



LIPOTROPIC OR SUPER LIPOLEAN WITH HYDROXOCOBALAMIN

Questions & Answers

Lipotropic or Super Lipolean with Hydroxocobalamin injections are a mixture of compounds that may aid in the reduction of adipose tissue (fat). The mixture of compounds individually may be effective, however in combination they may exhibit more lipotropic activity than when administered alone in a synergistic fashion. Injection of this mixture of lipotropic compounds may be more effective than oral supplementation, this is due to the increased bioavailability of parenteral exposure. 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 hope 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. Lipotropic compounds are used to increase the potential for release of fat deposits in some parts of the body. The lipotropic agents included in this injection are:

Methionine: (1250mcg)

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 may be involved in the increase in lean tissue. Although indirectly linked to lipolysis, it is believed that 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 activity, therefore increasing the caloric requirements required by the CNS³ The downstream effects of this may ultimately lead to increased caloric requirements for the entire organism. Although studies have not been replicated.⁴ in humans, there may be an association due to the similarity in pathways shared between organisms.

Inositol: (1000mcg)

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 triglycerides fat molecules that reside in adipose tissue (body fat).

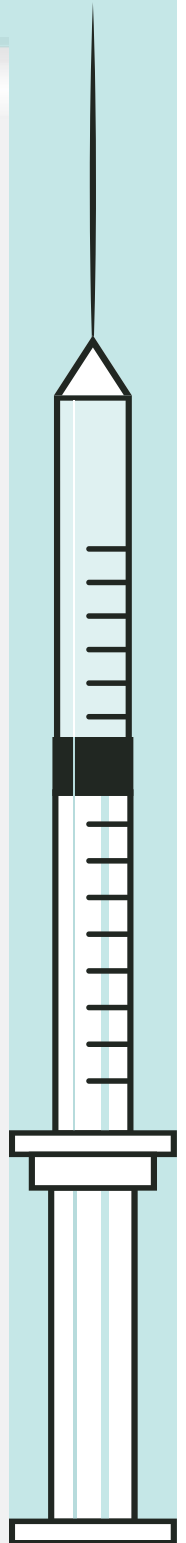
Inositol may be effective in reducing insulin resistance, a common condition associated with increased adiposity (body fat). Insulin resistance, a condition to which your body becomes resistant to the activities of the hormone insulin. This condition leads to excess blood glucose levels and a host of symptoms and dysfunctions. 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: (1000mcg)

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 the 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. 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 where 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. 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.





LIPOTROPIC OR SUPER LIPOLEAN WITH HYDROXOCOBALAMIN

Questions & Answers - Page 2

L-Carnitine: (5000mcg)

Studies show it aids in weight loss, improves exercise performance, and enhances a sense of well-being; it is important for heart and brain function, muscle movement, and many other body processes.

Thiamine: (2500mcg)

Thiamine (Vitamin B1) helps the body generate energy from nutrients. It is necessary for growth, development, and function of cells; studies show Thiamine helps prevent kidney and circulation problems. It can improve nerve pain in people with diabetes and may reduce high blood pressure/heart complications. It helps ease symptoms of depression and stabilizes mood.

Riboflavin: (500mcg)

Riboflavin (Vitamin B2) is an antioxidant that helps fight free radicals and reduce or help prevent some of the damage they cause. The body needs it daily. It helps break down carbohydrates, proteins, and fats to produce energy, and it allows oxygen to be used by the body. It is important for eye health and can help lower the risk of developing cataracts. Studies show it helps those with migraines benefit from high dosages of Riboflavin.

Pyridoxine: (200mcg)

Pyridoxine (Vitamin B6) is important for normal brain development and for keeping the nervous system and immune system healthy; improves mood and reduce symptoms of depression; may reduce Alzheimer's risk; helps prevent Anemia by aiding Hemoglobin production; studies show it helps treat symptoms of PMS and reduce heart disease risk by lowering blood levels of cholesterol that cause artery blockages.

Hydroxocobalamin: (100mcg)

Helps body use fat and carbohydrates for energy and make new protein. It is also important for normal blood, cells, and nerves; helps treat Vitamin B12 deficiency.

****Lipotropic Shot****

Most places combine their B12 with their Lipo compound and try to market it as a "Skinny" shot. Mostly because weight loss is a massive business and seeing that something can help people lose weight can even be an emotional trigger. While this is true, it is not promised. For the most part they also only have access to low volume and low doses. We have seen people report 40 lb weight loss combining these shots with better food choices, but our job here is to set proper expectations. The B6 helps convert food to energy and it also helps with red blood cell production. Methionine works to prevent fat accumulation in the liver and keeps the metabolism high. It also helps breakdown sugar and other carbs in the body, converting them to energy. Inositol regulates levels of insulin and serotonin in the body. So, this part plays heavily into stabilizing the mood and managing the appetite. Choline actively detoxes the body, getting rid of harmful chemicals while removing fat and bile from the liver. Carnitine is a protein building block; it helps metabolize body fat into fuel. B1 is an immune system booster that uses fats and carbs to fuel the process. B2 supports B1 in its efforts to boost metabolism and immune support. How long will it take to feel it?

The Lipo shot is another that does not have a "feel" associated with it. The quickest way to gauge if this shot is taking hold is if people begin sleeping deeper, notice the body forcing people to the bathroom more often to remove waste, noticing less sugar cravings and then overall appetite suppression. This injection can be done bi-weekly with no issues. Most people pair the Methylcobalamin B12 with the Lipo shot because they work well together. This does not mean they are ineffective alone.

