

DetoxiGenic

Intracellular Detoxification with Acetyl-glutathione

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Contains clinically studied ingredients, including reduced glutathione, for healthy expression of *CYP*, *SOD2*, *PONs*, *GST* and other genes like *GSS*, which protect against oxidative stress and improve the liver's ability to detoxify harmful compounds.



Detox



Whole Body



Immunity



Cardio

Health Indications

- Provide Powerful Intracellular Purification and Detoxification
- Reduce and Regulate Inflammation
- Help Clear Absorbed "Die-Off" From the Body
- Optimize Cellular, Organ, Tissue, and Lymphatic "Drainage"
- Promote Heavy Metal Elimination
- Prevent Absorption of Toxins
- Provide Cardiovascular Support
- Support Healthy Metabolic Functions
- Support Healthy Immune Functions

Instructions For Use

For therapeutic results, take 2 capsules a day, with or without food, or as directed by your practitioner.

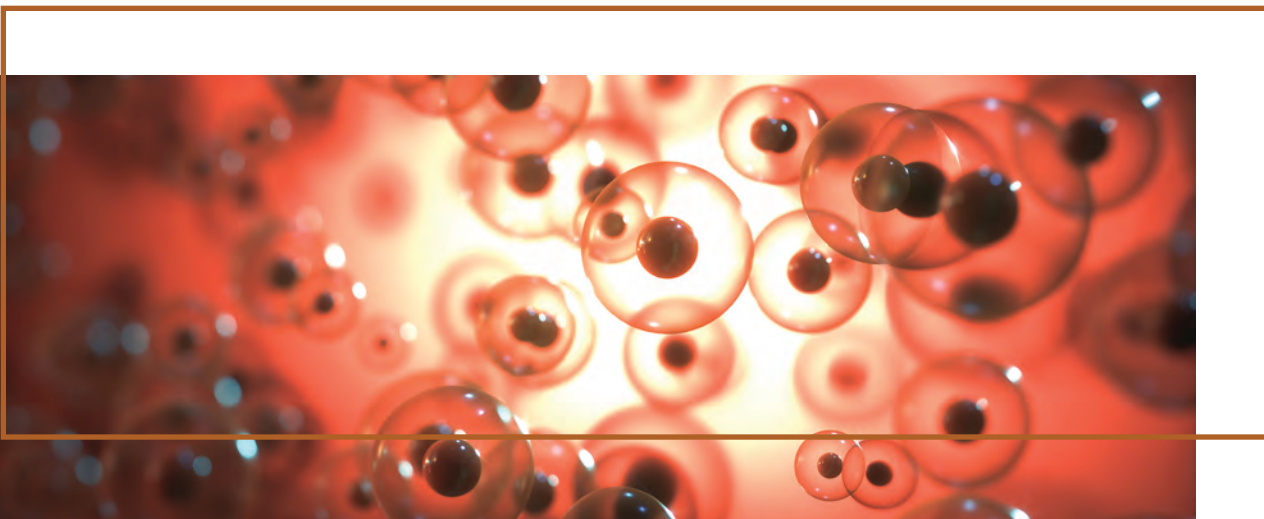
For maintenance, continue with taking 1 capsule daily, or as directed by your practitioner.

Individual needs may vary; please consult your practitioner before altering the prescribed doses or protocols.

Product Description

Every day, humans consume and inhale numerous toxins.¹ Pollutants and toxins in the environment are harmful as they disrupt cellular biological processes, damage cells, and interfere with the body's natural defenses and regulation, leading to various health problems and diseases. These toxins are pervasive, even in developed countries, in alarming quantities, adversely affecting fertility and hormones. Additionally, certain compounds like aspirin, trans-fats (partially hydrogenated oils), and many prescription drugs can deplete the body's reservoirs of the master antioxidant glutathione, impairing the protective functions of your cells and hindering your ability to get rid of numerous toxins.²

DetoxiGenic regulates genes that play a vital role in protecting cells from toxins, oxidative stress, and inflammation, while managing cell processes related to aging, apoptosis (programmed death and removal of aging or dysfunctional cells), and liver functions. The liver and digestive system continually exert efforts to expel detrimental compounds, making it absolutely necessary to maintain a healthy liver and digestive system for proper drainage. DetoxiGenic reduces toxic compounds by regulating numerous genes that influence the production of antioxidants, enzymes, and proteins, which serve as the body's primary defense against oxidative stress—a process associated with aging, inflammation, and various chronic diseases. Regulation of healthy detoxification genes supports a healthy immune system, optimal liver function, and an enhanced ability to eliminate toxins.



