



MODERN AMINOS
QUALITY PRODUCTS WITH QUALITY SERVICE

THE MODERN AMINOS MANUSCRIPT: FULL BREAKDOWN ON ALL PRODUCTS DOSING BENEFITS SIDE EFFECTS AND MORE!

**(Nootropics, BAM-15, Injectable ITPP, SARMS,
Peptides, Ancillaries, Amino Blends)**

**SOME OF THESE PRODUCTS MAY BE OUT OF STOCK OR
DISCONTINUED AT THE TIME THESE EBOOK IS RELEASED**

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A PRODUCT OF

Written by: Rick Sanchez

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BEFORE READING

First thank you friends for purchasing the ebook and supporting me. This ebook covers the wide product range of many current offerings at Modern Aminos. Let me make this very clear: I hold no affiliation to Modern Aminos aside from holding an affiliate code.

Please be aware also that the dosing protocols mentioned in here may vary from what you are doing. Some of these compounds have very limited research and so they have a wide range of dosing protocols. Just because your dosing protocol is not mentioned exactly does not mean that is wrong or bad or that my protocol is bad or wrong.

This ebook will cover nearly everything that you need to know about products in the research chemical space.

There are two very popular compounds that are not in this book. Semaglutide and Tirzepatide.

There is a product on Modern Aminos called Modern S3MA while I can not tell you what it is you can piece together what that is.

There is also a product that can only be viewed with a member account called Mdrn TRZ. I think you can also deduce what that compound means.

Finally for any and all customer service questions please email cs@modernaminos.com

WHO IS MODERN AMINOS?

Modern Aminos is an up and coming research chemical company that has proven itself to be an industry leader in quality, innovation, and customer service.

Modern Aminos has separated itself from the pack for a major reason, a few of which I will list below

- 1. Rigorous Third Party Testing:** I am not sure there are any other brands out there that test as much as modern aminos. They are constantly testing products, and making sure that all of them meet their high stands of authenticity, purity, and concentration. The testing results can be [found here](#). If you can not find it then send an email to cs@modernaminos.com
- 2. Diverse Product Offerings:** Modern Aminos has some of the most diverse product offerings on the market. Nootropics, Sarms, Amino Blends, BAM-15, ITPP, it is all there and it is all 3rd party tested and of the highest quality. Chances are that if there is a cutting edge research project Modern Aminos will have it!
- 3. Great Customer Service:** Modern Aminos Prides itself on always helping you to resolve each and every customer service issue.
- 4. Shipping:** Modern Aminos Offers same day shipping when you order before midday, and free shipping on orders \$250 or over.

UNDERSTANDING A COAS (WHAT MAKES A GOOD ONE VS A BAD ONE)

Here is what to Look For In A Good COA



Certificate of Analysis #20395 MODERNQGD935

Modern Aminos
www.ModernAminos.com
cs@modernaminos.com

Sample received: 04/04/24
Analysis conducted: 04/19/24

Product:	BPC-157 5mg	CAS:	137525-51-0
Batch:	N/A	Formula:	C62H98N16O22
Appearance:	White lyophilized powder	Mol Wt:	1419.56 g·mol ⁻¹

Qualitative and quantitative chemical analysis by RP-HPLC with UV detector

	Specification	Result	
Identity:	BPC-157	BPC-157	Conforms
Purity:	>98%	97.653%	0.347%
Quantity:	5mg	4.459mg	-10.8%



Lucas Weber
Lucas Weber
Principal Chemist

COA #20395
access code MODERNQGD935
chromate.org/verify



- 1. The Date:** Make sure the COA is from a recent time period within a year is good as sometimes getting coas done super regularly can be unrealistic due to cost and turn around time so sometimes it can be unrealistic to expect a company to get them done super regularly.
- 2. Identity:** Make the test properly identify the compound.
- 3. Purity:** Make sure to check that the compound is pure, sometimes the compound can be contaminated.
- 4. Quantity:** This one is huge and sometimes missing on COAs that I see proper quantity relates to how much of the compound is present in the capsule or in the liquid.
- 5. Links Back to Testing Website:** You want to make sure the testing results also link back to a reputable testing website like Chromate. When you see test results only posted to the companies website and not the testing website then it could be an indicator of a fake coa. Always make sure that the lab who does the testing backup that they did the testing.

WHAT ARE PEPTIDES?

Peptides are short chains of amino acids linked by peptide bonds, typically consisting of 2 to 50 amino acids. They play a crucial role in various physiological processes, serving as signaling molecules in the body. Unlike proteins, which are longer chains of amino acids, peptides are smaller and often more targeted in their effects. Their specific sequence of amino acids gives them distinct properties and functions, making them highly versatile in therapeutic applications.

WHAT ARE NOOTROPICS?

Nootropics, often called "smart drugs" or cognitive enhancers, are substances that enhance brain function. These can include natural compounds, synthetic drugs, and supplements designed to improve areas like memory, focus, creativity, motivation, and overall cognitive performance. Nootropics can affect various aspects of brain function, including neurotransmitter levels, brain energy metabolism, and neural connections.

WHAT ARE SARMS?

SARMS (Selective Androgen Receptor Modulators) are a class of compounds designed to mimic the effects of anabolic steroids, but with greater selectivity. They target specific androgen receptors in the body, particularly in muscle and bone tissue, without impacting other tissues like the liver or prostate as traditional steroids do. This makes them appealing for those looking to enhance physical performance, increase muscle mass, or improve bone density with fewer side effects than anabolic steroids.

INJECTION PRACTICES FOR PEPTIDES NEEDLE SIZE, RECONSTITUTION, ETC.

Many people ask about what is the best way to inject these compounds.

For most peptides I like to use an insulin syringe of around 29 gauge or 31 gauge the smaller the better. I will typically use a half inch needle for injecting the peptide subq or into muscle. I am a leaner individual so this size needle works for most spots on the body. Due to it being water based it slips through the needle super easy.

For some of the Aminos they are still water based but have more things in them and come at higher concentrations. For these I still like an insulin syringe, but I also find using a 30 gauge detachable needle to be very good because then you can load a syringe up with more compounds.

Here is the peptide calculator that I like the best. If you ever wonder how to reconstitute peptides or how much BAC water to use this calculator here is the best

[PEPTIDE CALCULATOR](#)

PRODUCT GUIDE BEGINS

SARMS/CARDARINE/SR-9009/MENT SECTION

This section will explore sarms, cardarine, SR-9009, and MENT

TRESTOLONE MENT (ENANTHATE AND ACETATE OFFERED)

Link

Enanthate: <https://modernaminos.com/product/trestolone-enanthate-100mg-ml/>

Acetate: <https://modernaminos.com/product/trestolone-acetate-50mg-ml-10ml/>

Code: biohack

WHAT IS IT?

Ment is one of the most powerful AAS on the market. While it still has limited research, its ability to promote fullness, and strength make it a heavy hitter in the AAS world. It belongs to the 19nor family of AAS which also features compounds like tren and deca.

