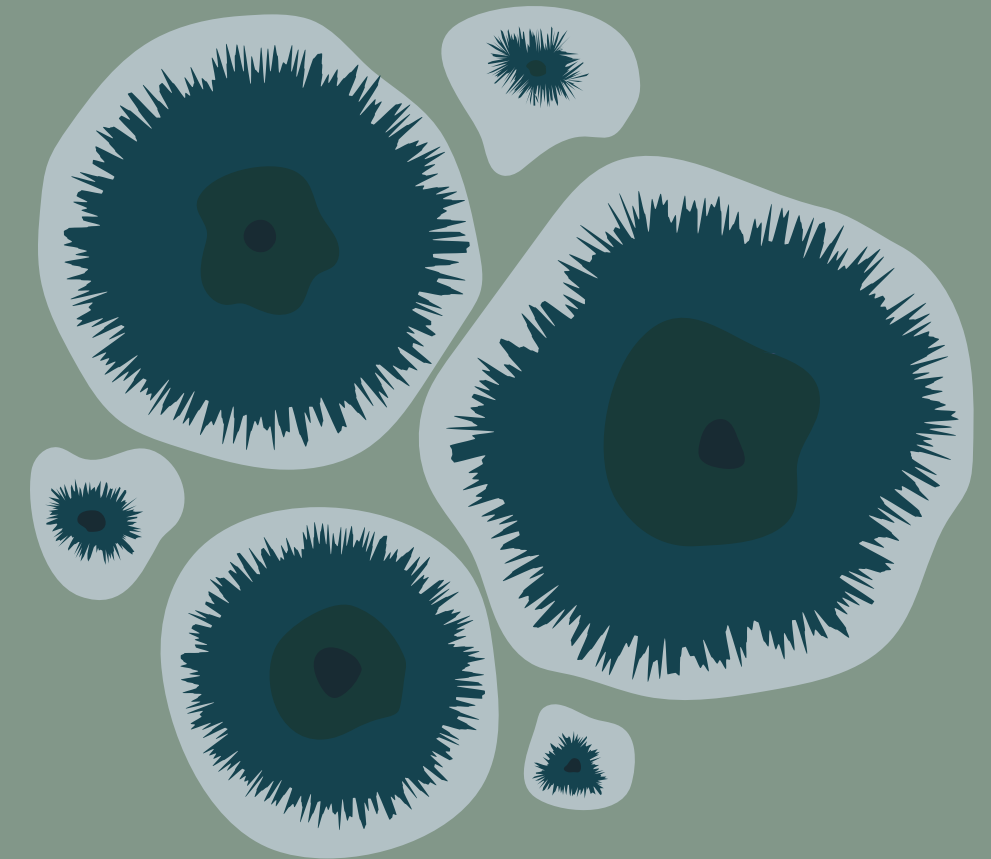
In this next section we will cover mold toxins, heavy metals, multiple chemical sensitivity and more. These environmental toxins are becoming more prevalent and problematic than ever.

Toxic mold and its impact on the body

Why is mold so harmful?