DetoxiGenic contains a new form of glutathione with improved bioavailability compared to all other forms of glutathione on the market.³ DetoxiGenic increases the concentrations of this master antioxidant directly, while also increasing your body's ability to make its own. As we age or face increased environmental stressors, our glutathione levels can naturally decrease, making DetoxiGenic an important supplement to ensure an adequate supply and support overall health and well-being. The synergistic nutrients in this formula make DetoxiGenic a state-of-the-art metabolic and cell protective supplement. Clinicians often use DetoxiGenic in conjunction with the BindGenic formula to support cellular, hepatic, and drainage processes.



Key Elements and Features of DetoxiGenic

Support Detoxification

Regulates genes essential for detoxifying harmful compounds and protecting against oxidative stress, thus promoting efficient detoxification processes.

Enhance Drainage

Supports the hepatic, cellular, and tissue drainage pathways to aid in the removal of toxins, metabolic waste, and heavy metals.

Optimize Liver Health and Functions

Optimizes liver functions by influencing genes involved with detoxification and cellular healing to provide a better functioning liver.

Methylation Support

Addresses methylation concerns by utilizing methylated forms of folate, B12, and other methyl donors that are crucial for supporting glutathione production and proper methylation in those with *MTHFR* mutations and other genetic methylation complications.

Antioxidant and Cell Protection

Increases the human body's most important primary antioxidant, glutathione, throughout the entire body. Glutathione is also known for its ability to recycle and reactivate other antioxidants in the body, providing a compounding increase in antioxidant capacity. This ability allows DetoxiGenic to regulate cells throughout the body and optimize every organ system.



Gene Spotlight

DetoxiGenic delivers a powerful combination of phytonutrients, minerals, and vitamins that improve the function of detoxification genes and pathways. By providing the nutrients necessary to stimulate these genes, as well as the materials required to remove toxins, harmful chemicals and toxic byproducts can be efficiently removed from the body. DetoxiGenic not only helps clear toxins acquired through environmental exposure, it also aids in removing harmful metabolites produced by bacteria and chemical intermediates built up in the body due to a dysfunctional detoxification system. All this is made possible by supporting the body's integral genetic and enzymatic systems created to rid itself of toxic substances, making DetoxiGenic the first choice to defend against toxin overload.

Genetic Interactions

***GST* (Glutathione S-transferase) Genes**

This gene family encodes enzymes that are critical for many cellular life processes and detoxification mechanisms, via the production of glutathione. These genes are the blueprints for enzymes that act as the body's cleanup crew, helping clear harmful toxins by attaching them to a molecule called glutathione. There are four main types of these enzymes, each with slightly different functions. Supporting *GST* genes nutritionally can affect how the body handles toxins and influence the risk of dysfunctional body systems like the nervous system and immune system.⁴

***PON1* (Paraoxonase-1) Gene**

This gene encodes an enzyme that plays a major role in detoxification, antioxidant defense, and lipid metabolism. The Paraoxonase-1 enzyme is particularly recognized for its ability to hydrolyze and inactivate organophosphates found in pesticides, thereby contributing significantly to the body's detoxification processes.⁵⁻⁷

CYP (Cytochrome P450) Genes

This family of genes encodes enzymes that play important roles in processing drugs, toxin elimination, and metabolism. CYP enzymes are primarily involved in what is known as Phase I detoxification, the initial step in the metabolic processing of toxins and foreign substances. During this phase, CYP enzymes introduce or expose functional groups on the substrate molecules, making them more amenable to subsequent Phase II reactions. Environmental factors, such as exposure to certain chemicals, toxins, or dietary compounds, can influence the expression and activity of CYP enzymes.⁸

