



VITALLEO™

WAGING A WAR AGAINST TOXINS

How to Detox in a Toxic World

Dr. Ben Lerner

NY Times Best-Selling Author
Copyright and Trademark of Vitalleo



THE
EDISONSYSTEM
INTELLIGENT WELLNESS

E-BOOK SERIES

WAGING A WAR AGAINST TOXINS

How to Detox in a Toxic World



Our Toxic Environment

It has been determined that the majority of symptoms, health problems, and serious disease, especially cancer, is caused by your environment.

It's inescapable. Toxicity is around you all day, every day in the air, in the water, in cars, buses, and airplanes, in your car, the pesticides your neighbors use on their lawn, cleaning solutions, shampoo, sunscreen, carpets, furniture, blankets, car, towels, skincare products, toothpaste, and on and.

One thought is to move far, far way to a more natural, cleaner country and live off the land. Sadly, moving won't work. Even if you travel to the most desolate place in Antarctica or deep into the jungles of Peru, you'll still find cancer-causing chemicals. You'll find them in the water, the soil, and the air. You'll find toxins in the breast milk, bloodstreams, and urine samples of the inhabitants there, many of which we know will cause cells to mutate and can develop into cancer.

Why don't we hear more about this? Food producers, product manufacturers, government officials, pharmaceutical companies, medical professionals and others will admit that while the chemicals present in products could be harmful in high doses, they're perfectly safe in the small amounts that a product contains. If we are exposed only once in our lives, that might be a meaningful statement. The problem is we're exposed over and over again to these chemicals, and eventually they build up in our systems and cause mayhem.

While you might not get cancer from one injection at your pediatrician's office, one diet cola, one cigarette, one order of fast food, the new car smell, or one application of chemically-based skin lotion; you will ultimately experience a negative impact. These toxic materials can't be effectively metabolized by your body. Therefore, these poisons build up in your system and create what is called a "toxic burden."

This gradual buildup of toxins in your blood, cells, tissues, or organs can be undetectable for years until symptoms start to become obvious. Over time, the toxic burden becomes too great for the body to carry. Therefore, while they don't cause disease or death today, they most certainly can tomorrow.

As toxins accumulate, they interfere with normal cell life and cause the cells in the body to react to the rising levels of unwelcome agents. As this occurs, symptoms and conditions linked to the toxicity arise and newer, mysterious illnesses show up such as:

- **Chronic fatigue syndrome**
- **Fibromyalgia**
- **Infertility**
- **Skin disorders**
- **Headaches**
- **Depression**
- **Attention Deficit Disorder (ADD)**
- **Autism**
- **Alzheimer's**
- **Auto-Immune Disease**

These along with other examples of toxin-linked conditions which include asthma (which is ten times more prevalent in children now than at the beginning of the decade), sleeplessness, weight loss resistance, early onset of puberty, thyroid failure, Parkinson's, Alzheimer's, and of course, all kinds of cancers.

These toxins infiltrate the body on many levels, being stored not only outside the cells in the blood and tissues, but also inside the cells. Where they store, accumulate, and over time; do their worst.

What Toxins are Out There and Where are They Found?

Plastics

Fruits and vegetables are healthy, right? Not necessarily—not if they're wrapped in plastic, as virtually everything is nowadays. Each day we eat so many foods that come in contact with plastics and phthalate (a substance added to plastic to make it more flexible) that the government has actually established an average daily amount that we can safely ingest.

Drinking out of plastic water bottles or microwaving food in plastic containers exposes you to very high levels of phthalates and other chemicals.

Plastics damage hormone receptors, hurt sex drive, cause fatigue, harm brain chemistry, accumulate in organs, and lead to illness. They've been specifically linked to cancers of the prostate, breast, lung, and thyroid.

Many plastics also contain bisphenol A (BPA), which has become extremely controversial and is illegal in some countries. Scientists are concerned that BPA, a xenoestrogen, is linked to certain types of cancer, lowered levels of testosterone, and other serious health effects like obesity, attention deficits, lowered sperm counts, and can cause early puberty onset. Problems can occur even at low doses.*

Another chemical our foods come in contact with is polystyrene. The Styrofoam trays that many foods sit in contain the toxin polystyrene, which is made from the chemical styrene. Phthalate and styrene chemicals leach more aggressively into foods and liquids when heated. Think about that as you drink your hot coffee from a Styrofoam cup tomorrow morning. ****Just because it is BPA free, does not mean it is phthalate free.***

Environment

Every chemical named in this chapter makes its way into the environment in one way or another. The ground in which our foods are grown and the grass in which we play contain many layers of chemicals and pesticides used to kill things. Birds suffer from these poisons as do small animals. Why would we think they would not affect us as well? We spread these chemicals on our lawns and then days later we let our children play on the same grass. Even if time has passed, these chemicals linger.

Environmental endocrine disruptors (EEDs) are toxins that imitate hormones. By blocking or altering hormone functions, they can lead to an increase in hormone-related cancers, such as those of the breast, testicles and prostate, which are all not coincidentally on the rise. Endocrine disruptors can be found everywhere in chemicals like phthalates, dioxins, pesticides, detergents, polystyrene and trichloroethylene and in most households and garage cleaning and maintenance supplies. Worse still, it can be found in tap water.