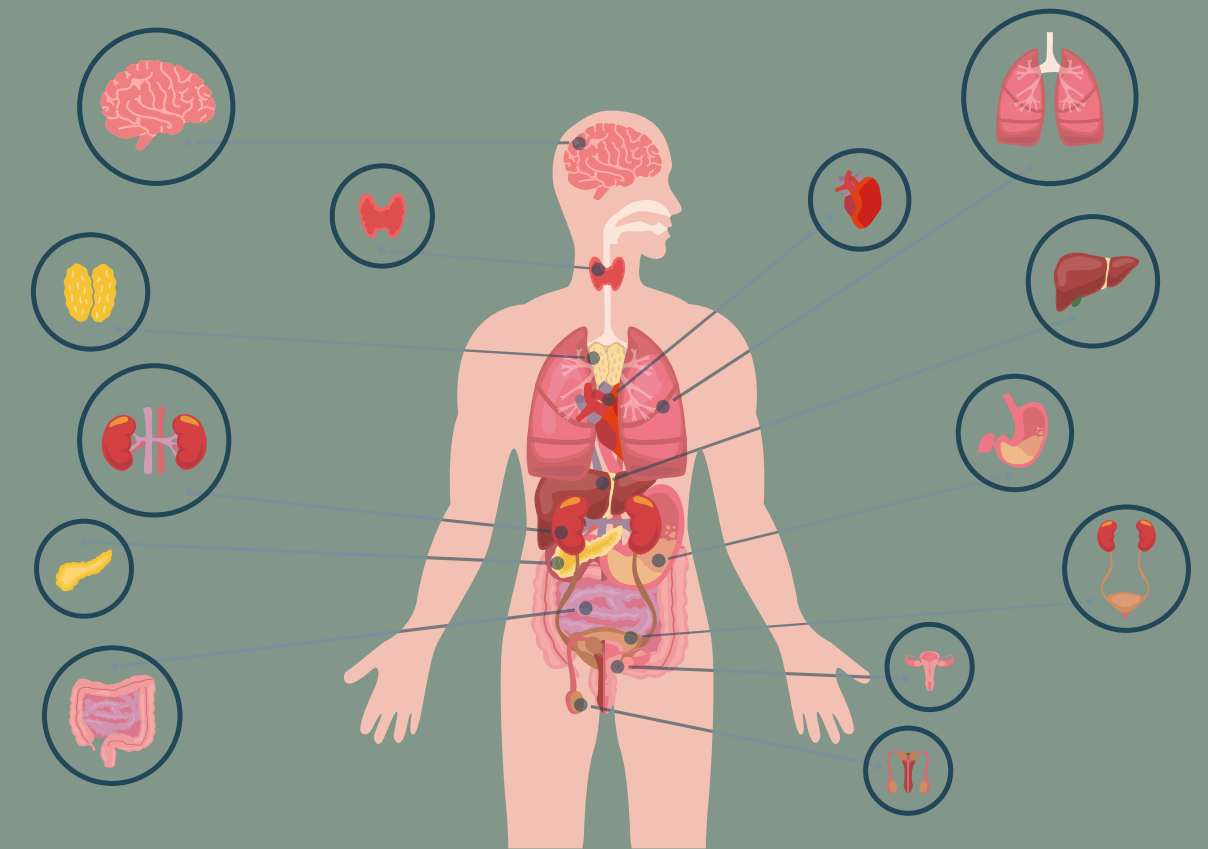
Largely due to MYCOTOXINS.

Mycotoxins are toxic compounds naturally created and released by certain different types of molds. The mycotoxins themselves are largely responsible for many of the more severe health implications that we often see with toxic mold exposure. With that said, it is important to note that not all molds are harmful and not all molds emit mycotoxins.



Mold toxicity is multi-symptom and multi-system

Part of why mold toxicity is so hard to diagnose is because of its multi-system and multi-symptom nature. It can cause 40+ symptoms across the whole body. Not only are most MDs not trained in environmental toxicity, but Western medicine tends to look at the body as independent organ systems, making it difficult to identify issues when spread across many systems.



How exactly do mycotoxins cause so many health problems?

Mycotoxins are like foreign invaders in your body - they reduce your immune system's defenses and create a lot of systemic inflammation in the body. When mycotoxins enter the body, they set off a response leading to the production of cytokines - immune messengers. This leads to an inflammatory cascade that affects systems like the immune system, neurological system, endocrine system, digestive system, cardiovascular system and more - thus causing symptoms across multiple systems.

One test that can be used to help elucidate whether mold toxicity is your root cause is the mycotoxin urine test (more on that later).



Mycotoxins are also lipophilic meaning they are fat soluble so they can bypass the blood brain barrier and the membranes of our cells and create a lot of damage, mitochondrial dysfunction and oxidative stress which leads to a wide range of symptoms.



