

From the author of
"Stop Fighting Cancer and Start Treating the Cause"



The 7 Phases of DETOXIFICATION

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The 7 Phases of Detoxification

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The 7 Phases of Detoxification

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Published by

Conners Clinic

(651) 739-1248

ConnersClinic.com

shop.ConnersClinic.com

courses.ConnersClinic.com

Illustrations by Grace Kocher

Typesetting by Dustin Ranem

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INTRODUCTION

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Detoxification is not only a key concept in natural health but also an essential physiological process that determines life expectancy. To the extent that a person's detoxification pathways are compromised, they slowly die. Even if we could live in a bubble of purity, cellular processes continually give off waste that needs to be eliminated.

Recently, there has been a strike/walk out of the trash collectors in New York City. As I write, garbage is piling up and the city is becoming engulfed in waste. I saw a video of protestors throwing bags of garbage over the fence at the mayor's home; it was rather funny. If we could picture our body as such a city, with debris produced by normal living needing to be carried away, then we might begin to understand the role of detoxification.

Sources of physiological litter are not limited to what our bodies produce in normal, daily function. We need to eat and breathe and touch things throughout the day. As we encounter chemicals, things that absorb (enter our bloodstream) need to be assessed by their potential need or harm, and then either used productively or thrown into the garbage.

This process of throwing things into the garbage and the proficiency of our sanitation department is detoxification and, in this booklet, I describe the seven main mechanisms involved. I hope that the reader will better understand the complex physiology involved and be more equipped to help themselves facilitate the processes.

Normally, when practitioners discuss the "Phases of Detoxification," they are talking about the three phases of liver

detoxification. However, if the ultimate purpose is to remove toxins from the body, we need to expand upon these steps. Therefore, I've coined the term, "Seven Phases of Detoxification" (Phase 0-6) and tell patients they had better begin with phase 6 and work backward. I'll try to thoroughly explain this in this booklet.

What Are We Detoxifying?

Whatever is absorbed through the skin, injected into the tissue, crossed through lung air spaces, or passed into the blood during digestion that cannot be used by the body needs to be removed. Gasoline fumes that you breathe enter your lung alveolar cavities and some of these molecules pass into the bloodstream.

Herbicides sprayed on your lawn encounter your bare feet, some atoms gasify and enter your lungs, chemicals run off with rain into your drinking water and need to be processed through your liver. Dyes, flame retardants, and detergents in your clothing can absorb through the skin along with lotions, soaps, and fragrances, with their multitude of cancer-causing chemicals. The list of toxic sources is seemingly endless.

Recently I interviewed Brian Vaszily¹, a specialist in exposure to household toxins, and I found it shocking that the European Union has banned nearly 1,300 different cancer-causing toxins used in skincare products that are legal to use in the United States. This is a staggering statistic, especially when we are simply talking about skincare products. I think it may be safe to say that our liver is overloaded.

¹ Read, watch, or listen to the interview at <https://www.connersclinic.com/24>

What We Do Not Detoxify Becomes Us

When we begin to understand the process of how we rid poisons from our bodies, it's easy to grasp the fact that a percentage just can't be removed. Once it's in the blood, a toxin circulates to the liver where, hopefully, it can be accepted and processed out of the body (more on this later.) However, if the liver has reached its current capacity (due to overall load or other limiting factors) the contaminant remains in circulation to "go around the block" again. At some point, a portion of that which a person absorbed gets pushed to the tissues for storage.

Typically, adipose (fat) cells are the first to accept toxins from the blood. They have the spiritual gift of accommodation, welcoming any wanderers to move in and make a home. You may think, "no harm, no foul; fat cells don't do anything!" Wrong. Fat cells engulf organs, protecting them from the jostling harm of movement. Fat cells readily transfer energy, produce heat, and do numerous other important duties. We must not make the mistake to think that any tissue is dormant. We are a cellular bundle of constant, controlled activity.

Fat cells line the brain, and fat is what makes up the protective neural tissue. Fat cells layer all our muscle tissue and form a blanket under our skin. Breasts are mainly made of adipose tissue as well. Don't think of obesity when you think of toxin-storing fat cells. The argument could be made that those with a little extra weight may do a better job storing toxins away from key organs. This may be observed with statistics of cancer being no greater for those that are overweight when toxins are the cause of cancer.

Fat cells are not the only cells to accept toxins. The local concentration of poisons is what determines their ability to enter any cell. When toxins are dumped from the blood, they pass directly into cells, but most pass into extracellular spaces. These spaces around cells (better referred to as an extracellular matrix) contain fluid, toxins, nutrients, hormones, and a mix of

immune cells and, well, you name it. All these things are competing to either influence cell membrane receptors, get inside cells, or get into the bloodstream to exit the body.

Toxins in the extracellular matrix are poisoning the body as well. These poisons are made up of waste dumped from cellular activity, as well as the previously mentioned garbage from the bloodstream that couldn't exit an overwhelmed liver. We become a toxic mess that leads to all sorts of named diagnoses depending on what tissues are the first to break down.

With this introduction, let's begin to uncover the natural, healthy way our bodies were created to get rid of such a mess, and learn how to best support the systematic, sensical pathways to make ourselves healthier.

* * * * *

CHAPTER 1

Begin with the End in Mind

—

Phase 6

Proper Elimination

Daily bowel movements and healthy urinary habits are the final steps in removing toxins from the body. It is one of our cardinal rules that health depends on eliminating wastes, and we want everyone to be having at least one regular, daily bowel movement. It is even better to have several daily bowel movements throughout the day, but let's begin with easy steps.

It's easy for most to understand that if we don't deliver our waste into the toilet, there is going to be a problem. The digestive tract consists of 20-30 feet of the small intestines and another 10 feet of the large intestine. The end of the large bowel is called the rectum, which terminates at the anus. It isn't simply a tube that disposes of food but is instead more of a complex organ where enzymes are secreted to produce a slurry of both toxins and nutrients. Its contents house more bacteria than the body has cells, all of which work together symbiotically to maintain levels of health that we are only beginning to understand.

If this isn't happening for you, you should consider yourself constipated and *need* to follow our "Constipation Know How" options in the steps below. These are in order of what to try first, second, and so on. It is fine to do more than one of these

at the same time as well. For each approach listed below, try for a day or two. If you have little or no success, add another approach.

Fiber

Taking SunFiber or SunSpectrum (the products we usually recommend because they contain the best non-digestible fiber) can be a big help. Also, eating whole fruits and vegetables is so important.

Here's what I recommend:

SunFiber

SunFiber delivers 6 grams of clinically proven clear, grit-free soluble fiber. A true regulating fiber improves both conditions of occasional constipation and poor elimination as well as occasional diarrhea and loose stools. The result is regularity with healthy consistency.

U.S. Enzymes' SunFiber promotes intestinal and colon health, aids in the transit of food through the intestines, promotes the absorption of essential minerals, and helps control the glycemic index of foods. It dissolves fast and clear in your favorite beverage and won't alter the taste or texture of foods. SunFiber may be added to recipes when cooking and baking. Simply stir in SunFiber until dissolved. Start with one scoop per day in a smoothie or drink.

shop.ConnorsClinic.com/sunfiber

SunSpectrum

SunSpectrum is a prebiotic plus a probiotic added to SunFiber along with Curcumin C3, Kaneka Q10, and Bifidobacterium lactis BI-04.

I helped formulate SunSpectrum for US Enzymes/Masters Supplements with the idea of gut-healing combined to lowering

the gut inflammation, therefore, it was developed as a combo product. It contains the wonderful ingredients of our SunFiber product to help increase the healing of the gut, plus the bonuses of a probiotic, curcumin, and CoQ10 to reduce the need for additional supplements.

shop.ConnersClinic.com/sunspectrum

We do ***not*** recommend pharmaceutical products like Miralax, Doclase, or Linzess as these are not addressing the cause of the problem, and they often carry undesired side effects as well as contaminants that can worsen other organ systems.

Magnesium and Vitamin C

Taking 500-700mg Magnesium Citrate or Magnesium Malate with 1000-1500mg Vitamin C 1-2 times per day will loosen the stools. Most people are already deficient in magnesium so taking magnesium can benefit nearly every metabolic pathway. If you take excess magnesium (as in this approach), you tend to dump it in the bowel, drawing water with it, thereby loosening the stool. Make sure you are drinking plenty of water to make this happen.

Here's what I recommend:

Magna Clear

Magna Clear provides three unique forms of highly absorbed magnesium (as DiMagnesium Malate, Magnesium Citrate USP, TRAACS, Magnesium Lysinate Glycinate Chelate) to ensure maximum absorption of this important macromineral. Most magnesium supplements use only a single source of magnesium, which can easily overwhelm a single pathway of absorption and limit uptake. Start with 2-3 before bed, preferably with Vitamin C.

shop.ConnersClinic.com/magna-clear

Magnesium Malate

Magnesium malate is a good choice as it also may give a brain-calming effect and help induce sleep. Start with 2-3 before bed.

shop.ConnersClinic.com/magnesium-malate

Buffered C

Taking a buffered Vitamin C can help prevent any stomach upset. Start by taking 2 with your magnesium before bed.

shop.ConnersClinic.com/buffered-c



Cape Aloe

Cape aloe, the solid residue obtained by evaporating liquid aloe vera, has been shown in research to affect regularity due to its influence on colon peristalsis, which it triggers to contract, resulting in accelerated intestinal passage. It has been used for

thousands of years to promote the health of epithelial tissue, including the bowel lining, and can work wonders for issues of constipation.

Cape aloe is one of a class of compounds called anthraquinone glycosides. When ingested, these molecules are activated through bacterial metabolism in the gut that promotes water retention in the stool and stimulates peristalsis in the large intestine. By stimulating active chloride secretion, aloe increases the water and electrolyte content in the stool and helps even stubborn issues.

Here's what I recommend:

Phase 6 Colon Support

Phase 6 Colon Support is designed to support gastrointestinal (GI) regularity and complement dietary fiber intake. Magnesium citrate is present to support muscle relaxation and bowel elimination. Cape Aloe is added in just the right dose to support normal GI transit time and stool bulk.

Triphala, a balanced blend of astringent fruits used extensively in Ayurveda, is present to support all phases of digestion, assimilation, and elimination. Gastrointestinal regularity in turn plays a fundamental role in detoxification, providing a major route for elimination of toxins.

Magnesium citrate, the type of magnesium in Phase 6 Colon Support, is used for colonoscopy preparation. Chosen for its promotion of muscle relaxation and effective elimination of feces through the bowel, magnesium citrate is also highly bioavailable. It should be noted that forms of magnesium may be absorbed differently.

As a macromineral, magnesium supports cell, tissue, and organ function and participates in over 300 metabolic reactions in the body. This essential mineral plays a pivotal role in energy-producing reactions, detoxification, muscle and nerve function,

and skeletal structure. Magnesium can readily become depleted due to inadequate intake, poor absorption, excessive losses, and drug induced nutrient depletions.

Cape Aloe, again, has a long history of use in South Africa and continues to be closely studied for its valuable attributes, specifically how it supports GI regularity. The herb is ideally used in the short term to support the elimination of feces and subsequently the elimination of toxins. Recent research suggests that Cape Aloe supports gastrointestinal regularity and is well tolerated.

Administration of the herb in animals showed no negative toxicological effects at doses of up to 200 mg/kg body weight over a seven-day period.

Triphala comprises three sour, astringent fruits: *Embolica officinalis* (amla), *Terminalia belerica* (behada), and *Terminalia chebula* (harada). This tannin-rich herbal compound has been used traditionally for supporting digestion, assimilation, and elimination.

Triphala is considered to be a cornerstone of the art and practice of Ayurveda, and it is used throughout India in herbal products. Modern-day clinical trials have confirmed the benefits of traditional uses of triphala, especially gastrointestinal support. Researchers indicated that triphala positively supports appetite, GI health, and rejuvenation.

Phase 6 Colon Support is intended for short-term use only and should never be consumed during pregnancy.

I usually recommend that someone take 1-2 capsules before bed with a glass of water:

shop.ConnersClinic.com/phase-6

Phase 6 Assist

Our Phase 6 Assist is straight Cape Aloe for those with occasional constipation. I can tell you first-hand that it works **VERY** well. I have some patients that take this daily (I certainly could not) because of chronic slow bowels and it has worked wonders.

I recommend beginning with just one per day of this 250 mg version of Cape Aloe to see how the body reacts. Start with one before bed and consider adding this to a magnesium regimen as well.

shop.ConnersClinic.com/phase-6-assist

Prune, Plum, Fig Juice

Drinking some good old-fashioned prune juice every day can often do the trick.

Senna Tea

Senna is an herb. Celestial Seasons makes a Smooth Move tea that works well. The longer you steep it, the stronger it is, so be aware of this. Drinking one glass or more before bed usually helps by morning. There are many products on the market with Senna as well. The negative and positive about Senna are in its mechanism of action. It stimulates peristaltic contractions of the intestinal smooth muscles. This is great to create a bowel movement but can be uncomfortable as it gives you strong cramping. Try it once or twice, everyone is a bit different in how they react.

shop.ConnersClinic.com/smooth-move

Cascara Sagrada

Cascara sagrada is primarily used to treat more severe constipation and should ***only*** be used for a short time. The

anthraquinones contained in the bark inhibit the absorption of water and electrolytes in the intestines. Because of this, stool volume increases as it absorbs the excess water, which increases pressure within the intestine. This stimulates muscle contractions in the colon, speeding the clearance of the bowel.

Here's what I recommend:

Cascara Sagrada

Wild-harvested tincture. Use 1 teaspoon (5ml) twice daily for help with more severe constipation.

shop.ConnersClinic.com/cascara-sagrada

Coffee Enemas

Even if you are already doing these, increasing the number per day can really help. Coffee enemas help cleanse the liver and stimulate the vagal nerve and colon function. You can also do an enema with probiotics, warm water, Epsom salts, and olive oil. We'll talk more about coffee enemas later.

Here's what I recommend:

Premium Enema Kit

Premium Enema kits are suitable for all types of enemas including retention enemas, cleansing enemas, coffee enemas, Gerson Therapy, and general colon cleansing. Plus, our kits are designed to be used discreetly in the privacy of your own home, or with the assistance of a medical professional.

shop.ConnersClinic.com/enema-kit

S.A. Wilson's Gold Roast Enema Coffee

These organic coffee beans are purchased from small, independent farming co-operatives. And it's not just the beans that are organic; it's the process too. That means everything

down to the products used to clean the floors are organic materials.

S.A. Wilson's Gold Roast coffee is the first and only coffee that has been specifically blended and processed with higher levels of caffeine and palmitic acid in mind. It is also the only coffee that has been tested to guarantee these higher levels. The coffee is then put through a special three-stage process developed by founder Scott Wilson.

shop.ConnersClinic.com/enema-coffee

You may also find more information on coffee enemas on our website:

ConnersClinic.com/coffee-enemas-1

ConnersClinic.com/coffee-enemas-2

Colonics

Visiting a clinic that specializes in colonic therapy can be beneficial to help clean out the gut. However, beware of doing more than just a few sessions regardless of what they are trying to sell you as you can flush your good flora with high colonics as well. Stick to 3-4 sessions to start.

