Systemic Formulas: Solutions Here & Now • Research Report #4



A New Model for Detoxification

FEATURING THE FIVE CARDINAL RULES OF DETOXIFICATION

By Dr. Jack Tips (N.D., Ph.D., C.Hom, C.C.N.)

istorians cite that one of the primary causes for the final fall and social collapse of the Roman Empire in AD476 was lead poisoning. Bones in ossuaries from that time show highly toxic levels of lead. Not since the Roman Empire crumpled into oblivion when its government leaders and military suffered extreme lethargy, has there been such a dire need for safe, effective detoxification program. As with ancient Rome whose citizens became slowly poisoned from lead-lined aqueducts, lead-lined spas, and honeyed wine (made with lead), today's environment is literally killing millions of people softly over time.

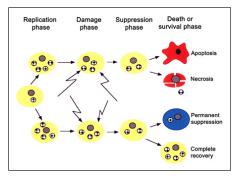


Today more than anytime in our lives, we need effective detoxification protocols address: I) the body's metabolic intermediate wastes and metabolites², 2) neurotoxins from pesticides, 3) side effects prescription drugs, radioactive particles inhaled from the air and eaten in food, 5) xenobiotic³ compounds in the environment—air and water pollutants, household chemicals. plastics, non-nutritive additives.

The word, "detoxification," in this article does not refer to alcohol and drug addiction programs that are often call "detox" or "rehab." It refers to our overburdened processes of self-cleansing that have become backlogged and unable to perform optimally without some assistance. "Detoxification" is that assistance—a process that we engage to rid our bodies of acquired and metabolic toxins, discard morbid influences, break degenerative patterns, and become squeaky clean inside.

Beyond the physical body, detoxification also occurs with emotions and thoughts. Historically, the decision to engage in a detoxification program is often a harbinger of a new life, a new path. Often, we cannot take our "old baggage" with us when we want to expand, be more lighthearted, and embrace the "vitality" side of life. Here is a new model for detoxification. It encompasses both the old methods and new insights, and presents a synthesis that works with the body's innate processes rather than inflicting an external influence that forces the body to detoxify.

The Dangers of Detoxification. Today's volatile and disruptive toxins have changed the game. Old methods are no longer adequate. The new toxins—such as neurodegenerative



pesticides, herbicides, radioactive elements such as Strontium-90, Cesium-137, Iodine-131, Plutonium-239, and the injection of mercury via vaccinations—mean that detoxification today can be dangerous because today's new chemicals and toxins can penetrate deeper into the body and cross the bloodbrain barrier during detoxification when they are reintroduced to the blood and lymphatic channels for elimination.

Three Layers or Levels of Toxins. There is a hierarchy of toxin-impact upon the human body. In the body's design, a toxin would only impact superficially at Level One. If the toxin was not handled quickly at that level, it could be shunted to the Level

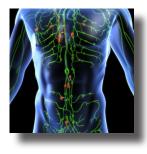
I "A Clue to the Decline of Rome". The New York Times. 31 MAY 1983.

² Intermediate metabolites – the body itself can create deadly molecules during its energy-making and detoxification processes. When there is proper nutrition, e.g. The Pro-Vita! Diet, intermediate metabolites are handled properly and there is little concern. When there is improper nutrition, as is pandemic today, and when there are certain genetic traits, intermediate metabolites can wreak havoc on health.

³ Xenobiotic – refers to a molecule that is foreign to the body and loosely refers to any acquired toxin. That which is unnatural, foreign, and dangerous to the body, e.g. radioactive iodine, mercury, aluminum, partially hydrogenated fat.

Two 'holding tank" for future processing. The body never wants a toxic impact at Level Three, the cellular level, as that can result in cell death and aberrant function.

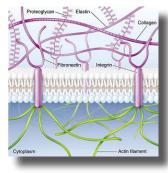
• Level One is the blood, lymph, and organs. It's superficial. Let's say a person drinks a martini. The alcohol goes into the blood stream. It affects the blood, brain, hydration, and liver, and soon the liver detoxifies the alcohol and the body returns to its normal metabolism. In this example, the alcohol did not



deposit toxins in extracellular matrix or inside the cells.

• Level Two is the Extracellular Matrix⁴ (ECM). Toxins can be stored in the ECM when the regular detoxification processes (liver, gall bladder, kidneys, lungs) cannot handle the workload. We assume that the body's intent is to deal with the toxins at a more favorable time.

