



5 Steps to Restoration

Growing Great Gut Gardens

Where to begin in the process of restoring balance and regaining health of your digestive system.

So you've read Growing Great Gut Gardens reference document. You may be wondering "so now what do I do with all of this information?"

This article will give you an outline of how to pull all of that information together to begin the process of getting your digestive system back on track with your own personalized plan.

As you may of already determined, this isn't a 'one size fits all' solution. Everyone's digestive system is as unique as their fingerprints so what may have worked for a neighbour or girlfriend, may not be the solution for you.

Depending on your illness and the amount of damage, you can also expect this process to take at least 6 months, and sometimes, up to 2 years before your systems are fully recovered and healed. No, this isn't an 'instant fix', it is a long term solution. Understand that for the most part, these are lifestyle changes and not something

that is dabbled with until you begin to feel better and then abandoned for old habits.

Change is difficult and takes time - and often with multiple attempts, tweaking the process each time as you finally find your 'new normal'. It is a simple yet harsh reality. Having a non-judgemental and understanding support network during this process will greatly aid in reaching your goals and diminish the frustration.

Step One: Rebalance & Relax

In many functional medicine manuals, if this step is even written about, it is the last step and it is only given a passing mention. This is unfortunate because rebalancing and relaxing is key to the success of all other steps and so, ought to be given quite a bit of time and attention, as you build your personal plan.

Stress plays a role in the complex relationship between the human micro biome and intestinal barrier function. This barrier decides what gets into the body and what stays out. It has been shown in studies that the types of stress which trigger cortisol, has a negative impact on how well this barrier does its job, and has an impact on gut microbiota composition. Both of these elements work together to keep us healthy.

Time used to be marked by the seasons and the position of the sun in the sky. The Industrial Revolution, and resulting cultural shift, paved the way for the Digital Revolution which has changed our lives immensely in terms of how we see, mark and use our time.

Disconnection from nature and nature's pace can leave us continually feeling frazzled and out of synch with our deepest selves. Researchers in the new field of interruption science report it takes an average of twenty-five minutes to recover from a phone call and these types of interruptions come every eleven minutes - which can leave us feeling like we are never 'caught up' with our lives and work.

Our emotions and belief systems are influenced in part by the media we consume and the time of day we consume it - this includes videos, music, radio commentary. Today's 24/7 media cycles can be quite negative. This type of ongoing stress impacts



Everything is connected,
everything changes - pay
attention. - Jane Hirshfield

circadian rhythms and deep sleep cycles, which in turn, affects the integrity of our micro biome.

What can be done? Keep a time journal over a period of weeks. How many hours and minutes are you spending outdoors? How many hours and minutes are you spending indoors? How many of those hours are in front of a screen of some type?. How many hours of good quality sleep are you getting a day? How does your time journal change with the seasons? Where might there be an opportunity to change a couple of current habits? Is there room to take a weekly digital holiday from all devices for a set period of time? When and where do you need to be most protective of your sleep? How can unnecessary interruptions be minimized?

Time poverty is a stressor. The current perception for most women is that there isn't enough time for everything: work outside of the home, work of maintaining a home and other responsibilities (financial, legal, social/political issues), all aspects of meal preparation, our life partners, children, friends & community, commuting, traditional & online communications, personal time (exercise, meditation, restorative activities).

Where are there opportunities for saying 'no' to what no longer serves you and only saying a wholehearted 'yes' to what invokes gratitude and brings you joy, peace and/or love?

Laughter is a great stress reliever and immunity booster -especially when dealing with things that are out of our control to change. Consider new ways to bring more laughter into your day - jokes, comics, podcasts, radio shows, songs, and taking time to play more often. Laughter is a path to shared experiences and increased positive interactions.



The destruction of our inner ecosystem surely deserves more attention as global populations run gut-first into the buzz saw of globalization and its microbial scrubbing diet. - Jeff D. Leach

Step Two: Remove

This step is provocative and can immediately bump us out of our comfort zones. Look at both your foods and your environment to find what needs to be taken out. This begins with carefully reading ingredient labels and is followed with, and what may feel like, hard choices.

There will likely be resistance - both internally and from family/friends. Know that this is a normal reaction from choosing to

abandon the status quo and question assumed habits and traditions. Have an honest look at where and why you may be resisting specific changes when resistance does emerge.

If you have taken the step to do allergy and/or Elisa testing, refer to your report and remove all flagged food items from your home. It isn't a waste of money to give or throw away food items that undermine your health.

Locate and remove all sources of glyphosate from water, food, and supplements. This will require some detective work.

Using a highlighter and/or magic marker and identify free sugars, additives, preservatives, colourants and stabilizers on remaining boxes and packages in your cupboards. Learn what these ingredients are, if they are a GMO derivative, and research the effects on human and animal health. Make a running list of how often these items appear in your food choices. Will these ingredients, if left in your diet, contribute towards your health goals?

Examine your eating habits. Where are you eating - in the car, at your work desk, over a sink, on the couch...with a device in your other hand? What are the stories you tell yourself with these types of behaviours? Do you believe that these types of habits contribute, detract or are neutral for your health? Remove the habits that do not clearly support your goals.

Consider your cookware, food storage containers, anti-bacterial hand soaps and kitchen cleaning products as sources of harmful chemicals that are known to be gut biome disruptors. How we choose to cook, store and clean up after our meals has a direct impact on our micro biome and our overall health.

