

# MESH WEIGHT LOSS REGIMENS

*{for PRICING go to meshnetwork.expert}*

## Diet & Exercise

*(that which everybody hates to hear but is obviously extremely important)*

**REASONABLE** diet and exercise improvements are **ESSENTIAL** to the success of any weight loss program. Obesity treatment that omits pharmacotherapy has been a dismal failure.

Physicians in the USA offer several reasons for using pharmacotherapy both on-label and off-label for weight loss actions.

Diet and exercise **DURING** medication managed weight loss helps facilitate greater weight loss, and builds the framework for lifestyle changes that will help **MAINTAIN** the weight loss if/when medications are no longer necessary. **EAT LESS, MOVE MORE !!!**

Modest weight loss can improve your health and reduce your risk of cardiovascular disease, stroke, and diabetes.

Medications are NOT a substitute for lifestyle changes. Healthier diet, regular exercise, adequate sleep, and stress reduction are extremely important for long term health. Weight loss helps accomplish all of these and all of these help with weight loss. Decreased caloric intake and increased physical activity are non-negotiable items for each patient. Just relying on physician/pharmaceutical intervention will not effectively address the root of the problem, which is necessary for long term personal success. **SWEAT EQUITY MATTERS !!!**

## Weight Loss Regimens

1. GLP peptides (Semaglutide, Tirzepeptide, Retatrutide)
2. Fat burning and metabolism enhancing injections (tried and true; well-known; less expensive)
3. Oral (by mouth) options for patients who do not prefer injections (tablets, sprays)
4. Sermorelin peptide, AOD-9604 Peptide

All of these powerful peptides are GLP-1 peptides that target the main hunger-regulating hormones.

Though they are **dramatically** more costly, we have also listed tirzepatide (the active ingredient in Zepbound and Mounjaro) and retatrutide (strong peptide in FDA 3rd phase clinical trial) because studies demonstrate they can be even more effective than semaglutide for some people. The initial impressive results from retatrutide will be included at the end of this option group.

MESH provides numerous other options for weight loss. Patients can add them for even more synergy of weight loss, or they can choose to try them first as cheaper alternatives that have been proven safe and effective. Long-used and effective 'fat burning' injections will greatly augment the weight loss results. There is an attached 'menu' of these treatment choices along with some recommendations for initiating therapies.

## 1. GLP peptides (Semaglutide, Tirzeptide, Retatrutide)

Let's start with the least expensive, yet still clearly highly effective semaglutide.

MESH providers feel this is where patients considering a GLP-1 medication should begin. It is the least costly option of the peptides, and it is effective for most patients (assuming "eat less - move more" principles are adhered to). Why spend more if you don't have to?

### Semaglutide Standard Dosing

0.25 mg weekly x 4 weeks (1.0 mg)

0.5 mg weekly x 4 weeks (2.0 mg)

1.0 maintenance dose x 17 weeks (17 mg)

JAMA reports total body weight loss percentages achieved with **semaglutide** 5.9% at 3 months & 10.9% at 6 months. Obviously adding increased physical activity and dietary changes will augment that number and are important for maintaining your weight loss long term without spending more money.

## TIRZEPATIDE

*{significantly more expensive to produce and obtain}*

### Tirzepatide Standard Dosing I

2.5 mg weekly x 4 weeks (10mg)

5.0 mg weekly x 2 weeks (10 mg)

10 mg weekly x 4 weeks (40 mg)

20 mg maintenance dose x 15 weeks)

60 mg 1st 10 weeks

60 mg 11-13 weeks

60 mg 14-16 weeks

60 mg 17-19 weeks

60 mg 20-22 weeks

60 mg 23-25 weeks

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25 weeks total

### Tirzepatide Standard Dosing 2

2.5 mg weekly x 4 weeks (10 mg)

5.0 mg weekly x 4 weeks (20 mg)

10 mg weekly x 3 weeks (30 mg)