In my eyes MENT is one of the best compounds in the 19 nor family when it comes to mood. Where DECA and Tren make many people moody and emotional, ment can actually greatly improve your mood and give you a euphoria similar to DBOL.

BENEFITS

Benefits of MENT Include

- Increased Rate of Muscle Gain
- Increased Strength in Gym
- Better Mood (slight euphoria for some)
- Insane fullness and pumps
- Increase in appetite
- Some early studies show it may be neuroprotective

SIDE EFFECTS

Side Effects of MENT Include but are not limited too....

- Skewed Lipids
- High Blood Pressure
- Gyno
- High Estrogen levels
- Raised Prolactin Levels
- Sexual Dysfunction (due likely to hormones being out of whack)
- Extreme testosterone suppression

Now the biggest thing is you will get some insane estrogen issues while on MENT. It is likely the best estrogenic anabolic.

Make sure to have your AI ready for this.

DOSING/HOW TO USE

Of course this depends heavily on the ester that you use. If you use an acetate make sure to pin the ment daily. With this faster ester I always pin it before my workout.

With the enanthate you can get away pinning it 2–3 times per week.

Typically with using this compound the dosing breaks down like this (this is per week dosing)

Beginner: 100–150mg per week

Intermediate: 150mg–200mg per week

Advanced 200mg+

SIDE EFFECTS

Side Effects of MENT Include but are not limited too....

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Advanced 200mg+

RAD-140

Link: <https://modernaminos.com/product/rad-140/>

Code: Biohack

WHAT IS IT

Rad 140 is a sarm that was originally designed for hypogonadal men, as a male birth control aid, and potential now as a treatment for females with breast cancer. Safe to say that it has tons of potential benefits.

BENEFITS

Improved Muscle Mass: Rad will definitely help you build a great physique and build muscle. It is an extremely powerful sarm for helping to recomp and build muscle and strength.

Improved Weight Loss: While Rad is not a direct weight loss agent, it will boost metabolism to a point where it can help the user to lose weight. Many users in fact struggle maintaining weight on rad.

Improved Cosmetics and Strength: Rad also improves a users look greatly providing a harder, fuller, and more vascular look. Strength will also go up big time on rad.

Gyno: Early research has shown that rad140 may be helpful in treating some breast cancers for women. This may also help certain males who take it with gyno.

Prostate Health: Some people have also reported their prostate values decreasing on RAD140

Neuroprotective: Early rate studies have shown that RAD may also be neuroprotective for the user.

SIDE EFFECTS

Hair Loss Some users have reported experiencing hair loss while using RAD-140. This side effect is not uncommon with androgenic substances, as they can affect hair follicles, leading to male pattern baldness, especially in individuals who are genetically predisposed to it.

Hormonal Imbalance: RAD-140 can suppress natural testosterone production. Prolonged use without proper post-cycle therapy (PCT) can lead to hormonal imbalances, which may result in symptoms like low libido, mood swings, and muscle loss.

Liver Stress: While SARMS like RAD-140 are often considered less hepatotoxic (harmful to the liver) than some other performance-enhancing substances, there is still a potential risk of liver stress when using high doses or for extended periods. Regular monitoring of liver function is recommended.

Kidney Stress: Some users have reported kidney-related issues while using RAD-140, but more research is needed to determine the extent and causation of these concerns. Staying well-hydrated and monitoring kidney function may be advisable.

Mood Changes: RAD-140 can influence mood and behavior in some individuals. Users have reported mood swings, irritability, and even increased aggression. These psychological side effects can vary from person to person.

Cardiovascular Risks: There are concerns that RAD-140 may have adverse effects on cardiovascular health, such as raising blood pressure and affecting cholesterol levels. These risks should be considered, especially in individuals with pre-existing heart conditions.

Endocrine Disruption: SARMS like RAD-140 can disrupt the endocrine system, potentially leading to irregularities in hormonal signaling, which can have long-term consequences on overall health and well-being.

Gynecomastia: While not as common as with some other androgenic substances, RAD-140 can still potentially lead to gynecomastia (the development of breast tissue in males) due to hormonal imbalances.

Unknown Long-Term Effects: SARMS like RAD-140 are relatively new, and there is limited long-term research on their safety and efficacy. Consequently, there may be unknown side effects or risks associated with prolonged use.

Joint Pain: Another side effect is that it can wreak havoc on your joints leading to a higher risk of injury. Stack with the injectable joint formula to help ease these issues.

DOSING/HOW TO USE:

Rad 140 is a sarm that is powerful enough to where it can be used about an hour before a workout and give the user a huge boost.

Standard dosing is anywhere between 10–30mg per day depending on experience level, but be cautious as it does carry with it a 60 hour half life so it does not have to be dosed everyday. If you do it everyday take this into account with your dosing scheme. Personally I recommend 10mg an hour before your workout everyday.

LGD-4033 (ORAL AND INJECTABLE)

Link: <https://modernaminos.com/product/lgd-4033/>

Code: Biohack

WHAT IS IT

LGD, or Ligandrol, is a synthetic compound that falls into the category of selective androgen receptor modulators (SARMS). SARMS are designed to interact with androgen receptors in the body, primarily in muscle and bone tissues, with the goal of promoting muscle growth and potentially other effects.

LGD was originally developed for medical purposes and is being explored for its potential in treating conditions such as muscle wasting, osteoporosis, and hormone-related issues. Its selective nature was envisioned as a way to stimulate muscle growth without the androgenic side effects associated with traditional anabolic steroids.

BENEFITS

Muscle Growth: LGD has been reported to promote muscle growth and increase lean body mass, making it appealing to those seeking to improve their physique and strength. When it comes to bulking LGD is one of the most powerful bulking sarms someone could use.

Fuller Look: LGD creates a very full and powerful look in the user. It is one of the most watery sarms and similar to DBOL.

Enhanced Recovery: Users have suggested that LGD may aid in post-workout recovery, potentially reducing muscle soreness and allowing for more frequent and intense training sessions.

Fat Loss: LGD may have a slight fat-burning effect, which can contribute to a leaner physique.

Minimal Androgenic Side Effects: Compared to traditional anabolic steroids, LGD is thought to have fewer androgenic side effects, such as hair loss, prostate issues, and virilization in women.

Joint Protection: Due to how watery it makes the user LGD can help to protect the joints from injury. If you have joint issues choosing this over rad will be beneficial

Hair Safe: LGD is also a very hair safe sarm so if you have hair loss this could be a good option for you.

SIDE EFFECTS

Hormonal Imbalance: LGD can suppress natural testosterone production, potentially leading to hormonal imbalances if not used responsibly. Post-cycle therapy (PCT) may be necessary to restore natural hormone levels after using LGD.

Mild Androgenic Effects: While LGD is less androgenic than traditional steroids, some users may still experience mild androgenic effects, such as acne and changes in libido.