Dioxins are an example of these EEDs. They're indigestible and therefore accumulate in the body. Dioxins are created through the manufacturing of plastics, pesticides, and other chemicals that end up in our foods and beverages. These chemicals are a potent cause of cancer. Through breast milk, infants can consume up to eighteen times more carcinogenic dioxin in one year than the maximum "safe" lifetime dose as recommended by the U.S. Centers for Disease Control and Prevention in Atlanta, Georgia, the federal agency charged with protecting public health.

Of course, the companies that make these products and the governmental agencies that approve them claim that they're present in such minuscule amounts that they aren't harmful. The problem, once again, is that these so-called minuscule amounts accumulate until they become toxic time bombs.

Water

You have to watch what you drink, bathe in, and what you use to clean and prepare foods. It can take effort to find clean, fresh water. True, tap water is readily available just about anywhere in the U.S., from park water fountains to bathroom faucets. But once you learn what's in the water supply, you might think twice about whether or not to drink it.

- **Chlorine** *Yes, the same chemical you use to kill bacteria in your swimming pool is used in smaller amounts to accomplish the same purpose in your drinking water. The byproducts of chlorine treatment have been associated with increased cancer risk. (316)*
- **Germs** *Despite the chlorine treatment, a National Resources Defense Council review found that pathogens were frequently found in municipal drinking water sources.*
- **Arsenic** *Many municipal sources regularly test below the minimum safety standards, but there are those who believe that any arsenic in drinking water is unacceptable.*
- **Lead** *Like it or not, many cities rely on old pumps to move their water, and problems with these pumps can result in trace amounts of lead getting into the supplies. The NRDC's tests found lead was a frequent offender across different water sources.*
- **Drugs** *Many studies have found prescription drugs, including beta blockers, estrogen, antidepressants, and pain killers in tap water.*

Not surprisingly, a 2006 article in the *International Journal of Cancer* concluded that drinking tap water left men, in particular, as much as 50% more vulnerable to bladder cancer. With this knowledge in hand, it's up to you to decide whether or not to drink it and in what quantity.¹

Benzene

One of the chemicals we highly suspect was involved with Dr. Majors' condition was benzene, which is frequently linked with leukemia. It's found in auto exhaust, gasoline, plastics, rubbers, dyes, detergents, carpets, pesticides, and some drugs. Dr. Majors had lived in several new homes and had built multiple clinics. Building materials and home furnishings are loaded with hazardous materials that, particularly when new, expel harmful gases into the environment and end up stuck in people's bodies.

Even though he was taking great care of himself in the years before his diagnosis, heavy exposure and damage from benzene and a host of other chemicals would trump healthy lifestyle, if not directly addressed.

The following is an important list of chemicals and where they're found. Take this problem seriously and reduce your exposure, and work to eliminate as many as you can from your system. The point is to think about what you choose to consume and use. Read the labels and opt for products that offer the lowest exposure to these harmful elements.

Heavy Metal Poisons

Cadmium, aluminum, mercury, antimony, lead, and arsenic are all heavy metals we get from manufactured products, industry run-off, dentistry (amalgam fillings), medications, vaccinations, pesticides, manufacturing, aviation, the auto industry, and auto and industrial exhaust. They're also present in personal hygiene products, appliances, and aluminum-lined boxes and cans. Food additives also contain heavy metals.

Heavy metals are known as neurotoxins, meaning they can poison the central nervous system. They're linked to many types of chronic neurological disorders.

Your Mouth

One of the first places to look for Neurotoxins from heavy metals and bacteria is in your mouth. For Dr. Majors, this was another significant factor in his cancer. Look at three areas:

Amalgam Fillings: *Slowly leak mercury and other metals that are very toxic.*

Root Canals: *Allows a patient to keep a "dead tooth" in his or her mouth, which can devastate the human immune system. When the dentist removes the bulk of the nerve from the root canal, he can't treat the millions of tubules with dead nerve tissue that remain. There are about three miles of these tubules with dead debris in the average tooth. That's three miles of possible infection. It's better to lose a dead tooth.*

Cavitations: *While a Cavity is a hole in the tooth, a cavitation is a hole in the bone that is not in plain sight. These lesions are often located in old extraction sites (especially of molars and wisdom teeth), and under or near the roots of root canal teeth or dead teeth. They can spread from these locations throughout the jawbone and may penetrate the sinuses or totally encompass the jaw nerve. Research shows that all cavitation tissue samples tested contain toxins, which significantly inhibit one or more of five basic body enzymes necessary in the energy production cycle.*

There are indications that when these toxins combine with chemicals or heavy metals, such as fluoride or mercury, more potent toxins may be formed.