15 mg weekly maintenance x 15 weeks

60 mg first 11 weeks

60 mg next 4 weeks

60 mg next 4 weeks

60 mg next 4 weeks

60 mg next 4 weeks

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27 weeks total

## RETATRUTIDE

*{significantly more expensive to produce and obtain}*

### New England Journal of Medicine Article (attach as link in website) about Retatrutide

Summarized: Broke patients in 7 groups. **1.** a placebo group **2.** a constant 1 mg per week group **3.** a group started with 2 mg and took 4mg weekly **4.** a group started with 4mg and also took 4 mg weekly **5.** a group started with 2 mg and took 8 mg weekly **6.** a group started with 4 mg and also took 8 mg weekly **7.** a group that started with 2 mg and worked their way up to 12 mg weekly - there were 2 main measuring endpoints; one at 24 weeks and one at 48 weeks

| <u>Percentage (%) of body weight loss at 24 weeks</u> |                        |   | <u>(%) of weight loss at 48 weeks</u> | <u>% of patients with 15+% loss</u> |
|---|------------------------|---|---------------------------------------|-------------------------------------|
| <b>1.</b>   | Placebo                | = | 1.6%                                  | 2%                                  |
| <b>2.</b>   | 1 mg group             | = | 7.2%                                  | 16%                                 |
| <b>3&amp;4.</b>                                       | 2mg-4mg / 4mg-4mg      | = | 11.8-13.9%                            | 55-64%                              |
| <b>5&amp;6.</b>                                       | 2mg-8mg / 4mg-8mg      | = | 16.7-17.9%                            | 73-77%                              |
| <b>7.</b>   | 2mg worked up to 12 mg | = | 17.5%                                 | 83%                                 |

#### Retatrutide 1.0 (8 mg maintenance)

**2 mg x 2 weeks (4 mg total)**  
**4 mg x 2 weeks (8 mg total)**  
**8 mg x 21 weeks (168 mg total)**  
**180 total mg needed**

#### Retatrutide 2.0 (10 mg maintenance)

**2 mg x 3 weeks (6 mg total)**  
**4 mg x 2 weeks (8 mg total)**  
**8 mg x 2 weeks (16 mg total)**  
**30 mg first 7 weeks**

**10 mg x 18 weeks 180 more mg = 6 vials**

#### Retatrutide 3.0 (12 mg maintenance)

**2 mg x 3 weeks (6 mg)**  
**4 mg x 2 weeks (8 mg)**  
**8 mg x 2 weeks (16 mg)**  
**30 mg first 7 weeks**

**12 mg x 19 weeks = 228 mg = 8 more vials**

Retatrutide is an extremely interesting and effective peptide that mimics three different hunger-regulating hormones (GLP-1, GIP, and glucagon - commonly referred to as "Triple G action"). Initial studies highly suggest that it is even more effective for weight loss. The drawback, of course, is that it is even more costly. We have included it simply because some people "stall" or reach a "plateau effect" with the others and want another option.

2. Fat burning and metabolism enhancing injections (tried and true; well-known; less expensive)

*{Previously Standard Weight Loss Regimens before the GLP-1 Medications}*

### **INJECTION Therapies**

#### **Alpha-Lipoic Acid (25 mg/ml)**

#### **Amino Blend**

Proline 50mg/ml, Arginine 100 mg/ml, Lysine 50 mg/ml, Citrulline 50 mg/ml

#### **B12 Cyanocobalamin 2mg / ml (Vitamin B12)**

Hydroxo- vs Cyano- (hydroxo stays in the body for longer; sometimes Hydroxo- not available)

#### **B12 Hydroxocobalamin 2mg / ml (Vitamin B12)**

Hydroxo- vs Cyano- (hydroxo stays in the body for longer; sometimes Hydroxo- not available)

#### **Lipo Mino Mix (\*with carnitine)**

1 ml LipoMino = pyridoxine (B6) 2mg, **methionine 12.4mg**, inositol 25mg, choline 25mg, B12 Cyanocobalamin 1mg, thiamine B1 50mg, riboflavin B2 5mg in each ml