Clear Cleanse

Clear Cleanse is a functional detoxification powder that contains quality macronutrients to fuel detoxification pathways, a full multivitamin/mineral complex for detoxification enzyme support, and high levels of antioxidants for safe detoxification. This formula also contains a comprehensive array of herbs to promote healthy liver function and elimination.

It features plant-derived pea protein isolates made from non-GMO (non-genetically modified) North American grown yellow peas. This low allergen, easy-to-digest pea protein formula does not contain dairy, gluten, and lactose. It mixes easily with water or your favorite beverage to create a delicious drink with a smooth texture and pleasant berry-vanilla flavor.

Distinguishing characteristics include an excellent array of amino acids, including high levels of BCAAs (branched chain amino acids), as well as non-detectable levels of harmful gastrointestinal lectins (not to be confused with lecithins).

shop.ConnersClinic.com/clear-cleanse

Clear SBI Pro

SBI Protect is the only purified, dairy-free source of immunoglobulin G (IgG) available as a dietary supplement. Pure IgG helps to maintain a healthy intestinal immune system by binding a broad range of microbes and toxins within the gut lumen.

Clear SBI Protect provides concentrated immunoglobulins to enhance mucosal immunity, help maintain microbial balance, support GI barrier health and integrity and helps maintain normal inflammatory balance.

Immunoglobulins bind microbes and toxins in the GI tract and eliminate them prior to immune system activation. As these unwanted triggers are removed, it resets healthy immune tolerance and builds a stronger barrier to the external environment.

Occasionally, the immune system becomes overactive and immune tolerance drops. When immune tolerance is lost, the checks and balances of antibody production can be affected. To reestablish immune tolerance and appropriate activation, the

burden on the immune system must be reduced. Reducing the reasons to respond allows the tissue to maintain normal inflammatory balance and creates an environment for normal tissue repair and immune reconstitution.

I suggest people start with just one half of one scoop per day and work up to a full scoop. I find that it mixes well (and is tasteless) in a smoothie:

shop.ConnorsClinic.com/clear-sbi-pro

SBI Pro PLUS

Our SBI Pro PLUS adds even MORE intestinal healing power! It combines ImmunoLin® with N-acetyl-D-glucosamine to support the structure of the cells of the intestinal lining and to promote a healthy inflammatory response in the cells of the gastrointestinal (GI) tract. These ingredients work together to provide support to the intestinal barrier and to support gut immune health.

ImmunoLin®, a serum-derived bovine immunoglobulin concentrate (SBI), is the only purified, dairy-free source of immunoglobulin G (IgG) available as a dietary supplement. Immunoglobulins play an integral role in the support of healthy immune function at the gut and systemic levels. N-acetyl-D-glucosamine promotes healthy immune function by promoting a balanced immune response.

I suggest that most can start at one scoop per day. Mix it in a smoothie with some frozen berries.

shop.ConnorsClinic.com/sbi-pro-plus

Sauna

Sweating, i.e., detoxifying through the skin, is a helpful way to take pressure off the liver and kidneys. This is one reason that

saunas are so beneficial. Doing a sauna several times per week aids in detoxification and can even raise the core body temperature to help kill cancers that are close to the skin surface. Doing foot bath detoxification and things like skin brushing can also help the process.

Far Infrared Seated Sauna

shop.ConnersClinic.com/sauna

Why Barriers Fail

Hypochlorhydria

Digestion is simply the breaking down of food into small enough pieces to allow absorption (the transport of nutrients into the blood) to take place. It begins in the mouth as we chew our meal. Our salivary glands secrete ptyalin, a type of amylase enzyme that starts breaking down carbohydrates. The act of chewing stimulates the release of hydrochloric acid (HCl) in the stomach to prepare for the swallowed mass.

The stomach contains special cells called parietal cells which secrete the hydrochloric acid specifically for the digestion of carbohydrates. We often hear about maintaining an alkaline body for health, however not all organs should have a high pH. The lumen of the stomach needs to maintain a pH of between 1.5 and 3.0 to function properly; so the misinformation regarding consumption of alkaline water or drinking baking soda (something we hear cancer patients question) is ludicrous.

I would argue that a primary precursor to many diseases and disorders is an elevated stomach pH. Remember, pH is a measurement of acid/alkalinity on a scale of 0-14. The lower the number, the more acidic. Much has been written about acidity and ill-health. As a doctor who primarily cares for those with cancer, I've heard the cancer grows in an acid environment, so you just need to alkalize" mantra more often

than I can stomach. The truth is that cancer, a highly metabolic disease, creates excess waste that is dumped in the surrounding tissue. Waste from cellular metabolic processes tends to be acidic. It isn't making cancer grow; acidity is a byproduct of such growth.

Anyway, back to the stomach. Parietal cells secrete hydrochloric acid primarily to digest carbohydrates. If there is even a 1-tick rise in pH due to a decreased production, your evening mashed potatoes may exit the stomach partially digested and cause havoc to downstream processes. The duodenum (the first part of the small intestine) has the enormous task of receiving the stomach contents, getting its supply of enzymes from the pancreas to breakdown proteins, then funneling bile from the liver via the gallbladder to break down fat, which now needs to deal with the stomach not doing its job!

I can just hear the duodenum screaming at the blob of potatoes, "What in the heck am I supposed to do with you? For crying out loud!!!" Okay, maybe I'm being a bit dramatic, but the problem here is the pH in the small intestine quickly rises. Carbohydrates that missed their chance at digestion due to an ill-equipped stomach's acid production ferment in the rest of the gut, thereby producing gas and byproducts which damage intestinal wall cells that in turn leads to leaky gut.

The proper pH of the stomach is also essential for the production of pepsin, an essential enzyme for digestion. Decreased acid also severely diminishes the absorption of Vitamin B12, as well as numerous minerals and other nutrients.

One of the deadliest outcomes of a rise in stomach pH has to do with the breakdown of our first line of defense against foodborne pathogens. Bacteria, viruses, and parasites are ubiquitous, and enter our mouth through breathing and food and water consumption. We swallow pathogens all the time; but don't worry, our adequately acidic stomach readily destroys the bad guys in no time. But wait. What if our pH is 4.0? Some tiny

enemies can live (and even flourish) in slightly acidic environments, allowing them to start reproducing like rabbits once they hit the small intestines. Can someone say, “Montezuma’s Revenge”?

It’s not just the occasional food poisoning that we need to be concerned about. It’s the entrance of pathogens that can cross through a damaged intestinal wall, enter the bloodstream, and cause issues for years to come.

We have yet to discuss my favorite problem with the lack of proper stomach acid – *Helicobacter pylori*. *H. pylori* is a bacterium that can be normal in small numbers in our flora. However, when stomach acid drops, it jumps on the opportunity to multiply leading to an array of very serious problems. If the increased production stays in the stomach and the first part of the small intestine, ulcers will develop. You should be so lucky. If the *H. pylori* traverses through the bloodstream it can damage arterial walls and is a leading cause of vessel damage and heart disease. *H. pylori* is also the number one cause of stomach cancer and can be a cause of other cancers as well.

The first step to gut health, even when discussing detoxification, needs to address the hypochlorhydric elephant in the room. If you even have a remote thought that you have decreased stomach acid production, you will best serve yourself by adding HCl to your larger meals. I take HCl several times per week with larger meals. When I was younger, I had horrible stomach issues that were cured with HCl supplementation. Use it only with meals and I suggest using it with a combination of a good digestive enzyme.

Here’s what I recommend:

Clear Digest

Clear Digest is comprised of a proprietary blend of digestive enzymes along with betaine hydrochloride (HCl) to support the optimal digestion of proteins, fats, and carbohydrates.

This product contains the special protease dipeptidyl peptidase IV (IVDPP), which aids in the breakdown of the peptides gluteomorphin (from gluten) and casomorphin (from casein).

It also includes the enzyme lactase, which helps break down the dairy sugar, lactose. The use of Clear Digest before meals may be helpful for patients who experience gas and bloating after eating, occasional constipation, or a feeling of fullness after eating only a small quantity of food.

Start by taking ONE capsule with each of your normal meals. If you eat a very small meal or snack, don't take any. If you forget to take it, you have about 20-30 minutes after your meal to still "catch" the food in your stomach to aid digestion.

shop.ConnersClinic.com/clear-digest

HCL-XYM

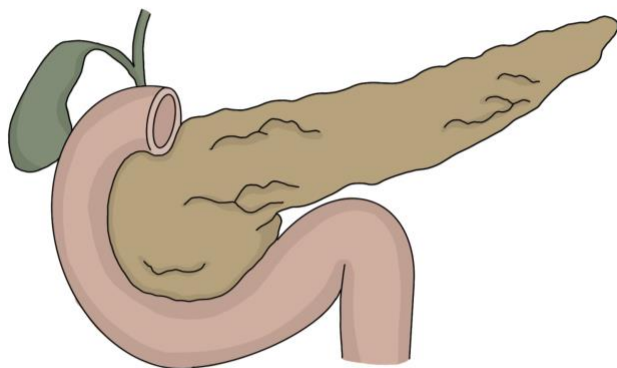
Start with one per meal or one with your larger meal of the day. If you are having a lot of digestive issues, don't hesitate to titrate up in dose until the issues are solved. Then you can simply titrate back down to one or two as needed.

shop.ConnersClinic.com/hcl

Cease All Acid-Blocking Medications

Do your best to get off all acid-blocking medication. If you've been on these for long, it can take months of working with your prescribing doctor to wean off these. You will need the help of a good functional doctor as well while you try to get the acid

production of the stomach back into balance and use some nutrition to help heal the parietal cells that have been so damaged due to these medications. I believe that acid-blocking medication is among the most health-destructive drugs on the market.



Pancreatic Insufficiency

Your pancreas is essential to make insulin, but it also makes enzymes necessary to digest proteins, carbohydrates, and some fats. Proteins are just long chains of amino acids held together by bonds. Every one of these chains needs to be snipped apart to get down to one or possibly a chain of two amino acids to cross the gut border into the bloodstream. Our body takes these amino acids and restructures them to make many things needed to survive.

Think of a pancreatic digestive enzyme as scissors. The proteins you consume contain millions of long chains that need enough scissors to cut every one of them to pieces. If we consume excessive amounts of poorly digested proteins, we can deplete our pancreas' ability to produce an adequate number of scissors to do the job. We are left with chains of 15, 25, 35, or more

amino acid sequences called peptides that are too large to cross a healthy gut wall. This creates a huge potential problem.

If all that happened was short-termed, inadequate snipping of proteins, we could just pass them into the toilet. However, these longer peptide strands can irritate the gut wall, bog up the intestinal lumen, and lead to slower intestinal transit times and constipation. Once again, things can even get worse.

Regular, high quantities of ill-digested peptide strands can lodge in outcroppings of damaged areas in the intestinal walls called diverticula. These can get infected (causing diverticulitis) or worse (lead to cancer.) Small to medium-chain peptides can creep through a damaged gut wall and enter the bloodstream causing an immune reaction leading to antibody formation, food sensitivities, and autoimmune disorders.

Suffice to say that supporting pancreatic function through regular fasting, proper food choices, and adding pancreatic digestive enzymes to supplementation regimens may be wise decisions.

Here's what I recommend:

Clear Digest

Clear Digest is one of the best, well-rounded enzyme products because of the HCl combination with some of the best digestive aids.

Again, along with the HCl for the stomach, it contains protease dipeptidyl peptidase IV (IVDPP), which aids in the breakdown of the peptides gluteomorphin (from gluten) and casomorphin (from casein).

The use of Clear Digest before meals may be helpful for patients who experience gas and bloating after eating, occasional constipation, or a feeling of fullness after eating only a small quantity of food.

Start by taking **ONE** capsule with each of your normal meals. If you eat a very small meal or snack, don't take any. If you forget to take it, you have about 20-30 minutes after your meal to still "catch" the food in your stomach to aid digestion.

shop.ConnorsClinic.com/clear-digest

HCL-XYM

This is a favorite starter product for those wanting to be/stay healthy as I firmly believe that many diseases begin here. Start by taking one with your larger meals and, over several days, slowly titrate up until you feel your stomach is emptying better, bloating of indigestion begins to lessen, and you just feel calmer.

shop.ConnorsClinic.com/hcl

DIGESTXYM+

This is one of the best pancreatic and whole spectrum digestive enzymes. You don't need to take one at every meal (though this may be necessary with some, at least to begin.) Start by taking one with larger meals or maybe take two if you are eating a meal heavy in animal protein. Soon you will get a idea on when you need to take these and how many as you will feel less bloated and more at ease.

shop.ConnorsClinic.com/digestxym

Limit Excessive Animal Proteins

While I do ***not*** advocate veganism, I do believe that most of us consume an excess amount of animal proteins, and probably excess quantities of food in general. Consider a 24-hour water fast once per week, intermittent fasting, or time-restricted eating (TRE) regularly. See further in this chapter for more information on these topics.

Bile Insufficiency

We will discuss this topic in more detail under Phases 3 and 4 but when we are not producing adequate bile, it may be a contributing factor for barrier damage. Bile carries toxins from the liver to the gut to be disposed of in the toilet, but bile is also the primary digestive agent of fat. Consumed fat needs to be broken down much like proteins or it cakes the gut walls and hinders nutrient absorption.

Fat buildup also chokes out healthy flora and creates an environment for dysbiosis (an imbalance in normal microbiota, our next topic.)

Microbiota Imbalance

Dysbiosis is what we term an imbalance in the millions of organisms that symbiotically live in our body orifices. When an overgrowth of organisms threatens the livelihood of others – all providing necessary functions for our mutual survival – we may have a problem. There are numerous causes for said imbalances that go far beyond what we need to cover here but understand that the science of microbiota balance is burgeoning with exciting possibilities to improve health.

There are many probiotics on the market, and I am not trying to be anywhere near exhaustive when discussing these in this booklet. That said, I suggest people rotate their probiotic sources to help them receive the most complete balance.

Here's what I recommend:

SunSpectrum

We often begin simply. We suggest SunSpectrum for many people because it is a prebiotic as well as a probiotic and it contains the best indigestible fiber available, curcumin, and CoQ10 to calm inflammation in the gut and help promote

elimination (Phase 5 and 6.) Start with ½ to 1 full scoop per day in a smoothie.

shop.ConnersClinic.com/sunspectrum

Clear Pro 100

Clear Pro 100 is a unique probiotic formula designed to deliver active organisms shown to promote healthy gut microflora, protect intestinal integrity and boost immune function.

Included in this formula is *Saccharomyces boulardii*, an extensively researched microorganism shown to help restore microflora balance by enhancing commensal organism function. Each capsule provides seven proven probiotic strains chosen for their ability to withstand the harsh gastrointestinal (GI) environment and adhere to the intestinal tract to deliver superior results.