Food Additives

Stay away from foods containing food additives, dyes, colorings, flavorings, stabilizers, fake fats, artificial sugars, and preservatives. The average person ingests 140 to 150 pounds of additives every year. ²

Offender	Appearance on Food Labels	Associated Health Problems	Food Sources
Artificial Colors	"Yellow No. 5," "Red No. 40," etc.	Hyperactivity in children, potential asthma aggravation. ³	Soft drinks, juices, boxed macaroni, yellow cupcakes, cheese crackers, frozen waffles.
Sodium Benzoate	Sodium Benzoate	Increased hyperactivity in children, possible inhibition of leptin release, ⁴ headaches, upset stomach.	Processed grain products, soft drinks, salad dressings, condiments, jams and jellies.
Potassium Bromate	Potassium Bromate	A potential for cancer risk: in California, labels are required to come with a cancer warning if Potassium Bromate is present. ⁵	Flour and its associated products, including breads and rolls.
Methylcyclopropene	SmartFresh	A chemical sprayed on fruits to extend their shelf life, but the research is uncertain.	Fruit and produce
Monosodium Glutamate	Monosodium Glutamate (MSG) and Texturized Vegetable Protein (TVP)	Neurotoxins. Some people experience extreme sensitivity. ⁶	Packaged, canned foods

Medications

The nearly four billion prescription drugs, over-the-counter medicines, and vaccines are themselves chemical toxins. Additionally, phthalates, heavy metals, and commercial preservatives are used to both coat the drugs and preserve the materials. Vaccines, for example, contain a multitude of chemicals, preservatives, and heavy metals such as formaldehyde, aluminum, phosphates, sodium chloride, sodium hydroxide, hydrochloride, sorbitol, and hydrolyzed gelatin that are unsafe at any dose, but are injected into our bloodstreams by the dozens as part of normal childhood “wellness” protocols.

Personal Care Products

These toxins are literally hiding in plain sight on the shelves and in the drawers in your bathroom. They're in your shower and by your sink. You wash with them and use them to make yourself more beautiful, and to make yourself smell better. The list includes sunscreens, makeup, skin creams and lotions, soaps, shampoos, bubble baths, laundry and dishwashing detergents, and toothpastes. And they all contain harmful chemicals that you gladly smear on your skin, scrub on your teeth, or spray on your hair.

Diethanolamine: *Also known as DEA, is among the most prolific of the carcinogens found in personal care products. It serves as a wetting agent in a huge number of products, giving shampoos their rich lather and lotions their creamy consistency. It has been labeled as carcinogenic by the National Toxicology Program and the International Agency for Research on Cancer. Particularly when mixed with a nitroso compound, it has been proven to be carcinogenic in a variety of lab animals and has been banned in parts of Europe. In 1995 the National Institute of Environmental Health Sciences described DEA as having low acute toxicity, but significant cumulative toxicity.*

Sodium Lauryl Sulfate: *Is a common degreaser used in practically every soap, shampoo, and toothpaste on the market today. The compound has been used in studies to induce mutation in bacteria and irritate skin. It has also shown to enter the heart, liver, lungs and brain from skin contact, and has been proven to maintain residual levels once inside these organs.*

Fluoride: *Added to the nation's drinking water and toothpaste, purportedly to protect children's teeth from tooth decay, is a halogen that can cause cell membrane damage and hormone issues. This has been linked to behavioral disorders, birth defects, flu, and arthritis. Fluoride can also cause damage to the heart, brain, and kidneys. It can interfere with metabolism of testosterone. Scientists have also challenged whether research even backs its role in preventing tooth decay.*

Propylene Glycol: *This one makes the rounds of households concealed in antifreeze solutions and hydraulic fluids as a powerful solvent. Astonishingly, it's also found in childhood vaccinations, cosmetics, toothpastes, shampoos, deodorants, lotions, and even processed foods, including pet foods. It has been found to cause problems like kidney damage, liver abnormalities, skin cell growth inhibition, damaged cell membranes, rashes, respiratory damage, immune system deficiency, and central nervous system depression.*

This is only a partial list of the literally thousands of chemicals being slipped into food and products, given the opportunity to enter our bodies and then allowed to accumulate there for years to come.

Home/Work

Toxic Home Syndrome

A friend of mine was diagnosed with cancer at the age of 34 with a type that is normally found in men over 70. In assessing the causes of the cancer it became clear, he had been exposed to chemicals (Volatile Air Compounds – VOC's) in 4 new homes he had been in over a 5 year period. The chemical Benzene, in particular, is known to be the culprit for the cancer he suffered from.

It's not the polluted air in downtown Los Angeles, Beijing China, the Hudson, or outside the local factory that researchers are most concerned about. It's the toxic air right inside your own home or office that science is finding is the leading cause of disease.

New terms are being birthed around healthcare community such as; Toxic Home Syndrome, Sick Building Syndrome, and Sick House Syndrome to convey the inconvenient truth that where we live or work is increasing our risk for heart disease, cancer, auto-immune disorders, mental health challenges, and any endless number of other symptoms and diseases.*

The Environmental Protection Agency has discovered that the environment indoors is now 2-5 times more toxic than the environment outdoors. In fact, there is as much as 100 times more indoor pollution as there is outdoor pollution. Our crisis with indoor air quality has culminated in 80% of all cancers finding their cause from toxins in the environment around us rather than from physical or genetic factors in us.