L-Carnitine = 500mg / ml [patients with significant SULFA allergies should avoid this one]  
(requires 'cold shipping' which costs us more to get)

#### **LipoStat Plus (MICC+) - has double dose of some ingredients**

**methionine 25mg**, inositol 50mg, choline 50mg, B6 175mcg, Cyanocobalamin 1mg  
[patients with significant SULFA allergies should avoid this one]

#### **LipoStat Plus SF (Sulfur Free)**

inositol 50mg, choline 50mg, B6 175mcg, Cyanocobalamin 1mg  
**{ This one is specifically FOR patients with SULFA ALLERGIES }**

### **Recommendations:**

If not choosing a GLP-1 option, most providers recommend using either LipoMino Mix (most common), Alpha-Lipoic Acid, or LipoStat Plus, also known as MICC. Combination therapies are always more effective than monotherapy, so adding adjunctive options like naltrexone, bupropion/naltrexone, orlistat, metformin, topiramate, or sermorelin/ipamorelin, etc. are the best options for enhanced efficacy. **Sweat equity** still matters with all of the options (seeing a trend here?).

### 3. Oral (by mouth) options for patients who do not prefer injections (tablets and spray)

#### Lipo - Trim SL Spray      1 oz spray bottle (approximately 300 metered sprays)

6 sprays contains: Acetyl Carnitine 100 mg, Methyl B12 1000 mcg, Leucine 10 mg, Arginine 60 mg, Inositol 25 mg, Choline 35 mg, **Methionine 2 mg**, Betaine 5 mg, B1 0.75 mg, Folic acid 80 mcg

**6 sprays per day, administered sublingually** (under tip of tongue)

[patients with significant SULFA allergies should avoid this one]

#### Lipo - Burn Tablets

500 mg ascorbic acid, 7.5 mcg D3, 50 mg thiamine, 50 mg riboflavin, 50 mg niacin, 50 mg B6, 680 mcg folate, 50 mcg B12 (cyanocobalamin), 50 mcg biotin, 50 mg pantothenic acid, 20 mg choline, 50 mg calcium, 50 mg inositol, 30 mg PABA (granular) in each tablet (1 tablet per day)

### NALTREXONE (tablets)

**Naltrexone suppresses the 'reward center' in the brain - it is an adjunct for other weight loss Rx choices**

(It is a progressive dose medication like the GLP-1's, so you take an increasing dose until reaching maintenance)

**Naltrexone 1.5mg Tablets**

**Naltrexone 3.0mg Tablets**

**Naltrexone 4.5mg Tablet**

**Naltrexone's mechanism for weight loss**, particularly when combined with bupropion, involves influencing brain areas that regulate appetite and metabolism. It may reduce food cravings and consumption by blocking the effects of certain endorphins at opioid receptors in the brain, potentially reducing the rewarding aspects of eating. Additionally, naltrexone can improve mood and reduce stress, which can help combat emotional eating.

#### **Reducing Rewarding Effects of Food:**

Naltrexone can block the action of endorphins, which are naturally produced by the body and contribute to the pleasurable experience of eating. By blocking these endorphins, naltrexone may reduce the feeling of reward associated with food, making it easier to eat moderately and control calorie intake.

#### **Improving Mood and Reducing Stress:**

Naltrexone, especially when combined with bupropion, can help improve mood and reduce feelings of stress and anxiety. This can be particularly beneficial for individuals who tend to eat in response to stress or emotional triggers.

#### **Regulating Appetite and Metabolism:**

Naltrexone can potentially affect the release of certain hormones like ghrelin (which stimulates appetite) and leptin (which suppresses appetite), which are involved in regulating appetite and metabolism.

#### **Enhancing Insulin Sensitivity:**

Naltrexone may improve insulin sensitivity, which can help stabilize blood sugar levels and prevent energy crashes that can lead to overeating.

