Nutrient injections are the most effective form of nutritional therapy. Although oral supplementation can impact overall nutritional health, when vitamins and minerals are given through an intramuscular or subcutaneous injection, nutrients are absorbed rapidly on a cellular level, providing cells with the nutrition necessary to thrive and function optimally.

This guide provides an overview of the benefits of nutrient injection therapy including: who can benefit from using them; common conditions treated; why nutrient injections are more effective than other supplement forms; and detailed ingredients and uses for the nutrient injection protocols prescribed by TeleWellnessMD™.

Who can benefit from nutrient injection therapy?
Since few people can say they consume adequate nutrients naturally through their diet, nutritional aids are no longer just dietary supplements; they are requirements. Most people are simply lacking the vital nutrients they need for overall good health.

Overwhelming scientific evidence confirms that vitamin deficiencies are associated with inflammatory conditions, disease processes and the overall condition of one’s health. Vitamin, mineral and antioxidant deficiencies have been shown to suppress immune function and contribute to chronic degenerative processes such as arthritis, cancer, Alzheimer’s, cardiovascular disease and diabetes.

Inflammatory conditions can initiate a cascade of bodily dysfunction that can cause inflammation, disease and a decline in your overall health. Inflammation can be caused by: aging, obesity, drug abuse, disease, environmental exposures, sleep irregularities, hormone imbalances, poor diet and nutrition deficiencies, smoking, immune dysfunction, lack of exercise, dehydration, genetic predisposition, emotional and physical stress.
Common conditions treated

Nutrient injection therapy will help improve antioxidant activity, improve cell detoxification and can be used to treat symptoms associated with disorders, diseases and infections such as:

- Adrenal fatigue
- Aging
- AIDS
- Alcoholism
- Alzheimer’s
- Asthma
- Autism
- Bowel irregularity
- Brain fog
- Cancer
- Chronic fatigue syndrome
- Chronic pain
- Candida
- Cardiovascular disease
- Cold and flu
- COPD
- Crohn's disease
- Depression
- Diabetes
- Elevated cholesterol
- Emphysema
- Fibromyalgia
- Gastrointestinal bloating
- Heart arrhythmias
- Heartburn (GERD)
- High blood pressure
- High cholesterol
- HIV
- Herpes
- Hormone imbalances
- Hot flashes
- Immune dysfunction
- Inflammation
- Insomnia
- Low Libido
- Metabolic dysfunction
- Moodiness
- Migraines
- Multiple sclerosis
- Parkinson's disease
- Rheumatoid arthritis
- Obesity and overweight
- Thyroid disorder

Why nutrient injections are more effective than tablets, capsules and liquid supplements

No matter how good the nutrient supplement, if it doesn’t get to the right place at the right time to be broken down and metabolized, it will ultimately end up a waste product—literally passed through the intestine and into your stool.

There is a viable solution with injection therapy. Injections offer 100% absorption when compared to the small 5-15% that oral delivery offers. Getting nutrients through injections into the muscle or the subcutaneous fat, have an availability of 100% while other delivery methods such as tablets, capsules and liquids, pale in comparison. When deficient in vitamins or minerals, it can take more than 6 months to replete these stores when using oral delivery methods, whereas injections can correct deficiencies within 1-3 months.

Oral supplements have less bioavailability because of the breakdown and waste of the nutrients in the gastrointestinal tract called the "first pass effect". The first pass effect is a result of substances that are first broken down in the stomach, and then have to reach a critical spot in the small intestine to be absorbed, then on to be metabolized by the liver, and then finally delivered to the tissues for use.

Many substances can be metabolized quite heavily during this process with minimal amounts actually reaching their target tissues. Other supplements will not even make it to the first pass effect because they do not get efficiently broken down and absorbed in the gastrointestinal tract and end up in the stool.

Schedule a Wellness Consultation
TeleWellnessMD.com (877) 659-6050
About nutrient injection protocols prescribed by TeleWellnessMD™

At TeleWellnessMD™, we concentrate on weight loss, performance enhancement, disease management and age management issues using only prevention and optimization in areas of wellness such as; sleep, nutrition, hormones, exercise, diet, inflammation reduction, and lifestyle modification.