Air inside homes and office can contain 100s of harmful chemicals, biological poisons like mold spores, pollen, bacteria, and viruses, as well as radon, and carbon monoxide gasses. While our bodies are able to manage some level of toxicity, the sheer volume of poisons around us are too much, the toxic burden is too great, and most of these man- made chemicals cannot actually be metabolized or eliminated by the body.

There are too many chemicals in carpets and carpet cleaners to list. Add to that **TOLUENE** in paints; **PHTHALATES** in wallpaper, dishes, tablecloths, and shower curtains; **FORMALDEHYDE** in pressed wood kitchen cabinets, wood preservatives, furniture, and mattress fabrics; and **XYLENE** in towels and blankets.

Children's playthings, including the very baby bottles, rattles, and teething toys they eagerly shove into their mouths, are often made from unhealthy plastics and, in rarer cases, neurotoxic metals.

Teflon cookware contains **PERFLUOROOCTANOIC ACID**, a known carcinogen commonly found in people's bloodstreams.

PHENOL is another extremely common chemical present in plywood, disinfectants, medical products, food, and auto emissions, and has been linked to breast cancer.

Yard

Pesticides, insecticides, herbicides, molluscicides, fungicides, and fertilizers are abundant at home and in the fields and parks where children and pets play.

Car

Car exhaust contains hydrocarbons, formaldehyde, and benzene. That's why you can't shut the garage and stay in the car while it's running, but you're living in it during rush hour.

These are just some of the chemicals we're exposed to every day. We left out dry cleaning, silicone breast implants, and titanium hip replacements. To keep things simple, you'd be safe to assume that almost every product has some chemicals with the potential to give you cancer and that prospect should be truly frightening.

4 Steps to Overcoming Chemical Bombardment

Hint: You have to do all 4!

STEP 1: Minimize Exposure

STEP 2: Raise Glutathione Levels

STEP 3: Focus on Nutrients Essential and Supportive of Detoxification

STEP 4: Safe and Effective Capture and Elimination of Toxins

1. Minimize Exposure

After reading this long list of everyday toxic substances, you can see that trying to avoid man-made chemicals entirely would be an impossible task. But through awareness, you can at least limit exposure.

You also have important detox pathways like your lungs, liver, colon, and kidneys that are capable of managing some amount of foreign chemicals daily.

One of the major concerns with all of the toxins listed above is that children are exposed to them like never before, and as we've said, they accumulate rapidly. Studies on umbilical cord blood show a significant toxic load from the mothers. Never before have we been exposed to so many toxins from birth on.

2. Raise Glutathione Levels

Your body can't metabolize the bulk of these poisons. They bio-accumulate, and eventually the toxic burden will become far too great for your detox pathways. Because these chemicals are incredibly prevalent in your daily life, you need to intentionally make sure you're detoxifying them.

Detoxifying involves more than a colon cleanse. Toxins bind to the inside of cells and get stored outside the cells in fats and tissues. On top of that, they're specifically eliminated by certain nutrients and detox pathways that will diminish and begin shutting down upon constant chemical bombardment.

Glutathione: The Master Detoxifier

- Major part in many bodily, chemical reactions
- Master detoxifier of chemicals, pollutants, and drugs
- Powerful antioxidant; needed to fight cell damage caused by harmful free radicals and environmental toxins that lead to heart disease, cancer, and speed up the aging process.
- Glutathione decreases with age, poorer health, and exposure to toxins and free radicals.

For intracellular detoxification, you need to turn to your body's own, natural antioxidant, glutathione, which exists to get toxins out from inside the cell. 7 It's utilized by virtually every cell in your body to maintain cellular health and prevent the proliferation of harmful free radicals. Naturally, to aid detoxification, glutathione levels are highest in the liver and kidneys, which are the body's primary detoxification organs.

A bombardment of toxins causes your body's stores of glutathione to run down. A process commonly known as, "Glutathione wasting." As glutathione wasting occurs, you're less and less capable of dealing with environmental toxins and your ability to remove toxins from your body's cells declines.

This is why one person can walk into an office that smells of perfume, mold, or fresh paint and be un-phased, while another is hammered by the toxins in the air and goes into a full migraine headache for three days.

Your body doesn't generally absorb glutathione into your blood very effectively by just eating glutathione. The best ways to increase levels in your body are through by eating foods that help generate it, supplements built from these foods, or by also supplementing glycine, glutamic acid, and cysteine—which are the building blocks of glutathione—so your body can manufacture its own.

Due to the overwhelming amount of toxins out there, all of the above are highly recommended. In extreme cases, you can do I.V. glutathione or breathe it into your system through a nebulizer. Generally, the right type of diet and supplementation does the trick in order to get and keep you well.

Glutathione boosting foods

Vegetables that help with your levels include spinach, broccoli, and carrots. It's vital to consume them raw on a regular basis. Cooking vegetables depletes their usable glutathione contents by nearly 100 percent.