#### **Synergistic Effect with Bupropion:**

When used in combination with bupropion, naltrexone and bupropion work together to enhance the effects of pro-opiomelanocortin (POMC) cells in the brain, which are important for regulating appetite. Bupropion can increase the release of certain hormones from POMC cells, and naltrexone can help prevent a negative feedback loop that can reduce the effectiveness of these hormones.

### **Naltrexone + Bupropion (tablets)**

**Bupropion 90 mg / Naltrexone 10 mg tablets**

**Bupropion 180 mg / Naltrexone 20 mg tablets**

**[take one tablet daily for diet suppression]**

#### 4. Sermorelin and GHRP-6 peptides & AOD-9604 Peptide

##### Sermorelin and GHRP-6

**Sermorelin** is *NOT human growth hormone (HGH)*; it promotes secretion of HGH from the pituitary gland. Daily dose 300 mcg = 0.3 mg SC x 30 days = 9 mg / month. GHRP-6 (growth hormone releasing hormone) 100 mcg daily SC = 0.1 mg SC x 30 days = 3 mg / month. BOTH = HGH without the inherent risks.

**Sermorelin** helps restore the energy and vitality from your youth. Develops lean body mass and new muscle cells. Reduce body fat through lipolysis. Increase energy and vitality, ability to concentrate, strength and endurance, enhances immune system / sleep quality, anti-aging, performance enhancing,

##### **Sermorelin Benefits**

|                             |   |
|-----------------------------|---|
| Changes in Body Composition | improves muscle mass and reduces fat  |
| Muscle Strength             | improved muscle mass and strength   |
| Metabolism                  | higher more efficient resting metabolism, better fat oxidation, decreased LDL cholesterol levels, increased protein synthesis |
| Heart Health                | decreased atherosclerosis and strengthens pumping function  |
| Exercise Performance        | from improved muscles and better oxygen uptake, usage   |
| Joint Health                | prevents joint deterioration and creates healthy connective tissues   |
| Quality of Life in general  | improvements in mood, feeling of general well-being   |
| Skin Thickness              | prevents thinning skin of aging and promotes skin collagen (healthier)  |
| Immune Function             | regulates and bolsters immunities   |
| Libido                      | increased sexual energy levels (libido) and sexual performance  |
| Bone Mineral Density        | lower risk of osteoporosis and other bone disorders   |

## **Peptide AOD-9604**

Anti-Obesity Drug-9604 is a peptide that was initially created as a remedy for obesity similar to the fat burning effects of human growth hormone (HGH) without inducing insulin intolerance. It has increased in popularity due to its natural ability in reducing body fat. It has been assigned Generally Recognized As Safe (GRAS) by the FDA. Additionally, AOD-9604 has very desirable regenerative properties, especially when combined with peptide BPC-157.

### **Dosage**

Recommended 120 - 500 mcg (most people use 300 mcg / day = 9 mg / month)

### **Frequency**

Daily

### **Available**

Orally (dissolvable lozenge)

Intranasally (spray)

Subcutaneous injections

### **Duration of action**

12 weeks - if someone does not see benefit by 12 weeks, stop

AOD 9604 is a modified fragment of human growth hormone (HGH) that was initially developed as an anti-obesity drug. It is marketed as a peptide blend that can help burn fat and aid in weight loss. Unlike HGH, AOD 9604 specifically targets areas with high levels of fat deposits in the body, making it a more targeted and effective solution for weight loss. By stimulating lipolysis, inhibiting lipogenesis, and regulating fat metabolism, AOD 9604 helps burn more fat and increases calorie expenditure, leading to greater weight loss results in a shorter period of time.

AOD 9604 works by stimulating the pituitary gland, similar to HGH and other growth hormones, to speed up metabolism and enhance weight loss. When injected subcutaneously, AOD 9604 enters the bloodstream quickly, allowing for immediate results. It triggers lipolysis, the breakdown of fat cells, and inhibits lipogenesis, the formation of new fat cells. This combination of effects helps the body burn fat more efficiently and increases overall weight loss. AOD 9604 also has the potential to improve bone strength and prevent wear and tear on joints and muscles.