Cardiovascular and Metabolic Concerns: There is some concern that LGD may affect lipid profiles and cardiovascular health, including changes in cholesterol levels and blood pressure. Regular monitoring is advisable.

Regulatory and Ethical Considerations: SARMS like LGD are often banned by sports organizations and are considered unethical for use in competitive sports due to their potential performance-enhancing effects.
Water Retention: LGD also puts a lot of water on the user which can cause things like high blood pressure and stress on the heart.

DOSING/HOW TO USE:

LGD should be used between 5–15mg. This sarm is quite powerful and packs a pretty strong punch so make sure to start low and slowly work your way up.

You can run this for about 8–10 weeks if you are keeping an eye on your bloodwork.

INJECTABLE LGD-4033 (KING INJECTABLE SARM)

Modern Aminos: <https://modernaminos.com/product/lgd-4033/>

Code: Biohack

DOSING

Beginner 5–15mg

Intermediate: 20–45mg

Advanced: 50mg

This should be dosed everyday with a test base under it

BENEFITS

In my opinion this is the king of injectable sarms. This is because when it is injected you do not get the bloating effects that you would get with the oral version.

It also does not come with a massive influx in side effects.

This version is stronger all around and does not come with the bloating effects which gives you an amazing aesthetic along with better muscle building, and better pumps.

SIDE EFFECTS

Actually the side effects on this were not super bad. While they were a bit more then the oral I found side effects to be pretty minimal with this and pretty on par with the oral version which is amazing.

S4

Modern Aminos: <https://modernaminos.com/product/s4-50mg-ml/>

Code: Biohack

WHAT IS IT?

S4 is a non-steroidal SARM designed to selectively bind to androgen receptors in the body. Unlike traditional anabolic steroids, SARMs like Andarine aim to provide targeted anabolic effects in muscle and bone tissues with reduced impact on other organs.

S4 operates by selectively binding to androgen receptors in muscle and bone tissues, mimicking the action of endogenous androgens like testosterone. This selective binding triggers anabolic processes, promoting muscle growth and bone density without the androgenic side effects associated with traditional steroids.

BENEFITS

Muscle Growth: S4 has shown promise in promoting muscle growth by selectively targeting androgen receptors in muscle tissues, stimulating protein synthesis.

Strength Enhancement: Users of S4 often report improvements in strength, making it a potential tool for enhancing athletic performance.

Fat Loss: S4 has been associated with fat loss, as it may increase metabolic rate and promote the utilization of stored fat for energy.

Bone Density Improvement: Some studies suggest that S4 may contribute to increased bone density, supporting overall skeletal health.

Improved Mood: S4 also can help with certain mood based issues that users may run into. Unlike other SARMs, S4 actually improves one's mood.

Bodybuilders may incorporate S4 into their regimens for various reasons. It is often used during cutting phases to preserve muscle mass while promoting fat loss. Additionally, S4's reported ability to enhance strength and improve muscle definition makes it appealing for individuals aiming to sculpt a lean and muscular physique.

SIDE EFFECTS

S4 is a more mild sarm but still does come with its own set of side effects.

Vision Disturbances: One notable side effect reported with S4 use is vision disturbances, particularly a temporary yellow tint in vision, which is believed to be associated with the compound's affinity for ocular androgen receptors.

Testosterone Suppression: Like other SARMs, S4 may lead to a mild suppression of natural testosterone production, necessitating post-cycle therapy (PCT) after use.

Potential Androgenic Effects: While SARMs are designed to minimize androgenic effects, some users may experience mild androgenic symptoms such as acne and increased facial hair growth.

Muscle Cramps: Some individuals using S4 have reported muscle cramps as a side effect.

Skewed Lipids: S4 tends to at times skew lipids raising LDL and lowering HDL

Liver and Kidney Stress: S4 has been known to raise liver and kidney values.

DOSING/HOW TO USE

S4 is great at around 25 mg 3 times per day for an 8 week course.

Make sure that you follow your S4 usage up with a proper pct (if you are not on test already) and that when you use the S4 you use it with a test base.

You can also use 50mg of S4 before a workout for a great pre workout boost. Take it about 45 minutes before your workout.

SR 9009 (INJECTABLE)

Link: <https://modernaminos.com/product/sr-9009-sterile-oil-40mg-ml-10ml/>

Code: Biohack

WHAT IS IT?

SR9009, also known as Stenabolic, is a synthetic compound that has garnered attention for its potential impact on metabolism and endurance.

SR9009 is a synthetic compound designed to mimic the effects of exercise on metabolism without the need for physical activity. It belongs to a class of compounds known as Rev-Erb agonists, and its primary focus is on influencing the circadian rhythm and energy metabolism.

SR9009 exerts its effects by binding to Rev-Erb receptors, which play a crucial role in regulating various physiological processes, including the circadian rhythm and metabolism. By activating these receptors, SR9009 is believed to enhance the breakdown of glucose and fatty acids, promoting energy expenditure and influencing the body's overall metabolic rate.

BENEFITS

Increased Endurance: SR9009 is often associated with improved endurance and stamina. By enhancing the utilization of glucose and fatty acids for energy, it may contribute to increased aerobic capacity during physical activities.

Metabolic Effects: SR9009 is believed to influence metabolic processes, leading to increased fat metabolism. This may result in reduced fat storage and improved body composition.

Enhanced Mitochondrial Function: Mitochondria are the energy-producing organelles within cells. SR9009 is thought to stimulate mitochondrial activity, potentially leading to improved cellular energy production and overall vitality.

Potential for Fat Loss: Due to its influence on metabolism and fat utilization, SR9009 has been explored for its potential in promoting fat loss. This has led to interest from individuals seeking to optimize their body composition.

Nootropic Effects: Due to its playing a key role in the sleep/wake cycle, SR9009 can be an excellent nootropic for energy and focus.

Cancer: In early rat and vitro studies, SR9009 may play a beneficial role in certain cancers.

Cardiac Health: SR9009 has also been shown to be very helpful for cardiac health and heart health in general.

SIDE EFFECTS

Potential Disruption of Sleep Patterns: Given SR9009's influence on circadian rhythm, there is speculation that it might impact sleep patterns. However, this aspect requires further investigation.

Limited Human Studies: As of the last available information, there are limited human studies on SR9009. Therefore, potential side effects specific to humans are not yet well-established.

Dosing/How to Use

I really love taking this upon waking. 1 ml which is 30mg works awesome for giving me a natural wake up. The energy I feel is very natural and clean like I just had an amazing nights sleep (even if I did not)

I also like to use a bit more, maybe 10mg after my mid day nap as I find it helps to wake me up naturally. As a cardio booster and fat loss aid it also works great. Since I do my fasted cardio right after waking it gives me great energy physically and mentally to help crush my fasted cardio.

MK677

Link: <https://modernaminos.com/product/mk-677/>

Code: Biohack

WHAT IS IT?