- **Garlic**
- **Avocado**
- **Asparagus**
- **Broccoli**
- **Spinach**
- **Carrots**

Supplement Glutathione Precursors: Cysteine, Glycine, Glutamine

Cysteine, Glycine, and Glutamine are necessary for your body to produce a glutathione. Supplements containing an adequate dose of these 3 nutrients will give your body the opportunity to rebuild the glutathione lost naturally through exposure to toxins, aging, and health issues.

- Cysteine also helps to protect the liver and brain from damage due to alcohol, drugs, and toxic compounds in cigarette smoke.
- Glycine also plays a key role in phase II liver detoxification by eliminating toxins.
- Glutamine is important for carbohydrate metabolism, which helps aid in weight loss. It also helps convert ammonia, which is dangerous to the brain, into urea in the liver.

Take Vitamin and Mineral Glutathione Co-factors

Supplementation with the following co-factors is key for producing and maintaining adequate levels glutathione and helping it work to fight free radicals and cleanse the body.

- **Selenium**
- **Vitamin E**
- **Vitamin C**
- **Alpha Lipoic Acid (ALA)**
- **B Vitamins**
- **Zinc**
- **Milk Thistle**

Benefits of Milk Thistle ⁸⁻¹⁰

- *Powerful glutathione regenerator*
- *Reduces and reverses liver damage caused by medications, radiation and alcohol*
- *Treats alcoholic cirrhosis and alcoholic hepatitis*
- *Potent liver antioxidant*
- *Chemoprotective*

3. Focus on Nutrients Essential and Supportive of Detoxification*

*DON'T PANIC! For steps 2, 3, and 4, there are many nutrients and compounds listed. All of these are made available together in supplement form to make consuming this long list a simple task to accomplish successfully and consistently.

Apple Cider Vinegar

This ingredient continues to grow in popularity due to its many, incredible benefits in cleansing the body.

- Vinegar can help kill pathogens, including bacteria like E. coli and fungus. ¹¹
- Numerous studies ability to kill cancer cells and shrink tumors. ¹²⁻¹⁴
- For overcoming weight loss resistance.
- Helps in detoxification.
- Assists to restore the human biome.

Aloe Vera

- Supports digestion and the removal of toxins through enhancing bowel function.
- Rich in antioxidants and nutrients needed by organs of detoxification like the liver and kidneys.
- Super effective for reducing inflammation, which allows for detoxification.

Chlorella - Go Green!

- Cleans and detoxifies cells.
- Effective in detoxifying heavy metals. ¹⁵
- Lower the impact of heavy metals on the liver, brain and kidneys. ¹⁶
- Lessen the effect of harmful chemicals found in foods such as dioxin, a hormone disruptor. ¹⁷
- Helpful in supporting detoxification in the liver, gallbladder and colon. ¹⁸
- Boosts healthy flora in the intestines.
- A superfood-antioxidant.

Dandelion Greens

Your liver is a key organ of detoxification. Many of the nutrients mentioned are important for supporting its health and function. Dandelion is a powerful liver cleanser, high in antioxidants, and helpful in reducing inflammation. It is rich in fiber and beneficial to the urinary tract. Therefore, it has the benefit of helping people who suffer from irritable bowel syndrome, diverticulosis, and urinary tract infections. ¹⁹⁻²²

Green Tea

Green tea has become a well-known disease-fighter based on several compounds contained in its leaves. It contains polyphenols, catechins, and EGCGs (Epigallocatechin Gallate.) Polyphenols in plants have been found to protect against cancer, heart disease, and fight inflammation, the catechins are natural antioxidants that help prevent cell damage, and EGCG effective in treatment and prevention of diseases. ²³

4. Safe and Effective Capture and Elimination of Toxins

BEWARE CIRCULATING TOXNS: Many detox products and processes should really come with a Black Box Warning. While it is very important to detoxify, you have to be aware of what happens to the toxins you are removing. When you create circulating toxins, you have to make sure to capture them and remove them effectively from the body and not simply "re-tox." Nutrients that help with elimination like magnesium and fiber along with an element like charcoal to absorb toxins are very helpful in the course of detox.

Helpful ingredients to consider:

Charcoal – Capture and Avoid Re-tox!

- Used as first aid in poisoning emergencies to stop toxins from circulating throughout the body.
- Absorb toxins.
- Bind to avoid “Re-toxification”.

Magnesium

Magnesium is often refined out of many foods and or lost during cooking. It is required in very high doses to meet health needs and change blood levels so is considered an important nutrient to supplement. It is one of the most critical nutrients in overall health, body function, waste elimination, as well as in detoxification. Magnesium plays a role in ridding the body of environmental toxins and in binding of heavy metals that accumulate in order to flush them out through the body’s own, inherent chelation process.

Omega -3

Inflammation at the cell level hinders the body’s own, inherent ability to detox. When your body has low levels of Omega-3 and high levels of Omega-6, which is common due to the short-comings of modern nutrition, toxins become virtually locked into the system. By increasing Omega-3 levels, you move your body down an ant-inflammatory pathway and create far better opportunity to release toxins out of the cells.