Here in the ECM, toxins are stored inside adipose (fat) cells, and deposited in collagen. Once stored, toxins alter the tissue pH and ionizing potentials. This creates an environment for pathogens, and forms a biofilm or biomass—an aggregate of microorganisms, a slime barrier that shields dangerous



spirochetes, bacteria, fungus, and virus from the immune system. Doc Wheelwright taught that eating trans-fats with starch (as in donuts, potato chips), contributed to the "scum" that could develop in the ECM and form a breeding ground for candida and other pathogens.

• Level Three is the Cell – it's membrane, inner organelles, and RNA/DNA. This is the deepest impact of toxins and is the most dangerous because here toxins impact the inner sanctum—the individual's life code (DNA), and the epigenetic determinations about how the body interacts with



its code. When the cells become toxic, the organs and tissues cannot perform their larger life functions and inevitably disease and death are the result. In the last 150 years of the industrial

revolution, there has been a shift in the quality of xenobiotic toxins. They are more insidious as they can bypass Levels One and Two and immediately impact the cell. Cyanide, mercury, radioactive particles, and pesticides/herbicides are examples.

Thus there are three levels of impact. The body has an innate, centrifugal process where it protects the cells and vital organs and pushes toxins and disease to more superficial layers. This innate process was incorporated into Dr. Hering's Laws of Cure. Let's take, for example, one of the sacred cows of our culture – a dark-roast coffee – to understand how one substance can impact the body on all three levels.

Coffee is of particular interest because it is the source of the homeopathic medicine, *Coffea crudum*, that impacts neurological, emotional, mental and circadian body processes, and is thus a deep-acting herb to which the human body has adapted specific detoxification pathways.

On Level One, the organ layer, and separate from the stimulation of the central nervous system and adrenal glands, the coffee's unique caffeine molecules impact the liver with a stimulating effect via the



"Phase One Cytochrome p450 Enzyme System" that detoxifies caffeine as well as dilates the bile ducts. This is the basis for the coffee enema cleansing therapy that Dr. Max Gerson⁶ advocated for his famous cleansing program.

When the liver takes too long to metabolize caffeine, it is indicative of impaired Phase One detoxification processes—a marker that the liver is struggling to detoxify the body. When the liver is too aggressive in detoxifying caffeine (enzyme induction), it is indicative of the presence of too many xenobiotic toxins in the body that have the liver overheated and all riled up. Normal clearance of caffeine from the body is indicative of normal Phase One liver detoxification.

On Level Two, the heat-altered oils from the bean-roasting process contain tars (similar to cigarettes) and these altered oils present a greater stress on the detoxification process, so they can become stored in the ECM. Damaged oil molecules interfere with fat metabolism and cell membranes. While not as damaging as trans-fats (partially-hydrogenated oils from post-industrial revolution food processing, e.g. margarine), they

⁴ **Extracellular Matrix** – the connective tissue, adipose tissue, collagen, interstitial matrix, basement membrane. Provides structural support for the cells. Made of polysaccharides and fibrous protein structures. Helps segregate tissues and regulates intercellular communications.

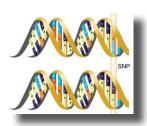
⁵ Dr. Constantine Hering, 1800-1880. Hering observed that the body seeks to externalize disease, that symptoms will surface as part of the curative process; that a person's symptoms will appear and disappear in the reverse order of their appearance upon the body. Thus, a patient might re-experience symptoms during the healing process. Another observation was that the body heals from top to bottom, and from more vital organs to less vital organs. Hering's motto was: "The force of gentleness is great."

⁶ Max Gerson (1881–1959) was a German physician who developed the Gerson Therapy; an alternative dietary therapy that he claimed could cure cancer and most chronic, degenerative diseases. His therapy included raw foods, organic juices, hydrogen peroxide, and coffee enemas.

require additional ATP energy for the body to break them down and remove them lest they interfere with more optimal function. Damaged oils contribute to the aforementioned biofilms that can harbor deadly pathogens. Further, the roasted oils of coffee can leave tars, alcohols, and residues in the extra cellular matrix that cause additional oxidative damage to cell membranes⁷.

A couple of these Level Two molecules are *diterpenes* named "cafestol" and "kahweol." They detrimentally affect both the liver enzymes as well as leave residues in the extra cellular matrix that interfere with cell performance⁸. So now we have two layers of detoxification impact—the liver and the extracellular matrix.