Mk677 is a growth hormone secretagogue that works via the ghrelin receptor to increase and drive up growth hormone levels in the body. Ghrelin is the hormone in the body responsible for increased hunger so with more of this hormone you have more hunger.

BENEFITS

Muscle Growth: MK-677's ability to boost GH and IGF-1 levels can enhance muscle protein synthesis, contributing to increased muscle mass.

Enhanced Recovery: Improved GH secretion aids in faster recovery from workouts, reducing muscle soreness and allowing for more frequent and intense training sessions.

Fat Loss: MK-677 may support fat loss by increasing metabolism and encouraging the body to use stored fat for energy.

Improved Sleep: Some users report better sleep quality while taking MK-677, which is essential for overall recovery and muscle growth.

Joint Health: Increased GH levels can potentially improve joint and connective tissue health, making it easier to handle heavy weights and strenuous workouts.

SIDE EFFECTS

Increased Appetite: While this can be advantageous for bulking phases, it may lead to unwanted weight gain if not controlled.

Water Retention: Some users experience mild water retention, which can affect muscle definition.

Mild Hormonal Changes: In rare cases, MK-677 may affect cortisol and insulin levels, although these changes are generally reversible upon cessation. It can also raise prolactin levels

Blood Sugar Regulation: MK-677 can affect blood sugar levels, making it important for individuals with diabetes to consult a healthcare provider before use.

Dosing/How to Use: Mk677 is most effective when used at a dose of around 20–30mg fasted in the morning. If the appetite suppression becomes too much for you, you can also use it before bed to reduce that side effect. Mk677 can also be used at a smaller dose of 5–10mg for individuals who find it to be too strong or powerful. Dosing multiple times per day is not necessary due to its half life.

YK-11

Link: <https://modernaminos.com/product/yk-11/>

Code: Biohack

WHAT IS IT?

YK-11 operates as a partial androgen receptor agonist, specifically targeting the androgen receptors in muscle cells. By doing so, it aims to stimulate the production of follistatin, a protein associated with muscle growth. The unique dual mechanism of YK-11, acting as both a SARM and a myostatin inhibitor, positions it as a potential powerhouse for muscle enhancement.

Myostatin essentially acts as the rate limiting step in the body for the muscle building process. It is what tells our body to stop producing muscle mass

By getting rid of this it opens you up to building tons of muscle.

BENEFITS

Bodybuilders are drawn to YK-11 for its potential to accelerate muscle growth and strength gains. Its unique mechanism, targeting specific androgen receptors in muscle tissue, distinguishes it from traditional steroids, potentially offering a more targeted approach to muscle development.

Yk-11 is an insane muscle builder due to its multiple pathways it works through.

It should also be noted that Yk does an excellent job at hardening the physique and giving you great vascularity and fullness.

The look on injectable Yk-11 and even oral can only be described in one way. Freaky.

SIDE EFFECTS

While research on YK-11 is ongoing, potential side effects may include hormonal imbalances, liver toxicity, and interactions with other medications.

Yk-11 can also be extremely hard on your joints and lead to significant joint pain.

Yk-11 can also cause aggression and sleep based issues.

Monitoring for adverse reactions is essential, and discontinuing use if side effects persist is recommended. Due to the relative novelty of YK-11, a cautious and informed approach to usage is crucial.

INJECTABLE YK-11

Modern Aminos: <https://modernaminos.com/product/yk-11/>

Code: Biohack

DOSING:

Dosing should be done as a preworkout with a test base. Remember the half life is still short so it may have to be injected multiple times per day.

Beginner: 5-10mg

Intermediate: 15-20mg

Advanced: 20mg+

Make sure to have a proper test base under this and stack it with other sarms

BENEFITS

Aside from LGD-4033, Yk-11 is likely the most powerful injectable SARM. This one makes a lot of sense to pin as I feel the injectable version unlocks its full power. It really has all of the benefits of the oral version, but more ramped up. This is one of the most powerful injectable myostatin inhibitors, sarms, and steroidal structure based compounds.

SIDE EFFECTS

Side effects are the same as oral. The one side effect many people get with this is a splitting headache. I have seen some people unable to use this due to the horrible headaches they get from this.

RAD-150

Link: <https://modernaminos.com/product/rad-150-10mg-ml/>

Code: Biohack

RAD-150 is very similar to the original RAD-150 but it is slightly stronger from user anecdotes, most people say they are very similar though.

The dosing should start at around 10mg per day although it can be raised. I like to take this around 30–45 minutes before the gym and then go train as it gives a great neurological drive and boost.

You can work your way up in the dosing but do be warned there is minimal data on this compound.

It is very similar to RAD-140 so you can expect many of the same benefits and side effects.

Link: <https://modernaminos.com/product/rad-150-10mg-ml/>

Code: Biohack

WHAT IS IT?

The primary purpose of Ostarine's development was to address muscle wasting conditions and support bone health without the androgenic side effects associated with traditional anabolic steroids. It was envisioned as a way to enhance muscle growth and prevent muscle loss in individuals with medical conditions that result in muscle wasting, as well as to improve bone density.

BENEFITS

Muscle Growth: Ostarine has been found to promote muscle growth and an increase in lean body mass, making it appealing to athletes and bodybuilders looking to enhance their performance and physique.

Bone Health: Ostarine may help increase bone density and strength, which could be particularly beneficial for individuals with osteoporosis or those looking to support their skeletal system.

Joint Health: Many people notice improved joint pain and mobility when using ostarine

Mood Boost: Unlike other sarms ostarine tends to put the user in a good and uplifted mood. Whereas other sarms make people aggressive, ostarine tends to make people happy and uplifted.

Improved Cosmetics: Ostarine tends to add a bit of hardness and vascularity to ones physique when using.

SIDE EFFECTS:

Hormonal Imbalance: Ostarine can suppress natural testosterone production, potentially leading to hormonal imbalances if not used responsibly. Post-cycle therapy (PCT) may be necessary to restore natural hormone levels after using Ostarine.

Mild Androgenic Effects: Although Ostarine is less androgenic than traditional steroids, some users may still experience mild androgenic effects, such as acne and changes in libido.

Cardiovascular and Metabolic Concerns: There is some concern that Ostarine may affect lipid profiles and cardiovascular health, including changes in cholesterol levels and blood pressure. Regular monitoring is advisable.

Liver and Kidney Stress: Ostarine also can be stressful on the liver and kidneys depending on the dosage.

DOSING/HOW TO USE:

Typically Ostarine is dosed between 5–20 mg ED. If you are a girl 5mg is a perfect dosage. For males 10–20mg is a good dosing scheme that can be effective.

I also recommend running this for about 8–10 weeks. Start with a lower dose and titrate up if needed as the cycle goes on.

Link: <https://modernaminos.com/product/s23-10mg/>

Code: Biohack

WHAT IS IT?

S23 is a non-steroidal SARM designed to selectively bind to androgen receptors in the body. Unlike traditional anabolic steroids, SARMs aim to provide targeted anabolic effects in muscle and bone tissues while minimizing the impact on other organs.