Pre-biotics

Another important part of the complex system of managing unwanted material in the body is the need for healthy intestinal pro-biotic flora. Pre- biotics are substance necessary for probiotic colonies of healthy, good bacteria to grow. Healthy flora is needed for proper digestion, immune function, to fight infection, manage inflammation, and to maintain and establish well-being in cells and tissues.

Fiber

Naturally, your body moves waste materials from the system to the best of its ability. Sadly, it can be hard to impossible to keep up with today’s overwhelming amount of poison exposure. Fiber is a way to support and enhance elimination and the safe removal of toxins. Perhaps the most well-known and very effective fiber for this purpose is Psyllium. It occurs naturally in the seeds of a plant and helps in elimination without irritation to the bowel.²⁴ Its makeup makes it effective in helping with intestinal conditions like Chron’s disease and Irritable Bowel Syndrome and because fiber is resistant to digestion, it helps to regulates body weight, cholesterol, triglycerides and blood sugar.²⁵

Other, super-effective fiber is found in vegetables and berries. Additionally, they are loaded with very powerful antioxidants to preserve and protect cell DNA while under bombardment from external and internal chemicals. Cruciferous vegetables, acai, and blueberry are particularly beneficial due to extremely high antioxidant value.

Antioxidants Fight DNA Damage

Oxidative DNA damage is part of everyday life. If oxidative free radicals are not neutralized by antioxidants, they can damage cells and lead to a number of diseases, including diabetes, cancer and heart disease. It is said to occur tens of thousands of times per day, in every single cell in the body.²⁶ DNA damage is part of the reason we grow older, and it also plays an important role in the development of diseases of aging, but thankfully; veggies and berries are abundant in antioxidants to defend the body from damage against these free-radicals.

Cruciferous Vegetables

- Cruciferous vegetables have high glucosinolate.
- Triggers antioxidant and anti-inflammatory response.
- Contain anti-cancer compounds.
- Examples: cauliflower, cabbage, garden cress, bok choy, broccoli, Brussels sprouts and green, leafy vegetables.

Cruciferous benefits: *An important study showed that twenty-eight servings of vegetables per week decreased prostate cancer risk by 35%. But - just 3 servings of cruciferous vegetables per week decreased prostate cancer risk by a whopping 46%. Additional studies on cruciferous vegetables showed:*

- *Decreased prostate cancer risk by 46%.²⁷*
- *Reduce risk of pancreatic cancer by 38%.²⁸*
- *Reduced the risk of breast cancer by over 50%.*
- *Helps prevent hormonal cancers, such as breast cancer.²⁹⁻³⁰*
- *High fiber content for removing toxins.*

Alfalfa: Another Great Plant for Detox

- Contains 8 Essential Amino Acids.
- Plentiful in Vitamins A, B1, B6, B12, C, D, E, K along with minerals: Calcium, Magnesium, Manganese, Potassium, Phosphorous, Iron.
- Has chlorophyll and carotenoids that bind and eliminate heavy metals.
- Helpful in reducing toxin production in the GI tract.
- A body deodorizer through oxygen and detox.
- High in fiber.

Acai Berry

- Incredibly high antioxidant level with an ORAC score (Oxygen Radical Absorbance Capacity) of 15,405.³¹
- Greater than 3 times the ORAC value of other berries and well absorbed in body systems.³²
- High in fiber for removing toxins.

Blueberry

In addition to being delicious, blueberries are high in fiber and reduce DNA damage, helpful in aging and cancer protection.³³

Eat Plants!

The impact of many of these nutrients has been found to fight free radicals, reduce the risk for certain cancers, and improve important functions like immunity and managing inflammation. Here are some of the most important phytochemicals known to science thus far:

Phytochemical	Source(s)	Biological Function in Humans
Lycopene	Tomatoes	Powerful antioxidant, improves immune function
Anthocyanins	Blueberries and grapes	Antioxidant, anti-inflammatory
Indoles, glucinolates, and sulforaphane	Cruciferous vegetables (broccoli, Brussels sprouts)	Inhibiting tumor growth, hindering carcinogens
Polyphenols	Olive oil, berries, green tea, coffee, red wine, grapes	Antioxidant, anti-inflammatory
Allyl sulfides	Garlic	Anti-bacterial, may help strengthen immunity

LOOKING FOR A SAFE & EFFECTIVE WAY TO DETOX?

THE EDISON SYSTEM
INTELLIGENT WELLNESS

DETOLXPACK
FOR MEN & WOMEN

For everyday use in the fight against toxins and free radicals.

Free of Gluten, Dairy and Soy • Non-GMO

CONTENTS:
(1) MASTER DETOXIFIER (60 VEGGIE CAPS)
(1) CAPTURE AND RELEASE (60 VEGGIE CAPS)

MASTER DETOXIFIER
Glutathione: A tripeptide composed of cysteine, glutamic acid, and glycine. It is a powerful antioxidant, major free radical scavenger, and known as the master detoxifier in the human body.