On Level Three, coffee can impact the inner cell and even the DNA⁹ where it can cause SNPs (snips) that interfere with the DNA code¹⁰ resulting in improper "reading" of that code by RNA. Thus it can interfere with proper body function at a very deep level



and has ramifications for the body's molecular biology. The DNA sequences that are most commonly vulnerable to coffee can impact fetal heart development¹¹. This is why savvy physicians recommend that pregnant woman curtail the use of coffee. This is also the reason that, from the perspective of the herbal and homeopathic models, coffee is a powerful therapeutic agent.

The New Model Includes The Old, The New, And More. We've learned that toxins have three general layers of impact. These three layers require detoxification and factor into our new model. Old systems such as raw foods and organic juice therapies, bowel cleanses, lymphatic drainage massage, far infrared saunas, and liver flushes are still important and valid therapies, and now we'll learn how to implement such therapies within the structure of this new model for detoxification which makes them even more effective. In light of this new information, we'll see that the old methods are not as safe and effective as they once were. Fortunately, as detoxification has become more difficult due to the severity of environmental toxins, herbal and nutritional therapies have risen to the occasion and provide a

7 Comparison of effect of cafetière and filtered coffee on serum concentrations of liver aminotransferases and lipids: Six month randomized controlled trial. British Medical Journal 313(Nov. 30):8. superior pathway to help the body eliminate the toxins that can cause:

- Cell membrane rejection of hormones
- Mitochondrial injuries that reduce the cellular production of ATP (Adenosine TriPhosphate) energy (See Research Report #3: The Pulse of Life)
- DNA damage (both mitochondrial mtDNA, and cell nuclear nDNA)
- Chronic inflammation (see Research Report #1: Inflammation, Free Radicals& Mitochondrial Dysfunction)
- Chronic free radical damage (see Research Report #2: *Mitochondrial Dysfunction & The NO/ONOO Cycle*)
- Inability to effect proper methylation for detoxification
- Inability to effect proper methylation for RNA/DNA repair
- Mishandling of oxidative and redox intermediate metabolites

What these three layers mean for detoxification is that if the liver is weak, then detoxification efforts that involve the ECM are much more likely to jam up the system, damage healthy cells, and cause Herxheimer¹² reactions. If the ECM is overloaded with toxins and biofilm, then of course the liver is maxed out, but it means that cellular detoxification efforts run the risk of causing additional damage as those toxins release into the blood, lymph, and ECM.

This is the basis for our three layered, sequential protocol. Start with the liver, then progress to the ECM, then address the cellular toxins. This sequence facilitates safe, gentle, effective, thorough, and successful detoxification. The Five Cardinal Rules of Detoxification governs this new model. Here is an opportunity for Natural Health Clinicians to cooperate with the body's innate processes while distinguishing themselves as being informed and cutting edge.

This same model of three layers and five cardinal rules applies universally to detoxification practices that perceptive clinicians employ for all chronic degenerative and autoimmune dysfunctions, as well as for effective weight loss.



The Five Cardinal Rules of Detoxification

"Detoxification is the absolutely necessary pathway for the body to overcome symptoms, chronic degenerative diseases, and autoimmune diseases. No two ways

about it. It's got to be done, so let's do it right!"

- Dr. Jack Tips, Detoxification, Drainage & Terrain Seminar, 10/2009

⁸ Urgert, R., et al. 1995. Levels of the cholesterol-elevating diterpenes cafestol and kahweol in various coffee brews. Journal of Agricultural and Food Chemistry 43(August):2167.

⁹ DNA Strand Breaks: the DNA Template Alterations That Trigger p53-Dependent DNA Damage Response Pathways, Nelson & Kastan. The Johns Hopkins Oncology Center, The Johns Hopkins University School of Medicine.

¹⁰ Robert A. Apfelzweig and Raymond L. Teplitz Mutation Research/Fundamental and Molecular Mechanisms of Mutagenesis, Volume 62, Issue I, August 1979, Pages 151-158.

¹¹ Congenital heart defects and abnormal maternal biomarkers of methionine and homocysteine metabolism, Hobbs, Cleves, Melnyk, Zhao & James, Department of Pediatrics, College of Medicine, University of Arkansas for Medical Sciences and Arkansas Children's Hospital Research Institute, American Journal of Clinical Nutrition, Vol. 81, No. 1, 147-153, January 2005.

