

PRODUCT GUIDE

Engevita® Detox

Lallemand Health
Ingredients

Engevita® Detox is a whole food cultured, unique health ingredient formulated to be a rich source of antioxidants and immune boosting nutrients in a readily consumable form of yeast flakes or powder. It is naturally abundant in B-complex vitamins, selenium, glutathione, β -1.3/1.6-glucan and choline from *Saccharomyces cerevisiae*. Selenium is essential for enhanced immunity, glutathione has powerful antioxidant activity, beta-glucans keep the immune system primed for quick defense against pathogens and choline is important for optimal liver health.

WHY DETOX?

On a daily basis, we come into contact with a range of chemicals in the environment, from air, water, soil and food, occupational exposures and lifestyle factors, which all combine to affect health in different ways than each individual component would¹.



FOOD

Endocrine disruptors such as phthalates, bisphenol A, perchlorate and some pesticides are widely used in personal care and food products². Persistent pesticides, such as neonicotinoids, and chemical herbicides are found in commonly consumed foods². Environmental pollutants may be found in food, regardless if they are organic or conventional³.



WATER

There are two types of water pollution: unsafe water sources and inadequate sanitation². Even in first world countries, such as the United States, substantial shares of drinking water systems violate standards for clean water⁴. Unsanitary and unsafe water containing industrial chemicals, pharmaceuticals, and pesticides are seen in urban areas².



POLLUTION

Pollution is the largest environmental cause of disease and premature death in the world today². In the most severely affected countries, pollution-related disease is responsible for more than one death in four². The relative risks of all non-communicable diseases associated with pollution increase as exposure to pollution increases².



DISEASE

With increased globalization, diseases increasingly have cross-border causes and consequences. Global health security has become an area of focus for many countries, linked to risks of pandemic influenza, extreme drug resistance and antimicrobial resistant infections⁵.

Oxidative stress from environmental pollutants may lead to development of diseases such as cardiovascular diseases, neurodegeneration, cancers, immune disorders, diabetes, etc. When a cell sustains oxidative stress, antioxidants present in the cell respond to quench reactive oxygen species^{1,2,3}.

One serving (5 g) of
Engevita® Detox contains:

- 55 μ g Selenium
- 100 mg glutathione
- 600 mg β -1.3/1.6-glucans
- 10 mg choline



SELENIUM

- Critical for protection against oxidative stress
- Is part of the active center of glutathione peroxidase, which prevents oxidative stress.
- Has strong activity as a free radical scavenger and anti-cancer agent.
- Supplementation with selenium-enriched yeast in healthy men caused a reduction in oxidative stress biomarkers⁶.
- Selenium treatment can reverse the harmful effects of toxic elements and compounds, carcinogens, mycotoxins and pesticides⁷.
- Selenium-rich food was proven to aid in the removal of toxic arsenic from the body, even during continued exposure to arsenic⁸.

Selenium yeast is produced by growing and fermenting yeast (*Saccharomyces cerevisiae*) in selenium rich media. It is the safest and most bioavailable form of supplemental selenium available^{9,10}. Selenium is recommended at a daily dose of 55-70 µg.

GLUTATHIONE

- Known as “the master antioxidant”
- Glutathione peroxidase is an antioxidant enzyme which protects biological systems against free radical attack¹¹.
- Glutathione peroxidase is a key front line defense enzyme
- Reduces the formation of free hydroxyl radicals, which would normally damage tissue, lipids, proteins, and nucleic acids, and may prevent environment related diseases in humans including cancer, asthma, respiratory diseases, and arteriosclerosis¹².

Glutathione from *Saccharomyces cerevisiae* is a naturally fermented, whole food source of this critical antioxidant. There are no recommended limits to glutathione supplementation.

CHOLINE

- An essential dietary nutrient for humans^{21,22,23}.
- Is critical for proper liver, muscle, and brain functions; lipid metabolism; and cellular membrane composition and repair.
- Although the body can synthesize some choline, it is not enough to support body needs. Therefore, choline needs to be obtained from the diet²².
- Higher combined dietary intake of choline is associated with lower concentrations of inflammatory markers²¹.
- Deficiency causes clinically evident disease in humans including fatty liver disease, characterized by elevated liver enzymes in the blood²³.
- Animal products, including eggs, milk, chicken, beef, and pork contribute the most choline to the diet, so vegetarian and vegan populations are at risk for deficiency.

Saccharomyces cerevisiae choline is a natural, vegan source of this essential nutrient. Choline is recommended at approximately 150-500 mg per day.

β-1.3/1.6-GLUCANS

- Bakers yeast beta glucan from *Saccharomyces cerevisiae* has the specific ability to strengthen the human immune system.
- They have been extensively clinically studied.
- Yeast beta glucans can: reduce frequency of catching a cold^{13,14}, reduce symptoms of a cold^{13,14}, reduce severity of symptoms in upper respiratory tract infections^{15,16,17,18}, assist faster recovery from respiratory symptoms¹³, reduce effects of increased stress¹⁹ and reduce/ prevent inflammation¹⁷.
- They keep the immune system “primed” or “activated” for a quick response to infection, and faster recovery²⁰.

Yeast beta-glucans are safe, natural, will not over-stimulate the immune system or cause inflammation, have no adverse effects and are not chemically modified. Recommended daily dosage for adults is 250 mg.

References

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