The primary mechanism of action of S23 lies in its selective binding to androgen receptors in muscle and bone tissues. This selective binding activates anabolic processes, promoting muscle growth and bone density without the androgenic side effects commonly associated with traditional steroids. S23 is particularly unique in its potential to increase bone mineral density, offering benefits beyond muscle development.

BENEFITS

When it comes to cutting SARMs, S23 is the king. Many gear users have even reported struggling to eat enough to fill out on S23. When taking it you can expect extreme hardness, strength increase, and muscle growth, be ready though to flatten out alot.

Muscle Growth: S23 has demonstrated the ability to stimulate anabolic activity in muscle tissues, contributing to increased muscle mass.

Strength Enhancement: Users of S23 often report improvements in strength, providing potential benefits for athletic performance and training intensity.

Bone Density Increase: S23 has shown promise in increasing bone mineral density, promoting skeletal health and potentially reducing the risk of fractures.

Fat Loss: Some studies suggest that S23 may have a positive impact on fat loss, making it of interest to individuals aiming for a leaner physique.

SIDE EFFECTS:

While S23 is one of the most powerful sarms it is also by far one of the most suppressive sarms.

S23 can and while shut you down and turn your sperm into water.

S23 is one of the most side-effect ridden sarms when it comes to liver stress, kidney stress, shutdown, aggression, hair loss, and acne.

Of course a lot of this can be mitigated with the proper ancillaries but do be warned it is not a beginner sarm or a mild sarm by any means.

The joint pain with this can also be quite bad.

DOSING/HOW TO USE

I recommend using S23 for 6–8 weeks (8 can be pushing it as it is super toxic)

I would start at 10mg about an hour before your workout for the first half of the cycle with you tirating up to 25 for the second half of it.

You really need to have a solid test base with this, and if you are not on test a good pct plan of Enclomiphene and Tamoxifen.

You also need a liver protection protocol of TUDCA and NAC when this is on it because it will skew our blood markers.

You can also use this as a preworkout androgen. I like 20mg preworkout 2–3 times per week.

LGD-3033

Modern Aminos: <https://modernaminos.com/product/lgd-3033-10mg/>

Code: Biohack

DOSING

5–10mg per day. This is one of the most powerful sarms. It is like the RAD-140 and LGD-4033 had a baby together so I highly recommend using this product before the gym. Take it about 45 minutes preworkout to have an insane workout. I recommend only using this for a cycle duration of 2–4 weeks due to the side effects

BENEFITS

Like I said, think of this like the fullness of LGD-4033, but also with the hardness and aggression that comes with RAD. Making an insane androgen. It is extremely powerful.

- Increased Strength in gym
- Insane Pumps
- Improves aesthetics by promoting fullness and hardness.
- Aids in Muscle Building
- Less bloating then with LGD-4033
- Improves Muscular Endurance

SIDE EFFECTS

For how strong it is it definitely has its fair share of side effects.

- Liver Toxic
- Kidney Toxic
- Increased Aggression
- Sleep Issues
- Raised Blood Pressure
- Increase in Hair Loss and Acne
- Will skew lipids

These are the main side effects. Be ready for a wild ride with this one.

INJECTABLE LGD-3033

Link Modern Aminos: <https://modernaminos.com/product/lgd-3033-10mg/>

Code: Biohack

DOSING:

Beginner: 10–15mg

Intermediate: 20–25mg

Advanced 25mg+

Dosed every day or 5 days on 2 days off, about 45 minutes pre gym. Do not use near bed as it may cause sleep issues.

This is likely the strongest, most insane sarm so exercise caution when using this. The injectable definitely makes it more stronger and side effect ridden then its oral counterpart which is already insanely strong.

BENEFITS

The benefits are quite similar to oral LGD-3303 which is in my opinion just as strong as normal steroids but ramped up even more. This is a truly powerful androgen that should only be used by advanced users with a test base under them.

SIDE EFFECTS:

The side effects are about the same as the oral counterpart in my opinion they tend to be even more intense especially the aggression.

AC-262

Link Modern Aminos: <https://modernaminos.com/product/lgd-3033-10mg/>

Code: Biohack

DOSING:

I would use AC-262 at around these doses

Beginner: 10mg

Intermediate: 15–20mg

Advanced: 20mg+

This is not the strongest sarm so if you push the dose you likely will not face any crazy side effects with this compound. I think it is best to go to the gym about 45 minutes or so before.

BENEFITS

AC-262 is a more mild sarm, meaning that it does not have tons of side effects. It is comparable for some people to EQ in the sense that it gives lean dry and hard gains for the user.

It is definitely a good sarm to use while on a cut.

SIDE EFFECTS:

While the side effect profile is pretty minimal...

- Insomnia
- Skewed Lipids
- Liver Stress
- Suppression
- Mood Instability
- Minimal Side Effects



PEPTIDES/GLP

This section will dive all into peptides and GLP-1 receptor agonists.

GLUTATHIONE

Link: <https://modernaminos.com/product/glutathione/>

Code: Biohack

BACKGROUND ON GLUTATHIONE

Glutathione is the body's master antioxidant, it is one of the most powerful tools we can use to help control inflammation.

When it comes to detoxification, antioxidants, etc nothing beats glutathione in power, but due its power it must be used cautiously. In this write up we will go over how to properly use this compound and how you can use it without harming yourself.

BENEFITS

Glutathione has so many benefits here are a few key ones...

- Neuroprotection (decreasing neuroinflammation)
- Decreased inflammation
- Increased mitochondrial function
- Cell Repair
- Better Immune Function (really good at making the immune system work well)

SIDE EFFECTS:

This is something that is not discussed enough. Most of these side effects only come with glutathione overusage. So make sure to keep your dosing to a more minimal manner and in the below section I will explain why.

- Imbalance of redox. Sometimes having too much anti-inflammatory action can be negative as inflammation is a key part of many bodily processes
- Overactive immune system: Glutathione overuse can lead to an overactive immune system.
- Glutathione Suppression: There is a school of thought that thinks that glutathione overuse can suppress the body's formation of it similar to how taking exogenous testosterone can suppress the body's testosterone production. This is why it should be used sparingly.

HOW TO USE:

This is where Glutathione is widely misunderstood. The best way to use it in my opinion is to do the following

1 Get it in a lyophilized form: If you get it shipped reconstituted and it is already warm then it probably has gone bad. You must reconstitute yourself then refrigerate immediately.

2 Do Not Over Use It: Personally I will use around 300 mg of Glutathione once per week if that and I take periods of time off completely. Now if I am going through an intense period of inflammation I will raise this to maybe 2-3 times per week for a few weeks. This would be like after I had used a high dosage of an oral.

BPC-157 (ORAL/INJECTABLE)

Before I start with this I want to note the difference. When it comes to injury repair like a tweaked elbow or knee the injectable version is the best. When it comes to GI issues, overall inflammation, and neuroprotective benefits I would lean into the oral version. Despite what some say, the oral version is not useless.