¹² Herxheimer Reactions – toxins and endotoxins from dying microorganisms, especially spirochetes, can cause fever, chills, skin eruptions, malaise, fatigue, and inflammation. Named after the physicians: Jarisch and Herxheimer.

Knowing these insights about the body self-preservation and detoxification processes, we can better plan a safe, effective, and thorough detoxification experience. Such a plan starts with Doc Wheelwright's revolutionary "Liver Triad®" program that he implemented in the mid 1980's. This plan revolutionized the natural health industry and its tenets are presented in the book, *The Healing Triad*: Your Liver, Your Lifeline. 13

Detoxification Rule #1: Always Support The Liver

Reported in *The Healing Triad* book, Doc Wheelwright taught us the four categories of herbs, the liver's three bio-energies, the laws of herbal ionization—how his L (Liver) formula is anabolic, and the Ls (Liver-s) formula is catabolic—the Toxic Stress Cycle, the importance of the liver triad in all healing endeavors, and how raising the liver's vitality results in automatically improved detoxification processes.

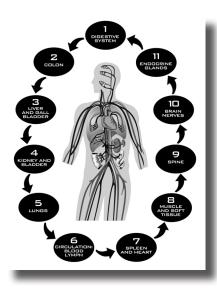


Build the liver's vitality, and the liver will detoxify the body according to the body's inherent detoxification pathways.

- A.S. "Doc" Wheelwright

Doc taught that all healing, both bioenergetically and biochemically, relied on a well-functioning "liver triad." This triad stemmed from the Toxic Stress Cycle where

poor digestion (stomach) results in the inability to assimilate needed nutrients, and deranges the bowel function. When the bowel has fermentations and poorly digested foods, it allows the fermentation process toxins to impact the liver. An overburdened liver cannot conduct its detoxification processes adequately,



and thus the kidneys become overwhelmed with the excretion of toxins. And so it goes through all 12 stages of the Toxic Stress Cycle, and repeats over and over in a spiral of degenerative health decline.

Doc Wheelwright's method to break the Toxic Stress Cycle is called "The Liver Triad" and it provides herbal support to the

Stomach (D-Digestive), Bowel (C-Colon), and the Liver (L-Liver, Ls-Liver-s). It remains the best way to address the liver's integrity of detoxification processes from a causative, body-mechanics perspective. Further, Doc developed the ACX (Vitamin Detox) formula to assist the liver in its detoxification processes.

Why is it absolutely essential to support the liver BEFORE embarking on any detoxification regimen? The liver is the body's primary detoxification organ. The Cytochrome p450 enzyme systems conduct alchemical transmutation of deadly poisons via oxidation and molecular transformations. When the liver can handle the load, it helps prevent Herxheimer reactions. Further, the liver is a primary "drainage" system for the body ushering toxins of high molecular weight (heavy metals) to the gall bladder for excretion through the bowel, and toxins of light molecular weight and "water soluble" toxins to the kidneys for excretion in the urine.

After Doc died in 1990, his son Stuart, the founder of Systemic Formulas, teamed up with two of Doc's protégés, Dr. Tim Kuss and myself, to create the ACCELL-Therapeutic formula to better address the liver's specific nutritional and metabolic needs as well as support the stomach, intestines and kidneys. ACCELL supports the drainage process by providing the sulfur-bearing amino acids that the liver needs to perform "Cytochrome p450 Enzyme Phase Two" Detoxification. Thus Systemic provides the herbal, bio-energetic support of the Liver Triad tissues as well as the specific nutritional factors for ease of drainage and detoxification. This program became the benchmark of effective detoxification for the natural health industry in the 20th Century.

Thus here is our foundational program, or Stage One of our three-stage detoxification system for safe, effective, successful detoxification. To keep it simple and ensure better compliance, and because my clinical results do not agree with the precedent that the liver formulas must be taken on an empty stomach, this program is taken with meals.