Start with just one capsule per day for a week and then drop to one capsule every other day:

shop.ConnersClinic.com/clear-pro-100

Ortho Biotic

Ortho Biotic capsules provide seven proven probiotic strains chosen for their ability to withstand the harsh gastrointestinal (GI) environment and adhere to the intestinal tract to deliver superior results. Included in this formula is *Saccharomyces boulardii*, an extensively researched microorganism shown to help restore microflora balance by enhancing commensal organism function. Take one or two per day.

shop.ConnersClinic.com/ortho-biotic



Toxic Overload

We'd be amiss to omit the effect of toxic burden on gut health in a booklet on detoxification. Toxins in the lumen of the gut come from ingested toxins that aren't absorbed as well as toxins expelled by the phases we are discussing. Hopefully, these toxins will ride the wave to the ceramic bowl, but the longer they linger in your cavity the more damage they can do along the way. This again proves the importance of binders to grab the little demons and keep them from acting up.

It seems like this booklet is all bad news but understanding some simple things that you can add to your daily habits can greatly improve health and protect from future disease.

Here's what I recommend:

Clear SBI Protect

The discovery that the gut barrier plays a key role in immune health fueled the search to strengthen it. In that search, researchers found that the binding capabilities of immunoglobulins have a positive effect on gut barrier function. Immunoglobulins bind microbes and toxins in the GI tract and eliminate them before immune system activation. As these unwanted triggers are removed, it resets healthy immune tolerance and builds a stronger barrier to the external environment.

SBI has been shown to bind microbes and toxins, further enhancing microbiome balance, and facilitating gut barrier strength. Broad-spectrum binding capabilities demonstrate the positive influence of non-allergenic forms of immunoglobulins. As seen in several studies, SBI has the potential to bind many types of microbes and toxins. This binding and elimination help to decrease microbe and toxin encounters by the immune system and resets immune tolerance.

shop.ConnorsClinic.com/clear-sbi-protect

Gut Binders

Consider adding one of the gut binders from Phase 5.

Magnesium

Check your intestinal transit time by counting the number of hours it takes to see kernels of corn in your stool after eating a hearty helping. You want to see it within 12-18 hours in your stool. If you don't see corn (I know this is gross for some of you but stay with me here) in your morning stool after last night's dinner, consider adding some Magnesium supplementation before bed as I outline in Phase 6.

Antibodies to Foods

When we have a damaged gut, as I described earlier, incomplete digestion of proteins can lead to peptides crossing

the gut barrier and entering the bloodstream. When this happens, a cycle of bad things can follow. Our immune system, in trying to deal with these strange molecules, can erroneously attempt to kill them, fail, then create antibodies against them. These antibodies create a world of problems and when they make their way to the gut lumen, they are the cause of food sensitivities.

Testing for food antibodies can be an essential step in identifying and healing gut issues. Understand, if you have antibodies to gluten (for example) and eat gluten, you fire an immune reaction in the gut that is like throwing a fireball in a dumpster. Bad things are going to happen, and don't even get me started on what the excess of inflammatory chemicals in the gut do to inflammation in the brain. That's a book in itself!

Here's what I recommend:

Cyrex Lab, Array 10

Consider getting a blood test from Cyrex Lab, Array 10; this tests for 300 or so common food antibodies to different peptides of food protein. Completely stay away from all the positive markers, and slowly (one-by-one) introduce foods back into your diet after a few months. Find more information on this topic in my blog.

ConnersClinic.com/food-sensitivity-testing
shop.ConnersClinic.com/cyrex-array-10

Necessary Components to Maintain Gut Health

Dietary Fiber

Fiber, found in plants, is a beneficial substance because it cannot be broken down in the GI tract. It is passed, intact, through the GI tract, carrying with it a good amount of excreted

waste as it makes up part of the stool. The two types of fiber (soluble and insoluble) are both important to a healthy diet and are found in many things you currently eat. Fiber increases satiety, or the feeling of fullness, which can aid in healthy weight management; so diets with less fiber, like the standard American diet (SAD) tend to cause people to eat more.

Soluble fiber helps retain water in the gut and eases elimination. It also slows digestion and nutrient absorption from the stomach and intestines so that proper balance of fiber is essential. It is found in foods such as oat bran, barley, nuts, seeds, beans, lentils, fruits, and many vegetables. Soluble fiber plays a role in slowing down the absorption of fat and sugars, which can help those with concerns with cholesterol and blood sugar levels.

Insoluble fiber is different; it helps speed the passage of food through the stomach and intestines and adds bulk to the stool. Insoluble fiber can also act as a binder, keeping toxins from absorbing. It can be found in foods like nuts, seeds, whole grains, vegetables, and wheat bran. Insoluble fiber is effective for the treatment and prevention of constipation and digestive disorders like irritable bowel syndrome (IBS) and is one of the first products we recommend in gut healing. My favorite is SunSpectrum because of the included components that help calm inflammation.

Dealing with Food Antigens

Any food may cause an allergic reaction, but 90% of food allergies are caused by just 6 common foods or food groups—milk, eggs, peanuts, tree nuts, soy, and gluten. Unfortunately, there are other cross-reactant foods that, when someone is sensitive to gluten (the *most* common food antigen), they can equally react to:

Dairy

Sesame

Chocolate

Hemp

Buckwheat

Yeast

Eggs

Tapioca

Soy

Teff

Sorghum

Oats

Millet

Coffee

Spelt

Rice

Amaranth

Whey

Quinoa

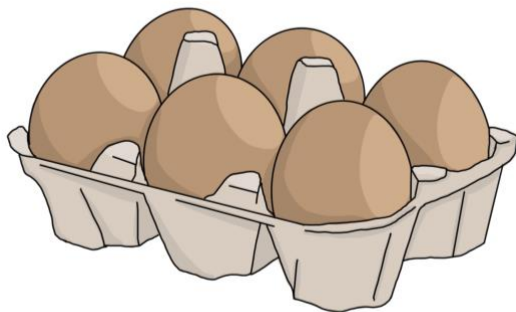


Dairy

Allergy to cow's milk is among the most common hypersensitivity in young children, probably because it is the first foreign protein that many infants ingest in such a large quantity; especially if they are bottle-fed. If there is a cow's milk

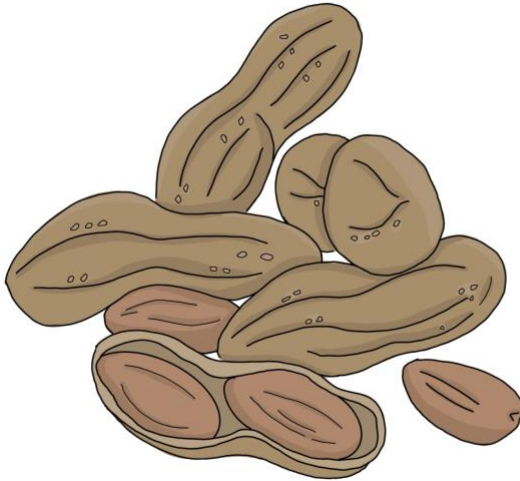
allergy, occasionally even a breastfed infant may have colic or eczema until milk and dairy foods are eliminated from the mother's diet. Between 2 and 3 out of every 100 children younger than 3 years have allergy symptoms linked to cow's milk.

Vomiting after feeding is the most common way a child shows a milk allergy, but more severe reactions can occur. Colic, crying, and gassiness can sometimes be the only manifestation of a cow's milk allergy in very young infants. It must be said, however, that in the great majority of infants, no cause for colic is ever found, and the inconsolable crying eventually stops without treatment before the baby is 6 months old, never to return. Other early and more subtle symptoms of milk allergy often involve the itchy, dry rash of eczema (atopic dermatitis.) Of course, the most obvious kind of reaction to milk is when the child drinks milk or eats a milk product and immediately develops breathing problems or hives. Most children with a cow's milk allergy are also allergic to milk from goats or sheep, so these are often not good substitutes. Soy-based formulas are not suitable for milk-allergic infants because some who are sensitive to cow's milk are also unable to tolerate soy protein.



Eggs

People who are allergic to eggs are reacting primarily to the protein in the egg white. However, because egg yolk can often be contaminated with egg white, it's safer for egg-allergic children to avoid egg altogether. Thankfully, while eggs are nutritionally valuable and an excellent source of protein, they are not essential for good nutrition. Meat, fish, dairy products, grains, and legumes are excellent alternative sources of similar protein, minerals, and vitamins.



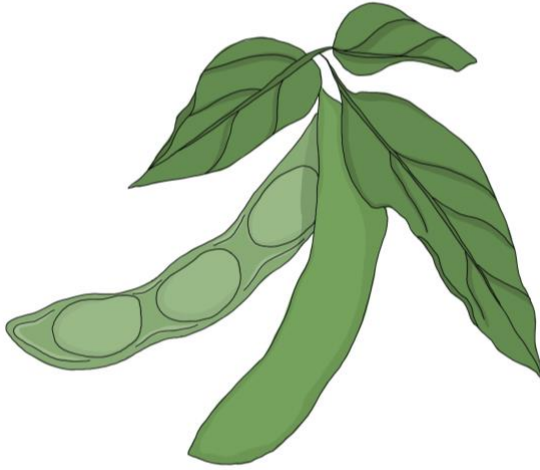
Peanuts and Tree Nuts

When is a nut not a nut? When it's a legume, like peanuts, which are cousins to peas and beans. Because peanuts and tree nuts come from different plant families, a child who is sensitive to peanuts can often eat walnuts, pecans, and other tree nuts without a problem. However, caution is needed because peanut-allergic children, for unknown reasons, are more likely also to have a separate tree-nut allergy.

Like eggs, peanuts are delicious and nutritious but are not essential for a healthy diet. No nutritional substitutes are needed. Strangely, most people with a peanut allergy tolerate other legumes such as soy and beans, even when sometimes skin or blood tests will come up positive for these other legumes.

Peanuts, although generally easy to avoid, can sometimes show up in foods when least expected. Peanuts are often ground up and used as bulking agents in food products such as candies. Peanut butter is sometimes used by restaurants and caterers as a “glue” in food preparation to hold the food item together. Therefore, it is imperative that you not only read labels carefully to make sure peanuts are not unsuspected ingredients in commercial foods, but that you also question and clarify the content of food being bought and eaten at restaurants or prepared and consumed at locations other than your own house.

Allergies to tree nuts (walnuts, pecans, cashews, Brazil nuts, almonds, hazelnuts, all the nuts in hard shells) can be as severe as a peanut allergy, and the same warnings apply. One child may have an allergy to only one tree nut, while another may have an allergy to several tree nuts. Confusion can sometimes occur regarding the different types of tree nuts, so tree nut-allergic individuals often just stay away from all of them, to play it safe. It's vital to make caregivers, teachers, friends, and family members aware that your child must strictly avoid all products with even a trace of nuts and peanuts because nut allergy, in general, is the most severe of all the food allergies.



Soy

Babies that are fed soy formula, like that of cow's milk, can develop a rash, runny nose, wheezing, diarrhea, or vomiting from an allergy to the soy protein. When changing to soy formula, some infants who are allergic to cow's milk are found to also be allergic to soy. If this is the case, we may recommend a low-allergenic formula made with extensively hydrolyzed protein or amino acid elemental formula.



Wheat and Gluten

Rice and oats are usually the first cereals introduced into the diet because they are less likely than other grains to cause allergy problems. If there are no problems with oats, wheat is given next. Wheat is the grain most often associated with allergies, but even so, it is still an uncommon food allergy. This is fortunate because wheat is found in so many prepared foods.

There are 2 types of negative immune reactions to wheat. The first is a classic food allergy, with symptoms such as hives or wheezing that occur immediately after the child eats food made with wheat. The second is called celiac disease. Gluten is a protein found in grains such as wheat, rye, spelt, malt, and barley. In a sensitive person, gluten damages the lining of the small intestine and interferes with nutrient absorption. This damage can go undetected for some time.

Typical symptoms of celiac disease are abdominal pain, diarrhea, irritability, poor weight gain, and slow growth. Celiac disease may reveal itself shortly after the infant has his first bowl

of cereal, but in some cases, symptoms are so minor that the condition can smolder at a low level for years and a diagnosis may not be made until adolescence or even adulthood.

Testing for food antigens is essential when you are attempting to calm down gut inflammation. The Cyrex Lab, Array 10 mentioned above, is the most sensitive and most accurate testing on the market.

Why Eat Organic?



Pesticides

Pesticides are widely used in agriculture and there are concerns that they could increase the risk of cancer. Some studies have suggested that pesticides could increase the risk of leukemia, lymphoma, brain tumors, breast cancer, and prostate cancer. But for now, researchers are afraid to say that the evidence is strong enough to show a definite link, possibly because of pressures from “above.”

Obviously, due to the risk of speaking out against this, human studies are difficult to obtain² so we must rely on animal research. However, it needn't take more than a childlike understanding to draw the correlations. People exposed to higher levels of pesticides as part of their job (for example in industry or farming) may be at higher risk of certain cancers, particularly leukemias and lymphomas.

The International Agency for Research into Cancer (IARC) has looked at the evidence and said that regularly spraying pesticides as part of your job “probably” increases the risk of cancer. But for most individual pesticides, the evidence was either too weak to conclude, or only strong enough to suggest a “possible” effect. However, in animal studies, many pesticides are proven carcinogenic, (e.g., organochlorines, creosote, and sulfallate) while others (notably, the organochlorines DDT, chlordane, and lindane) are tumor promoters.

Some contaminants in commercial pesticide formulations may also pose a carcinogenic risk. In humans, arsenic compounds and insecticides used occupationally have been classified as carcinogens by the IARC. Human data, however, are limited by the small number of studies that evaluate individual pesticides. Epidemiologic studies, although sometimes contradictory, have linked phenoxy acid herbicides or contaminants in them with soft tissue sarcoma (STS) and malignant lymphoma; organochlorine insecticides are linked with STS, non-Hodgkin's lymphoma (NHL), leukemia, and, less consistently, with cancers of the lung and breast; organophosphorus compounds are linked with NHL and leukemia; and triazine herbicides with ovarian cancer.

² Even though a 2009 study revealed, “Our observation is consistent with a previous literature reporting suggestive associations between parental exposure to pesticides and risk of astrocytoma (in the child of the parent.)” Translation: children of parents who use or are exposed to pesticides and herbicides have an increased risk of brain cancer! <https://ehp.niehs.nih.gov/doi/full/10.1289/ehp.0800209>

Genetically Modified Foods

Genetically modified organisms (GMOs) in our food supply have been around for decades. Most corn, wheat, and soy purchased in the United States is GMO food. Proponents argue that there are no ill effects on humans with GMO food, but I completely disagree. I'm not in the minority with my belief that changing the genetic structure of a food product is playing with disaster. Recent studies reveal that GMO corn destroys the intestinal lining of mice causing absorption problems and leaky gut syndrome. What is it doing to our gut?

Today's GMOs are based on adding new genes to crops like corn, soy, and cotton to alter the way the plants function, making them more tolerant to disease and bugs, and enabling companies to patent the seed and create an endless need for farmers to repurchase, year after year. Gone are the days of saving seeds; it's against the law; Monsanto owns the patent.