Symptoms of mold toxicity:



Headaches

Migraines

Fatigue

Brain Fog

Light sensitivity

Chemical sensitivity

Excessive thirst

Sleep issues

Weight gain/weight loss

Diarrhea

Abdominal pain

Bloating

Tremors

Muscle pain

Joint pain

Tingling and nerve pain

Chest pain

Dizziness

GI Symptoms

Sinus congestion

Unusual pains

Night sweats

Body dysregulation

Skin rashes

Acne

Nausea

Constipation

And more...



Mold as a trigger.

Mold can act as a huge trigger for illness. It can wreak havoc on the immune system, allowing for other health issues to pop up. Below is a list of some of the most common health issues that often show up with mold toxicity.

MCAS

Multiple Chemical Sensitivity

Heavy Metal toxicity

Gastrointestinal Imbalances

Parasites

Thyroid issues

Nervous system dysregulation

Lyme Disease

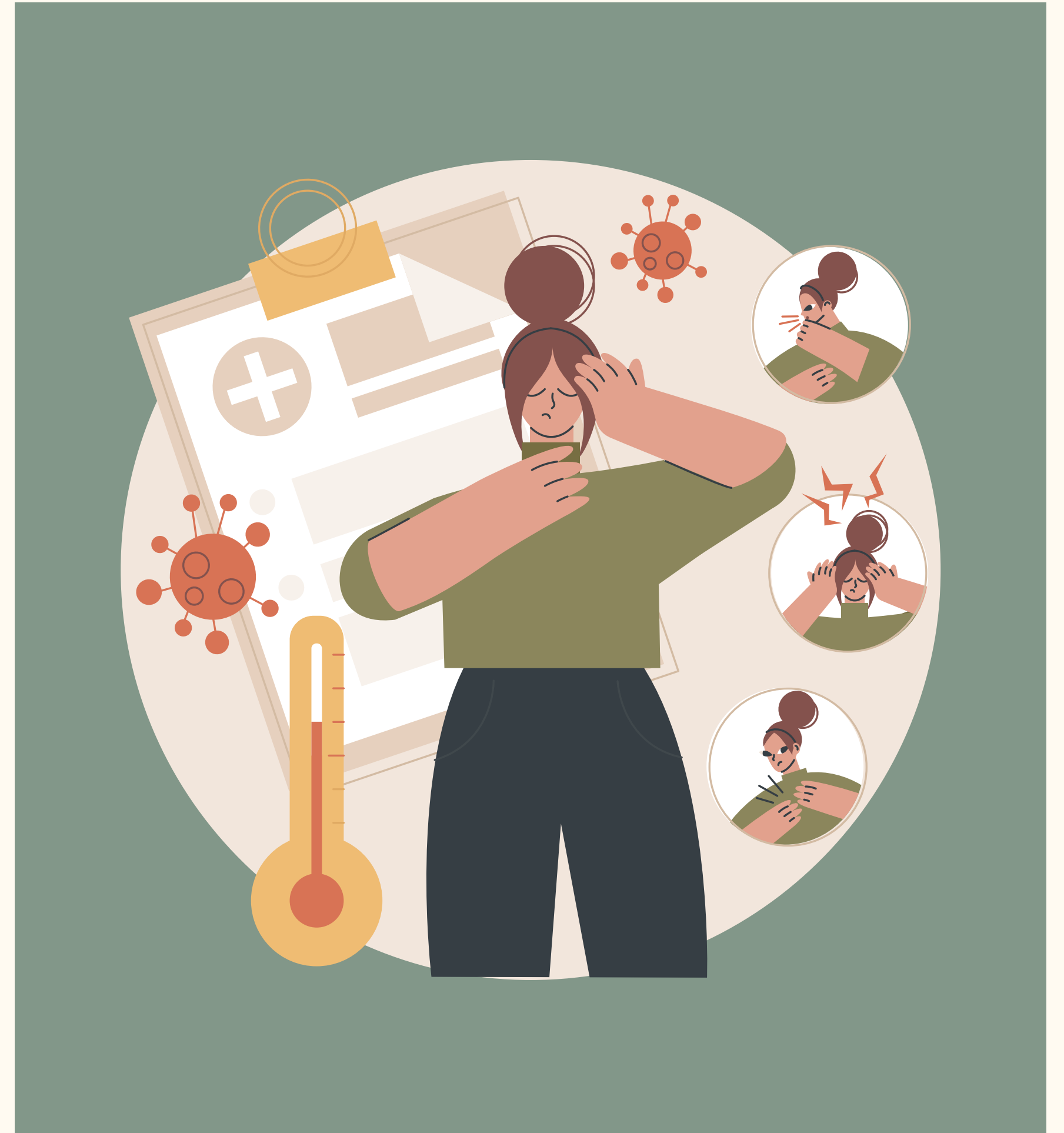
Autoimmune disease

Thyroid issues

Nervous system dysregulation

Lyme Disease

Autoimmune disease

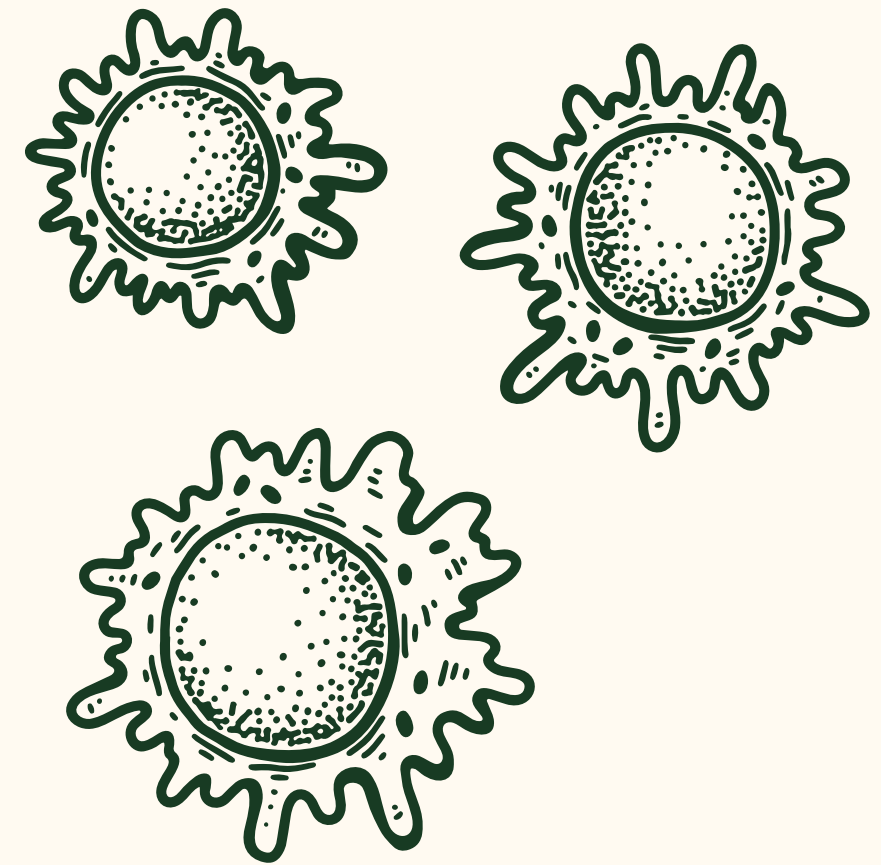


Mast Cell Activation Syndrome - MCAS

Mast cells are a normal part of the immune system.

However, when they become activated and overwhelmed by toxins, these cells mount an immune response and start over-reacting and getting triggered by more broad stimuli.

When this occurs, it creates a mast cell activated environment, this paves the way for individuals to overreact to external stimuli like sights, smells, lights and chemicals, creating more symptoms.