TelewellnessMD™ offers access to premium doctor formulated oral nutraceuticals, dietary supplements and prescribed wellness therapies through a strategic partnership with Trim® Nutrition, Inc. and premium compounding pharmacies, certified and licensed in states nation-wide. The medical advisory team at TelewellnessMD™ have used these protocols in private practice and through telemedicine with excellent safety profiles and treatment outcomes.

Trim® Nutrition’s product line includes vitamins, supplements, protein shakes, protein bars and proprietary nutrient injections compounded in a certified licensed pharmacy using the highest quality ingredients. Headquartered in Clearwater, Florida since 2005, Trim® Nutrition’s clinical staff of physicians, pharmacists, registered nurses, and research and development specialists are dedicated to the mission of Making Bodies Better™.

Begin your wellness journey now by scheduling a Wellness Consultation with a TeleWellnessMD™ advisor at TeleWellnessMD.com (877) 659-6050. Nutrient injection prescriptions require an annual Wellness Consultation.

“I have been using products from Trim and TeleWellness now for a few years and have met many of my goals seeing results after results. I have shared my success with friends and family and they have seen a change as well. I love how you all are able to really connect and help the customers in their purchases, thanks for everything.”
—Michael W., TeleWellnessMD Client
**Trim® Glutathione**

The body’s best natural antioxidant and is not well absorbed orally making the injection delivery very important. This is a preventative supplement to reduce the free radical damage in the body and help prevent disease and inflammation. Great for general supplementation it can be used in combination with any of the other Trim® Nutrition compounds.

**INGREDIENTS**

Glutathione 200mg/ml

It is recommended to take this product along with Trim® Original or Trim® Complete along with B12 to help get the right vitamin balance to make the glutathione work optimally.

**Kits include the following components:** 10ml vial, 10 1 ml syringes, 10 alcohol prep pads

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**Trim® Methylcobalamin**

A vitamin B12 Injection, Methylcobalamin, the most active form of the B12 family. It is the result of the body’s conversion of Cyanocobalamin.

**INGREDIENTS**

Methylcobalamin(B12) 1000mcg/ml

**Kits include the following components:** 10ml vial, 10 1 ml syringes, 10 alcohol prep pads

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**Trim® Methylcobalamin Max**

A higher concentration of B12; at 10,000 mcg/ml, it permits administration subcutaneously.

**INGREDIENTS**

Methylcobalamin(B12) 10,000mcg/ml

**Kits include the following components:** 5ml vial, 20 insulin syringes, 20 alcohol prep pads
INGREDIENTS

Choline-50mg/Inositol-50mg/Methionine-25mg/Chromium Chloride-3.375mg/
B5-2mg/B6-25mg/Riboflavin-2 mg/Thiamine-100mg/Niacinamide-100mg solution

Kits include the following components: 10ml vial, 10 1ml syringes, 10 alcohol prep pads

Trim® Complete*

INGREDIENTS

L-Isoleucine 15 mg/mL, L-Leucine 10mg/mL, L-Valine 40 mg/mL per ml solution.Preserved

Kits include the following components: 30ml vial, 10 1ml syringes, 10 alcohol prep pads
Trim® Tri-Amino OAC* 30 ml

The Tri-Amino nutrient injection combines three clinically researched amino acids—ornithine, arginine and citrulline. Tri-Amino nutrient injection can enhance the release of Human Growth Hormone and has many benefits including promoting physical strength and endurance, decreasing blood pressure and improving cardiovascular health.

INGREDIENTS

Ornithine 100mg, Arginine 100mg and Citrulline 100mg, per ml solution.

Kits include the following components: 30ml vial, 10 1 ml syringes, 10 alcohol prep pads

Trim® Lipo-C* 10ml

Lipotropic compounds are used on the potential for release of fat deposits in some parts of the body. The lipotropic agents included in this injection are Methionine, Choline and Inositol. Lipo-C can be used in conjunction with B-vitamins to help speed up overall metabolic processes, burn fat and increase energy.

INGREDIENTS

Methionine 15mg, Inositol 50mg, Choline 50mg, L-Carnitine 50mg, B1 (Thiamine) 15mg, B5 (Dexpanthenol) 5mg, 2% Benzyl Alcohol, 0.2% of EDTA, and Sterile Water for injection per ml solution.