To say that our food supply – laced with toxins, filled with additives, colorings, and chemicals, and now genetically altered – don't negatively affect our bodies is ludicrous. This book does not contain enough space to discuss these things in detail and I have recommended various books for your research, but it suffices to say that removing these poisons from your diet is of utmost importance.

To make crops more resistant to pests, scientists insert a special gene, called Bt-toxin (derived from *Bacillus thuringiensis* bacteria) into corn and cotton plants. The toxin attacks the stomach lining of nibbling insects, killing the pests within a couple of days of ingestion. More than 65 percent of U.S. corn crops contain this special gene that produces the insecticide. GMO foods are essentially antibiotics, and we all know what that does to our microbiota.

Another alarming fact: 80% of the processed food items in your local supermarket contain genetically modified ingredients.

This means that if you are a U.S. resident, you are undoubtedly eating genetically modified foods.

Genetically modified foods have been sneaking into our diets since 1995 when the Environmental Protection Agency (EPA) analyzed the first genetically engineered plant: corn. Today, 90% of several U.S. crops are grown with genetically engineered seeds.

We need to make better choices at the grocery store. By choosing organic, non-GMO products, we create a demand (a market) for food producers to develop organic, clean products.

Fasting for Better Health

Numerous clinical studies have proven that periodic fasting, done for several consecutive days, is a very powerful intervention that our bodies learned to naturally cope with by protecting and rejuvenating itself. These two factors are anti-aging measures that offer additional health benefits.

There are many ways to fast. A complete water fast omits all food and drink except water for a particular time. Juice fasts omit food, and the participant drinks juiced vegetables as a way of cleansing. Some choose to take supplements during their fast, others omit these as well. Whatever you decide to do, start mild with your fast, and don't try to go on a long interval fast without experimenting with some ideas below.

Fasting-Mimicking Diet (FMD)

Our 5-Day ProLon Fasting Mimicking Diet has been clinically tested and was found to promote beneficial effects in a wide variety of conditions ranging from excess weight and fasting blood glucose to growth factors associated with DNA damage and aging. This product comes in a box with all your meals included for the 5-day cleanse.

In a recent randomized, controlled trial of 100 subjects, 71 completed 3 cycles of ProLon either in a randomized phase (N=39) or after being crossed over from a control diet group to the Fasting Mimicking Diet group (N=32). Control subjects continued their normal diet. ProLon participants consumed the fasting-mimicking diet (FMD) for 5 consecutive days per month for 3 months. Measurements were performed prior to the diet (Before) and during the recovery period after the 3rd cycle (After).

IGF-1 levels decreased, which is significant for cancer patients and one of the main reasons we suggest this diet in our clinic. Studies have shown that cancer patients with higher IGF-1 levels don't fare as well as those able to keep their IGF-1 lower. Diet is typically considered the main contributing factor to keeping this under control.

The ProLon clinical trials protocol included three consecutive cycles of ProLon (5-day only per month over three consecutive months.) This is what we typically recommend. If a patient is not overweight and eats and exercises well, we suggest the product 1-2 times a year.

Some should avoid an FMD, so check out those contraindications on our website.

ConnersClinic.com/fmd
shop.ConnersClinic.com/fmd

Time-Restricted Eating (TRE)

Time-Restricted Eating (TRE), known in the scientific literature as “Time-Restricted Feeding”, is a schedule in which feeding time is restricted to 9-12 hours, allowing the daily fasting period to last more than 12 hours. We like to see our cancer patients keep a tighter window, eating only between the hours of noon and 7:00 pm, and some even tighten that window to 4:00 pm to 8:00 pm, giving them nearly 20 hours of fasting. It's important

to note that you need not do this daily. Practicing TRE two to three days per week can reap wonderful benefits.

TRE may impart multiple metabolic and physiological benefits. In the implication of TRE's role in cancer, recent studies in rodents have shown slowed tumor growth in mice that eat only within certain times.

Besides its potential benefits for cancer, TRE has shown promise in its overall health benefits for all patients. There is a natural and seemingly effortless reduction in caloric intake without the need to count calories. For example, if a person's eating window is 3:00 pm to 7:00 pm, then late-night snacks that used to be their habit must be stopped. So, practicing TRE several times per week will lead to a reduction of caloric intake as well as improved nutrition quality; "late-night snacks" are not typically healthy choices.

Weight loss is also typically experienced, but more importantly, improvement in blood biomarkers can occur. Dr. Satchin Panda, a lead researcher at the Salk Institute for Biological Studies, has researched animals and has shown that animals restricted to eating within a 9 to 12-hour window have improved glucose metabolism, lipid profiles, cholesterol, increased lean muscle mass, decreased fat mass, decreased fatty liver, and experienced favorable gene expression patterns.

Research done on gut health has pointed toward there being some amount of gut "leakiness" in most people that is normally repaired during a fasting state. When food consumption is not restricted to a certain time frame as with TRE, some of the bacterial proteins or bacterial membrane components, like lipopolysaccharides (LPS) can leak through our gut lining into circulation. LPS is normally found in the gut because it is part of the bacterial membranes, but it should not be in the bloodstream where it can create extraordinary destruction and can prompt an immune response. Therefore, TRE may protect the immune system from flaring against antigens and other substances that do not belong in the bloodstream.

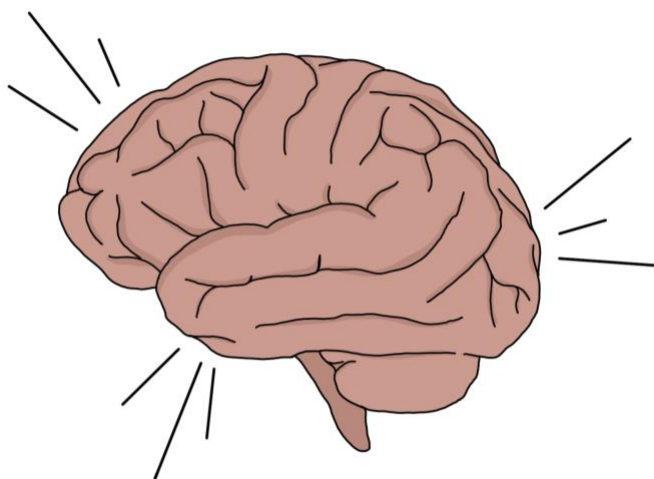
I suggest that people start with planning to implement TRE 2-3 times per week. Create a larger eating window to begin, say, only eat between the hours of 2:00 pm and 8:00 pm. Slowly, as your body grows accustomed to periodic fasting, close the window.

Understanding Parasympathetic Tone

Everyone understands the motor and sensory portions of our nervous system that control movement and experience pain, hot and cold, vibration, light sensation and generally how we interact with our world. There exists another nervous system as well; one that we seldom think about because, well, that's how it's designed.

Our Autonomic Nervous System (ANS) is much beyond conscious control, yet it controls much of our daily activity. It's like an automatic system running behind the scenes, managing stress and hormones, emotions, and response to stimuli of all sorts. It also controls detoxification, so we need to talk about it here. The ANS is separated into two opposing, often counterbalancing sides: the Parasympathetic and the Sympathetic.

Rabbits are prey. Their cute, little, ever-wiggling noses, giant fluffy ears, and large eyes are all designed for their protection with heightened senses always looking for the next attack. Their nervous systems are tipped in a constant sympathetic dominance that leads to quickly accelerated blood pressure, ease of escape, and continual worry. We are not rabbits.



But our “bunny brain,” as I like to call it, can bend towards getting stuck in a similar scenario. This may be more appropriately termed Post-Traumatic Stress Disorder (PTSD), anxiety disorder, or some form of obsessive-compulsive issue, but it’s all relatively the same. Whether it was an experience that left us in a state of helplessness to danger or a current condition that steals our control, we can easily get trapped feeling like we are defenseless bunny rabbits surrounded by a hundred hungry wolves.

Our “bunny brain” can get stuck on high alert, lasting long after the predators have gone. Neurologically, we call this being in a state of Sympathetic dominance. Our Sympathetic nervous system is part of our autonomic nervous response, responsible for “fight, flight, or freeze”, largely protective, survival reactions. It’s counterpart, the Parasympathetic system, is calming, healing, detoxifying, and resting. They are opposites and are supposed to be in balance, for the most part, in a resting, non-emergency, situation.

The problem arises when our brain gets stuck thinking that wolves surround us. Ramped-up Sympathetics can lead to high blood pressure, blood sugar control issues, and even cancer; and worse, when diagnosed with such disease, it can lead to greater morbidity as the diagnosis itself increases Sympathetic tone. Don't get me wrong, we need a healthy Sympathetic nervous system to react correctly and quickly to an emergency, raise our blood pressure when we need to respond to a situation, shunt blood to our legs, open the bronchi to receive more oxygen, dilate our pupils to take in more light to access the surroundings, pump adrenaline through our vessels to react with necessary energy, and shutdown all Parasympathetic functions to reserve energy.

Healthy Sympathetic responses help us deal with sudden, temporary crises, yet here lies the problem: if we get stuck in this Sympathetic "bunny brain," all Parasympathetic function is suppressed. That is *not* good!

Our Parasympathetic system is the neurologic control over all our detoxification pathways, our relaxer to our vessel walls that lower blood pressure, our immune system response to pathogens, and our rest and relax to our brain, telling us, "all is well, calm down." If this system is suppressed, then neurologic control of our detoxification is shut down and no level of added nutrients will help. In fact, our Parasympathetics largely control nutrient absorption, so if this imbalance is left unchecked, we could be in real trouble.

Neurological Exercises to Reduce Sympathetic Tone

The Sympathetic nervous system originates in a special part of the brain called the Mesencephalon. There exists several seemingly silly exercises that have been proven to reduce Mesencephalic tone. Try these regularly along with the below exercises to stimulate the Parasympathetics and you will soon notice a difference:

- Wear rose-colored sunglasses at times through the day
- Place a cotton ball **right** ear
- Breathe a **foul** smell (whatever you consider to be a foul odor) in the **right** nostril (close the left nostril with your finger)
- Slow, deep, belly breathing
- Play memory games (like card games)
- Use a Chi machine
- Vibration therapy (a foot vibrator or hand-held muscle vibrator) on legs or feet

Dietary Concerns:

- Lower **Glutamate** levels (found in prepared foods) – MSG is the most widely known source of glutamate, but there are numerous forms that will **not** typically be labeled clearly (it is typically labeled as “natural flavoring”)
- Any inflammatory foods can stimulate the mesencephalon (gluten, dairy, etc.)
- **Histamine** can sometimes stimulate the mesencephalon, so decreasing histamines in the diet may help

Emotional Helps:

- The mesencephalon and the amygdala are closely related. The amygdala is where all your emotional memories are housed. If past emotional traumas (and even memories of physical traumas) surface in any way (stimulus of memories), it will increase the mesencephalon. Choosing to address past emotions can be extremely helpful!

Neurological Exercises to Increase Parasympathetic Tone

The Vagus nerve is the 10th Cranial Nerve. It originates in your Brain Stem and travels down to your organs, including your gut, connecting the brain and gut. It is part of the Parasympathetic nervous system that is most responsible for healing, including detoxification and immune function.

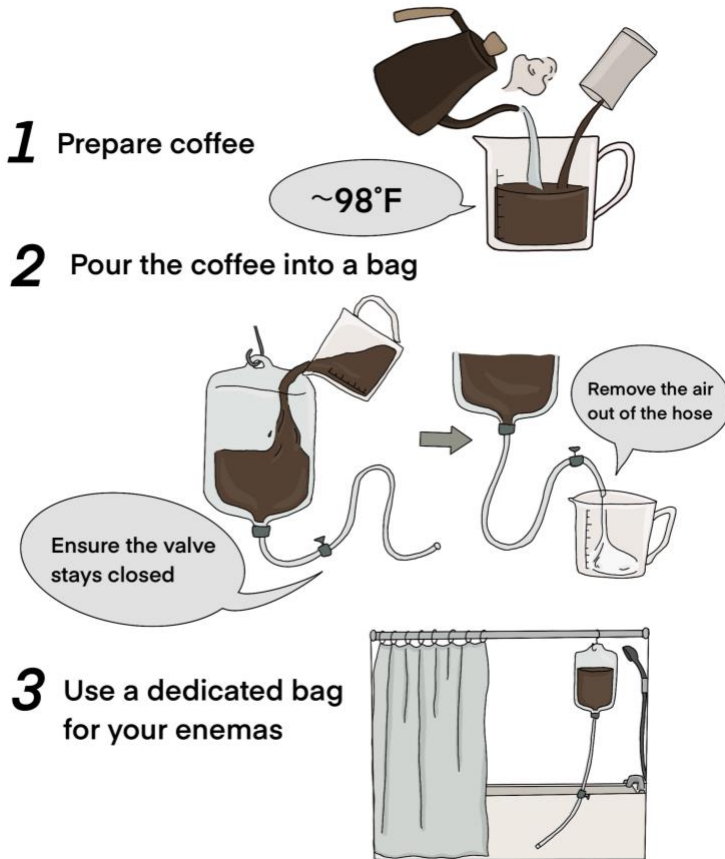
The Vagus controls the motility of your gut, making sure food moves through your digestive system properly. It also controls blood flow to the gut, so that nutrients can be delivered. If this nerve pathway slows it can lead to a multitude of problems, including intestinal permeability, small bowel dysbiosis, constipation/diarrhea issues, various brain problems, a decreased immune response, anemia, liver issues, and chronic disease. Below are some exercises designed to stimulate the Vagus nerve, thereby improving gut, brain, liver, and immune function:

- **Gargling** – Gargle approximately 1/8 to 1/4 cup of water 12 times per day for 60 seconds. You should gargle aggressively so that your eyes “tear up.”
- **Gag Reflex** – Carefully use a clean instrument such as a tongue depressor to elicit your gag reflex by pushing down on the back of your tongue. The goal is **not** to make you vomit - do **not** stick the instrument down your throat. Complete at least 10 times per day.
- **Coffee or Probiotic Enemas** – Follow instructions below on how to prepare the enema. Our purpose here is **not** specifically to detox the body, but rather to stimulate the Vagus nerve. While lying on your right side, resist the urge to defecate for up to 15 minutes.
- **Singing** – Sing so loudly that you begin to “tear up”. Complete this at least several times per day.

- Cold Temperatures – Taking a walk outside in cooler temperatures or a taking a slightly cooler shower has been shown to stimulate the Vagus nerve.
- Prayer – Prayer and personal meditation is a powerful way to stimulate the Vagus nerve.
- Social Interaction and Laughter – Humans have a huge need for social interaction. Try to get together with friends and enjoy a good belly laugh. Choose to watch funny movies, clean comedy, and uplifting stories.
- Balance Exercises such as Yoga-like positions – Positioning exercises such as these can be very beneficial.
- Breathing Exercises – Try breathing in and out at the same duration. Example: try a 5-second inhale followed by a 5-second exhale for a total of 6 cycles per minute. Doing this will help stimulate the Vagus nerve and can also help to lower anxiety and blood pressure.
- PEMF – If you are near a clinic that has a PEMF unit, schedule use of it. If you have one at home, use it daily.