STAGE ONE. For 20 days - Prepare The Liver

With Breakfast	With Lunch	With Supper
1/3 scoop ACCELL	3 Lb (Liver/Gall Bladder)	3 Ls (Liver-s)
3 L (Liver)	I D (Digestive)	I D (Digestive)
I D (Digestive)	I C (Colon)	I C (Colon)
I C (Colon)	I MoRS (Methyl Donor)	I ACX (Vit. Detox)
I ACX (Vit. Detox)	I eNRG (Quantum ATP)	

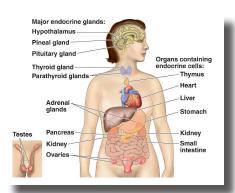
This program is necessary to remove the backlog of toxins from the liver, gall bladder, and colon. It prepares the body for the next phase of detoxification. Please understand that the Systemic C (Colon) formula is not a laxative, but instead it is a *hydrogogue*. It attracts water into the bowel. In this capacity, it mobilizes toxins into the bowel for excretion and helps relieve the lymphatic

¹³ The Healing Triad: Your Liver—Your Lifeline. Available from Apple-A-Day Press, www.apple-a-day-press.com

system of its backlog of toxins. It cleanses the intestinal lumen allowing better function.

Those who are already familiar with Doc Wheelwright's program will notice that we've added the ACCELL formula to Doc's original plan.

Around 1986, I was studying the neuroendocrine system and approached Doc Wheelwright with the idea that the liver program should be expanded. I shared my research about how modernday toxins were impacting the hypothalamus and cell membranes, and interfering with thyroid and adrenal function. If toxins are released into the bloodstream without a chelator molecule, then they could run rampant and interfere with the neuroendocrine system in two ways: I) interfere with the hypothalamic analysis of hormone levels, and 2) interrupt the cellular reception of hormonal messengers. Doc wholeheartedly agreed.



After working with more than 300 people with the Liver Triad program, I discussed with Doc that some people reported detox (cleansing) reactions, and pressed the case for more assertive drainage for the kidneys. So

we upgraded the Liver Triad Program to the Healing Triad—Liver Lifeline program also featured in the book.

Doc researched if his endocrine formulas would suffice for neuroendocrine support during detoxification. He found that his Ga (Adrenal) and Gf (Thyroid) provided bioenergy to those glands, and increased their functional ability to repel toxins and maintain their cellular integrity. Not long after that, Doc developed the Gb (Pituitary/Pineal) formula and introduced the BioCommand formulas of which the #1 (Activator) supports the hypothalamus. Doc found that the Gb and #1 would support the entire neuroendocrine system and thus they became the standard for the second phase of the complete detoxification process, along with Ks (Kidney-s) for kidney support.

More information on the Liver Lifeline and Healing Triad programs is available on the webinar: A New Model For Detoxification along with materials and discounts.

Call Systemic at 800-445-4647 for the password.

Detoxification Rule #2: Always support the neuroendocrine system

Neuroendocrine support means more than just toning the hypothalamic/pituitary/pineal axes. It involves supporting the anti-inflammatory processes at the cell membranes and boosting ATP production so there is plenty of cellular energy. It also involves nutrients such as B vitamins, lipids, and minerals that protect the neurons and nerves.

When toxins are expelled from the ECM as occurs during weight loss programs when the fat cells give up their fat reserves and release stored toxins, fat-soluble toxins become temporarily free in the lymphatic and circulatory systems. If the liver is backlogged, it can't contribute fully to the detoxification effort and this, again, is why we first addressed the liver with the Phase One Program. Once freed from the ECM and adipose cells, these toxins must be cleansed from the body quickly or else they can create more mischief. Lead can bond with the bones, mercury can cross the blood-brain barrier, Strontium-90 can get into the bone marrow and create tumors affecting the white and red blood cell production processes.

So toxins need to be chelated, detoxified, and eliminated from the body quickly. No loitering allowed! This is exactly what we do with the Second Phase of this new detoxification model. We provide herbal chelators and additional



The extracellular matrix

drainage support while continuing the liver support. During the next 20 days, the focus is on the ECM or what is commonly called the "terrain." So now our focus moves to the second layer, and the liver is ready to help with the process.

If a person is known to have a biofilm, as is the case with people who have involvement with the Lyme's spirochete, then a practitioner might recommend adding the formulas MELA (Optimal Terrain Enzymes) and ENZEE (Hi Potency Metabolizing Enzymes). By doing so, the cleansing activity in the ECM will increase as the enzymes help break down the biofilm and reduce inflammation. Drainage support is essential.