AOD 9604 offers several benefits for individuals looking to lose weight and improve their overall body composition. Here are the primary benefits of using AOD 9604:

**Increased Fat Burning:** AOD 9604 stimulates the body's metabolism, leading to accelerated fat burning. By targeting fat cells and promoting lipolysis, it helps individuals achieve greater weight loss results.

**Enhanced Weight Loss:** When combined with a lower calorie diet and regular exercise, AOD 9604 can significantly enhance weight loss. It increases caloric burn throughout the day, resulting in more efficient fat loss.

**Improved Bone and Cartilage Health:** AOD 9604 has shown potential in promoting bone and cartilage repair. It can help strengthen bones and prevent conditions such as osteoarthritis and osteoporosis.

**Minimal Side Effects:** Compared to other weight loss supplements and injections, AOD 9604 has a low risk of side effects. Common side effects include upset stomach, headaches, and pain at the injection site, but these are generally mild and temporary.

***\* you should ALWAYS check with your PCP to make sure they feel it is safe for you  
and to make sure they clarify if you might qualify for it  
under insurance covered reasons \****

**Less expensive options to be used in combination with other 'stronger' treatment options for synergy  
effect**

**Metformin (off label use)**

500 mg twice per day #60 doses (ballpark \$15.00 by Rx prescription)

500mg ER (extended release once a day dosing) #30 (ballpark \$18.00 by Rx)

**Topiramate (Topamax - off label use)**

100 mg twice per day #60 doses (ballpark \$20.00 by Rx)

Orlistat [Xenical by Rx] (Alli version available without prescription many places including amazon)

60 mg twice per day #120 (Amazon \$77.00 and #170 \$87.00)



## Lipo Stat Plus

LipoStat-Plus is specifically formulated for active individuals, aiming to boost energy and improve metabolism with key ingredients like Inositol, Choline, and B6.



Methionine 25mg/ml  
Inositol 50mg/ml

Choline 50mg/ml  
B6 0.175mg/ml

Cyanocobalamin 1mg/ml

- Inositol: Converts food into energy, supporting a more active metabolism.
- Choline: Reduces muscle recovery time and aids in converting fat into energy.
- B6: Essential for red blood cell production and converting food into energy.
- Cyanocobalamin: Helps in energy production by converting carbohydrates into glucose.
- Methionine: Assists in breaking down sugars and carbohydrates and converting them into energy

By enhancing energy production, this formula aims to improve your overall metabolism  
LipoStat-Plus is commonly prescribed for those who are part of a medically supervised weight loss program.

For IM Injection only

Store at controlled room temperature. Protect from light.

Possible side effects: If you experience severe side effects or allergic reactions, contact your MESH staff/provider.

- Redness or irritation at the injection site
- Fatigue
- Nausea

If you experience severe side effects or allergic reactions, contact your MESH staff/provider.

**LipoStat Plus (MICC) - has double dose of some ingredients**

**methionine 25mg, inositol 50mg, choline 50mg, B6 175mcg, Cyanocobalamin 1mg**

**1 ml IM weekly typically x 8 - 10 weeks (or longer depending on goals) and then biweekly**

**patients with significant SULFA allergies should avoid this one]**

## Lipo Mino Mix

Lipo-Mino-Mix is designed to boost metabolism, increase energy and support your weight loss journey through a blend of potent ingredients like B6, Methionine and Choline.



|            |                      |   |                 |
|------------|----------------------|---|-----------------|
| B6 2mg/ml  | Methionine 12.4mg/ml | Inositol 25mg/ml                          | Choline 25mg/ml |
| B1 50mg/ml | B2 5mg/ml            | Carnitine 125mg/ml** (in Lipo-Mino-Mix-C) |                 |