Coffee Enemas

Let me begin by saying that I've heard it all. Patient's initial reaction to coffee enemas range from shock to distain. Some comments come quickly while others surface from experience and learning to jest about a seemingly unpleasant experience. Some call it their morning coffee time, others their "crappuccino." I think that coffee enemas are so important in a discussion on detoxification that they deserve their own section.



“A cup of coffee taken by mouth has an entirely different effect,” Dr. Max Gerson commented. It may be stated that Dr. Gerson really put coffee enemas on the map. His therapies consisted of strict dietary guidelines, juicing and coffee enemas to cleanse the body to heal from a variety of diseases. Oral consumption, “heightens the reflex response, lowers the blood pressure, increases heart rate, perspiration, causes insomnia and heart palpitation.” -Max Gerson.³

³ A Cancer Therapy, p. 191

The greatest benefit of a coffee enema may be the stimulation of the Vagal nerve, and hence, stimulation of the Parasympathetic nervous system. This will give a neurologic flush to the liver and a powerful opening of the bile ducts, so poisons stored in the liver can be released.

Lowering Histamine

Consider lowering histamines in your diet. When you're choosing to decrease the levels of histamine in your diet, it's just that: *decreasing*. ***It is simply impossible (and unnecessary) to try to eliminate histamines.*** They're everywhere.

However, what you can do, and should focus on, is reducing your intake of high histamine foods along with combining foods that are low in histamine with other foods that ***can help break down*** and clear histamine from the body. Use this list to help lower your histamine load.

Foods that are highest in histamines may not be good food choices for other reasons as well. You can find a complete list of histamine foods on our website but here are some general, higher-histamine foods:

- Alcohol
- Pickled or Canned Foods – sauerkraut
- Matured Cheeses
- Smoked Meat Products – salami, ham, sausages
- Shellfish
- Beans and Pulses – chickpeas, soybeans, peanuts
- Nuts – walnuts, cashew nuts
- Chocolates (and other cocoa-based products)
- Vinegar

- Ready Meals
- Salty Snacks, Sweets (with preservatives and artificial colorings)

Taking nutritional products that help breakdown histamines can be very helpful as well. I believe these fall into two categories:

Blocking Histamine in Your Gut

Using a good DAO enzyme (the enzyme that breaks histamine into pieces) will help demolish histamines that you ingest, thereby inhibiting absorption, and it helps block inflammation within the gut and calm any fire that is burning.

I suggest taking one of our Hista Clear capsules with meals that may have greater amounts of histamine or just one per day to calm inflammation:

shop.ConnersClinic.com/hista-clear

Using Nutrition to Break Down Histamines in Tissues

These may be either from absorbed dietary histamines or histamines that the body creates in the inflammatory process. There are several different products I like for ridding tissue histamine, and you really need to try each to see which works best for you. Try taking 3-6 per day and give it a try for an entire bottle to judge whether the formula is best for you.

Natural Clear Hist

shop.ConnersClinic.com/natural-clear-hist

Clear Histamine Scavenger

shop.ConnersClinic.com/clear-histamine-savenger

CHAPTER 2

Stop Reabsorption

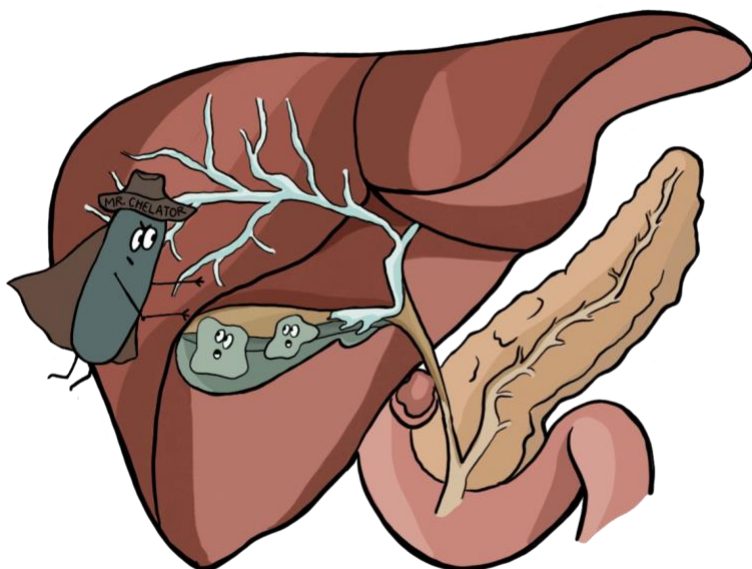
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Phase 5

Gut Binders

Binders, in nutritional-speak, are nutraceuticals that tend to bind to toxins and aid in their removal. They are chelators that don't absorb, staying in the gut to grab onto poisons and escort them into the toilet.

While it's easy to think of the GI tract primarily for digestion and absorption, remember that everything inside this tube that traverses your body is still technically outside the body. The cells that line the gut maintain a barrier, a wall between the outside world and the body. Its function is vital in protecting the body from ingested toxins. These protective epithelial cells are specifically equipped to balance the need for the absorption of nutrients, while preventing the passage of unwanted pollutants or organisms into the body.



The lumen of the gut contains numerous entities that normally should never reach the bloodstream. These include large food particles, toxins, harmful microorganisms, and even normal microbiota, considered essential for gut health. The integrity of the mucosal barrier is maintained by a single layer of tightly fitted epithelial cells acting as both the gatekeepers and guardsman to protect us from harm.

This protective wall can become compromised by several factors such as dysbiosis, inflammation, food allergies, and immune system dysregulation and, as many practitioners would attest, your health may be measured by the health of this barrier. Damage to the gut epithelial cells has been termed “leaky gut” and is not what this booklet is addressing, however omitting such information when discussing detoxification would be criminal.

An extended intestinal transit time and failure to bind toxins can be a contributing factor to leaky gut syndrome, so following recommendations for Phase 5 can help heal the gut as well.

Should you believe that leaky gut is an issue in your care, follow some general gut healing protocols I outline in our blog on the topic here:

ConnersClinic.com/leaky-gut

Reabsorption of Toxins

One major problem in clearing toxins is the fact that they tend to reabsorb in the gut and recirculate again. One reason this happens is an excessive intestinal transit time (food takes too long to get through the gut.) Going back to Phase 6 helps with this. Another reason is an imbalance in hormones. Estrogens, especially “bad estrogens” (quinone estrogens, 4-hydroxy catechol estrogens) are easily reabsorbed in the large intestine, which is never a good thing.

Using DIM to help prevent hormone reabsorption for both males and females of all ages is a good idea. Excess estrogen exposure is a worldwide tragedy that is causing a plethora of problems from cancer to things too controversial to discuss in this short treaty. Other nutritional binders may be more or less specific to a particular toxin, but general gut binders tend to suffice for most.

Some of our favorite binder products include:

Phase 5 Clear Binder

Clear Binder is a broad-spectrum binding formula containing natural ingredients from the purest sources to support enhanced clearance of heavy metals, unwanted organisms, and organic compounds from the GI tract.

shop.ConnersClinic.com/clear-binder

Ultra Binder Sensitive Formula

Start by adding 1/8 teaspoon to a smoothie per day. You can mix it in water, but it doesn't dissolve well. Add it to a juice if necessary.

shop.ConnersClinic.com/ultra-binder

Universal Binder + Full Spectrum

This is a premium blend of activated charcoal, bentonite clay, humic acid, fulvic acid, organic broccoli sprouts, organic chlorella extract, wild yucca root extract, and molybdenum in an all-in-one formula that acts as a wonderful binder. Start by taking just 1 per day.

shop.ConnersClinic.com/universal-binder

ViRadChem Binder

ViRadChem Binder from CellCore is a game-changer. It is designed to get to the source of chronic symptoms by targeting viruses, radiation, and chemical toxins. Though it doesn't perfectly fit my definition of a non-absorbing substance that remains in the gut, it acts wonderfully as a gut binder. Start with 2-3 capsules per day, split up through the day.

shop.ConnersClinic.com/viradchem-binder

Phase 3 Complete Detox

Phase 3 Complete Detox delivers an easy-to-use, all-in-one intestinal binder that has an extremely broad range in its ability to bind toxins in the gut. Start with 1-3 per capsules day.

shop.ConnersClinic.com/phase-3

CHAPTER 3

Squirting Bile

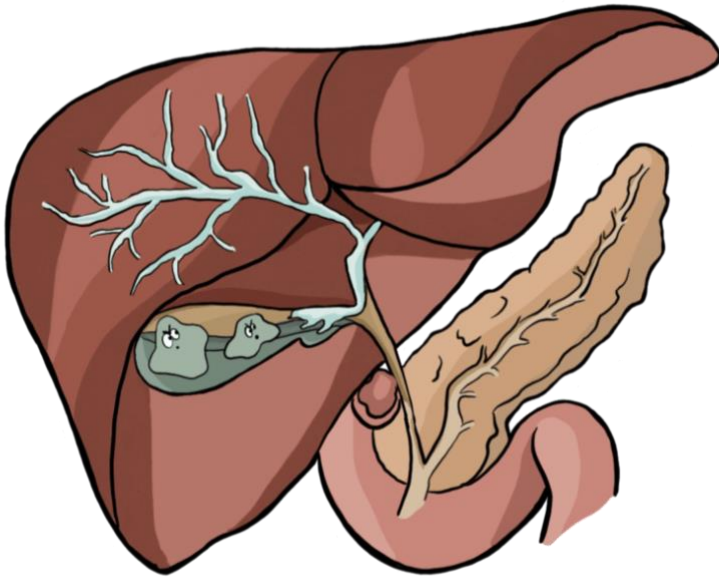
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Phase 4

Flushing the Gallbladder

I have termed Phase 4 to be the secretion of bile. Bile, the digestive fluid produced by the liver, is stored and concentrated in the gallbladder. Its main function is to convert fats from food into fatty acids, which are absorbed in the gut. It is also the primary transporter of all waste produced through Phase 1, 2, and 3 into the intestinal tract.

Bile is essential for the complete digestion of fats and, to some extent, it aids in protein and carbohydrate digestion. It does so through the presence of bile salts, which acts as an emulsifier to break the large fat globules into smaller emulsion droplets. Emulsified fats provide a larger area for the fat-digesting enzymes (lipase from the pancreas) to act, making the process quicker.



Bile is also a good solvent serving as a good medium for the interaction of fats and fat-splitting enzymes. It also helps in the absorption of various substances like fatty acids, iron, calcium, and vitamins. Bile salts aid in the absorption of lipid-soluble Vitamins A, D, E and K and the provitamin, beta carotene.

Bile serves to excrete toxins from the liver, as described, and help rid the body of heavy metals, excess minerals such as copper, zinc, and mercury, and can even function as a binder in the gut. Bile also serves as the route of excretion for bilirubin, a byproduct of red blood cell breakdown, and carries excess cholesterol out of the body.

Bile helps to alkalize the pH of the duodenal contents and thus it helps the action of all enzymes. Bile is an important source of alkali for neutralizing the hydrochloric acid entering the intestine from the stomach. Bile salts function as “nutrient signaling hormones” by activating specific receptors. Bile salts

also are presumed to collaborate with insulin to regulate the metabolism of nutrients in the liver.

The production of bile is made up of bile acids, cholesterol, phospholipids, bile pigments (such as bilirubin and biliverdin), electrolytes and water. The healthy liver produces nearly a liter of bile every day so adequate substrates are necessary.

Bile is stored in a little sack called the gallbladder for the simple reason that we want a greater concentration of bile in the small intestine when there is food in there to digest. When food enters the duodenum from the stomach, the gallbladder squirts a bunch of bile juice into the lumen to get to work. Those without a gallbladder need to eat more often and eat smaller meals, watching for too great of fat consumption at any given time.

I would bet that everyone reading this knows someone who has had gallstones and maybe even had their gallbladder removed. We have too many organs anyhow. The detoxification pathways are not compromised in such individuals. They continue to produce bile and continue to excrete it but lack the concentration at most needed times.

However, stasis of bile, or the thickening and slowing of movement of such substance is what I term a Phase 4 detoxication problem. Bile can get sluggish from an increased viscosity due to several factors including an increased toxic load from the liver to blockage of flow. From the liver, bile enters either the left or right hepatic (liver) duct, hangs a right through the cystic duct to the gallbladder waiting for the squeeze to be squirted back through the cystic duct, sharp turn through the common bile duct, into the first part of the small intestine. Whew! If there is any constriction along the way, we have problems.

I am not going to get into the many diseases that can cause strictures in the bile system but there are some simple steps that anyone can do (even those with serious pancreatic cancers

blocking bile flow) that will help get toxins from the liver to the gut, via bile.

We should discuss gallstones as they are diagnosed so often. Gallstones are small lumps of semisolid material that form in the gallbladder due to abnormal concentrations of bile acids. Usually, they are rubbery in nature but can increase the risk of precipitation of bile out of solution to form stones. They can be made up entirely of cholesterol, bile pigments, or a mixture of the two.

Gallstones begin very asymptomatic but can cause painful cramping if they move to block the cystic or common bile duct. Typically, pain in the right upper quadrant, especially after eating a fatty meal is a sign of gallbladder pain. The gallbladder can also refer pain to either shoulder. Other associated symptoms may include nausea/vomiting, abdominal pain, jaundice, and fever.

If you think gallstones may be a problem in your life, get to your doctor and get an Ultrasound. You can choose to do a gallbladder flush but make sure you are properly supervised by an experienced practitioner. We have more information on liver/gallbladder flushes on our blog.

ConnersClinic.com/liver-gallbladder-flush

Jaundice is another outcome of a blocked bile flow. It is the cause of the yellowish pigmentation of the skin and eyes due to excessive bilirubin levels in the blood. There are many different causes for jaundice, that are commonly split into three categories.

Pre-hepatic jaundice occurs when there is excessive lysis of red blood cells somewhere in the body and the liver is unable to conjugate all the excess bilirubin, leading to high levels of unconjugated bilirubin. Causes of this include inherited red cell defects (e.g., sickle cell), congenital hyperbilirubinemias

(gilberts syndrome), or acquired autoimmune diseases/infections.

Hepatic jaundice exists when damage to the liver dumps excessive bilirubin into the bile. Hepatic inflammation (e.g., hepatitis), liver cirrhosis and hepatic tumors, primary or metastatic cancer in the liver can all be causes.

Post-hepatic/obstructive jaundice is the most common type of jaundice. This is where the drainage of bile is obstructed, causing conjugated bilirubin to back up into the liver and overflow back into the blood. Common causes include gallstones, hepatitis, strictures, tumors outside of the liver (in the bile duct or pancreas) and pancreatitis. Regardless of the type of jaundice, you must find the cause to address the issue.

What I Recommend to Aid Phase 4

Phase 4

Phase 4 is an effective, broad-range supplement designed to help support the upper and lower gastrointestinal system, superiorly designed to target effective breakdown, assimilation, and absorption of nutrients and dietary factors.