Kits include the following components: 10ml vial, 10 1 ml syringes, 10 alcohol prep pads
INGREDIENTS GLOSSARY

Adenosine-5-Triphosphate
Is a high energy phosphate molecule that is needed by the body in order to provide energy to the body’s cells. ATP is crucial for the cells in the muscles to contract properly. It is believed that by increasing levels of ATP in the muscles then you can decrease muscle fatigue and increase muscle strength and size.

Choline
Choline is a lipotropic amino acid that helps break down accumulating fats in the liver lowering cholesterol deposits. This can help reduce the production of plaques in the arteries and fatty degeneration of the liver. Due to its precursor role in Acetylcholine, Choline aids in improvements in mental performance and enhanced cerebrovascular blood flow.

Chromium
Chromium is an essential mineral that is not made by the body and must be obtained from the diet. Chromium is known to enhance the actions of insulin. Chromium stimulates fatty acid and cholesterol synthesis, which are important for the activities of many organ systems including the brain.

GABA
GABA is derived from the amino acid Glutamic acid. It is found in large amounts in the Hypothalamus. When taking GABA you need to take vitamin B6 as a cofactor otherwise the body cannot metabolize the GABA properly. GABA is a muscle relaxant, decreases anxiety, aids in secreting growth hormone, promotes sleep, and helps with hypoglycemia.

Glutathione
Reduced L-glutathione, most commonly called glutathione or GSH, is the most powerful naturally occurring antioxidant in all human cells, and is often referred to as the body's "master antioxidant". Composed of glutamic acid, cysteine and glycine, this tripeptide helps to detoxify the body and neutralize free radicals while supporting the immune system. It is known for its role in providing antioxidant protection for the body's tissues, including the arteries, brain, heart, liver, lungs and skin. Glutathione levels decrease as the body ages. All cells in the human body are capable of synthesizing glutathione. But the highest concentration of glutathione is found in the liver, making it critically important in the detoxification and elimination of free radicals. Free radicals are highly reactive compounds created in the body during normal metabolic functions; they can also enter the body through the environment. Accumulation of these compounds can result in oxidative stress, which occurs when the generation of free radicals in the body exceeds the body's ability to neutralize and eliminate them. Metabolically, glutathione has many functions. As previously mentioned, glutathione plays a substantial role in the functioning of the body's immune system. Its antioxidant property makes it vital to white blood cells (lymphocytes) as it allows them to reach their full potential during the oxygen-requiring activity of the body's immune response.

White blood cells in their immune response aid in detoxification of the body and as glutathione levels decrease, so does the body's ability to eliminate toxins. This leads to the death of white blood cells thereby weakening the body's immune system.

Other antioxidants in the body depend on glutathione as well. Glutathione recycles vitamins C and E after they have been oxidized, therefore playing a decisive role in their normal function.

ENVIRONMENTAL OXIDATIVE STRESSORS THAT CAN DEPLETE GLUTATHIONE INCLUDE:

- Ultraviolet and other radiation
- Heavy metals
- Cigarette smoke
- Exhaust from motor vehicles
- Household chemicals
- Dietary Factors
- Other environmental toxins
Inositol
Inositol plays a role in nerve transmission and fat metabolism. Inositol works at the cellular level and is thought to prevent the formation of cancer and may even shrink pre-existing cancers. Inositol helps boost immune system and lower cholesterol levels.

L-Carnitine
It is thought that L-Carnitine will give an energy boost, which helps the body turn fat into energy and will then elevate certain enzymes that are needed by the body to effectively metabolize sugars, starches and other carbohydrates. Anyone who exercises can benefit from carnitine supplementation because it reduces the accumulation of lactic acid, which is responsible for the burn felt inside the muscles.

Leucine
Leucine is an essential amino acid, which cannot be manufactured in the body. Leucine is used as a dietary supplement because it has been found to slow the breakdown of muscle tissue by increasing the synthesis of muscle proteins. Lipotropic injections are a combination of vitamins, amino acids, and minerals which can help increase energy, boost metabolism and burn fat:

- They increase the production of lecithin by the liver, which helps decrease cholesterol deposits in blood vessels and formation of gallstones (often formed by cholesterol)
- Help promote the liver to export fat
- Increase immune cell function and therefore can help with disease resistance

Lysine
Lysine is an essential amino acid, which means it is indispensable to human health. It cannot however be manufactured by the body. For this reason, lysine must be obtained from food. Lysine helps to fight Herpes outbreaks, increase growth hormone production, helps to regulate hormone levels. It also aids in the production of antibodies and supports the immune system. Lysine plays a role in the formation of collagen, a substance important for bones and connective tissues including skin, tendon, and cartilage.