Lipo-Mino-Mix stands as the top-selling weight loss solution blend, designed to help you burn fat, elevate your energy levels and support your weight loss journey. This comprehensive formula combines a host of powerful ingredients, each chosen for their individual benefits that collectively work to optimize your metabolism and overall well-being. Note: Carnitine is only available in Lipo-Mino-Mix-C

- B6: Promotes red blood cell production and helps convert food into energy.
- Methionine: Assists in breaking down sugars and carbohydrates, converting them into energy.
- Inositol: Helps convert food into energy.
- Choline: Reduces muscle recovery time and aids in converting fat into energy.
- B1 Thiamine: Strengthens the immune system and assists in converting fats and carbohydrates into energy.
- B2 Riboflavin: Boosts metabolism and supports the immune system.
- Carnitine: Improves fat metabolism, enhances energy levels, reduces recovery times and boosts muscle-building potential.

Possible Side Effects    If you experience severe side effects or allergic reactions, contact your MESH staff/provider.

- Irritation or redness at the injection site
- Fatigue
- Nausea

For IM Injection only

Store at controlled room temperature. Protect from light.

### Lipo Mino Mix (\*with carnitine)

**1 ml LipoMino = pyridoxine (B6) 2mg, methionine 12.4mg, inositol 25mg, choline 25mg, B12 Cyanocobalamin 1mg, thiamine B1 50mg, riboflavin B2 5mg in each ml**

**L-Carnitine = 500mg / ml** [patients with significant SULFA allergies should avoid this one]

**1 ml of each mixture IM weekly (2 injections/week)**

(requires 'cold shipping' which costs us more to get)

## Lipo Stat Plus SF



LipoStat-Plus SF is a **Sulfa-Free** injectable weight loss solution specifically formulated for active individuals, aiming to boost energy and improve metabolism seeking to support their weight loss objectives and get the most out of your active lifestyle.

Inositol 50mg/ml   Choline 50mg/ml   B6 0.175mg/ml   Cyanocobalamin 1mg/ml

- Inositol: Converts food into energy, supporting a more active metabolism.
- Choline: Reduces muscle recovery time and aids in converting fat into energy.
- B6: Essential for red blood cell production and converting food into energy.
- Cyanocobalamin: energy production by converting carbohydrates into glucose.

Possible Side Effects      If you experience severe side effects or allergic reactions, contact your MESH staff/provider.

- Redness or irritation at the injection site
- Fatigue
- Nausea

For IM Injection only

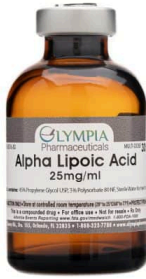
Store at controlled room temperature

### LipoStat Plus SF (Sulfur Free)

**inositol 50mg, choline 50mg, B6 175mcg, Cyanocobalamin 1mg**

**1 ml IM weekly**

**{ This one is specifically FOR patients with SULFA ALLERGIES }**



### **Alpha Lipoic Acid (25 mg/mL)**

Alpha lipoic acid (ALA) is a naturally occurring fatty acid that plays essential roles at the cellular level, including energy production and benefits in promoting weight loss.

ALA provides the body with a powerful antioxidant that supports essential cellular functions and protects against damage. It is naturally produced by the body and can be obtained from dietary sources such as red meat, organ meat, vegetables and yeast. Once administered, ALA injections are quickly absorbed and distributed throughout the major organs.

Alpha lipoic acid strengthens the body's defense system by enhancing and recycling other antioxidants like vitamins C and E, coenzyme Q10 and glutathione. It plays a vital role in the conversion of glucose to energy within the mitochondria. By mimicking insulin, ALA injections improve glucose metabolism and insulin sensitivity, facilitating the transportation of glucose into cells which reduces fat storage. Additionally, ALA enhances the conversion of carbohydrates into energy, limiting their conversion into fats. These effects support weight management and optimal blood sugar levels, making ALA injections beneficial for individuals looking to improve their metabolic health.