This product features:

- A blend of betaine HCl, plant and pancreatic digestive enzymes
- Naturally occurring digestive-supporting fruits (bibhitaki & haritaki), gentian root, and ox bile.

Start by taking one with each full meal:

shop.ConnorsClinic.com/phase-4

Phase 4 Assist

Phase 4 Assist is a combination of ginger (*Zingiber officinale*) and artichoke leaf extract (*Cynara cardunculus* L.) delivered at a clinically proven dose to restore gastric motility. Artichoke is a great addition to aid in both bile formation as well as bile flow. Ginger adds a great anti-inflammatory herb for the liver and gallbladder as well. It is a distinctive blend of bioactives that promotes contractions in the migrating motor complex, helping to restore proper motility, which ensures the steady flow of food particles and bacteria through the small intestine. In addition, it provides support for improved digestion and relief from temporary gas, bloating and associated GI discomfort. Start with just one capsule per day on a relatively empty stomach.

shop.ConnorsClinic.com/phase-4-assist

Mild Gallbladder Flush

This mild gallbladder flush requires six days, beginning on a Monday and ending on a Saturday.

Supplies

Plenty of apple juice or cider (not concentrate, but the real thing, without added sugars and preferably **organic**)

- Motility **PRO** capsules (you can purchase these from our online store, see above)
- Citrus fruits for fresh-squeezed juice and to eat whole (you can substitute canned or bottled citrus fruit if you prefer)
- Unrefined olive oil (available at most health food stores)
- Lemon juice

Instructions

Starting on Monday morning, follow these instructions:

1. Monday morning through noon on Friday, drink as much apple juice or apple cider as your appetite will permit in addition to your regular meals. This helps soften any stones that are in your gallbladder.
2. ***Stop*** eating any ***fat*** for the entire week. That means ***no dairy*** or ***nuts*** as well.
3. On Friday, three hours after lunch (about 3 p.m.) take 3 capsules of Motility PRO with 8 ounces of water.
4. Two hours later (about 5 p.m.) repeat step 3.
5. Limit your evening meal to grapefruit, grapefruit juice, or other citrus fruits or juices.

At bedtime, take either:

1. $\frac{1}{2}$ cup of unrefined olive oil followed by a small glass of grapefruit juice, or $\frac{1}{2}$ cup of warm, unrefined olive oil blended with $\frac{1}{2}$ cup of lemon juice.
2. Go immediately to bed. For the first 30 minutes, lie on your right side with your right knee pulled up close to your chest.
3. The next morning, one hour before breakfast, take 3 capsules of Motility PRO with 8 ounces of water.
4. Continue with your normal diet and activities.

What You Can Expect During the Gallbladder Flush

Some people feel slightly nauseated while they're drinking the olive oil and citrus juice mixture. If you do, don't fret. The feeling will disappear soon enough.

You may also feel some discomfort around your gallbladder, what's known as the upper right quadrant, on the right side of your abdomen just below the rib cage. This can be a good sign because it indicates your gallbladder is being stimulated. This feeling will also pass with time.

On Saturday and Sunday, you'll likely feel the urge to defecate and may notice a change in frequency and color of your bowel movements. This is natural and is a result of the increased amount of bile released after the gallbladder flush.

Some people report the presence of what look like dark green peas or even marbles in their stool. This is softened material from the gallbladder that has not yet become calcified. Again, it's not cause for alarm, and indicates that the gallbladder cleansing has been effective.

CHAPTER 4

Moving and Creating Bile

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Phase 3

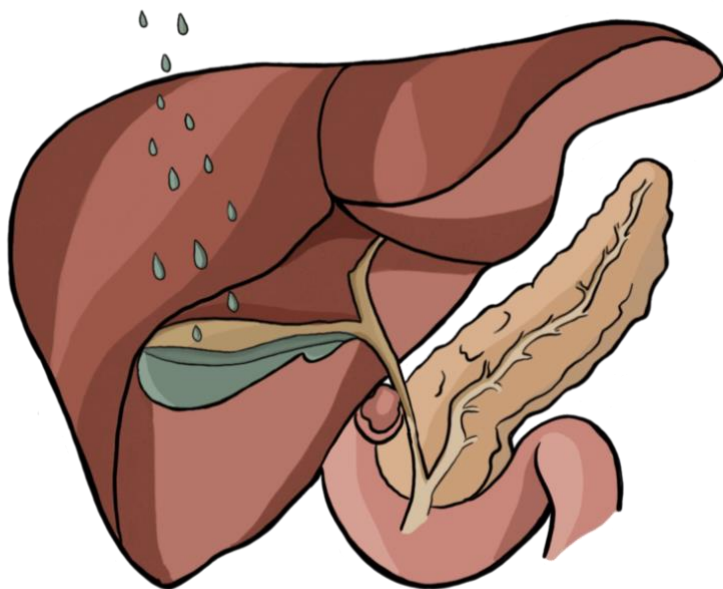
Supporting Bile Excretion from the Liver

More recent research has identified a third detoxification pathway within the liver termed *Phase 3*. It is thought that through this pathway the now water-soluble molecules from the endpoint of Phase 2 are excreted via transport proteins. Often referred to as the antiporter pathway, within which more than 350 antiporter proteins have been identified and are often referred to as ABC transporters (ATP-binding cassettes.) ABC transporters are not only found in the liver but function in the intestines, kidneys, as well as the brain where they assist astrocytes, the cells that makeup the blood-brain barrier to protect the brain from large chemicals.

In the liver, ABC transporters bind to Phase 2 metabolites and carry them to the bile. The best known and most studied ABC transporter is P-glycoprotein (P-gp). P-gp is plentiful in the intestinal epithelium where it pumps toxins, trying to resorb back into the intestinal lumen. In the proximal tubule of the kidney, P-gp pumps toxins back into the urine-conducting ducts to insure excretion.

According to Dr Chris Shade, an environmental and analytical chemist who specializes formulating some great detoxification products that we utilize, the most significant cause of Phase 3

dysfunction is chronic inflammation. When Phase 3 is blocked for any reason, a negative feedback loop results in the down regulation of Phase 2 enzymes. Intermediate metabolites produced in Phase 1 are then at risk of building up, resulting in increased oxidative damage which further causes problems. I think you're beginning to see why we start down-stream.



Dr. Kelly Halderman has expounded on the bottleneck faced when Phase 3 is slowed, coining the term Phase 2.5. Whether the cause of such bottleneck is inflammation, liver damage from other sources, lack of adequate bile production, or lack of co-factors necessary for ABC transporters, this limiting step needs to be addressed.

What I Recommend

Phase 3 Complete Detox

Phase 3 Complete Detox delivers an easy-to-use, all-in-one intestinal binder that has an extremely broad range in its ability to bind toxins to ensure proper completion of detoxification.

Most toxins are excreted into the bile, which then travel from the liver to the gallbladder and then into the intestines, the endpoint being elimination through defecation. Many toxins can be reabsorbed through the intestines after excretion into the bile, which causes them to recirculate in the body and cause much harm. Using a comprehensive toxin-binder is imperative to ensure proper elimination.

Start by taking 1 capsule, 3 times per day.

shop.ConnorsClinic.com/phase-3

Phase 2.5 Bile Support

The movement of conjugated toxins into the bile, coupled with the movement of bile salts and phosphatidylcholine is referred to as Phase 2.5 Detoxification. Often the process of Phase 2.5 Detoxification is not functioning properly due to inflammation, endotoxins from pathogenic intestinal flora, and hormone imbalances. Toxins will then be forced to be excreted back into the blood where they may cause further damage and increase stress on the kidneys.

NSI/Professional Health Products' Phase 2.5 Complete Detox delivers powerful hepatoprotective & antioxidant nutrients that increase bile production and bile flow; increase phosphatidylcholine (the compound responsible for maintaining bile viscosity) and provide raw materials for proper bile salt conjugation.

Phase 2.5 Bile Support includes:

- **Artichoke** (*Cynara scolymus*): Extremely safe, well-studied nutrient that has antioxidant, choleretic, hepatoprotective, bile-enhancing and lipid-lowering effects
- **Dandelion** (*Taraxacum officinale*): Hepatic antioxidant that stimulates the production of bile and enhances bile flow into the intestine
- **Choline Bitartrate**: Proper amounts of choline are needed to produce phosphatidylcholine; the nutrient needed to maintain proper bile viscosity. Exogenous oral choline administration has been shown to increase phosphatidylcholine and membrane phospholipid synthesis
- **Taurine**: Organic compound that functions in the conjugation of bile acids. It also has antioxidative and membrane stabilization effects.
- **Glycine**: Essential amino acid that functions in the conjugation of bile acids and has been scientifically shown to increase portal blood flow, bile production, hepatic microcirculation and maintain cytochrome oxidase activity under conditions of hepatic injury.

shop.ConnorsClinic.com/phase-2-5

BodyBio PC

BodyBio PC is made of pure phospholipids which automatically form liposomes in the body. Non-liposomal PC, such as lecithin, is broken down by digestion, preventing the positive impact PC has on improving your cellular health. BodyBio PC is a non-GMO, pure liposomal phospholipid complex, meaning the pure phospholipids are not broken apart and are instantly utilized, rebuilding every cell in your body. BodyBio PC contains concentrated levels of:

- Phosphatidylcholine (PC) - essential for memory
- Phosphatidylethanolamine (PE) - vital to mitochondrial function
- Phosphatidylinositol (PI) - supportive to the brain and neurotransmission. Low levels of Phosphatidylcholine (PC) in the body impacts the brain and heart, affecting memory, mental alertness, behavior, focus, and the ability to create bile. Start by taking one per day.

shop.ConnorsClinic.com/bodybio-pc

Castor Oil Packs

One helpful way to support bile flow is to use heat over the liver/gallbladder area. Castor oil packs with heat can be even more helpful.

shop.ConnorsClinic.com/castor-oil-pack

Coffee Enemas

Always consider coffee enemas for help with Phases 1-3.

shop.ConnorsClinic.com/enema-kit

CHAPTER 5

Packaging the Toxins

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Phase 2

Conjugation

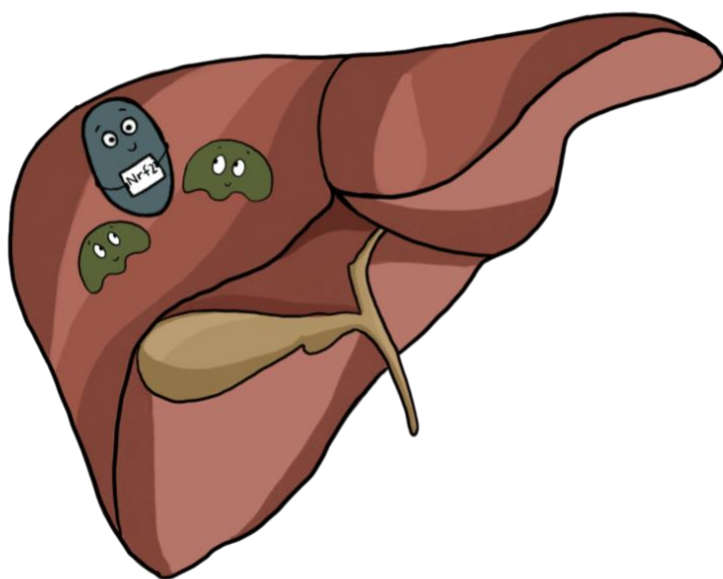
Phase 1 liver detoxification is possibly the most researched section of all the phases. But to be honest, should you do a search on detoxification phases, you will only find 2 phases listed. Some recent literature adds Phase 3 and I have conveniently coined Phase 0, 4, 5, and 6. When naming the other phases, I began with the known, acceptable physiological phases of liver detoxification to remain congruent with all the published information.

We were taught in school that we cannot survive without a healthy liver. Its roles are vital to keeping the body clean, but there are over 700 known functions of the liver. Besides filtering the blood of toxins, breaking down steroid hormones, storing glucose for later use, producing bile for toxin excretion and fat digestion, making cholesterol in all its forms, it is best known for the two-step process in its almost miraculous use of self-created enzymes to neutralize and transform toxins to enable excretion.

The Phase 1 processes are complex and controlled by specific enzymes made by unique genes specializing in oxidation, reduction, hydrolysis, hydration, and dehalogenation. We'll discuss these later. Phase 2 detoxification is also known as the conjugation pathway because of the way it takes the metabolites

from Phase 1 and prepares them for the exit process. The genes in the Phase 2 process are involved in sulfation, glucuronidation, glutathione conjugation, amino acid conjugation, acetylation, and methylation.

All these complex processes are dependent upon genetic production of specific enzymes and a variety of different nutrients, vitamins, and minerals. This book is not intended to bore you with excessive amounts of physiology, but I want to breakdown some of the details for those who like to nerd-out on the wonders of creation.



Sulfation

Sulfation is one step in detoxification that helps your body clear various drugs, excess hormones, food additives, and endotoxins from bacteria. It utilizes amino acids such as cysteine and methionine to help process these things and can deplete sulfur

stores. Foods containing sulfur, like eggs, onions, garlic, meat, and fish help push this pathway.

Glucuronidation

Glucuronidation transforms certain drugs, hormones, mold toxins, PCBs, and many other cancer-causing toxins into water-soluble products for your body to rid. Though this process primarily takes place in the liver, the actions of glucuronidation also takes place, to a smaller degree, in the gut. There is an enzyme, beta-glucuronidase, that is made by certain gut bacteria that will shut down this process. When this bacterium gets out of balance, hormones don't process out of the body, and excess toxins and hormones can occur. Taking a supplement called Calcium D-glucarate inhibits this enzyme and allows proper detoxification. While you would want to treat the dysbiosis in the gut, using Calcium D-glucarate can be a good addition. My favorite product for this is FemGuard+Balance as it contains many other hormone protecting/balancing ingredients to keep us safe in a world swirling with hormone disruptors.

Glutathione Conjugation

Glutathione is considered a primary intracellular antioxidant, but we forget its role in the liver detoxification pathways. Oxidation damages cells and is a leading cause of cancer. Glutathione protects the hepatocytes (liver cells) from toxic injury themselves.

Amino Acid Conjugation

Amino acid conjugation adds an amino acid, most commonly glycine, to rid toxins. Herbicides, pesticides, and large chemicals often detoxify through this pathway. It has been shown that patients with hepatitis, alcoholic liver disorders, cancers, chronic arthritis, hypothyroidism, and toxemia of pregnancy commonly have a poorly functioning amino acid

conjugation system. One thought is that possible genetic defects coupled with excessive chemical exposure slow this pathway and increase risk to disease.

Acetylation

In acetylation, the liver adds a molecule called Acetyl-Co-A to a toxin to help make a more inert substance, ready to expel. Many drugs are transformed by acetylation for them to be properly excreted. Caring for cancer patients, we often encounter people who have extremely negative reactions to chemotherapy. Well, this is most likely due, in part, to impaired acetylation pathways. Many adverse drug and chemical reactions have been associated with acetylation status. Looking at the NAT and PON1 genes can be very helpful for these patients.

