



## MICC Blend

### Methionine, Inositol, Choline, Cyanocobalamin

- Methionine 25mg, Inositol 50mg, Choline 50mg, Cyanocobalamin 330mcg/ml in benzyl alcohol 2% and sterile water for injection

## Recommended Dosage

### Number of Injections and Total Injection Volumes

MICC dose, mL MDV	Number of injections *	Total volume injected, mL
<b>30ML</b>	<b>30</b>	<b>1</b>

BY INTRAMUSCULAR INJECTION 1X WEEKLY

MICC is an acronym for the compounds: L-Methionine, Inositol, Choline and Cyanocobalamin. These are lipotropic agents which help with the breakdown of fat during metabolism in the body. Often referred to as “fat burning” injections, these components, especially inositol and choline, have been found to improve mental function and feelings of depression.

## Ingredients and Their Roles

**Methionine:** is one of nine essential amino acids in humans (provided by food), Methionine is required for growth and tissue repair. A sulfur-containing amino acid, methionine improves the tone and pliability of skin, hair, and strengthens nails. Involved in many detoxifying processes, sulfur provided by methionine protects cells from pollutants, slows cell aging, and is essential for absorption and bioavailability of selenium and zinc. Methionine chelates heavy metals, such as lead and mercury, aiding their excretion. It also acts as a lipotropic agent and prevents excess fat buildup in the liver. As SAME (S-adenosylmethionine), methionine has been considered an antidepressant.

**Inositol:** is a small molecule with structural similarity to glucose. It is a vitamin-like compound (pseudovitamin) that is sometimes said to belong to the class of B-complex vitamins and it is involved in cellular signalling and as a component of cell membranes.

**Choline:** is important as a precursor of acetylcholine, as a methyl donor in various metabolic processes, and in lipid metabolism and prevents excessive fat build up in the liver.

**Cyanocobalamin:** Vitamin B12 (cyanocobalamin) is necessary for hematopoiesis, neural metabolism, DNA and RNA production, carbohydrate, fat and protein metabolism. B12 improves iron functions in the metabolic cycle and assists folic acid in choline synthesis.





# Glutathione

## Overview

L-Glutathione, or simply glutathione, is a powerful antioxidant comprised of amino acids cysteine, glycine, and glutamic acid. Glutathione has many functions. It is vital to mitochondrial function and necessary to produce DNA. Its ability to cross the blood-brain barrier means it plays an important role in removing toxins, such as mercury, from the brain and other cells. It is key in supporting immune function, metabolism, forming sperm cells, tissue building and repair, and helping with certain enzyme functions. As a powerful antioxidant, it may help fight the effects of free radicals, which cause oxidative stress, damage healthy cells, and contribute to aging and certain degenerative illnesses. Unlike most antioxidants, glutathione can be made in the human liver. Glutathione can be found in every cell of the human body. It is also found in many foods, including spinach and avocados, but is poorly absorbed by the body when consumed orally. Supplements that can support glutathione production include curcumin, N-acetylcysteine, selenium, silymarin, vitamin C, and Vitamin E. Glutathione levels in the body naturally decline as we age, but can also be reduced by factors like stress, malnutrition, and environmental toxins

## Other Uses

Glutathione is a powerful antioxidant and is beneficial for many disease states as well as helping people live a healthier life. It may improve immune response, help to metabolize toxins and activate enzymes, aid the liver in metabolizing alcohol, reduce the amount of fat stored in the belly, help to reduce oxidative stress, and improve complexion.

## Dosage, Concentration, Route of Administration

Dosage: Seek advice from a licensed physician, medical director, or other healthcare provider

Concentration: 200mg/ml

Route of Administration: IV/IM

## Storage

Store under controlled refrigeration. Protect from light.





# Methylcobalamin (B12)

## Overview

Methylcobalamin is an active form of Vitamin B12. Vitamin B12 helps to utilize fats and carbohydrates for energy and make new proteins. Vitamin B12 is important in the maintenance of our metabolism, blood cells, and nerve function. Most people get enough vitamin B12 in their diet, but some need supplementation. Certain health conditions such as intestinal or stomach problems, poor nutrition, cancer, HIV, pregnancy, old age, veganism, and alcoholism can cause vitamin B12 deficiency. Low levels of vitamin B12 can lead to fatigue and anemia in milder cases. More serious B12 deficiencies have the potential to impair heart and neurological function, leading to a wide range of serious symptoms, including but not limited to tinnitus, severe joint pain, memory problems, depression, anxiety, poor muscle function, ataxia, and changes in reflexes. Infertility can also occur in individuals with insufficient B12. Early intervention and treatment of B12 deficiencies are key to maintaining healthy bodily function.

## Other Uses

Methylcobalamin can also be indicated in those with pernicious anemia, diabetes, neuropathy, heart disease, circadian rhythm sleep disorders, memory loss, depression, fatigue, AIDS, inflammatory bowel disease (IBD), Lyme disease, osteoporosis, tendonitis, psychiatric disorders, Alzheimer's disease, liver and kidney disease, and asthma. It also may help in improving concentration, maintaining fertility, anti-aging, boosting energy levels, converting fat to energy and mood elevation.

## Dosage, Concentration, Route of Administration

Dosage: Seek advice from a licensed physician, medical director, or other healthcare provider

Concentration: 5mg/ml

Route of Administration: IV/IM

## Storage

Store under refrigeration. Protect from light.





# Biotin

## Overview

Biotin, also known as B7, is a water-soluble vitamin found in foods such as eggs, milk, and bananas. This vitamin is important for overall health, and plays a role in cell growth, carbohydrate metabolism, and fatty acid synthesis. Biotin is involved in a wide range of metabolic processes primarily related to the utilization of fats, carbohydrates, and amino acids. It also influences cell growth and may help in maintaining blood sugar levels. Biotin is commonly supplemented for multiple conditions, such as hair loss, brittle nails, and nerve damage. Biotin is also thought to reduce inflammation, improve cognitive function, and increase HDL (good) cholesterol and decrease LDL (bad) cholesterol.

## Other Uses

Biotin may improve conditions such as skin rashes, brittle nails, thinning hair, diabetes, or nerve pain.

## Dosage, Concentration, Route of Administration

Dosage: Seek advice from a licensed physician, medical director, or other healthcare provider

Concentration: 0.5mg/ml

Route of Administration: IV/IM

## Storage

Store at controlled room temperature. Protect from light.