Link: <https://modernaminos.com/product/bpc-157/>

Code: Biohack

WHAT IS IT?

BPC-157 is a synthetic peptide derived from a naturally occurring peptide called Body Protection Compound. It is known for its regenerative properties, particularly in the gastrointestinal system, but it has also shown promise in promoting healing and reducing inflammation throughout the body.

BPC-157 appears to accelerate the healing process by stimulating the formation of new blood vessels (angiogenesis), collagen production, and tissue regeneration. This can be beneficial for bodybuilders dealing with injuries or muscle strains.

BENEFITS

Accelerated Healing: BPC-157 may help speed up recovery from injuries, such as tendon and ligament strains, allowing bodybuilders to return to training sooner.

Reduced Inflammation: By mitigating inflammation, BPC-157 can potentially reduce post-workout soreness and enhance overall recovery.

Improved Joint Health: Some users report improved joint health and reduced pain, making it easier to train with heavy weights and maintain a consistent workout schedule.

Tissue Repair: BPC-157 may aid in repairing damaged muscle tissue, potentially leading to enhanced muscle growth and strength gains.

Gastrointestinal Support: A healthy gut is crucial for nutrient absorption, and BPC-157's positive effects on the gastrointestinal system may indirectly support muscle growth.

Neuroprotective: Many studies have shown that BPC-157 can be neuroprotective and helpful for brain health and function.

SIDE EFFECTS

Injection Site Irritation: Mild irritation or discomfort at the injection site is possible.

Allergic Reactions: While rare, some individuals may experience allergic reactions.

Unknown Long-Term Effects: Because BPC-157 is relatively new, its long-term safety and effects on the body are not fully understood.

DOSING/HOW TO USE

Standardly BPC-157 is used at a dosage at around 200–600 mcg per week in the form of a subq injection. It is typically used in a cycle format and can be used for 4–6 weeks at a time.

It should be pinned subcutaneously at the sight of the injury or as close to the injury as possible. This will greatly increase the effectiveness. Some people say though that you can still just pin it wherever anecdotally I think you can really do it either way and is not the end of the world especially if the injury is in a weird spot.

Orally I like using 500mcg to 1mg. I will run this after stressing out my gut (eating junk food etc) or when I am trying to recover my brain after using stimulants. It seems to help deal with stimulant crashes from adderall. Like the injectable I will usually run it for around 4–6 weeks to help with my issue.

RETATRUTIDE

Link: <https://modernaminos.com/product/retatrutide/>

Code: Biohack

WHAT IS IT?

Semaglutide is likely the least powerful GLP-1 agonist

Tirzepatide is more effective.

Retatrutide being the most powerful triple hormone receptor agonist works through three different pathways.

It agonizes the glucose dependent insulinotropic polypeptide, Glucagon like peptide 1, and the glucagon receptors.

It is most definitely the most powerful GLP-1 agonist today that we have on paper at least and can deliver some amazing benefits.

BENEFITS

Essentially this compound mimics GLP and GIP like tirzepatide but also mimics glucagon, making its effects on appetite suppression, weight loss, and blood sugar even more effective.

Retatrutide is one of the most effective GLP-1 agonists on the market today. Its multiple pathways also leads to it having potentially less side effects than say semaglutide which is only a GLP-1 receptor agonist.

By diversifying the pathways through which the drug exerts its effects you get more benefits and theoretically less side effects.

SIDE EFFECTS

I would say the main side effects here are that this compound will cause GI distress and can severely kill drive and your energy levels. Just like the other GLP-1 drugs this compound can typically cause these issues even if on paper it is supposed to work better.

DOSING/HOW TO USE IT

It is used as a weekly injection subq.

The dosing scheme titrates up starting from 1mg all the way up to 12mg. I recommend titrating up every few weeks or so based on your weight loss.

TB-500

Link: <https://modernaminos.com/product/tb-500-thymosin-beta-4/>

Code: Biohack

WHAT IS IT?

TB-500 is a synthetic version of Thymosin Beta-4, a naturally occurring protein found in human tissues. It is classified as a peptide, which means it consists of a chain of amino acids, the building blocks of proteins. TB-500 is often referred to as a "healing peptide" due to its role in tissue repair and regeneration.

TB500 helps to promote cell migration through its interactions with actin in the cell cytoskeleton. It also helps to promote endothelial and keratinocyte migration. Its ability to modulate actin which is vital for cell building helps to make it an effective healer.

BENEFITS

Benefits of TB-500:

Accelerated Healing: TB-500 can speed up the healing of various injuries, including muscle tears, sprains, and joint problems. This can significantly reduce downtime and get individuals back to their activities more quickly.

Reduced Inflammation: TB-500 exhibits anti-inflammatory properties, which can help minimize inflammation at the site of injury. Reduced inflammation can lead to less pain and discomfort during the recovery process.

Improved Flexibility: By aiding in the repair and regeneration of connective tissues, TB-500 can enhance joint flexibility and overall mobility, making it valuable for athletes and individuals with joint issues.

Muscle Growth Support: Some users report that TB-500 may indirectly support muscle growth by promoting efficient healing and minimizing muscle loss during recovery.

SIDE EFFECTS

Injection Site Reactions: Mild discomfort, redness, or swelling at the injection site may occur, but these side effects are typically temporary.

Allergic Reactions: While rare, some individuals may experience allergic reactions to TB-500, which can include hives, itching, or difficulty breathing. Seek immediate medical attention if these symptoms occur.

Unknown Long-Term Effects: As TB-500 is relatively new, its long-term safety and effects on the body are not fully understood.

DOSING/HOW TO USE IT

TB500 can be administered in a few different manners. Due to its half life it can be dosed with EOD and it can be injected anywhere and not near the injury like BPC-157. A good starting dose is between 1–2 mg per day. You can do an initial loading phase and raise that to 3–4 mg EOD for the first week and then as the injury subsides you can drop to a 1–2 mg EOD dosing schedule.

MELANOTAN-2

Link: <https://modernaminos.com/product/melanotan-2-10mg/>

Code: Biohack

WHAT IS IT?

Melanotan 2 is a synthetic analog of the hormone alpha-melanocyte-stimulating hormone (α -MSH). It is designed to stimulate the body's melanocortin receptors, which play a role in regulating skin pigmentation, among other functions. Melanotan 2 is available in the form of injections or nasal sprays.

Melanotan 2 was initially developed for its potential use in increasing melanin production in the skin, with the aim of providing a protective tan without excessive sun exposure. This was envisioned as a way to reduce the risk of skin damage and skin cancer from UV radiation.

BENEFITS

Tanning: Melanotan 2 can stimulate melanin production in the skin, resulting in a deep and natural-looking tan. This can be appealing to bodybuilders looking to enhance their appearance, particularly before competitions.

Reduced Sun Exposure: By achieving a tan without extended sun exposure, individuals may reduce their risk of skin damage, sunburn, and the associated premature aging of the skin.