Low Histamine Diet

Consuming a low histamine diet when addressing MCAS is probably one of the most effective strategies. Given that there are so many factors that can influence histamine levels that we don't have control over, diet is an area where we can really make an impact. There are many lists and recipes online that you can follow for low histamine diets. Some of the foods to avoid are fermented foods, nuts, vinegar, dairy, alcohol, canned foods, avocados and more. Leftovers are also notorious for elevated histamine levels.



Supplements + Medications for MCAS

- **DAO enzymes (Histamine Digest, HistDAO)**
 - These can be particularly helpful when eating full meals. They contain enzymes that break down histamine.
- **Quercetin**
 - Quercetin is a very effective mast cell stabilizer. It is also a supplement that is generally well tolerated.
- **Ketotifen**
 - This pharmaceutical is another mast cell stabilizer which is a H1 histamine blocker. Patients can see benefit in taking small doses of this medication at bedtime.
- **Cromolyn**
 - Another pharmaceutical that clients have great success with. It is a mast cell stabilizer.

The supplements can be found at this [Fullscript link](#).

Multiple Chemical Sensitivity - MCS

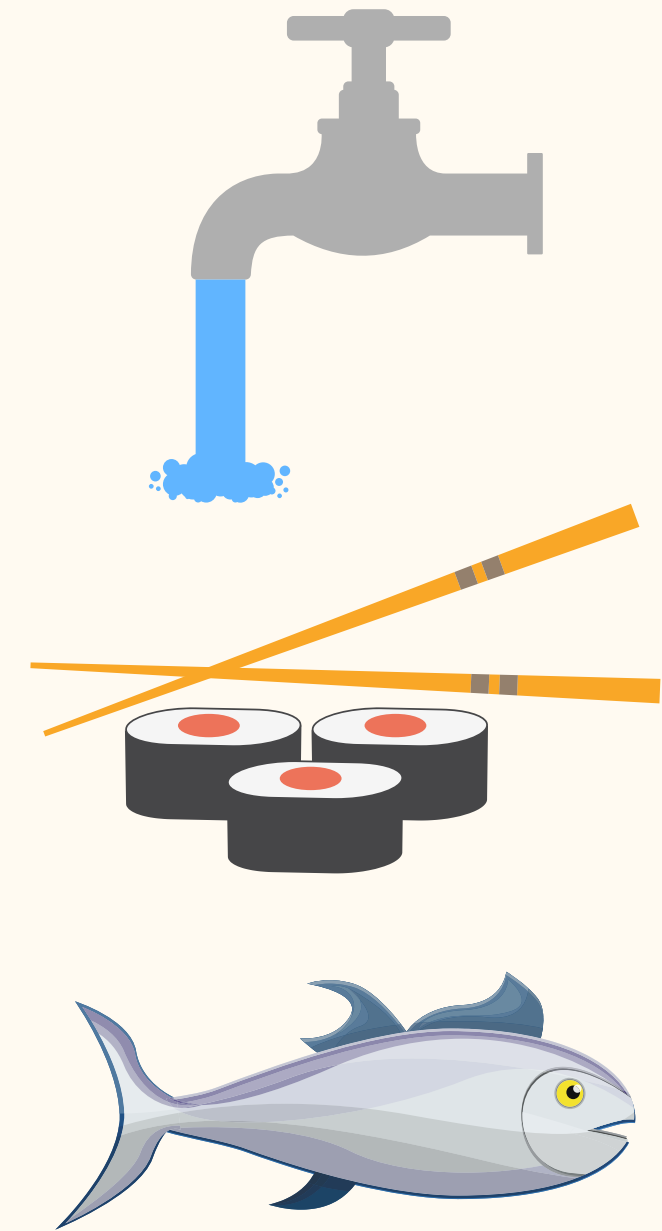
Multiple Chemical Sensitivity is when the body is overstimulated by sights and smells, mounting adverse reactions to even low amounts of chemicals. You may find that you are more sensitive to chemicals like air fresheners, perfumes, household cleaning products and more. Over time, once you have detoxed, these reactions should improve.