Methylation

Methylation converts toxins of all kinds from insoluble or fat-soluble compounds into water-soluble compounds by adding a methyl (CO3) group. Amines (serotonin and melatonin, histamine, tyramine, all the catecholamines including dopamine, norepinephrine, epinephrine) go through this pathway, as do phenols (like salicylic acid [aspirin, cannabinoids, estradiol, and BPA]) and quite a few other chemicals. Before cancer patients jump into adding excessive methylation supplements like methyl cobalamin or methyl tetrahydrofolate, remember that excess methyl groups also silent genes that we may not want to “turn-off” – see my book, *Stop Fighting Cancer and Start Treating the Cause* for more information on this. We always suggest you start with dietary changes to support methylation as opposed to taking supplements. Eat broccoli and a lot of green leafy vegetables!

Some of the best ways to support Phase 2 pathways is to examine your genetic SNPs for defects that could slow the production of enzymes necessary to carry out the process. It

may be a good idea to also test for nutrient deficiencies that could also slow down the mechanics. Measuring blood enzymes like ALT, AST, and Alkaline Phosphatase doesn't give us any details in detoxification function but gives us clues of overall liver dysfunction.

Phase 2 enzymes in the liver are regulated by genes. One of these is a transcription factor called Nrf2 [nuclear factor erythroid 2 (NF-E2) p45-related factor 2]. Nrf2 is key to regulating the body's detoxification and antioxidant system in non-liver cells as well. When activated, Nrf2 dissociates from the cytosolic protein, Keap1 (we talk about this in detail when we look at a person's genes), and "turns on" the genes associated with Phase 2 detoxification.

Nrf2-modulation by curcumin, sulforaphane, garlic, catechins (EGCg form of green tea extract), resveratrol, ginger, coffee, rosemary, blueberry, pomegranate, ellagic acid, and Astaxanthin has proven to be great nutrients to stimulate Phase 2 detoxification.

For example, Sulfur transferase is a Phase 2 enzyme that adds sulfur groups to compounds to make them more water soluble and less reactive. This process is used on a wide variety of toxic molecules including phenols, amines, acetaminophen, and food dyes. Many chemicals that can become airborne are sulfated. Patients with autism have been found to have impaired sulfation ability, which will make these individuals more sensitive to toxins.

Paraoxonase 1 (PON1) is an enzyme made by the PON1 family of genes that can perform paraoxonase activity on substrates. This enzyme can hydrolyze and detoxify many different types of organophosphate molecules. PON1 is one of the major pathways that protect people from these types of compounds. Mutations to PON1 could lead someone to be more sensitive to pesticides and increase the risk of cancer. Infants do not have a lot of PON1 activity.

What I Recommend

If you are new to a healthy lifestyle, it may be best to begin with dietary changes as listed above. Start by choosing to eat organically whenever possible. Eat more cruciferous and leafy green vegetables. Choose a salad over a hamburger. Start making smoothies with greens and whole fruits.

Strongly consider having a competent practitioner run a full genetic profile. Phase 1 and 2 pathways are under strict supervision of specific genetic factors and knowing if you have SNPs influencing these is very helpful. Then you can hone in on the most appropriate nutritional approach.

If you feel you have a handle on diet and are adequately addressing Phases 3-6, then strongly consider supporting this pathway with some products listed below:

Phase 2 – PON 1 Assist

Phase 2 PON1 Assist is a combo product created to help support people with defects in the PON1 detoxification genes. These genes are responsible for assisting your body to get rid of large chemicals such as pesticides, insecticides, vaccinations, some medications, as well as free radicals.

Mutations of the PON1 gene inhibit enzyme efficiency and are believed to create an increased risk for atherosclerosis and other coronary implications. Paraoxonase 1, also known as PON1, is a critical enzyme located on high density lipoproteins and is responsible for hydrolyzing organo-phosphates and insecticides; therefore, the PON1 enzyme directly regulates the ability to secrete these chemicals following an environmental exposure.

Organophosphates, the active ingredient found in herbicides, is known to disrupt the digestive tract and act as a neurotoxin. Symptoms of toxic levels of organophosphates include, but are not limited to, headaches, diarrhea, restlessness, convulsions,

labored breathing, weakness, frequent urination, and nausea. Due to its location, the PON1 enzyme protects HDL's against peroxidation that is implemented through contact with low density lipoproteins.

The ability to support the PON1 enzyme, through the supplementation of natural cofactors, has been revolutionized with PON1 Assist. Individuals with the PON1 variant should be advised to supplement with PON1 Assist for long term health support.

Start by taking 3 per day of Phase 2 PON1 Assist, spread through the day if possible:

shop.ConnersClinic.com/phase-2

Dual Phase Detox

Dual Phase Detox is designed to support balanced activity of the body's Phase I and Phase II detoxification processes. It has been formulated to contain select ingredients, Dual Phase Optimizers (DPO), to enhance the activities of hepatic detoxification enzymes and support healthy detoxification pathways.

The 5-MTHF in this formula - Quatrefolic® - is the most biologically active form of folate, allowing rapid uptake into the bloodstream. The 5-MTHF in this formula is also known as the "L" form of 5-MTHF since it is the reduced form of folate.

Dual Phase Detox features ingredients that work solely to enhance Phase II detoxification and support the excretion of toxins from the body. For example, during the process of sulfation, toxins are neutralized through the addition of a sulfate.

Therefore, sulfur-containing substances such as sodium sulfate, methylsulfonylmethane (MSM), and NAC are effective detoxifiers. Ellagic acid (from pomegranate), Calcium D-

Glucarate, watercress, alpha lipoic acid, and catechins from green tea leaf extract, also stimulate Phase II detoxification pathways.

Calcium D-Glucarate improves the metabolism of toxins due to its ability to increase glucuronidation. Through this process, glucuronic acid is added to a substance, yielding compounds called glucuronides. These end products are more water soluble than their parent compounds, facilitating their elimination from the body. Many xenobiotic substances — such as drugs, pollutants, and hormones — are processed through glucuronidation.

Animal research indicates calcium d-glucarate protects tissues against excessive estrogen exposure through enhancing glucuronidation. Finally, Dual Phase Detox incorporates antioxidants to help quench any free radicals released during the first phase of detoxification, such as artichoke leaf extract and alpha lipoic acid. Artichoke also helps increase bile secretion and urine output, both of which enhance the excretion of toxins.

Start with 4 capsules per day – two in the morning and two more after dinner:

shop.ConnersClinic.com/dual-phase-detox

Liposomal Gluta Clear

Liposomal Gluta Clear is a Liposomal Glutathione that provides 500 mg of pure glutathione and activated B vitamin cofactors delivered in phosphatidylcholine liposomes for optimal absorption and bioavailability support.

Glutathione is the most important antioxidant support nutrient produced in the body and is found in every cell. Research has shown that glutathione plays an important role in immune system support and the detoxification of body systems.

Take just 1 teaspoon per day to aid the detoxification process:

shop.ConnersClinic.com/liposomal-gluta-clear

Addex

Also consider using Addex, a Homeopathic formula if there has been exposure to insecticides and pesticides. Realistically, everyone has been, and is currently exposed to pesticides, herbicides and insecticides on a daily basis, even if you are eating perfectly.

shop.ConnersClinic.com/addex

Clear Balance

Clear Balance was formulated to help balance hormones and get rid of exogenous estrogens – a problem for both men and women.

Start with 1-4/day to help keep hormones in balance and rid your body of exogenous, cancer-causing hormone metabolites.

shop.ConnersClinic.com/clear-balance

AI

AI is specially formulated to help rid the body of mold, fungal, Lyme, and other bacteria along with their co-infections without stimulating a strong immune response and makes a great addition to support Phase 2 liver pathways.

shop.ConnersClinic.com/ai

Grapeseed Extract

Grapeseed extract may serve as a direct attack on pathogens, coupled with the Glycine, and N-Acetyl Cysteine supporting cellular glutathione production, a key to your own defense. The Phosphatidylcholine and Gamma-tocotrienol support both cell

membrane health and, along with Artichoke Leaf Extract, helps with Phase 2.5 and Phase 3 detoxification. The unique enzyme blend is added for biofilms and Sodium Alginate for a gentle chelation and gut support.

Take 2-4 capsules per day, spread through the day:

shop.ConnersClinic.com/ai

CHAPTER 6

Cleansing the Blood

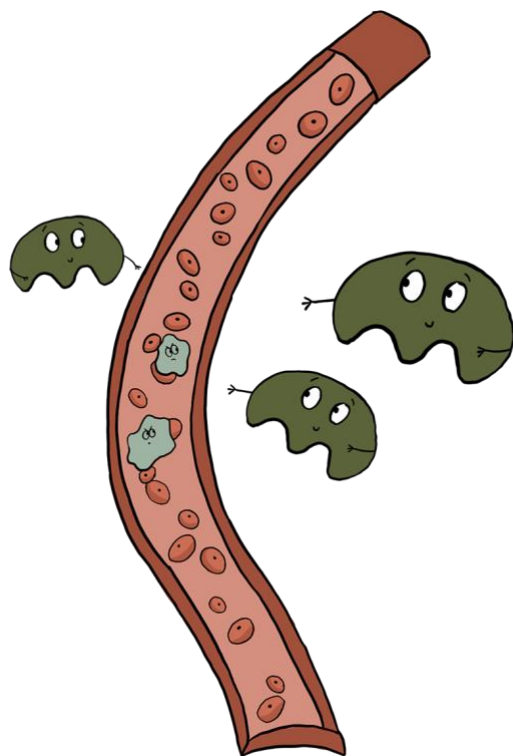
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Phase 1

The P450s

The Phase 1 processes, like Phases 2 and 3, are complex and controlled by specific enzymes made by unique genes specializing in oxidation, reduction, hydrolysis, hydration, and dehalogenation. I'll discuss these briefly below to help you understand the process.

Phase 1 detoxification is controlled by the cytochrome P450 enzyme system. It contributes to the metabolism and elimination of a variety of exogenous and endogenous compounds such as many pharmaceutical drugs including most of the chemotherapy medications, many carcinogens, pesticides, herbicides, different steroids, along with other hormones. This system is composed of a group of more than 50 enzymes delicately constructed under the control of the many cytochrome P450 genes. Again, another good reason to take a deep look at your genetic makeup.



The main purpose of the Phase I enzymes is to form a reactive intermediate that is then ready for a Phase 2 enzymatic reaction. Phase 1 takes poisons and creates a product ready for Phase 2 preparation for elimination. As is often the case, the intermediate metabolite end-product of Phase 1 may actually be more toxic than its original, but it is a necessary step to destroy the poison.

I won't go into detail on the many processes in Phase 1 since all are simply preparing toxins to enter Phase 2, but I do want to discuss oxidation since it explains much of the purpose of the Phase 1 pathway. At first thought, you may ask, "I thought oxidation damages cells and DNA and can cause cancer?" You'd be right. However, in God's infinite wisdom, He knows that everything can be beneficial if used correctly, and oxidation

has a distinct place in detoxification. Simply put, some toxins need to be poisoned to be destroyed.

Limiting Factors

A most important point to remember is that as we increase toxic exposure, we overwhelm our body's ability to get rid of them. I've always preached, "You've heard it said, *you are what you eat*, but it's better stated, *you are what you absorb*, since toxins enter our body through more things than our diet. However, it is best stated, *you are what you don't detoxify*, because what you don't get rid of, becomes you."

There are rate-limiting steps in every metabolic pathway, and these can be best demonstrated in Phase 1 and Phase 2 detoxification cycles. Each step requires factors and cofactors, nutrients, and minerals, as well as the all-important enzymes made by very specific genes. Each intricate process can be slowed by several factors, including defects in the Phase 1 and Phase 2 gene SNPs, deficiencies in necessary nutrients due to poor diet, damaged liver cells due to drug or alcohol exposure, specific medications, even over-the-counter medications can slow particular pathways, congested livers from fatty liver disease, and a host of other issues make us wonder how we are all still alive.

There are numerous enzymes and processes in the Phase 1 family, but the 58 known cytochrome P450 enzymes are the most important. While many things happen with these enzymes, we could summarize them into their ability to take a toxin from the blood and make it able to be processed and then removed from the body.

For example, one P450 in particular (Cyp2C9) is involved with the metabolism of many medications including NSAIDs, warfarin, and tamoxifen. Cyp2E1 is involved with the detoxification of many industrial pollutants, as well as carcinogens. Cyp2E1 also metabolizes ethanol to acetaldehyde

and acetate. Cyp2E1 is also responsible for bioactivating several carcinogens, including cigarette smoke.

This is where understanding your genetic pathway issues come into play with supporting Phase 1 and 2 liver pathways. CYP and PON1 defects help guide product use but, in general, here are some ideas:

Phase 1

When we developed our Phase 1 product we wanted the most comprehensive product available. It contains a great balance of minerals necessary to support the liver as well as key nutrients that facilitate phase 1 liver pathways. Phase 1 provides key vitamins, minerals, plant extracts, and amino acids for advanced liver support as well as support for enzymes involved in oxidation-reduction reactions. This product features:

- A wide array of vitamins, minerals and amino acids known to support phase 1 and phase transformation & elimination reactions in the liver.
- Diverse array of nutrients known for their ability to bind toxins enabling them to be better eliminated for the body.
- All natural herbs and plant extracts well-utilized for liver health support and bile flow optimization.

shop.ConnersClinic.com/phase-1

Phase 1 Assist

Phase 1 Assist helps promote a process called autophagy. Autophagy, a term derived from the Greek meaning “eating of self,” is a process involved in the degradation of cellular debris. Specifically, autophagy utilizes double-membrane vesicles,

known as autophagosomes, to facilitate the degradation of intracellular contents, via lysosomes or proteolytic action.

Moreover, autophagy serves as a critical process for maintaining overall homeostasis: this is achieved by removing misfolded proteins, damaged organelles, and intracellular pathogens or viruses. As a result, autophagy has been reported to be implicated with numerous health concerns.

Autophagy is further imperative for balancing energy sources within periods of development, and in response to nutrient deprivation; during times of starvation or caloric restriction, autophagy occurs.

Oxidative stress and cellular damage have also been reported to promote autophagy. Several genes, and the respective proteins, are involved in the regulation of autophagy, such as, the ATG and ULK genes.

During nutrient-plentiful conditions, mTOR is stimulated and inhibits autophagy: mTOR, mammalian target of rapamycin, phosphorylates the ATG13 protein, and has been reported to interact with ULK proteins, thus mediating autophagy. The balance between mTOR and autophagy has recently received attention as an essential component to maintaining homeostasis.

Similarly, the enzyme AMP-activated protein kinase, known as AMPK, has been thoroughly researched, and has been reported to be involved with autophagy; AMPK is further involved with numerous physiological events, including cellular growth and proliferation, mitochondrial function and biogenesis, and insulin resistance. Thus, AMPK has been repeatedly reported to be involved with diabetes.

Activation of AMPK increases autophagy: the phosphorylation of ULK1 appears to be one mechanism related to AMPK-induced autophagy. Research has also repeatedly suggested

sirtuin, 50-52 and FOXO 53-55 gene expression is also involved with regulating autophagy.