During this time, practitioners often employ the CLNZ (Chelator) formula and the REL (Chlorella). The CLNZ formula is an herbal chelator of chemicals and heavy metals and serves to help detoxify the ECM. Because chlorella is the premier detoxifier of nuclear radiation, more on this subject is addressed in "Research Report #5: Nuclear Radiation: A Smarter Plan On How To Protect Yourself." Suffice it to say that nuclear radiation gets into our food via fallout over agricultural areas, so not only does it get inhaled as microscopic particles, but also ingested via food (alfalfa, milk, cheese, meat, grains). The REL (Chlorella) formula helps detoxify,

and is also an excellent "drainage" formula, and this brings us to the third cardinal rule.

Detoxification Rule #3: Always provide drainage support

The concept of "drainage" is well established in natural health. From Dr. Reckeweg, the father of homotoxicology, where drainage of toxins through the body's established detoxification pathways became a primary focus of his medical practice, to Dr. Bernard Jensen and Doc Wheelwright, who taught the natural health world about the importance of helping the drainage organs during the time of detoxification. All agree that drainage is a critically important facet of detoxification and, ethically, must be supported.

Simply put, when the liver's vitality is increased, the body's innate intelligence knows that it's time to get the offending, health-destroying toxins out of storage and expelled from the body. This is why Phase One is essential. It primes the innate intelligence with the directive that it's time to cleanse. The ECM releases toxins thanks to the help of the CLNZ and REL formulas. Then the body's mission is to get them through the detoxification pathways and out of the body via the drainage channels.



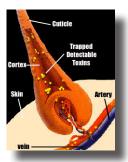
The lymphatic system and the blood are the "highways" that the toxins travel and this means that the primary detoxification organs are the liver and the kidneys. Our new model automatically addresses

drainage pathways with numerous formulas including Ls (Liver-s), Ks (Kidney-s), ACCELL, REL, Lb (Liver/Gall Bladder), ACX (Vitamin Detox), and CLNZ (Chelator). However practitioners should decide on a case-by-case basis if a person requires additional drainage support. For example, a person with a long history of lymphatic congestion should engage lymphatic drainage support. This can be with therapies such as Lymphstar Pro® or lymphatic drainage massage.

Systemic Drainage Formula Guide

- Blood: REL (Chlorella), ACCELL
- Bowel: C (Colon), REL (Chlorella), ACCELL
- Gall Bladder: Lb (Liver/Gall Bladder), ACCELL
- Kidneys: Ks (Kidney-s), ACCELL
- Lungs: R (Lung), ACCELL
- Liver: Ls (Liver-s), ACX (Vit. Detox), ACCELL
- Lymph: SENG (Lymphogin), ACCELL

Detox Reactions. With proper drainage, practitioners should not encounter Herxheimer reactions in their patients, but it's important to have patients know what to do if there is an overexuberant cleansing reaction. Stop the program, take a "soak bath" in 2 pounds baking soda + 2 pounds sea salt, drink a lot of water. Then resume the program in a more gentle fashion.



Doctors who rely on hair testing to assay heavy metals often report scenarios such as this. Recently a patient asked her practitioner, "How do I know I've really detoxified? I didn't really feel tired or headachy." 60 days later, the practitioner ordered a hair test. Mercury, Cadmium, Copper, and Arsenic levels were off the chart indicating that heavy

metal detoxification occurred. A subsequent hair test showed declining heavy metals. This means that a major amount of heavy metals exited the body during the cleanse. The body used the hair as a drainage pathway, and this is a natural occurrence. The anecdotal proof was in the reestablishing of the patient's vitality and disappearance of fibromyalgic pains.

Let's summarize. The problems with current detoxification methods, and the very problems this new model solves, are that detoxification:

- 1. Stresses the liver and kidneys
- 2. Scrambles the neuroendocrine regulation of hormones
- 3. Toxins can resettle in the brain, bones, and deeper tissues
- 4. People can have Herxheimer reactions
- 5. Depletes energy (ATP) and methyl molecules (CH3).
- 6. Can cause people to feel bad and quit.

Proper implementation of this program allows people to detoxify safely and effectively.