In the body, glutathione is important for actual cell detoxification, while other nutrients such as chlorella, dandelion greens, garlic, Gotu Kola, and aloe also act as powerful antioxidants and help to detoxify the body in other ways.

Nutrients like milk thistle with 80% Silymarin and Goji Berry support liver function, an important part of the detoxification process.

WARNING: As with any dietary supplement, consult your healthcare practitioner before using this product, especially if you are pregnant, nursing, anticipating surgery, take medication on a regular basis or are under medical supervision.

CAPTURE AND RELEASE
FOR DAILY USE
Dietary Supplement
Free of Gluten, Dairy and Soy
Non-GMO
60 VEGGIE CAPS

MASTER DETOXIFIER
FOR DAILY USE
Dietary Supplement
Free of Gluten, Dairy and Soy
Non-GMO
60 VEGGIE CAPS

For everyday use in the fight against toxins and free radicals.

REFERENCES

- 1 Villanueva CM, Cantor KP, King WD, et al. Total and specific fluid consumption as determinants of bladder cancer risk. *Int J Cancer*. 2006;118(8):2040-2047. doi:10.1002/ijc.21587.
- 2 Henner M, Morton L. *The 30-Day Total Health Makeover*. Harper Collins Publishers; 1999.
- 3 Downs M. The Truth About 7 Common Food Additives. WebMD. <https://www.webmd.com/diet/features/the-truth-about-seven-common-food-additives#1>.
- 4 Ciardi C, Jenny M, Tschoner A, et al. Food additives such as sodium sulphite, sodium benzoate and curcumin inhibit leptin release in lipopoly saccharide- treated murine adipocytes in vitro. *Br J Nutr*. 2012;107(06):826-833. doi:10.1017/S0007114511003680.
- 5 Sherpa C. Top 15 chemical additives in your food. Medical Press. <https://medicalxpress.com/news/2010-01-chemical-additives-food.html>. Published 2010.
- 6 Food additives. Better Health Channel. <https://www.betterhealth.vic.gov.au/health/ConditionsAndTreatments/food-additives>. Published 2012.
- 7 Singh S, Khan AR, Gupta AK. Role of glutathione in cancer pathophysiology and therapeutic interventions. *J Exp Ther Oncol*. 2012;9(4):303-316. <http://www.ncbi.nlm.nih.gov/pubmed/22545423>. Accessed September 5, 2018.
- 8 Abenavoli L, Capasso R, Milic N, Capasso F. Milk thistle in liver diseases: past, present, future. *Phyther Res*. 2010;24(10):1423-1432. doi:10.1002/ptr.3207.
- 9 Das SK, Vasudevan DM. Protective effects of silymarin, a milk thistle (*Silybium marianum*) derivative on ethanol-induced oxidative stress in liver. *Indian J Biochem Biophys*. 2006;43(5):306-311. <http://www.ncbi.nlm.nih.gov/pubmed/17133738>. Accessed September 5, 2018.
- 10 Surai P. Silymarin as a Natural Antioxidant: An Overview of the Current Evidence and Perspectives. *Antioxidants*. 2015;4(1):204-247. doi:10.3390/antiox4010204.
- 11 Yagnik D, Serafin V, J. Shah A. Antimicrobial activity of apple cider vinegar against *Escherichia coli*, *Staphylococcus aureus* and *Candida albicans*; downregulating cytokine and microbial protein expression. *Sci Rep*. 2018;8(1):1732. doi:10.1038/s41598-017-18618-x.
- 12 Chen H, Chen T, Giudici P, Chen F. Vinegar Functions on Health: Constituents, Sources, and Formation Mechanisms. *Compr Rev Food Sci Food Saf*. 2016;15(6):1124-1138. doi:10.1111/1541-4337.12228.
- 13 Mimura A, Suzuki Y, Toshima Y, et al. Induction of apoptosis in human leukemia cells by naturally fermented sugar cane vinegar (kibizu) of Amami Ohshima Island. *Biofactors*. 2004;22(1-4):93-97. <http://www.ncbi.nlm.nih.gov/pubmed/15630260>. Accessed September 5, 2018.
- 14 Nanda K, Miyoshi N, Nakamura Y, et al. Extract of vinegar "Kurosu"; from unpolished rice inhibits the proliferation of human cancer cells. *J Exp Clin Cancer Res*. 2004;23(1):69-75. <http://www.ncbi.nlm.nih.gov/pubmed/15149153>.
- 15 Sears ME. Chelation: harnessing and enhancing heavy metal detoxification--a review. *ScientificWorldJournal*. 2013;2013:219840. doi:10.1155/2013/219840.
- 16 Zhai Q, Narbad A, Chen W. Dietary strategies for the treatment of cadmium and lead toxicity. *Nutrients*. 2015;7(1):552-571. doi:10.3390/nu7010552.