Taken together, it is important to recognize autophagy serves as an energy source, and as a method of maintaining and clearing the cell. Mutations and polymorphisms of autophagy-related genes have been extensively reported to potentially effect autophagy and have been correlated with an array of health conditions. Autophagy Assist provides cutting-edge, dietary supplementation designed to support the body's natural ability to perform autophagy.

Autophagy Assist, as its name implies, supports the process of autophagy, the removal of misfolded proteins, damaged cell components, and intracellular pathogens and debris. This critical biological process is also important in balancing energy, oxidative stress, and overall homeostasis. This cutting-edge formulation provides nutrients that support the process of autophagy in the body.

Start by taking 3 per day of Phase 1 Assist:

shop.ConnersClinic.com/phase-1-assist

Dual Phase Detox

See the description in Chapter 5. Take 4 per day

Phase 2 - PON1 Assist

See the description in Chapter 5. Take 1-3 per day

Liver Health

Liver Health features Milk Thistle extract prepared from the dried whole seed of *Silybum marianum* plants. It also features Dandelion extract prepared from fresh (never dried) whole *Taraxacum officinale* plants (root, leaf, and flower) grown on Certified Organic farms in southern Oregon.

The spring-harvested plants used in **Liver Health** are grown in neat rows and often have taproots over a foot in length. The herbs in the formula are individually extracted to provide a broad spectrum of therapeutic plant compounds. The formula is easily dispensed (taken in liquid form) and added to water or other liquid. I suggest adding 1-3 teaspoons to a smoothie per day or swallowing and chasing with a juice.

shop.ConnorsClinic.com/liver-health

Liver ND

This is also a liquid. **Liver-ND** provides a unique, probiotic-fermented formula that delivers optimal detoxification and liver support. This formula features fermented milk thistle seed and fermented turmeric rhizome extract. In addition, two full spectrum, fermented botanicals, organic milk thistle seed and organic turmeric rhizome, are included for optimal nutritional effect.

This premier quality formula is fermented using a unique probiotic culture which allows rapid oral delivery and superior bioenergetic properties. Many people say they can feel the effect of this product the very first time they take it. Add 1-3 teaspoons to a smoothie per day or swallow and chase with a juice.

shop.ConnorsClinic.com/liver-nd

Eco Liver

Eco Liver has been designed to provide the body with a high concentration of the biologically active components (proteins, hormones, and nucleic acids) contained in the raw gland tissue of the liver. Take 1-3 per day.

shop.ConnorsClinic.com/eco-liver

Nrf2 Accelerator

Your Nrf2 pathway is the primary intracellular path for detoxifying oxidizing agents. Failure for Nrf2 to be released to do its job (common with Keap1 gene defects) and Nrf2 production (NFE2 gene defects) may decrease Nrf2 function and be a cause of severe illness.

Nrf2, or nuclear factor erythroid-2-related factor 2, is a master transcription factor for hundreds of human genes involved in cell protection and detoxification. Nrf2 protects cells against oxidative stress and environmental toxins through the induction of cytoprotective genes.

Cells devote great energy to maintaining the Nrf2 pathway, ensuring its rapid induction upon cellular insult, with return to normal levels once the threat has been neutralized. Nrf2 Accelerator is a great combination of nutrients that have been shown to support this pathway. Take 1-3 per day

shop.ConnersClinic.com/nrf2

HM-ND

This is also a liquid. HM-ND (Detox-ND) by Premier Research Labs offers a micro-cultured, vegan, fermented botanical formula for full body detoxification. Add 1-3 teaspoons to a smoothie per day or swallow and chase with a juice.

shop.ConnersClinic.com/hm-nd

CHAPTER 7

Cleansing the Tissues

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Phase 0

Pulling Garbage Out of Cells and Intracellular Spaces

Unfortunately, this is where many people want to start when they think they need to detoxify. It's understandable, we want to get rid of the mercury from our dental fillings or detoxify chemicals we were just exposed to but starting here can be very dangerous.

It's true that we are all toxic. Every day the above phases of detoxification are happening to one degree or another and to the extent they are hindered is the extent we become toxic.

Remember, “*we are what we don't detoxify*”! In a magical fairyland, everything you absorb is quickly dumped into the toilet and all is well. In real life, endless events hinder this, and cells gather poisons to store them away. Hopefully, they stay there until we die at age 120 but this isn't always so. If they happen to interrupt normal cell death (apoptosis) pathways, or worse, affect the replication rate of the nucleus, they are causes of cancer.



The way we pull junk out of our cells and tissues is by using a chelator. A chelator is simply a nutrient that tends to grab onto toxins and escorts them back to the blood where they can circulate to the liver and start Phase 1. However, I hope you've come to appreciate the need to make sure Phases 6, 5, 4, 3, 2.5, 2, and 1 are working well first before we start pulling garbage from the cells, or we will just re-deposit them elsewhere!

I rank chelators from mild to strong and believe that you should ***not*** use strong chelators if you have mercury (silver) fillings in your teeth or metal implants.

Mild Chelators - Okay for Most People

Chlora-Xyme

Chlora-Xym is a blend of three certified organic vegan superfoods in a base of proteolytic enzymes and probiotics. It was designed for the ultimate absorption of proteins, vitamins, minerals, and micronutrients.

Organic green superfoods of Blue-Green Algae, Spirulina, and Chlorella are the most nutrient dense sources of protein, vitamins, minerals, amino acids, and essential fatty acids available. They act as both a rich food source as well as a natural cleanser and detoxifier. Take 1-3 per day.

shop.ConnersClinic.com/chlora-xym

ToxinPul

ToxinPul is a multi-function binder and detox support formula developed to provide your patients with the most comprehensive support available. Utilizing multiple mechanisms of action, ToxinPul binds toxins and metals throughout the body while supporting the healthy function of the critical detoxification pathways and organs such as the liver and the kidneys.

shop.ConnersClinic.com/toxinpul

HM-ND

HM-ND, like Chlora-Xym, is also an organic source of Chlorella, Cilantro, and Parsley in a probiotic culture. It works as a great heavy metal detox protocol in an easy to take liquid.

shop.ConnersClinic.com/hm-nd

PectaSol-C

This is a Modified Citrus Pectin powder that dissolves readily in orange juice and is a favorite among my cancer patients. Regular citrus pectin supports digestive health, but the molecules are too large to enter the circulation, meaning benefits are restricted to the GI tract alone. PectaSol-C MCP solves this limitation with an advanced modification process that reduces the size and structure of the pectin. This allows PectaSol-C to absorb into the circulation and deliver total-body benefits related to cellular health, immunity, and more. I recommend that you add 1-3 scoops to orange juice to dissolve and drink.

shop.ConnersClinic.com/pectasol-c

Homeopathic Chelators

The main principle of Homeopathy is stated as “like cures like,” (*similia similibus curentur*.) While the concept of “like curing like” dates back to the Greek Father of Medicine, Hippocrates (460-377 B.C.), it was German physician Dr. C. F. Samuel Hahnemann (1755-1843) who first codified this principle into a system of medicine.

The second principle is that of “minimal dose.” Typically, a homeopathic remedy, if taken to a biochemistry laboratory, would show no traces of the component in the remedy. Homeopathic remedies are thought to contain only the frequency of the component that then stimulate the body to make an appropriate response to such a frequency. This is where homeopathy has received the greatest amount of backlash from the medical community.

For the most part, homeopathic remedies are given in a liquid dropper or pellet form that are administered orally under the tongue. We make specific homeopaths for our patients, but there are numerous, great homeopathic companies that create some great products specifically to help detoxification:

Detox Liquescence

Detox Liquescence is a homeopathic remedy formulation that supports the body's natural detoxification processes. It contains a unique blend of homeopathic remedies such as echinacea, uva-ursi, thymus, gallbladder, kidney, and lymph that are gentle to the body but highly effective. Use as directed on bottle.

shop.ConnorsClinic.com/detox-liq

Methylation Assist Liquescence

Methylation Assist Liquescence is a liquid homeopathic formulation that contains a unique blend homeopathic remedies used to assist in the removal of foreign particulates that may cause inflammation and oxidative stress, as well as nutritive supportive remedies including vitamins B12, inositol, NADH, Quatrefolic (folate), SAME, B6, B2, the minerals zinc and magnesium, and Avian Albumin.

I like Methylation Assist Liquescence for the simple reason that while it supports the methylation pathway, it doesn't push the pathway too hard. Methylation is a necessary step in liver detoxification and has received a lot of popularity in nutrition circles. However, I think people make a huge mistake when they take excessive methyl support. Use as directed on bottle.

shop.ConnorsClinic.com/methyl-liq

Kidney Stim Liquescence

This is a great homeopathic formula to help stimulate normal kidney function without impacting your detoxification pathways with a blend of over a dozen homeopathic nutrients. Use as directed on the label.

shop.ConnorsClinic.com/kidney-liq

Lymph Stim Liquescence

Another great product to help stimulate lymph flow and decrease lymph fluid viscosity. Use as directed on the label.

shop.ConnersClinic.com/lymph-liq

Moderate Chelators

Phase 0 Assist

Phase 0 Assist, our own branded product, is designed to help support the normal process of heavy metal and chemical detox from the body. It contains a wide array of ingredients working together to reduce the initial absorption of metals into the tissues and organs, pull them out more effectively, and help to decrease their reabsorption through enterohepatic recirculation.

I like Phase 0 Assist because it contains multiple chelator complexes. Blended with modified citrus pectin (PectaSol-C) and alginate (Algimate), and two complex polysaccharides that work together to bind to heavy metals without depleting essential minerals from the body. Start by taking 3-6 per day, split through the day.

What is Chelation? Chelation is the process of forming a bond between a compound and a metal atom. Agents that chelate can bind to metal atoms. After binding, the compound is considered safer and is better able to be excreted by the body.

Ingredient Highlights:

Modified Citrus Pectin

Pectin is a polysaccharide (a complex carbohydrate) found in the cell wall of many citrus fruits. This product uses a unique proprietary process that allows for the correct low molecular

weight and structure of pectin necessary for it to enter cells and help chelate heavy metals.

Modified Alginate Complex

Alginates are the carbohydrates that make up the cell wall of seaweed that can bind heavy metals to their own molecules.

Chlorella

Chlorella is a green algae that offers a rich supply of nutrients that can also bind to metals after they are released from tissues to help prevent reabsorption.

Glutathione

Glutathione is an important antioxidant in the body made up of three amino acids. It helps protect tissues from heavy metals and helps the liver convert toxins into safer compounds via detoxification.

N-Acetyl-L-Cysteine (NAC)

NAC is an amino acid that supports healthy liver function with chelating properties and strong antioxidant supportive properties to help protect tissues from toxins. As a precursor to glutathione, it helps to replenish this important antioxidant.

R-Lipoic Acid

R-Lipoic acid has properties that aid in regenerating other antioxidants. Additionally, it has chelation properties to support the detoxification of heavy metals.

Garlic

Garlic is a rich source of sulfur compounds that helps chelate heavy metals. It also has nutrients that support antioxidant status, including stimulating glutathione production.

shop.ConnorsClinic.com/phase-0-assist

IP-6

Nature's most effective iron-chelating molecule is inositol hexaphosphate (IP6), found naturally in seeds and bran. IP6 is not only an iron chelator but has an affinity for all metals. IP6 is a selective agent against cancer cells as well. Because cancer cells are high in iron content, IP6 directs most of its attention to abnormal cells since IP6 acts as a selective iron chelator. IP6 selectively removes iron from tumors cells (stealing one of its major food sources), which deprives them of a primary growth factor. Note, IP6 does not remove iron from red blood cells which are tightly bound to hemoglobin. Unlike cancer drugs, healthy cells are not affected with IP6, so IP6 has very low toxicity.

I love IP6 as a simple, safe chelator especially if you are dealing with heavy metals like aluminum, lead, and mercury. Start by take 1-3 per day, split through the day.

shop.ConnorsClinic.com/ip6

Strong Chelators - Do *Not* Use If You Have Silver Fillings

Phase 0 - Chela Clear

Phase 0 - Chela Clear (a Connors Clinic Original) is designed to help the body rid itself of damaging oxidative elements. It features specialized ingredients, such as EDTA, Himalayan shilajit extract (50% fulvic acid), chlorella, coriander, and antioxidant-stimulating nutrients. I classify this as a strong chelator simply because of the EDTA, which has the possibility of pulling silver from fillings.

Himalayan Shilajit Extract (*Asphaltum punjabinum*) is a purified form of shilajit also known as salajit, shilajatu, mimie, or mummiyo. This naturally occurring phytocomplex is found

in high mountain rocks, especially those of the Himalayas and Hindu Kush ranges of the Indian subcontinent.

EDTA (ethylenediaminetetraacetic acid) is a synthetic amino acid compound and perhaps the most well-known and often-used intravenous chelating agent. Oral EDTA is poorly absorbed, but it is thought to support detoxification of metals largely in the gastrointestinal tract. More studies are needed to validate oral administration. It is believed that there is a benefit in combining EDTA with other chelators because EDTA acts slowly and could potentially lead to redeposition of metals. Due to EDTA's metal-binding ability, it is important to replace beneficial minerals, such as zinc, copper, iron, cobalt, and manganese.

Coriander Seed Extract (water-extracted) (*Coriandrum sativum*), also known as cilantro, appears to suppress the deposition of lead and arsenic by chelating these metals. N-Acetyl-L-Cysteine (NAC) and Alpha-Lipoic Acid (ALA) are well-known for their antioxidant activity. Exposure to heavy metals increases free radical production and oxidative stress.

Research suggests that there is a beneficial role for free radical scavengers in reducing the oxidative stress that is common with toxic metal exposure. NAC has the ability to interact with reactive oxygen species (ROS) and stimulate the body to produce glutathione. This can enhance cell survival after exposure to heavy metals or toxins. In addition, ALA may directly chelate or reduce the oxidative capacity of metals, such as copper, arsenic, cadmium, and mercury.

These and other ingredients in Phase 0 Chela Clear perform in concert to support your health when your body is challenged by environmental toxins, such as heavy metals. Start with only 1 per day.

shop.ConnersClinic.com/phase-0

CONCLUSION

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While it is my hope that someone can take this material and help solve their problems, I must remind the reader to seek professional help from a qualified practitioner whenever possible. I write to educate and empower people, especially in the days we now live with medical tyranny that is obvious to everyone.

If you have any more questions about holistic health, visit our website at *ConnersClinic.com/books* where you'll find all my books available for free, as well as *ConnersClinic.com/blog* where you will find a wealth of information to care for your family. You can purchase our courses at *courses.ConnersClinic.com* to dig even deeper on the topics of cancer, detoxification, and more. Our video channels also have hundreds of hours of content (search for Conners Clinic on YouTube, BitChute, GabTV, Rumble, Brighteon.) Along with all the regular social media platforms, we are censor-free on Telegram (search for Conners Clinic.)

Thank you for reading this and I pray that it a blessing for you.

-Dr. Kevin Conners