THE SURVIVAL

PARADOX

BEVERSING the HIDDEN CAUSE of AGING and CHRONIC DISEASE

# Detoxification & LETTING GO

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#### CHAPTER FOURTEEN

# DETOXIFICATION AND LETTING GO

Detoxification is a term used quite frequently today but without complete clarity about what it really means. People often talk about "detoxing" their colon or liver, but what are they doing exactly?

So many books have been written about detoxification and how to detoxify, and these resources are full of practical advice. In Appendix E, I will also provide detailed practical advice, along with protocols and guidelines for the execution of a healthy detoxification diet or program. But with this chapter, I aim to offer a deeper understanding of what detoxification is specifically in relationship to the survival paradox and how we can best use detoxification for transformation, healing, and growth.

If we examine human physiology, we see that the human body is in a constant state of detoxification. Our breathing cycle is the perfect example of this: we nourish the body by taking in oxygen when we inhale, and we detoxify by letting go of carbon dioxide when we exhale. And what happens during the gap between the two actions?

Transformation occurs, a change happens. Throughout our physiology, we see such an ongoing dialogue between action and rest. Action creates movement, and the time of rest allows for real change.

A process similar to the cycle of breathing and detoxification happens in the cell membrane. The cell "inhales" or absorbs nutrients, and then it "exhales" or detoxifies unnecessary compounds through membrane transport into the extracellular matrix. The cell goes through a continuous process of nourishment and detoxification, which impacts itself and its surroundings.

For example, the extracellular matrix takes in nourishment from the capillaries, but it also releases what it *doesn't need* directly into the venous blood that returns to the heart. In addition, these waste products are cleaned by the lymphatic system, which eventually drains unwanted materials into the venous system and back into the heart.

The detoxification process of the body is ongoing; it happens at every level of the entire body simultaneously, including the cellular level. Interestingly, when we are born, the first thing we do is "exhale" fluids out of the lungs so we can breathe, effectively detoxifying. Exhaling is also the last thing we do when we die. Dying is the final stage of "letting go," showing us that detoxification is fundamental to our existence.

## DISCHARGE AND ELIMINATION

To better understand <u>detoxification</u>, let's explore two related concepts: discharge and elimination. *Discharge* is the process of releasing unwanted by-products, such as toxins or metabolites from the cell, tissue, and organ, and expelling them into the circulation. I often liken it to someone opening all the drawers in their kitchen and throwing everything out onto the floor or the counter. This exposes toxins and damaging compounds that have been sequestered and hidden. And this process transcends the physical.

From a psychological perspective, this means that something buried or hidden in our subconscious can come to our awareness or consciousness. An example would be hidden traumas coming to light. When we bury our traumas, we physiologically deposit such issues in the most inert tissue of the body: fatty tissue. If you've ever followed a detox regimen, you may have experienced a reduction in fat storage, as well as a release of memories and emotions you weren't aware you had been carrying. A similar process takes place when the body sequesters pesticides, heavy metals, and toxins. This is why we often find toxins and heavy metals in fatty tissue. During the detox process, these can be released as well.

The toxins released by a breakdown of fatty tissue during detoxification will enter the circulation. This means they can end up in different places in the body with the potential to cause damage. How do we get rid of these damaging byproducts? Through healthy *elimination*, the process of taking exposed toxins and excreting them outside of the body. Elimination takes place through the stools, urine, skin, and breath. If there's an imbalance and we have excessive discharge with insufficient elimination, it will result in <u>symptoms</u> on all levels—physical, emotional and psychological. This is why an authentic and complete <u>"letting go,"</u> which characterizes the full process of discharge and elimination, is so important. Refusing to let go is the hallmark of survival (and the survival urge will drive and activate galectin-3).

#### WHAT IS GALECTIN-3?

As our survival protein, galectin-3 is produced by the body when we experience threats like injury, infection, toxin exposure, or stress. Galectin-3 instigates a cascade of inflammatory reactions as part of the repair process. However, if galectin-3 activity doesn't turn off (because of ongoing exposure to stress and other triggers) it can be highly destructive.

### WHAT IS GALECTIN-3? (CONTINUED)

Excess galectin-3 is a primary driver of inflammation, fibrosis (excessive scarring) and organ failure, immune suppression, neurodegeneration, cancer formation and metastasis. Infections and pathogens can also highjack galectin-3 and use it for their own survival, by creating biofilms and evading immune surveillance.