Step Three: Replace

Make a list of what is missing - sleep? digestive enzymes? vitamins? minerals? nature? If you are unsure of what may need to be replaced in order to improve your health, this would be the stage to reach out to a professional. There are nutritionists and naturopaths that can help you with this.

Easier replacements to start with might be:



The human-microbial super organism is a vast ecological system, subject to the same rules of resistance, resilience and balance as any ecosystem on the planet.

Look up this year's list of the dirty dozen from the Environmental Working Group. Whenever possible, purchase your produce grown to organic/permaculture standards, and as local as possible.

Consider leaving conventionally grown produce, found on the dirty dozen list, on the grocery store shelf.

Replace your grocery store with real life farmers. Ask friends on your social media platforms where to find nonGMO/glyphosate local sources of eggs, cheese, meat, fruit and vegetables. Some farmers may even have the summer bounty frozen for out of season purchase - ask!

Research has determined that grass fed/pastured meat is a better product than conventional confined animal, GMO/glyphosate grain fed, meat. Consider consuming less meat as part of your personal plan.

In Canada, GMO grains are not labelled. Conventional farming uses products like Round Up with glyphosate for weed control and desiccation. This gut biome disruptor/carcinogen is found in Canadian grains, pulses and seeds above allowable limits. Replace conventionally grown GMO grains and flours with organically grown products.

Most tap water in Canada is safe to drink but it isn't free from contaminants like glyphosate that can undermine your health goals. Have chlorine removed from your drinking and cooking water by having it sit in the sunlight for 24 hours to off gas or using inexpensive Brita filter products. Consider upgrading your water filter system to remove other chemicals and contaminants.

Replace conventional dairy products with organic dairy. Conventional dairy coffee cream, yogurts and cheeses have numerous unnecessary ingredients that act as fillers, thickeners, stabilizers and are also known gut biome disruptors.

Replace some starchy vegetables with a wider variety of greens. Aim for 9 cups of herbs & vegetables per day. If you are eyeballing servings, one cup is about equal to your fist (before cooking or blitzing in a smoothie).

Replace screen time with things like bike rides, outdoor walks/runs, gardening/landscaping.



Eat dirt, not too much, mainly with plants, preferably some of them fermented.

Step Four: Reinoculate

Repopulate with prebiotics and probiotics daily.

Prebiotic sources of recumbent starch are cooked and cooled rice, potatoes & oatmeal which intestinal bacteria convert to butyrate for food. Another source of butyrate is grass fed butter.

Prebiotic food grown in local soil using organic/permaculture practices are: asparagus, apples, burdock root, garlic, dandelion greens, onions and mushrooms.

Food sources of probiotics are unpasteurized fermented and cultured foods like: brine pickles and lacto-fermented vegetables, rice miso, sauerkraut, kimchi, water keifer, kombucha, traditional cured Greek olives, raw apple cider vinegar. These items provide both prebiotic food for gut bacteria, as well as, a new shipment of transient bacteria for gut biome diversity.



make friends with your microbes
& eat lots of green shit

Step Five: Repair & Replenish

Supplemental supports when needed at the right amount, for the right condition for the right length of time. These would include things like: stomach acid supporters, bitters, herbs, medicinal teas, vitamins, minerals and digestive enzymes. Unless you have extensive experience with some of these products, you will likely find it useful to work with a professional to help guide and monitor your progress.

Repair with demulcents like ground and/or sprouted plantain seeds, chia seeds, flax seeds, aloe vera and slippery elm - all mixed with water. Bone broth and gelatine (contains glutamine) made with grass fed/pastured animals are great intestinal lining supporters.

Replenish nutrients that are in demand like magnesium, zinc and sulphur. Other nutrients that can offer assistance are: turmeric (curumin), manganese, vitamin C and vitamin D.

Zinc is necessary in maintaining the gut lining, immune system and synthesis of serotonin. By the way, glyphosate chelates zinc and effects the protein conversion of the amino acid tryptophan, which then impacts serotonin and melatonin synthesis. Serotonin is



Ditch glyphosate, it's evil.

created in the gut and is also needed for melatonin synthesis. Sleep cycles, appetite and mood are affected by these 2 hormones and so by default, are impacted by low levels of zinc and tryptophan.

Bones, teeth, hormones, nervous and cardiovascular systems, well-functioning detoxification pathways depend upon magnesium. Serotonin depends on magnesium for release and reception in the brain. Glyphosate blocks the absorption of magnesium.

If farm soils are well-mineralized, leafy green vegetables, seeds, tree nuts and whole grains are fairly good sources of magnesium. Foraged foods like nettles (860 mg per 100 grams) and chickweed (529 mg per 100 grams) are excellent options.

Gut disorders can severely limit the amount of magnesium that the body will be able to absorb. Epsom salt baths are the best way to get the most absorption of magnesium and sulphate at the same time.

Sulfate synthesis is also disturbed by glyphosate. Replenish dietary sources of sulphur from organic sources of: onions, garlic, cabbage, dandelion greens, broccoli, eggs, chicken, liver, shellfish, oysters, scallops, mussels, real cheese.

Glyphosate binds manganese (Mn). Lactobacillus, depend critically on Mn for antioxidant protection. Reduced gut lactobacillus leads to overgrowth of the pathogen Salmonella (which is resistant to glyphosate toxicity) and Mn plays a role here as well.

Replenish manganese with: cloves, oats, brown rice, chickpeas, spinach, collard greens, beet greens, pineapple, pumpkin seeds, rye, barley, cinnamon, raspberries