1. May slow memory loss
2. May fight premature skin aging from UV damage
3. Help maintain optimal blood sugar levels and insulin sensitivity
4. Reduce the risk of oxidative damage and inflammation
5. Support healthy nerve function and reduce symptoms of neuropathy
6. Enhance energy production and metabolism
7. Support cardiovascular health and protect against heart-related complications
8. May boost immune system function and enhance disease resistance

While not all potential side effects are fully known, alpha lipoic acid is generally well-tolerated when used as directed.

Stop using ALA injections and contact your MESH provider right away if you experience any of the following:

- Signs of low blood sugar, such as headache, hunger, weakness, sweating, confusion, irritability, dizziness, rapid heartbeat, or feeling jittery
- Light-headedness

Some individuals may also occasionally experience:

- Nausea
- Skin rash
- Itching
- Abdominal discomfort
- Vomiting
- Diarrhea

Alpha lipoic acid should be stored at controlled room temperature, protected from light.

**Alpha-Lipoic Acid (25 mg/ml)**  
**25mg IM weekly (1 ml)**

## Amino Blend Injection

Many individuals may lack the recommended levels of amino acids needed. This can cause fatigue, weight gain, disrupted sleep cycles, and more. Amino Blend injections can help address these symptoms.



Arginine, citrulline, lysine, proline.

Amino acids are the natural compounds that are used as building blocks by the body to create proteins. Amino acids, and the proteins that are made from them, are crucial to helping the body break down food, repair body tissue, grow and perform many other bodily functions. They are found in foods such as meats, fish, and soybeans. Some people also use amino acid injections and supplements to boost athletic performance or improve their mood. Amino acids are categorized into three groups: essential, nonessential, and conditional. Essential amino acids

cannot be made within the body and must come from external sources, such as diet or supplements. Nonessential amino acids are produced within the body, and conditional amino acids are usually produced within the body. During periods of stress, illness, or injury, the body may not be able to create enough of these, and they become essential amino acids that require external supplementation.

Use Amino Blend injections help boost your metabolism, improve energy levels, increase endurance, and help to burn fat.

Route of Administration: IM      Store amino acid blend at controlled room temperature. Protect from light.  
If you experience severe side effects or allergic reactions, contact your MESH staff/provider.

### Amino Blend

**Proline 50mg/ml, Arginine 100 mg/ml, Lysine 50 mg/ml, Citrulline 50 mg/ml**  
**1 ml IM weekly**

## Cyanocobalamin (Vitamin B12) Injection



Cyanocobalamin is a synthetic form of vitamin B12, a crucial nutrient for the body. Vitamin B12 plays a vital role in various physiological processes, including energy production, metabolism, blood cell formation, and nerve function. While most individuals obtain sufficient amounts of vitamin B12 through their diet, some individuals may require supplementation due to certain health conditions or lifestyle choices that can lead to vitamin B12 deficiency.

In mild cases, low levels of vitamin B12 can cause fatigue and anemia, while more serious deficiencies can lead to serious neurological and heart impairments. Symptoms of severe vitamin B12 deficiency can include visual disturbances, severe joint pain, paresthesia (tingling in the hands and feet), memory problems, depression, anxiety, poor muscle function, ataxia (impaired balance and coordination), changes in reflexes and even infertility. It's crucial to identify and treat vitamin B12 deficiencies early to maintain overall health.

Beyond preventing and treating deficiencies, cyanocobalamin has other health benefits. It is vital for the production of red blood cells and DNA and for maintaining the health of nerve cells. Cyanocobalamin can also aid energy production by converting carbohydrates into glucose, a process that is crucial for sustaining physical and mental functions.

Route of Administration: IM/Sub-Q

Store at controlled room temperature. Protect from light.

### Precautions/Side Effects

Not unreasonable to get lab panels regarding B vitamins / blood counts

Before taking, make sure to tell your healthcare provider about any allergies to this, cobalt, or any form of vitamin B12.