Research into the field of galectin-3 is rapidly expanding, with thousands of studies now showing how this biological protein drives our most serious conditions. Blocking galectin-3 with the most-researched galectin-3 inhibitor, modified citrus pectin, is a proven strategy for halting and reversing proinflammatory, degenerative disease processes and improving treatment success. Modified citrus pectin not only blocks galectin-3 to reduce biofilms, inflammation and fibrosis—it also binds and removes heavy metals and toxins, providing unparalleled support for detoxification and tissue repair.

When we block excess galectin-3 with modified citrus pectin, we control overactive inflammatory and immune responses, break up biofilms, increase detoxification, and improve numerous markers of health.

## THE PHYSIOLOGY OF DETOXIFICATION

As I mentioned earlier, many people engage in "detox" on a regular basis, but what they try to detoxify can vary greatly. Some people focus on detoxing from a physical perspective, and others work to get rid of negative emotions, like jealousy, anger, and fear, or they try to break free of mental fixations and traumas.

Determining what you want to detoxify is a crucial starting point of the detox process. But no matter the goal, detoxification follows a particular cycle.

In Chapter 9, we discussed the liver, which is also our big storage and detoxification organ. It stores more blood than any of the other organs, and it governs endless metabolic processes, making it a factory for discharge. When the liver releases waste into the bloodstream through the hepatic veins, this waste then travels throughout the circulation and can lodge in different organs and tissues.

Discharged toxins affect different organs based on where the toxins travel when they leave the liver and the specific relationships between organs. In Chinese medicine, this flow of detoxification is called the "detox cycle." If the detoxification process is well designed, and elimination is able to clear whatever is being discharged from the organs, the detoxification process will unfold more smoothly without the side effects that can occur at each stage.

When the <u>detoxification process</u> is not truly balanced, it is possible to experience different symptoms. Understanding the symptoms, the sequence, and the time it takes for the symptoms to move from one stage to another can allow us to evaluate and predict the end of the detoxification process, and to better support the body and the person.

When we engage in a detox program, some symptoms may occur, and the first ones are often related to breathing. This makes sense because in the process of circulation, venous blood travels from the liver, through the right ventricle of the heart, and then from the heart to the lungs. Discharged material then arrives at the lungs, the first stage in the detox cycle. Congestion, cough, and increased mucus production are all by-products of this first stage in the detox cycle.

If the toxins don't get eliminated through breathing, they return to the heart and go back into the body through the arterial circulation. As we've previously discussed, when the arterial blood leaves the heart, it first nourishes the heart itself through the coronary arteries. Therefore, the heart is the second stage in the detox cycle, and this stage can often produce symptoms that relate to the heart, such as palpitations.

Given the strong heart-brain connection—the heart secretes its own neurotransmitters and sends more signals to the brain than any other organ—this phase can also trigger symptoms that are mentally or emotionally expressed, such as insomnia, excessive dreams, and new or unique insights.

If the blood and detoxified material continue to travel, they can affect the digestive system and the joints, the third and fourth stages in the detox cycle, and will eventually make their way to the kidneys, the final stage. The kidneys may eliminate the toxins, but if they are unable to do so, the toxins can circulate back and return to the liver. The movement between these stages will flow at different speeds in different individuals.

Often when patients get worse during detoxification, doctors call it a "healing crisis." While this may be true, it can also signify an imbalanced detoxification process. When detoxification is done in a harmonized and balanced way, we can prevent side effects from occurring at each stage. It can be as straightforward as providing additional support for a specific organ in the detox cycle. For example, giving herbs to support the lungs in a person who manifests symptoms of weak lungs or providing additional sleep support for someone who tends toward insomnia. I will often prepare a specific tincture that supports all the organs in the detox cycle. By providing specific herbs that support each organ targeted in the detox cycle within a single tincture, we are able to support each organ individually, while at the same time supporting the entirety of the detox process.

## DETOXIFICATION AND THE UNIVERSE

We've discussed the breathing and the exchange of air in the lungs a few times —how this exchange allows us to detoxify and then release toxins into the environment and universe. Fortunately, the universe has the infinite capacity to hold anything and everything.

As a container, the universe can handle things that are toxic to us as individuals, and in return, it provides us with oxygenated clean air. Whatever is toxic to us as mere individuals is easily contained by the infinitude of the universe. The universe is kind enough to accept our toxicity, but if our environment becomes too toxic, the outside world will no longer be able to provide us with nourishment in return. This has profound implications on multiple levels beyond this book, but what we need to recognize is that we have an intricate, interdependent relationship with the outside world, with our environment, and with the universe.

Since cells continually produce waste, detoxification must be an ongoing process. And although detoxification is never ending, it's not a real or permanent solution to cellular toxicity—it does not uproot the *cause* of the toxicity. But inherent in the detoxification process is the potential for us to let go, whether on a cellular or psychological level. The process of transformation begins when we recognize and connect to the universe as our infinite reservoir of elimination. This connection is forged by attending to our breath to balance nourishment and elimination. It is in the gap between elimination and nourishment that transformation takes place.