Heavy Metal Toxicity

We are exposed to heavy metals in our modern world more than ever – through our water supply, food supply and the products we use.

It may be helpful to ask your doctor about a DMPS challenge test to understand whether you may also be dealing with heavy metal toxicity. With this test, you are given a dosage of DMPS or EDTA (which are chelating agents that grab onto the heavy metals) before collecting a urine sample. The results of this challenge test will indicate levels of various different metals including arsenic, mercury, lead, nickel and aluminum. If your levels come back high, it can be helpful to pursue targeted heavy metal detox protocols.



If interested in pursuing a heavy metals urine test, please click [here](#).

Thyroid + Other Hormones

This next section contains a brief overview of some of the primary hormones that are impacted when exposed to many toxins. This information may inform potential tests and medications that you may want to inquire about with your doctor. The endocrine system (our hormone system) takes a major hit when exposed to toxins. Our immune system mounts an inflammatory response and this directly impacts our pituitary gland which helps regulate various hormones including our adrenal hormones, thyroid hormones, sex hormones and antidiuretic hormones. The typical hormone imbalance picture for those with a high toxic load is one of low adrenal, thyroid and sex hormones.

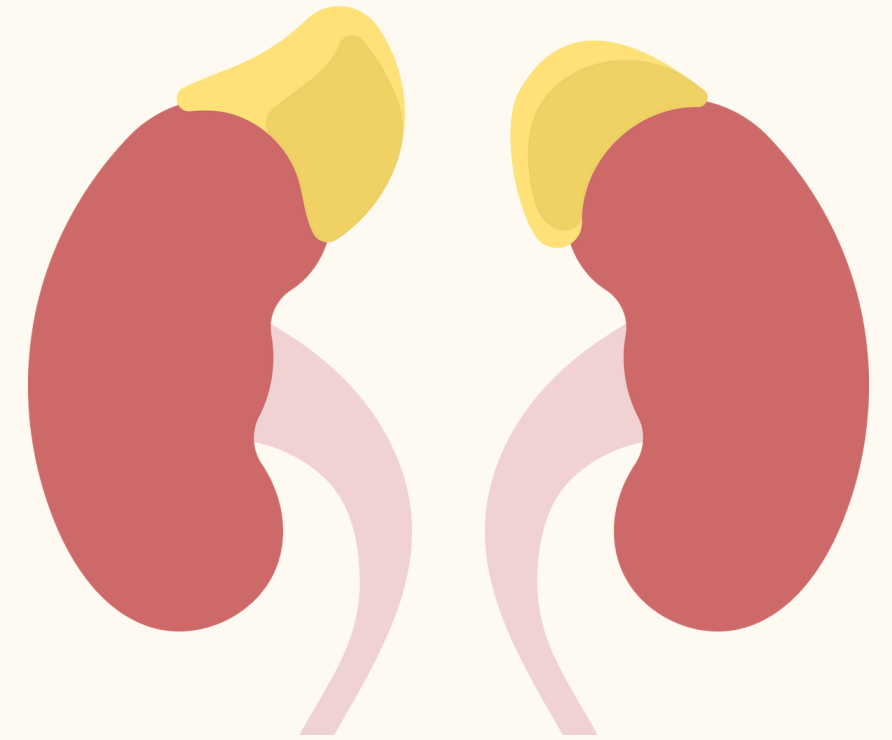


Adrenal Hormones

The adrenal glands are located above each of our kidneys. These glands dictate how we respond to stress. Physical stressors and emotional stressors can both tax the adrenal glands and lead to deficiencies in certain hormones like DHEA, cortisol and mineralcorticoids over time.

DHEA

DHEA is the precursor to estrogen, progesterone and testosterone. It is very common for patients with high toxic loads to present with low DHEA levels. The symptom presentation of a DHEA deficiency often looks like fatigue, cognitive issues, depression and low libido. You can have your doctor run your DHEA levels on bloodwork and if they are determined to be low for the reference range for your age and sex, it may be worth considering DHEA supplementation.