Magnesium
Magnesium plays an important role in many of the body’s enzymatic reactions and plays a key role in neurochemical transmission and muscular excitability and has therefore been used successfully for seizures and other muscle related problems. Magnesium acts peripherally to produce vasodilation – the relaxation of blood vessel walls increasing blood flow, which can help with lowering blood pressure and also preventing and treating migraine headaches.

Methionine
Methionine is an essential amino acid that acts both as a Lipotrope, involved in the breakdown of fat during metabolism; and an antioxidant, protecting the body from free radical damage obtained from toxic metals. The sulfur component of methionine is important for healthy skin and hair as well as strong nails. Your body cannot produce this amino acid on its own and must be obtained through methionine rich foods or through a supplement.

Methylcobalamin (B12)
This form of B12 is better absorbed than Cyanocobalamin and does not contain minute amounts of cyanide. Vitamin B12 is an essential component for proper digestion and absorption of foods and for normal metabolism of carbohydrates, and fat. It aids in maintaining healthy nerve cells and red blood cells and is needed to make DNA. Vitamin B12 is also involved in homocysteine metabolism and plays a critical role in proper energy metabolism, immune function and nerve function. Several disorders have recently been linked to possible vitamin B12 deficiencies. Methylcobalamin also interacts differently with certain neurotransmitters within the brain and appears to be helpful in treating Autism.
Niacinamide
Niacinamide, also known as Vitamin B3, enhances insulin secretion and increases insulin sensitivity. It also has anti-inflammatory properties.

Pantothenic Acid
Pantothenic acid, also called Vitamin B5, is an essential nutrient needed to sustain life. B5 is required for the metabolism and synthesis of carbohydrates, proteins and fats for energy.

Pyridoxine B6
Vitamin B6, also known as Pyridoxine, is a water-soluble vitamin that is essential in the formation of healthy red blood cells and supports more vital bodily functions than any other vitamin. B6 is needed to release energy from the food we eat. Since it cannot be stored in the body, it must be obtained daily from either food such as: potatoes, bread, meat, fish, eggs, beans, bananas, and nuts or you have to get it in supplementation. Vitamin B6’s role as a coenzyme involved in the metabolism of carbohydrates, fats, and proteins is what makes this an important addition to the Trim injections. Vitamin B6 is required for the production of Serotonin, a brain neurotransmitter that controls mood, appetite, sleep patterns and sensitivity to pain.

Riboflavin
Riboflavin (Vitamin B2) works with the other B vitamins. It is important for body growth and red blood cell production and helps in releasing energy from carbohydrates.

Taurine
An essential amino acid the body no longer produces at times of extreme physical exertion. When deprived of the required amounts of taurine a relative deficiency results in the need for supplementation. Taurine acts as a metabolic transmitter and is also known to have a detoxifying effect. Some researchers believe that taurine can be a beneficial dietary supplement for people who suffer from depression. Taurine aids in glucose metabolism by increasing the activity of the insulin receptors making this a good option for diabetics or those with insulin resistance. Taurine also improves fat metabolism in the liver. It can act as a natural diuretic and has been found to help stabilize the heart rhythm. Taurine is also known to help decrease triglycerides and LDL levels by reducing bile acids.

Theanine
Theanine is a natural stress remedy that reduces physical and mental stress and anxiety. Theanine is one of the chemicals found in green tea, and is used to reduce stress and anxiety while promoting relaxation. It will not cause sleepiness like some other supplements or medications. Studies shows that Theanine stimulates the brain to produce certain reactions that will make one feel relaxed, but alert and not drowsy. Besides improving focus and concentration animal studies have shown that it breaks down beta-amyloid proteins linked to the development of Alzheimer’s.

Thiamine
Also known as Vitamin B1, Thiamine, is a white, crystalline, water-soluble compound required for carbohydrate metabolism and normal functioning of the nervous system. A deficiency of Thiamine results in nerve disorders.