## STAGES OF A DETOXIFICATION PROTOCOL

Supporting the detoxification process is a two-pronged approach: we can support the constant detoxification our bodies naturally undergo on a daily basis through lifestyle and dietary changes. In addition, it is important to periodically engage in an active detoxification protocol, which allows us to shift and improve our health. (Find suggested protocols to achieve both of these goals in Appendix E.)

**Preparation:** Every detoxification program begins with preparation. A good way to do this on the physical level is to shift our <u>diet</u> to a clean, anti-inflammatory one.

It's easy to think that starting a detox is a license to go to town and indulge in junk food before it begins, but it really makes more sense to begin clearing the system beforehand.

In addition to eating a better diet, we should reduce our <u>exposure to toxins</u> as much as possible, including those in our environment, in our food, and in different products we might use, such as lotions and shampoos. We can also begin to support our elimination organs: the liver, bladder, lungs, skin, and digestive system. In particular, we need to support our gut, because detoxification can be hard on the microbiome. On an emotional and psychological level, we can prepare by deciding what we want to release in the detox process, be it trauma, memories, emotions, certain reactivity, etc.

### Layering of Detox: Prepare

Diet	Environment	GI Health	Mind-Body
Shift to anti- inflammatory detox diet, eliminate	Reduce exposure to toxins in:  Foods Products	Support digestion, microbiome, and elimination	What do you want to let go of?

Exposing the targets of detoxification: Once we are prepared for detoxification, we have to expose what we want to get rid of. We have to expose toxins, heavy metals, and chronic infections. These often hide from us by using the galectin-3 lattice formation, so exposing and dismantling the biofilm is part of this stage. We expose them through a lighter, more catabolic diet that allows for a breakdown of toxic tissue, by breaking the lattice formation through the use of galectin-3 blocker modified citrus pectin (MCP), by improving circulation to sequestered areas through exercise and infrared sauna, and by uncovering buried emotions and traumas.

## Layering of Detox: **Expose Toxins & Infections**

Break up galectin-3 lattice formations

Dismantle the biofilm

Provide circulation & oxygen to areas of sequestered toxins

Lighter, more catabolic diet

**Binding:** Once we engage in the exposure process, it is essential to <u>bind the toxins</u> that are being exposed. Doing so prevents the toxins from being absorbed by the digestive system, and helps eliminate the toxins from the circulation and the tissue. Using a combination of MCP and alginates is an effective means to bind toxins and heavy metals in both the digestive system and the circulation. Once we have achieved exposure and binding support, we are truly ready to create change.

Discharge and Elimination: Detoxification occurs through discharge and elimination. This is achieved by utilizing phase 1 and 2 of the <u>liver detoxification</u> pathways.73 This is where we need the necessary vitamins, minerals, and helper molecules to allow for a healthy and well-regulated detoxification process. We also need to support the body's energy production, mitochondrial function, and the circulatory system, as well.

#### Phases of Liver Detoxification

The liver plays a key role in the larger detoxification protocol. The liver naturally detoxifies on an ongoing basis, a process that is divided into two phases. Supporting this two-phase process is key to the success of your larger detox regimen.

Each phase requires specific nutrients in order for the process to occur smoothly and effectively. There are also differences in how any two people physiologically handle detoxification. This is related to genetic or epigenetic mutations that can affect the workings of the liver and its capacity to handle change. We can overcome these limitations by supporting Phase 1 and 2 detoxification through the different <u>nutrients</u> recommended below.

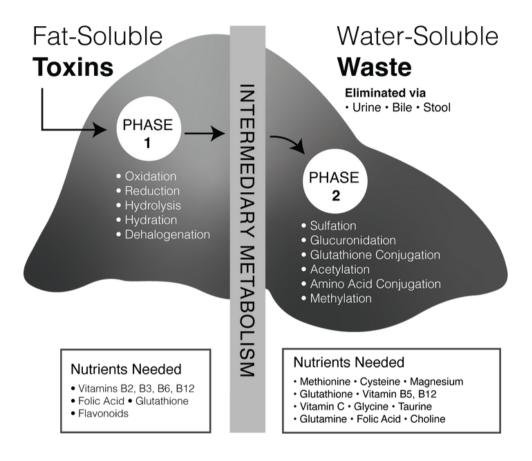
Phase 1 Liver Detoxification: In this initial phase, toxins are made water-soluble so they can be eliminated. Phase 1 is essential for the elimination of many foreign substances, including alcohol, caffeine, pesticides, environmental toxins, and pharmaceuticals.

