

What Are Toxins?

Polluted waters. Solvents in gasoline. Pesticides sprayed on fruits and vegetables. We are subject to more toxins than ever before. Everyone has heard of toxins in the environment, but we don't even have to leave our homes to be exposed to toxins. The daily act of getting up in the morning, taking a shower, applying cosmetics, and eating breakfast exposes us to over 100 different chemical compounds! There is chlorine in our shower water, fluoride in our toothpaste, parabens in our skin care products, and even pesticides in our breakfast.

The 2009 Fourth National Report on Human Exposure to Chemicals by the Centers for Disease Control revealed that Americans of all ages are carrying over 219 toxic chemicals in their body at any given time. Normally the immune system, liver, and kidneys work together to remove toxins at the same rate in which they are encountered. In environmental medicine, when toxin levels accumulate and exceed our body's capability to remove them, it is termed **increased toxic burden**.

Increased toxic burden may not be evident at first, but as time goes on, its effects can be seen in all body systems. In addition to external toxins, the human body can also create internal toxins. Stress and fear, for instance, can actually cause the overgrowth of certain bacteria in the colon! As toxic burden overwhelms the body, it becomes difficult to feel completely well.



Where Toxins Come From

Environmental Toxins

- Polluted air from factories
- Auto exhaust
- Solvents (paint and cleaning products)
- Heavy metals
- Pesticides, herbicides, insecticides
- Radiation
- Inhalents

Lifestyle Toxins

- Dietary choices (fast foods, fried foods)
- Cosmetics
- Nicotine
- Alcohol
- Caffeine
- Rx and OTC drugs
- Artificial food additives, colorings and preservatives
- Refined foods and sugars

Internal Toxins

- Bacterial, yeast, fungal overgrowth
- By-products of metabolic reactions (such as carbon dioxide, ammonia, hormones)
- Undigested food
- Stress
- Unresolved trauma or abuse
- Unhappy relationships



The Liver: Open 24 Hours a Day

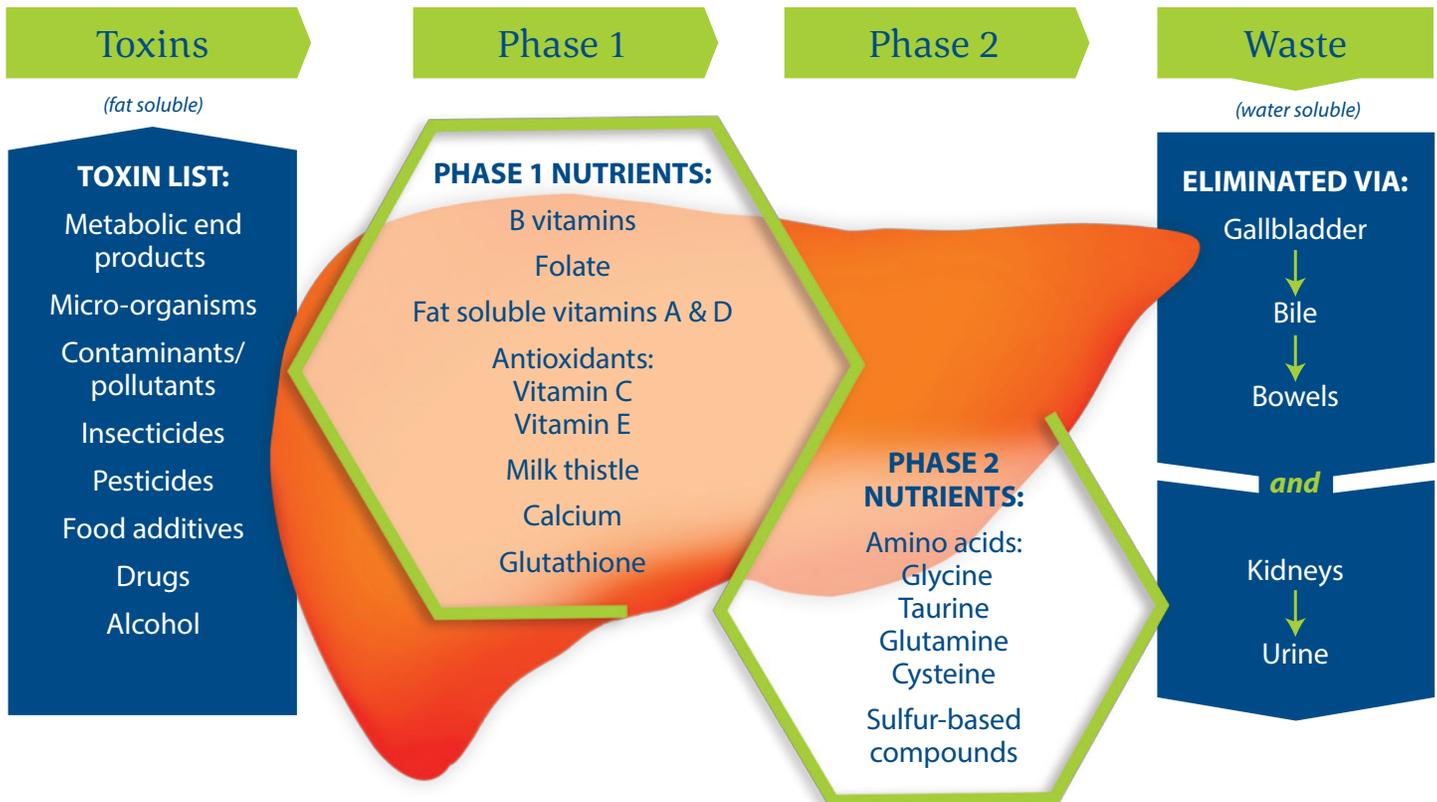
The liver is the largest gland in the body and a true powerhouse, assimilating and packaging nutrients for use while detoxifying hundreds of chemicals in two phases. This process is called **biotransformation**. If the liver fails to function properly, every other system of the body is compromised.