Cortisol

Cortisol is the stress hormone because it helps our body regulate itself when responding to stress. Patients may present with low or high cortisol levels. These levels can be measured with a salivary cortisol test where multiple samples are collected throughout the course of the day.

Mineralcorticoids

These hormones are also produced by the adrenal glands and they are responsible for regulating blood pressure. A client with low mineralcorticoids will likely present with low blood pressure, fatigue, dizziness or orthostatic hypotension (which is essentially dizziness upon trying to stand up). Low blood pressure readings can indicate a deficiency in this class of hormones.



Thyroid Hormones

Thyroid hormones help regulate our metabolism. A common thyroid deficiency in patients is hypothyroidism, which essentially means having a sluggish thyroid. The best way to test for and diagnose hypothyroidism is to run a variety of thyroid markers – not just thyroid stimulating hormone (TSH) which many doctors mistakenly think is adequate to diagnose hypothyroidism. See below for a list of these markers:

TSH
T3 (triiodothyronine)
T4 (thyroxine)
RT3 (Reverse T3)

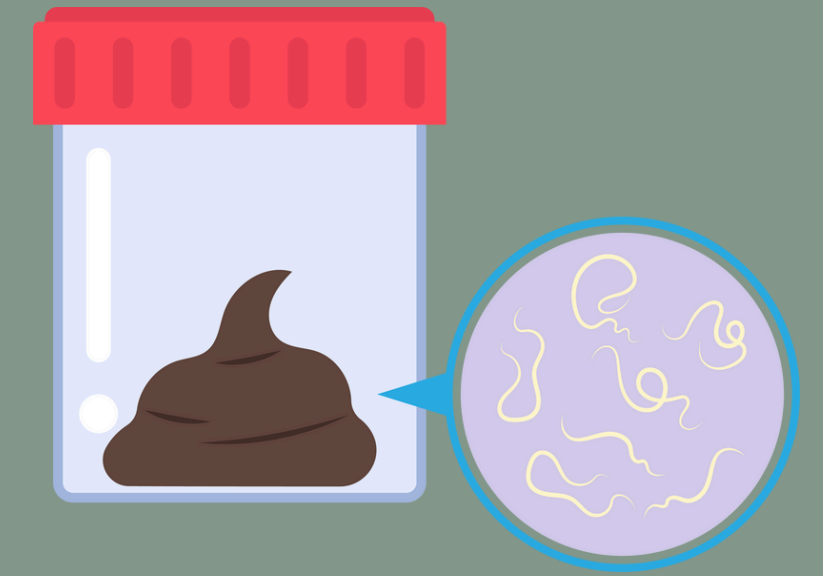


Depending on what imbalances show up, there are a variety of helpful medications that can be prescribed by a doctor to help correct these imbalances, reboot thyroid function and provide symptom relief.

A spotlight on stool testing

Our gut is a primary detoxification pathway. If we have a ton of GI imbalances and digestive symptoms, that could be a signal that our detox capacity may be compromised. In these cases, it can be helpful to run functional testing like a GI-MAP or GI Effects which is a stool test that gives a comprehensive look at gut function. With these results, the client can work with a practitioner to create tailored treatment protocols to eradicate pathogens, reinoculate the gut microbiome and repair the gut lining which altogether will optimize your detoxification. We also take on gut health clients, interpret stool testing and come up with personalized treatment protocols for gut healing.

If interested in pursuing one of the above stool tests, please click on the corresponding link for either a [GI Map](#) or a [GI Effects](#).



Functional Testing

Functional testing is one of the most helpful strategies in assessing your toxin load. There are various different types of testing that you could do

- If interested in pursuing a GI Map or a GI Effects.
- If interested in pursuing a heavy metals urine test, please click here.
- If interested in pursuing a mycotoxin urine test (which can be used to help determine if mold exposure is an issue), please click here.

If you want to work with us to interpret results for any of the recommended functional tests in this course, you can reach out to us at nicanddel@thedetoxingduo.com.