SOD2 (Superoxide dismutase 2) Gene

Superoxide dismutase 2, encoded by the *SOD2* gene, is a mitochondrial enzyme crucial for cellular detoxification. Located in the mitochondria, it plays a key role in neutralizing free radicals generated during cellular respiration, converting them into less harmful compounds. Collaborating with other antioxidants, SOD2 protects mitochondria from oxidative damage and contributes to overall cellular health; its ability to mitigate oxidative stress indirectly supports cellular detox processes. Genetic variations in the *SOD2* gene may impact its activity, influencing susceptibility to diseases associated with oxidative damage. Consequently, this gene plays a role in protecting cells against oxidative stress, ionizing radiation, and inflammatory cytokines.^{9,10}

How DetoxiGenic Works

DetoxiGenic functions through cellular ingredients to influence genes that play a pivotal role in cellular defense and detoxification. This formula provides and supports the body's own production of metabolites and antioxidants to intercept and neutralize destructive oxidative cascades. Through governing these various oxidative processes, DetoxiGenic benefits every organ system, including the heart, pancreas, thyroid, and especially the liver. DetoxiGenic's nutrigenomic approach safely maintains genes to support biochemical detoxification and drainage pathways.



Key Ingredients

Glutathione (reduced and S-acetyl-L-Glutathione)

Glutathione serves as the body's primary defense against toxins and free radicals. Concentrated in cells, especially in the liver, it safeguards cellular structures and is crucial for detoxification. It eliminates harmful substances while supporting the metabolism of compounds like excess hormones. Essential for immune function, it helps alleviate inflammatory conditions. Its unique ability to recycle other antioxidants ensures antioxidant activity. Glutathione levels naturally decline with age and can be lacking in those with common GSS gene mutations. DetoxiGenic's glutathione boasts unique features that distinguish it from other forms of glutathione. The acetyl group improves stability and absorption in the gut, increasing systemic glutathione levels. This form also enhances cell penetration, vital for effectiveness, resulting in better bioavailability compared to other glutathione forms.³

NAC (N-Acetyl-L-Cysteine)

NAC is a vital precursor to glutathione, a potent antioxidant that aids in detoxification. By supplying the necessary cysteine for glutathione synthesis, NAC supports the body in neutralizing toxins and free radicals. Additionally, NAC influences healthy gene expression, such as *NRF2*, which is responsible for antioxidant defense and detoxification pathways. This makes NAC a valuable supplement for supporting overall cellular and detoxification mechanisms while also enhancing liver functions and health.¹¹

Folate/5-MTHF (5-Methyltetrahydrofolate)

5-MTHF is a critical component of pathways that help the body produce glutathione. DetoxiGenic utilizes a methylated form of folate that supports cellular metabolism, even in the presence of MTHFR genetic complications.^{12,13}

Methylcobalamin/ Hydroxycobalamin/ Adenosylcobalamin (Vit B12)

Methylated B12 from natural sources and B12 derived from bacteria are both protected by glutathione from harmful molecules. B12 also acts as a catalyst, helping the body produce glutathione. This beautiful symbiotic relationship helps to address MTHFR methylation concerns while supporting B12's functions for detoxification and various crucial body functions.¹⁴

Chromium (Picolinate)

Chromium supports the proper metabolism of glucose, reducing the likelihood of harmful reactive oxygen species (ROS) associated with inefficient metabolism. Additionally, it indirectly influences the activity of antioxidant enzymes, including superoxide dismutase (SOD) and catalase, which helps neutralize ROS and alleviate oxidative stress. Furthermore, chromium may contribute to maintaining metal ion balance, a crucial factor in preventing oxidative damage by avoiding excess metal ions that can lead to ROS formation.¹⁵

Alpha Lipoic Acid

Second in importance to the cell after glutathione, this ingredient is involved in energy production, blood sugar control, brain health, and the body's normal purification processes. Alpha lipoic acid is often depleted due to stress and aging. Additionally, it is known to work with anti-aging genetics like *NRF2* to enhance antioxidant capacity and extend cellular health.¹⁶