Weight Loss: Melanotan 2 also has potential for weight loss by reducing appetite and improving metabolic health. It also can increase red blood cell count which can help to improve exercise and cardio based performance.

Neuroprotective: Early studies have shown that melanotan 2 can be neuroprotective.

Side Effects:

Nausea and Flushing: Some users report experiencing nausea and facial flushing after taking Melanotan 2.

SIDE EFFECTS

Nausea and Flushing: Some users report experiencing nausea and facial flushing after taking Melanotan 2.

Darkened Moles and Freckles: Melanotan 2 may cause the darkening of existing moles and freckles, which could lead to irregular pigmentation on the skin.

Appetite Suppression: Some individuals may experience reduced appetite while using Melanotan 2, which can impact dietary intake.

Unknown Long-Term Effects: There is limited research on the long-term safety of Melanotan 2, so potential long-term risks are not well-understood.

Regulatory and Ethical Considerations: The use of Melanotan 2 for tanning purposes may not be regulated or approved by health authorities, and its use is considered unethical by some due to potential risks and lack of oversight.

DOSING/HOW TO USE:

Melanotan 2 can be used in many ways. I recommend starting the dosage at around 250–300 mcg for EOD for a few weeks to develop a base tan. After this you can use a lower maintenance dosage 1–2 times per week to maintain a tan into winter.

When you use melanotan 2 be careful to not over do it with sun exposure. I recommend only tanning for 20–30 minutes sessions when using it less is more.

Be cautious and also visit the dermatologist regularly when using this to make sure you have no weird moles or spots on you.

CJC-1295

Link: <https://modernaminos.com/product/cjc-1295-dac-5mg/>

No DAC: <https://modernaminos.com/product/cjc-1295-no-dac-2mg/>

Code: Biohack

WHAT IS IT?

CJC-1295 is a synthetic peptide designed to stimulate the release of growth hormone (GH) from the pituitary gland. This makes it particularly appealing to bodybuilders looking to amplify muscle growth and improve overall athletic performance.

At the core of CJC-1295's functionality lies its ability to bind to and activate the growth hormone-releasing hormone receptor (GHRH-R) in the pituitary gland. By doing so, it stimulates the release of growth hormone, fostering an environment conducive to muscle development and recovery. This mechanism makes CJC-1295 an attractive choice for those seeking to optimize their body composition.

BENEFITS

Bodybuilders often turn to CJC-1295 to augment their muscle-building endeavors.

The increased production of growth hormone induced by CJC-1295 can contribute to elevated protein synthesis, enhanced fat metabolism, and improved recovery after intense workouts.

These factors collectively make it a potential ally for individuals striving for peak physical performance.

It also is able to improve skin and hair health as standard growth hormone is able to do.

The other benefit is that with the DAC version it only has to be pinned twice per week .

SIDE EFFECTS

While generally well-tolerated, CJC-1295 may be associated with side effects such as water retention, numbness or tingling, and changes in appetite.

CJC can also raise blood glucose levels which can be negative for health and cause the user to gain excess fat.

Monitoring for any adverse reactions and blood glucose is essential, and discontinuing use if side effects persist is recommended.

As with any performance-enhancing substance, a cautious and informed approach to usage is paramount.

DOSING/HOW TO USE IT

Typically CJC comes in two forms

- DAC Form
- No DAC

DAC is a drug affinity complex that is added to extend the half life.

The total dosing on CJC can go from 1-5mg DAC or no DAC

With DAC you can dose it one to two times per week

With no DAC I recommend pinning everyday.

The more frequently it is pinned the less side effects you gain because it is closer to the body's natural production therefore it is more natural.

With DAC you have to pin it less. Which makes it easier to use but you risk more side effects.

CJC can also be stacked with ipamorelin or another growth hormone secretagogue in the growth hormone pathway for amazing gains.

SEMAX (INJECTION)

Link: <https://modernaminos.com/product/semax-10mg/>

Code: Biohack

WHAT IS IT?

Semax is a synthetic peptide derived from the adrenocorticotrophic hormone (ACTH). Initially developed in Russia for its neuroprotective and cognitive-enhancing properties, Semax is considered a nootropic due to its positive effects on brain function. It is often used to improve memory, cognitive performance, and mental clarity.

How Semax Works in the Body:

Semax primarily affects the brain by modulating several key pathways:

Increases BDNF (Brain-Derived Neurotrophic Factor): Semax stimulates the production of BDNF, which supports neuroplasticity, neuron survival, and synapse formation, leading to improved learning, memory, and cognitive function.

Regulates Neurotransmitters: Semax enhances dopamine and serotonin levels, which are important for mood regulation, focus, and motivation.

Anti-inflammatory Effects: It has been shown to reduce inflammation and oxidative stress in the brain, which can protect neurons from damage and support overall brain health.

Cognitive Enhancement and Neuroprotection: Semax provides neuroprotective effects, protecting the brain from damage due to stress, toxins, or injury, while also improving blood flow to the brain.

BENEFITS

Improves Cognitive Function: Semax enhances memory, learning, and attention, making it popular for those seeking cognitive enhancement, such as students or professionals.

Enhances Mood and Reduces Stress: By increasing dopamine and serotonin levels, Semax can help improve mood and reduce stress and anxiety.

Supports Neuroprotection: Its neuroprotective properties may help reduce the risk of cognitive decline and brain damage caused by oxidative stress, inflammation, or injury.

Boosts Energy and Focus: Semax can help improve mental clarity, focus, and motivation, making it useful during periods of mental fatigue or high demand.

BDNF and Depression: Due to semax being able to raise BDNF there is an argument that it can actually help to aid in helping someone deal with depression.

SIDE EFFECTS?

Headaches: Some users report headaches, possibly due to increased dopamine activity.

Irritability or Nervousness: Rarely, Semax may cause slight irritability or anxiety, especially in higher doses.

Injection Site Irritation: Injecting semax can sometimes cause slight irritation at the site of injection.

Drowsiness or Insomnia: While Semax generally enhances focus and alertness, some users may experience drowsiness or sleep disturbances, especially if taken late in the day.

DOSAGE/HOW TO USE

Typical dosing of Semax can vary alot.

I like using around 400–800 mcg of it per day. Some people go slightly lower up to 1mg some people go slightly lower below 400 mcg but either way what is important is that you stick to a consistent dosing protocol. You must use it regularly to really reap the full benefits of the compound.

Semax can also be stacked with other nootropics like piracetam, selank, and choline to help to create a more effective stack.

PT-141

PT-141 (NASAL/Injectable)

Link: <https://modernaminos.com/product/pt-141-10mg/>

Code: Biohack

WHAT IS IT?

PT-141, also known as Bremelanotide, is a synthetic peptide designed to address sexual dysfunction by targeting pathways in the central nervous system.

PT-141 is a synthetic peptide that acts as a melanocortin receptor agonist. Initially developed to address sexual dysfunction in both men and women, PT-141 stimulates the melanocortin receptors in the central nervous system, influencing pathways related to sexual arousal and desire.