Most of the toxins we are exposed to are fat-soluble molecules. These substances are deposited into our body's fat stores, as fat cells are less metabolically active than the rest of the body. This reduces the amount of toxins that are circulating freely throughout the bloodstream. The fat acts as an insulation to protect us, and the body will tend to form more fat in which to store the toxins, making weight management difficult.

The body will also deposit toxic compounds into other tissues, preventing proper organ function. This can negatively affect the heart, liver, colon, brain, kidney, lungs, skin, and hormone systems. The liver oversees changing fat soluble toxins into a water soluble form, so they can be eliminated by the kidneys and colon. A good detoxification program will assist the liver in doing its job and provide nutrients to enhance this biotransformation process. Healthy biotransformation support will:

- Reduce the burden of incoming toxins on the body
- Boost the liver's ability to process and eliminate stored toxins from tissues

Detoxification Pathways



Why Detoxify?

To Feel Better

Increased toxic burden can manifest in the body as a myriad of symptoms: fatigue, irritability, joint pain, brain-fog, digestive problems, hot flashes, allergic reactions, sneezing, and coughing. Reducing external toxin exposure is one solution. Many people eat organic foods, drink filtered water, and even eliminate problem foods to help reduce their toxin exposure. This is a great start. However, what has happened to all the toxins stored in the body from decades of living? The answer is—they are still there! Yes, we can reduce our current exposure, but it is paramount that we support the process of biotransformation. This aids the liver in both phases of detoxification, and ensures incoming toxins are removed and eliminated.

To Improve Metabolism and Maintain a Healthy Weight

Many people struggle to achieve a healthy weight. As we age our metabolism experiences a slight decrease in function. However, the role of increased toxin burden in weight gain is often overlooked. Many toxins are stored in fat, and the body will increase the production of fat in order to protect the rest of the body from these circulating toxins' effects. Many people go on diets hoping to lose weight. They go down a pant or dress size or two, and six months later, regain all of the weight -plus some. Yo-yo dieting becomes a vicious cycle and can harm the body's metabolism. An effective detoxification program focused on biotransformation will help reduce the toxin burden contributing to the inability to maintain a healthy weight.

For Optimum Performance

Detoxification is not just a one-time event. It should be repeated in order to prevent toxin build-up. Just as we change the oil in our cars to maintain their performance, we should do the same for our bodies. A good detoxification program can be the regular maintenance the body needs to perform at its best. If you feel progressively sluggish, tired, achy, and run down, maybe it's time for your "filter to be cleaned."

Detoxification: Better Than a Diet

