

BODY



CONCEPTS

HEALTH SPA

Patients with a sulfa allergy should not take this injection.

Your Investment

MIC B12 Complex is a prescription medication and therefore requires you have a medical consultation with one of our Physician, Nurse Practitioners or Physician Assistants. The cost for a consultation is \$25.00.

Injection Cost Weekly Injections \$25.00 Twice a week \$40.00

Additional B12 added to MIC B12 Complex \$10.00

General Information

MIC-B12 Complex is a mixture of compounds that aid in the **reduction of adipose** tissue (fat). The mixture of compounds individually are effective, however in combination they exhibit more lipotropic activity than when administered alone in a synergistic fashion. Injection of this mixture of lipotropic **compounds are more effective than oral supplementation**, this is due to the increased bioavailability of parenteral exposure directly to the **body cells**. These lipotropic agents are structurally and functionally closely related to the B-vitamins, or are involved in the homeostasis **of energy production from fat**. These compounds are often employed together in the aid of potentiating fat- loss, thus while the MIC mixture and B vitamin(s) are often injected separately, they are part of the same overall injection cycle. The non-vitamin compounds (MIC) that are injected into the body stimulate the liver into **optimizing the process of metabolism**, elevate the movement of and utilization of fat, and provide the needed metabolic environment of the body for a fatty acid (fat) mobilization and utilization. Typically, these compounds are administered in concert. Injections can be administered up to twice a week.

What is this Nutritional Health Injection used for? Lipotropic injections are used to help **release fat deposits** in some parts of the body. Some of these areas include the stomach, inner thighs, neck, buttocks and hips. Lipotropic, or fat burning, substances include methionine which helps the liver remove fat; inositol, similar to methionine; choline, which distributes cholesterol and prevents it from getting deposited in one part of the body. In some cases, a combination of these may be given. Injections can be administered up to twice a week. B12 is purported by its users and practitioners to help **speed up the overall metabolic processes** and create a greater feeling of overall energy. Because lipotropics directly aid fat breakdown and are closely related to B vitamins, when used together they intensify each others' effects. They are usually injected separately, but as part of the same overall injection cycle. The amino acids that are injected into the body stimulate the **liver into optimizing the process of metabolism**. These *injections boost the metabolic power of the body*.

Lipotropic compounds are used to increase the potential for release of fat deposits in some parts of the body. The primary lipotropic agents included in this injection are:

Methionine

Methionine helps the liver maintain the optimal ability to process fatty acids [1](#). Methionine is a major constituent of S-adenosylmethionine, which has been shown to be associated in genetic regulation and activation of certain genes [2](#). Methionine contributes to methyl donation to histones that activate certain genetic processes that are involved in **the increase in lean tissue**. Although indirectly linked to lipolysis, the increase in lean tissue increases resting metabolic rate, therefore increasing the overall required calories that must be obtained from storage or dietary intake.

Methionine, via S-adenosylmethionine, has been shown in animal models to increase CNS (Central Nervous System) activity; therefore increasing the caloric requirements required by the CNS, **speeding up both active and resting metabolic rate** [3,4](#).

Inositol

Inositol is a sugar-like molecule, referred to as a sugar alcohol. Even though very similar in molecular structure to glucose, this molecule does not exhibit the traits that simple carbohydrates exhibit. Contrary to simple carbohydrates, this sugar alcohol has been shown to not actively increase adipose storage. In fact, Inositol has been found **to decrease fatty acid synthase activity**, a multi-enzyme protein that catalyzes fatty acid synthesis. This set of enzymes ultimately enables the body to produce triglyceride fat molecules that reside in adipose tissue (body fat) [3](#). Inositol is **effective in reducing insulin resistance**, a common condition associated with increase adiposity (body fat) [5](#). Insulin resistance is a condition to which your body becomes resistant to the activities of the hormone insulin. This condition leads to excess blood glucose levels and a host of symptoms and dysfunctions such as weight gain. A chemical called Inositol phosphoglycan is known to regulate the body's sensitivity to insulin signaling. Inositol phosphoglycan structurally incorporates Inositol, thus inositol is required for this molecule to exert its regulating behavior. The proper functioning and sensitivity to insulin is found in most healthy individuals, and is essential in maintaining overall health. Excessive exposure to blood glucose ultimately leads to insulin resistance and poor nutrient transport. Inositol may be effective in reducing this condition while at the same time reducing fatty acid (fat) synthesis.

Choline

Choline is a simple molecule usually classified as a B vitamin. The B vitamin class is usually involved in the generation of energy and support of metabolism. Choline is an important precursor to the neurotransmitter acetylcholine. This neurotransmitter is involved in a host of activities, one of which includes muscular function and contraction. Acetylcholine is a fundamental neurotransmitter that enables the communication between neurons. Increased neural communication results in increased CNS activity, which ultimately leads to **increased energy expenditure**.