Milk Thistle

Milk thistle, specifically its active compound silymarin, interacts with various genes and pathways to support liver health and detoxification. It enhances the activity of phase II detoxification enzymes, including glutathione S-transferases (GSTs), which are crucial for detoxifying and excreting toxins. This interaction also contributes to its liver-optimizing effects and influences genes involved in antioxidant defenses and anti-inflammatory pathways, promoting overall liver health.¹⁷

Taurine

Taurine has antioxidant, liver, and central nervous system enhancing properties. It enhances detoxification by influencing *CYP* genes that enhance the activity of cytochrome P450 enzymes, which metabolize drugs and toxins. Additionally, taurine can conjugate with foreign substances (xenobiotics), enhancing their water solubility and aiding their elimination through urine, thereby supporting the detoxification process and drainage.^{18,19}

Ribose

Ribose is a highly absorbable sugar desired by the cells. When combined with cysteine, it increases production of glutathione in the body.²⁰

Vitamin C

Vitamin C supports normal antioxidant levels in red blood cells.²¹ It also works to regenerate glutathione for optimal cellular health.²²

Glutamine

Glutamine is a precursor nutrient necessary for the body to make glutathione.²³

Theobromine

Theobromine is a powerful phytonutrient derived from the cacao plant. It activates glutathione peroxidase (*GPx*) genes in the liver, which manage oxidative stress caused by reactive oxygen species (ROS). This helps protect cells against damage and runaway inflammation.²⁴

Para-Aminobenzoic Acid (PABA)

PABA is a molecule involved in the GST pathways of detoxification. It helps remove the toxins from the body and eliminate pharmaceutical metabolites, especially those used to treat cancer.²⁵

Thiamin HCl/ Benfotiamine (Vit B1)

Benfotiamine is a form of vitamin B1 that is much more bioavailable than most other forms on the market. It stimulates the protective antioxidant systems in the body to eliminate reactive oxygen species (ROS), making it particularly effective in protecting the nervous system.^{26,27}

Riboflavin-5-Phosphate (Vit B2)

This is the phosphorylated form of vitamin B2, a required micronutrient involved in the glutathione detoxification pathway. It helps protect against oxidative stress, inflammation, and genotoxic substances.²⁸

Vitamin B6 (Pyridoxine 5-PO4)

This is the biologically active form of vitamin B6, a necessary coenzyme involved in numerous reactions in the body. It has been shown to prevent oxidative stress in cells exposed to reactive oxygen species (ROS), ultimately preventing programmed cell death.²⁹

Pantothenic Acid (Vit B5)

Vitamin B6 is a building block for the molecule known as coenzyme A (CoA), which is required for a majority of biological reactions, including crucial steps of energy production that take place in the mitochondria. When the systems of the mitochondria do not function properly, reactive oxygen species (ROS) can run unchecked, leading to oxidative stress, inflammation, and cell death.³⁰

Magnesium

Magnesium is involved in more than 300 biochemical reactions in the human body. Insufficient magnesium can lead to rampant oxidative stress, which is particularly damaging when tissues are exposed to toxins like lead because the body can't manage the oxidative damage. Ensuring adequate magnesium levels can help prevent excessive damage incurred by toxin exposure.³¹

Manganese

Manganese is critical to the function of SOD2 enzymes. Without it, mitochondria would not function properly due to excessive oxidative stress.³²

Cardamom (Seed)

Cardamom is a spice that has been used historically across cultures for medicinal and culinary purposes. It has been shown to protect against damage caused by environmental toxins.³³

Warnings/Contraindications

When used as directed there are no known contraindications for DetoxiGenic.

It is always recommended that you consult your practitioner prior to adding any new supplement to your regimen if you are pregnant, breastfeeding, experiencing renal failure, undergoing an organ transplant(s), managing diabetes with insulin, or are taking medication(s) for any pre-existing conditions

Safety

All ingredients are tested before use for:

- Pathogenic microbial contaminants
- Heavy metals and/or chemical contaminants
- Purity

Additional Information

- Gluten Free
- Dairy Free
- Vegan
- No Sugar
- No Egg
- Non-GMO
- cGMP Facility



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