Stage Two Detoxification is for the Extra Cellular Matrix (ECM). Its role is to:

- Remove toxins from the terrain
- · Clear out the bottleneck toxins
- Open more drainage pathways
- Support the neuroendocrine system
- Continue liver support.
- Support Cellular Energy

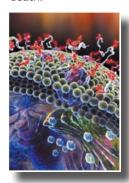
PHASE TWO For 20 Days: Cleanse the Extra-Cellular Matrix

With Breakfast	With Lunch	With Supper
1/3 Scoop ACCELL	3 Gb (Pituitary)	2 Ls (Liver-s)
2 L (Liver)	2 Lb (Liver/Gall Bladder)	I CLNZ (Chelator)
I CLNZ (Chelator)	I MORS (Methyl Donor)	I ACX (Vitamin Detox)
2 Ks (Kidney-s)	I eNRG (Quantum ATP)	2 REL (Chlorella)

Cellular Detoxification. Now for newest, and frankly most important aspect of detoxification. You've heard the phrase, "We live and die at the cellular level." Toxins interfere with the integrity of the cell membrane and cause hormone resistances. Even worse, they damage DNA.

Resistance Condition	Medical Literature Links It To:
Insulin resistance	Diabetes
Glucagon resistance	Hepatic steatosis (fatty liver)
Thyroxin resistance	Low thyroid performance
Leptin resistance	Obesity
Follicle Stim. Hormone resistance	Ovarian atrophy
Luteinizing hormone resistance	Male & Female gonadal dysfunction
Estrogen resistance	Menstrual & Menopausal issues, breast, uterine, prostate cancer
Progesterone resistance	Endometriosis, breast tenderness, irregular menses
Testosterone resistance	Erectile dysfunction, prostate cancer

Observe how that list is all endocrine and neuroendocrine issues. Basically, if you can name the hormone, there is a cellular resistance study bearing out the conditions the malfunction effects. This reinforces our position of *Detoxification Rule #2: Always Support the Neuroendocrine System*. Toxins cause inflammation of the cell membranes. Inflamed membrane resists hormone messengers because of damaged receptors and receptor genes. Further, inflamed membranes resist induction of oxygen and nutrients for ATP energy production, and thus the cells are denied the antioxidants they need to preserve their integrity during mitochondrial manufacture of ATP energy. The lack of glutathione, catalase, and superoxide dismutase results in DNA damage that can start aberrant cellular behaviors(rogue cells), or launch the apoptosis process of programmed cellular death.



Cell membrane damage also causes resistance to the egress of metabolic toxins from inside the cells. [Research Report #3: The Pulse of Life discusses what happens when the heart cells can't eliminate or convert their lactic acid metabolic wastes.] So a detoxification program must address cell membrane inflammation and we'll find that is exactly what this Third Stage Detoxification plan

accomplishes. Clinicians often support cell membranes with omega three fatty acids and the B-lipids (choline, inositol). In this

program we focus on Vitamin D3 because of it's phenomenal ability to reduce cell membrane inflammation. ¹⁴ Cell membranes have vitamin D receptors and ample Vitamin D triggers numerous benefits including cell differentiation ¹⁵ and immune system support.

Also this program focuses on the anti-oxidants that protect: I) the cell membrane (ROX) from lipid peroxidation, and 2) the inner cell (EPIC) from self-inflicted nitric oxide/peroxynitrite (no/onoo) damage, while providing nutrients to help the cells process their intermediate metabolites safely. Here is where methylation¹⁶ support is so helpful (BSV, MoRS) because the inner-cell processes of adding or removing methyl groups is the body's method of disassembling toxins including heavy metals and metabolic wastes.

Detoxification Rule #4: Always Support Cellular Detoxification (At The Right Time)

The only caveat to that rule is to support cellular detoxification at the right time when the liver is prepared, the extracellular matrix is prepared, and drainage pathways are fully operational.

Here in Stage Three, we find a continuation of the liver and kidney support as well as drainage support plus the inclusion of nutrients that impact the cell membrane and inner cell methylation processes.

PHASE THREE For 20 Days - Cleanse Inside The Cells

With Breakfast	With Lunch	With Supper	
1/3 scoop ACCELL	I Lb (Liver/Gall Bladder)	I Ls (Liver-s)	
I L (Liver)	I MoRS (Methyl Donor)	I EPIC (Metab no/onoo)	
2 EPIC (Metab no/onoo)	I CLNZ (Chelator)	2 ROX (Super Anti-ox)	
I ROX (Super Anti-ox)	I REL (Chlorella)	I Ks (Kidney-s)	
I dropper Vit D3 LQ	I eNRG (Quantum ATP)	I dropper Vit D3 LQ	
I ea. VISTA (Membrane)	I dropper Vit D3 LQ		

Meta Oxy. Clinicians can monitor a person's rate of cell membrane oxidative damage with the simple and inexpensive urine test that measures malondialdehyde, a by-product of lipid peroxidation. Testing patients during detoxification is particularly important to protect the body



¹⁴ Leventis P and Patel S. Clinical aspects of vitamin D in the management of rheumatoid arthritis. Rheumatology 2008; 47:1617-1621. 2008.