- 17 Nakano S, Takekoshi H, Nakano M. Chlorella (*Chlorella pyrenoidosa*) Supplementation Decreases Dioxin and Increases Immunoglobulin A Concentrations in Breast Milk. *J Med Food*. 2007;10(1):134-142. doi:10.1089/jmf.2006.023.
- 18 Ebrahimi-Mameghani M, Sadeghi Z, Abbasalizad Farhangi M, Vaghef- Mehrabany E, Aliashrafi S. Glucose homeostasis, insulin resistance and inflammatory biomarkers in patients with non-alcoholic fatty liver disease: Beneficial effects of supplementation with microalgae *Chlorella vulgaris*: A double-blind placebo-controlled randomized clinical trial. *Clin Nutr*. 2017;36(4):1001-1006. doi:10.1016/j.clnu.2016.07.004.
- 19 Davaatsuren M, Hur HJ, Yang HJ, et al. Dandelion Leaf Extract Protects Against Liver Injury Induced by Methionine- and Choline-Deficient Diet in Mice. *J Med Food*. 2013;16(1):26-33. doi:10.1089/jmf.2012.2226.
- 20 Choi U-K, Lee O-H, Yim JH, et al. Hypolipidemic and Antioxidant Effects of Dandelion (*Taraxacum officinale*) Root and Leaf on Cholesterol-Fed Rabbits. *Int J Mol Sci*. 2010;11(1):67-78. doi:10.3390/ijms11010067.
- 21 Chatterjee SJ, Ovadje P, Mousa M, Hamm C, Pandey S. The Efficacy of Dandelion Root Extract in Inducing Apoptosis in Drug-Resistant Human Melanoma Cells. *Evidence-Based Complement Altern Med*. 2011;2011:1-11. doi:10.1155/2011/129045.
- 22 Clare BA, Conroy RS, Spelman K. The Diuretic Effect in Human Subjects of an Extract of *Taraxacum officinale* Folium over a Single Day. *J Altern Complement Med*. 2009;15(8):929-934. doi:10.1089/acm.2008.0152.
- 23 Eng QY, Thanikachalam PV, Ramamurthy S. Molecular understanding of Epigallocatechin gallate (EGCG) in cardiovascular and metabolic diseases. *J Ethnopharmacol*. 2018;210:296-310. doi:10.1016/j.jep.2017.08.035.
- 24 SINGH B. Psyllium as therapeutic and drug delivery agent. *Int J Pharm*. 2007;334(1-2):1-14. doi:10.1016/Int J Pharm. 2007.01.028.
- 25 (Lucy) Yu L, Lutterodt H, Cheng Z. Beneficial Health Properties of Psyllium and Approaches to Improve Its Functionalities. 2008:193-220. doi:10.1016/S1043-4526(08)00404-X.
- 26 Ames BN, Shigenaga MK, Hagen TM. Oxidants, antioxidants, and the degenerative diseases of aging. *Proc Natl Acad Sci U S A*. 1993;90(17):7915-7922. doi:10.1073/PNAS.90.17.7915.
- 27 Higdon J, Delage B, Williams D, Dashwood R. Cruciferous vegetables and human cancer risk: epidemiologic evidence and mechanistic basis. *Pharmacol Res*. 2007;55(3):224-236. doi:10.1016/j.phrs.2007.01.009.
- 28 Larsson SC, Håkansson N, Näslund I, Bergkvist L, Wolk A. Fruit and Vegetable Consumption in Relation to Pancreatic Cancer Risk: A Prospective Study. *Cancer Epidemiol Biomarkers Prev*. 2006;15(2):301-305. doi:10.1158/1055-9965.EPI-05-0696.
- 29 Meng Q, Yuan F, Goldberg ID, Rosen EM, Auburn K, Fan S. Indole-3-Carbinol Is a Negative Regulator of Estrogen Receptor- α Signaling in Human Tumor Cells. *J Nutr*. 2000;130(12):2927-2931. doi:10.1093/jn/130.12.2927.
- 30 Zhang C-X, Ho SC, Chen Y-M, Fu J-H, Cheng S-Z, Lin F-Y. Greater vegetable and fruit intake is associated with a lower risk of breast cancer among Chinese women. *Int J Cancer*. 2009;125(1):181-188. doi:10.1002/ijc.24358.
- 31 Haytowitz DB, Bhagwat S. *USDA Database for the Oxygen Radical Absorbance Capacity (ORAC) of Selected Foods, Release 2.*; 2010. http://www.orac-info-portal.de/download/ORAC_R2.pdf.
- 32 Mertens-Talcott SU, Rios J, Jilma-Stohlawetz P, et al. Pharmacokinetics of Anthocyanins and Antioxidant Effects after the Consumption of Anthocyanin- Rich Açai Juice and Pulp (*Euterpe oleracea* Mart.) in Human Healthy Volunteers. *J Agric Food Chem*. 2008;56(17):7796-7802. doi:10.1021/jf8007037.
- 33 Wilms LC, Boots AW, de Boer VCJ, et al. Impact of multiple genetic polymorphisms on effects of a 4-week blueberry juice intervention on ex vivo induced lymphocytic DNA damage in human volunteers. *Carcinogenesis*. 2007;28(8):1800-1806. doi:10.1093/carcin/bgm145.