Phase 1 requires different nutrients, such as B-vitamins, folic acid, glutathione, antioxidants (like milk thistle and turmeric), carotenoids, vitamins E and C, and minerals (such as selenium, copper, zinc, magnesium, and iron).

Phase 2 Liver Detoxification: Neutralizes the water-soluble toxins produced in phase 1 through the process of conjugation. Phase 2 eliminates free radicals. Therefore, insufficient Phase 2 detoxification can contribute to the development of different diseases, such as cancer, Parkinson's, fibromyalgia, chronic fatigue, lupus, and immune dysfunction.

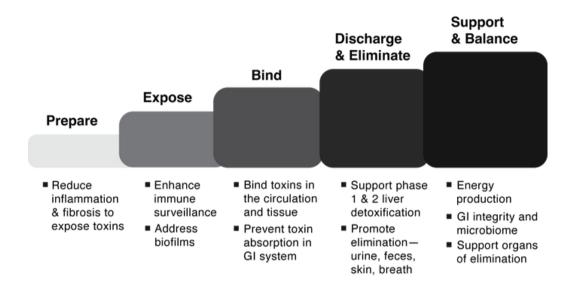
Phase 2 requires different nutrients, such as amino acids (glutamine, glycine, taurine, cysteine, methionine), sulfated phytochemicals (like those found in garlic, cruciferous vegetables, meat, egg yolks), trace mineral molybdenum (found in leafy greens) and vitamin B12 (found in fish and meat). Other nutrients that help Phase 2 detoxification are flavonoids (contained in fruits, vegetables, and many herbs) and ellagic acid (found in red grape skin, different berries, and walnuts, among other foods). You will want to ensure your diet is rich in these nutrients.

#### Phase 1 & 2 Liver Detox Pathways



Support and Balance: We need to support and balance the detoxification process throughout all its phases. This can be done through supporting the body's energy production and mitochondrial function. Our cells require enough energy to activate different detoxification pathways that are enhanced during the active detox program. Supporting the circulatory system allows nutrients to be delivered to the target tissues being detoxified and supports the drainage of toxins and waste products from these tissues. Often, an intense detoxification process produces excessive free radicals, putting additional pressure on our antioxidant system. Supporting the antioxidant pathways and providing abundant antioxidants, minerals, and nutrients supports the organs of elimination and is essential to successful detoxification.

## Layering of Detox: The Holistic Approach



#### THE ROLE OF THE GUT

The gut and its <u>microbiome</u> play a key role in detoxification. While the small intestine is responsible for nutrient absorption, our large intestine is a pivotal elimination organ. Supporting the integrity of the gut sustains the balance between nourishment and detoxification. This is essential for a successful detoxification program and for our overall well-being. The integrity of our gut is challenged by various toxins and pesticides, especially glyphosate (Roundup). If you have significant glyphosate or other pesticide exposure, your detoxification program may need to be adjusted to provide additional support to the gut, using a <u>specialized pesticide binding formula</u> that helps eliminate pesticides and prevent their bioaccumulation in your body.

We can support our microbiome by eating the right foods, and by utilizing prebiotics and probiotics. As I've said, I recommend a combination of prebiotics and probiotics (with a preference for "live preparations" in <u>liquid form</u> rather than capsules and tablets), because prebiotics provide nourishment for healthy bacteria, help prevent the build-up of biofilm, support healthy digestive function, and prevent aggressive bacteria from growing.

## FINAL THOUGHTS ON DETOXIFICATION AND GALECTIN-3

Despite the potential harm it can do, <u>galectin-3</u> serves a few important purposes within the body. It helps intranuclear cell development and extracellular injury repair and survival. However, when the body is in crisis and there is an upregulation of galectin-3 production, it can have detrimental consequences.

Due to complex biochemical structures and genetic tendencies within each person, there is no standard, predictable response when it comes to galectin-3. This protein can be at different levels in different people and trigger different responses, even if they have the same condition. For example, some people's bodies are "hypervigilant," always on the alert, and they respond to a stimulus or trigger with overinflammation. Other people may not have a good "survival sense," and they lack the ability to fight and create the proper inflammation. Instead, they have a tendency to shut down and end up with suppressed immunity or an increase in fibrosis.

Furthermore, there is an adaptive response with galectin-3, meaning the reaction is amplified due to previous physical, emotional, or psychological trauma. In an adaptive response, our system has been conditioned to respond to specific triggers in a particular way. In other words, it repeats the patterns it is accustomed to, all the way to the level of our cellular memory.

INTERESTED IN THE SURVIVAL PARADOX?