Energy expenditure requires nutrient input, either from stored energy (fat), or dietary nutrients. Choline exists in a delicate balance and homeostasis with methionine and folate. When these nutrients are not in balance adverse health effects may be present. Along with the increase in CNS activity comes increased cognitive ability, reported by many users. Choline may be effective as a Nootropic, or a

substance with ability to **increase cognition**. Increased neural cognition is thought to be due to choline's role as a precursor to acetylcholine

The supplementation of choline has been shown to reduce serum and urinary carnitine ⁴. The reduction of carnitine in these fluids may indicate carnitine has been partitioned in tissues that utilize it as a fatty acid **mitochondrial transport**.

When carnitine is used in the mitochondria it transports fatty acids to the location, which they are broken down and used as energy. It has also been reported that molecular fragments of fat have been found in urine after carnitine and choline supplementation, which may be due to incomplete fatty acid oxidation and the removal of the subsequent byproducts ⁴. This means, choline supplementation may increase the utilization of carnitine and increase the **removal of fatty acids**, even though all fatty acids are not burned as energy. The fragments of fatty acids not burned as energy are extruded in the urine as molecular fragments.

B12 (Methylcobalamin & Hydroxocobalamin)

The vitamin B12 is fundamental in many biological processes, many of which are important to the survival of the organism. Vitamin B12 is involved in processes including DNA synthesis, **fatty acid and amino acid metabolism**. B12 is purported by its users and practitioners to help **speed up overall metabolic processes** and create a greater feeling of overall energy and well-being ⁶. Individuals may be deficient in vitamin B12. These individuals must supplement B12. Deficiency is present for a variety of reasons including dietary deficiency, **poor dietary absorption and digestive dilution of oral supplementation**

leading to poor absorption even when taking oral supplementation. The human body is incapable of producing vitamin B12 on its own and B12 must be consumed. Consumption of vitamin B-12 is an effective agent to speed up metabolism, especially if the individual has a deficiency.

Summary of complete Lipotropic Nutrients in Lipo-V B Complex formula and their function:

Thiamine: (Vitamin B1) helps the body cells **convert carbohydrates into energy**. It is also essential for the functioning of the heart, muscles, and nervous system.

Riboflavin: (Vitamin B2) an easily absorbed micronutrient. It plays a key role in **energy metabolism, the metabolism of fats, carbohydrates**, ketone bodies (a vital source of energy during fasting), and proteins.

Pyridoxine: (Vitamin B6): is needed for more than 100 enzymes involved in protein metabolism. It is also **essential for red blood cell metabolism**. The nervous and immune systems need vitamin B6 to function efficiently, and it is also needed for the conversion of tryptophan (an amino acid) to niacin (a vitamin).

Methylcobalamin B12: Methylcobalamin B12 circulates through the bloodstream and is one of two naturally-occurring coenzyme forms of vitamin B12 that the body utilizes. Is an **energy booster** and it is among the most important of all the B- complex vitamins. Main functions are in the formation of red blood cells and the maintenance of a healthy nervous system. Helps with the **metabolism of fats and carbohydrates**. It also helps the growth of healthy blood cells, nerve cells, and proteins in the body.

Niacinamide: (Vitamin B3) assists in the functioning of the digestive system, skin, and nerves. It is also important for **the conversion of food to energy**.

Calcium Pantothenate: (Vitamin B5): Vitamin B-5 is one of the eight B vitamins and an essential nutrient your body uses to **create energy and break down carbohydrates and fats**. Your body requires the B-complex vitamins including B-5 to carry out many nervous system functions.

Methionine is one of the sulfur-containing amino acids. It acts as a lipotropic agent to **prevent excess fat buildup in the liver** and the body. [Patients with a sulfa allergy should not take this injection.](#)

Inositol, a nutrient belonging to the B vitamin complex, is closely associated with Choline. It aids in the **metabolism of fats** and helps reduce blood cholesterol. It also participates in action of serotonin.

Choline supports the health of the liver in its processing and excretion of chemical waste products within the body. It is required for **the transport and metabolism of fats** and cholesterol within the body, which is important for the healthy support of the endocrine, cardiovascular and hepatic system.

Hydroxocobalamin B12: an **energy booster** and it is among the most important of all the B-complex vitamins. Main functions are in the formation of red blood cells and the maintenance of a healthy nervous system.

Carnitine: a naturally occurring amino acid which plays a vital role in the metabolism of fat. It functions as a transporter of fatty acids into the mitochondria, the metabolic furnace of the cell.

Lidocaine is a local anesthetic (numbing medication). It works by blocking nerve signals in your body. **Lidocaine injection** is used to numb an area of your body to help reduce pain or discomfort caused by needle punctures

Ingredients and dosage strengths of Lipo-V B Complex injection include: Our Compound Pharmacy's injection solutions are organically compounded under the stringent USP 797 guidelines for sterile compounding, and sterility, endotoxin, potency and pH testing is performed on every batch. The quality-assurance process ensures the consistency and uniformity of every solution for injection dispensed.

Pharmacologic Category: Supplement; **Weight Loss and Natural Energy**