¹⁵ Cell Differentiation – the process by which a less specialized cell becomes a more specialized cell. This occurs during gestation where a zygote becomes a specialized tissue. This occurs in adults when stem cells divide and create differentiated daughter cells.

¹⁶ Methylation – The addition of a methyl group to a substrate, or the substitution of an atom by a methyl group molecule. In biological systems, enzymes catalyze methylation; such methylation can be involved in modification of heavy metals, regulation of gene expression, regulation of protein function, and RNA metabolism.

from free radical damage. A dark magenta color in the test vial indicates the body's need for more antioxidant protection and the ROX (Super Anti-oxidant) is the leading candidate for this support. [Order from Systemic.]

For Clinicians wishing to address this new model as a complete package, a one-page protocol is available from Systemic. Here is the list of formulas:

Qty	Product	Qty	Product	Qty	Product
- 1	ACCELL	- 1	CLNZ	1	MoRS
2	Ls	- 1	ACX	1	EPIC
2	L	- 1	Gb	1	ROX
2	Lb	- 1	ea VISTA	1	Vit D3 LQ
- 1	D	- 1	eNRG	1	Ks
I	С			1	REL

Detoxification Rule #5: After Cleansing, Always Rebuild



After detoxification is the perfect time to rebuild. Give the body an abundance of nutrients so it can reset its metabolic functions and stoke up the ATP and methylation processes for continued repair, regeneration, replenishment,

and rejuvenation. Just like with a spring housecleaning that leads to fixing the newel post and changing the refrigerator filter, post-detoxification is the perfect time to establish optimal levels of nutrients. Doing so allows the body to take care of potential future concerns and gain a wealth of nutrients for health and longevity.

Summary

As the world changes, our natural health programs must change. Today, we have new threats to health coming from all directions – from outer space due to a thinner ozone layer, from a system of medicine that employees poisons as treatments, from ionizing and electromagnetic radiations that damage DNA, from

chemicals in the environment, from radioactive particles in the air, from pesticides/herbicides used on foods, from fossil fuels that poison the air, from nano-technology's xenobiotic molecules in plastics and cosmetics, and from genetically-modified (GM) foods. As stated at the beginning, not in thousands of years has detoxification been so critically important.

People wanting to protect their health and have longevity must detoxify their bodies from accumulating toxins. People wanting to reverse chronic degenerative processes must first remove the cause, and there is a vast amount of research linking toxins to poor health.

Science is inadvertently throwing more and more toxins at the human body in blatant ignorance of Natural Law. The introduction of new toxins and xenobiotic molecules is occurring much faster than our bodies' ability to adapt. It seems that if something doesn't kill a person outright, it is assumed to be safe. Yet we find that toxin after toxin accumulates in the body, and when the bucket is filled to overflowing, there "suddenly" is a massive breakdown in health.

Today, everyone's body needs the deep cleansing of periodic detoxification. Some people fast one day a week to allow their bodies time to cleanse and recover. Others take supportive supplements. And others do periodic regimens and programs. Most people do nothing at all, not understanding the fundamental care and feeding of their body. Let us not be one of those. It is up to the natural health clinician to implement safe and effective detoxification process, and those that do are the successful clinicians who are known in their communities to be the good doctors who actually get results because they help the body heal itself.

My wish is that these insights help you in your work of helping others. The pathway to optimal health must traverse the road of detoxification. Whether by elimination or transmutation, the toxins must go. There is no other way. The healing art is the ability to help the body detoxify at the deepest levels, and then help the body repair itself. This is the purpose of this report, and the mission of Systemic Formulas – healing at the cellular level.

Disclaimer: This Research Report does not propose a method for diagnosing or treating any disease whatsoever—a process exclusive to the practice of medicine by licensed individuals. This information refers only to whole body nutrition to support the body in caring for itself. It features insights from one individual's clinical perspective and does not constitute labeling for any product.

"Detoxification is a special time and can be a spiritual awakening. Old processes are cast away. Deep-seated disturbances come to the surface to be addressed and discarded. The removal of heavy metals and toxins raises the body's vibratory rate. It's the necessary step before renewal."

- Dr. Jack Tips