This product may contain inactive ingredients, which can cause allergic reactions or other issues. Consult your physician if you have Leber's optic neuropathy, polycythemia, gout, iron or folic acid deficiency anemia or hypokalemia.

This product usually has no side effects.

If you experience severe side effects or allergic reactions, contact your MESH staff/provider.

### **B12 Cyanocobalamin 2mg / ml (Vitamin B12)**

**1 ml IM every 2 weeks x 4, then monthly**

**Hydroxo- vs Cyano- (hydroxo stays in the body for longer; sometimes Hydroxo- not available)**

## Hydroxocobalamin Injection (B12)



Hydroxocobalamin is an injectable form of vitamin B12, a vitamin found in food and used as a dietary supplement. Vitamin B12 helps to utilize fats and carbohydrates for energy and make new proteins. It 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. Hydroxocobalamin injections are indicated for patients with vitamin B12 deficiency

Hydroxocobalamin B12 helps the body convert fat and carbohydrates to energy and may be beneficial as part of a weight loss program.

Route of Administration: IM

Store at controlled room temperature. Protect from light.

Before taking, make sure to tell your healthcare provider about any allergies to this, cobalt, or any form of vitamin B12. This product may contain inactive ingredients, which can cause allergic reactions or other issues. Consult your physician if you have Leber's optic neuropathy, polycythemia, gout, iron or folic acid deficiency anemia or hypokalemia.

Certain drugs may also interfere with lab tests for vitamin B12 levels. This may cause false test results. If you are taking any anti-infective drugs, such as amoxicillin or erythromycin, make sure to let laboratory personnel know prior to testing.

Some common side effects include:

- Pain at injection site
- Mild diarrhea
- Itching
- Feeling of body swelling
- Low potassium

If you experience severe side effects or allergic reactions, contact your MESH staff/provider.

### **B12 Hydroxocobalamin 2mg / ml (Vitamin B12)**

**1 ml IM every 2 weeks x 4, then monthly**

**Hydroxo- vs Cyano- (hydroxo stays in the body for longer; sometimes Hydroxo- not available)**

## Olympia Weight Loss Kit

(triple treatment medications)

The medications included in your weight loss kit all help to raise hGH levels in slightly different ways, and may provide additional health and weight loss benefits.

### Naltrexone

Low Dose Naltrexone, or LDN, is taken nightly in capsule form throughout the program, ranging in dosage from 1.5 mg to 4.5 mg.

Decreases insulin levels while raising growth hormone levels, helping burn fat and build muscle.

Curbs appetite and reduces cravings for unhealthy foods.

Aids in the reduction of inflammation, which can aid in weight loss for some patients.

### Sermorelin

Sermorelin Acetate, also known as GHRH, is administered nightly subcutaneously.

Mimics the effects of natural hormones to stimulate the production of hGH within the pituitary gland.

Aids in faster recovery from workouts by stimulating new cell growth.

Increases metabolism.

Can be used alone for HGH effects (secretagogue for HgH)

### Lipo-Trim SL

A concentrated oral spray including a combination of amino acids and B vitamins, Lip-Trim SL is used daily under the tongue at a recommended dose of 1 mL, or 6 sprays.

Aids the body in converting fat into energy.

Helps reduce cravings, making maintaining a low-calorie diet easier.

Helps support the immune system.

Sublingual sprays help the body absorb the active ingredients more efficiently than if taken in a pill or capsule.



### Lipo-Trim SL

(as a stand alone treatment)

6 sprays contains: Acetyl Carnitine 100 mg, Methyl B12 1000 mcg, Leucine 10 mg, Arginine 60 mg, Inositol 25 mg, Choline 35 mg, Methionine 2 mg, Betaine 5 mg, B1 0.75mg, Folic acid 80 mcg

Lipo-Trim SL is most commonly used as an adjunctive therapy in combination with other treatment options as opposed to 'just by itself'. If a patient is only trying to lose between 5-10 pounds or is just wanting a maintenance medication after reaching their goal weight, then it might be a reasonable solo treatment option.