The primary mechanism of action of PT-141 involves its interaction with melanocortin receptors, particularly the MC4 receptor. By activating these receptors in the central nervous system, PT-141 enhances the signaling of pathways associated with sexual arousal and desire. Unlike traditional treatments for sexual dysfunction, PT-141 acts directly on the neurological aspects of sexual response rather than relying on vascular mechanisms.

BENEFITS

The main key here is the massive increase in sex drive. It is nothing like you have felt before. It feels like all you can focus on is sex. It is nuts!

Improved Sexual Arousal: PT-141 has demonstrated efficacy in improving sexual arousal and desire, making it a potential option for individuals experiencing sexual dysfunction.

Treatment of Hypoactive Sexual Desire Disorder (HSDD): PT-141 is being investigated for its potential use in addressing Hypoactive Sexual Desire Disorder, a condition characterized by a persistent lack of interest in sexual activity.

Central Mechanism of Action: Unlike other treatments that focus on vascular or hormonal aspects, PT-141's central mechanism of action may make it a unique and targeted option for certain sexual dysfunction cases.

Improved Erections: Many men who take this also notice an improvement in their erections.

SIDE EFFECTS:

Anhedonia: Some users report anhedonia when using it. This is often when the compound is abused more so than when it is used properly.

Nausea: Nausea is a common side effect reported with PT-141 use, particularly during the initial stages of treatment.

Flushed Skin: Some individuals may experience skin flushing, a temporary reddening of the skin, as a side effect.

Headache: Headaches are another reported side effect associated with PT-141 use.

Increased Blood Pressure: PT-141 may lead to a temporary increase in blood pressure, which is a consideration for individuals with pre-existing cardiovascular conditions.

DOSING/HOW TO USE:

PT-141 I recommend using in a more sparing manner. 2–4 times per month is best. What seems to happen frequently is that the sex can be ruined for future times. Anhedonia and poor sex following PT-141 abuse is a possible issue.

For the injectable anything between 300 mcg all the way up to 2 mg is a good dosing. I would use about 30–45 minutes before bedroom time and this can be stacked with cialis or viagra. I would start low and work your way up. Most people do not need more than 1 mg.

I would also use this with a nausea medication to help deal with nausea.

I also think this can work amazing if you are having issues with your sex life with your partner.

For this protocol each of you take a dose of PT-141, talk about what you like in the bedroom and then try some new things, have some fun and allow it to give you that spark back.

IGF-1 LR3

Link: <https://modernaminos.com/product/igf-lr3-1mg/>

Code: Biohack

WHAT IS IT?

IGFLR3 is a modified version of regular IGF-1. Due to its poor binding to IGF-1 binding proteins it is able to last 120 times longer in the body than standard IGF-1.

So essentially it is a more powerful version of IGF-1. IGF-1 is a polypeptide hormone that is produced in hepatocytes. It has a high binding affinity to the IGF-1R. It plays key roles in somatic cell development, cell differentiation, cortical neuronal activity, and brain development.

IGF-1 is an essential growth factor in the body.

BENEFITS

IGF-LR3 is one of the most powerful compounds that exists. The pumps, and muscle gain you will get from this are absolutely insane.

The benefits are

- Insane pumps in the gym
- Extreme hyperplasia (the production of new muscle cells)
- Decreased myostatin
- Improved fat metabolism.
- One of its best benefits too is its ability to help to bring up lagging body parts as when it is pinned directly into the body part it can help to increase the size of the muscle.

SIDE EFFECTS

The biggest scare with this compound is that if you have existing cancer it can potentially increase how fast the cancer grows in your body, but it will not cause cancer in itself.

DOSING/HOW TO USE

Some people argue that it must be reconstituted with acetic acid instead of BAC water to preserve its half life. Both work but I would say it is a fragile compound so acetic acid is more optimal to preserve it.

A Lot of people in the biohacking world recommend using it with growth hormone and insulin to drive up recovery post workout for some insane gains. These three work together with insane synergy to help to max out your growth pathways. They are not needed but will definitely work amazing together.

A Lot of people also recommend pinning this directly into the muscle you are training or trying to bring up.

I recommend running this for a shorter course of about 2–4 weeks and using it only 1–3 times per week due to the insane power of it.

Use sparingly and use with caution.

Some people also argue pre workout is better too, to drive up performance, and I also agree with that. When you use it pre workout it makes for an insane workout. It really comes to determining what you as an athlete need more of performance or recovery. Luckily due to the long half life of it, if pinned preworkout it still can play into post workout recovery.

When it comes to dosage I personally like using about 150mcg pre workout and 150mcg post workout with some growth and insulin. Be careful to not push yourself to go hypo.

AOD-9604

Link: <https://modernaminos.com/product/aod-9604-5mg/>

Code: Biohack

WHAT IS IT?

AOD9604 is a peptide fragment derived from the human growth hormone (HGH) molecule, specifically from the region responsible for fat metabolism. This synthetic peptide has gained attention for its potential role in weight management and body composition improvement.

AOD9604 is a peptide consisting of 177 amino acids, derived from the C-terminus of the human growth hormone. It is designed to mimic the fat-burning effects of HGH without affecting growth or insulin levels. AOD9604 is often considered a targeted approach to fat reduction.

AOD9604's mechanism of action revolves around its ability to stimulate the breakdown of stored fat and inhibit the formation of new fat cells. It does so by mimicking the natural lipolytic processes influenced by human growth hormone. AOD9604 primarily targets adipose (fat) tissue, promoting the release of stored fatty acids for energy utilization.

BENEFITS

Fat Metabolism: AOD9604's primary benefit lies in its ability to enhance fat metabolism. By encouraging the release of stored fat, it supports the body in utilizing these fatty acids for energy, potentially leading to fat loss.

Selective Action: Unlike some weight-loss interventions, AOD9604's action is targeted specifically at adipose tissue. It avoids influencing other tissues or organs, reducing the risk of systemic side effects.

Improved Lipid Profile: Some studies suggest that AOD9604 may contribute to an improved lipid profile by reducing levels of circulating fats, such as triglycerides. This effect could be beneficial for cardiovascular health.

Potential for Lean Body Mass Preservation: While AOD9604 is primarily associated with fat loss, some studies propose that it may have a sparing effect on lean body mass during weight loss, helping individuals maintain muscle mass.

SIDE EFFECTS

Injection Site Reactions: Users may experience mild irritation or discomfort at the injection site. Proper injection technique and site rotation can help minimize this effect.

Rare Allergic Reactions: While uncommon, individuals may be sensitive to AOD9604, potentially leading to allergic reactions. Any signs of itching, rash, or swelling should be promptly addressed.

DOSING/HOW TO USE:

AOD9604 must be used cautiously. If you do not fast properly it will not be effective

My AOD-9604 dosage would range between 200–400 mcg per day. Again this compound is pretty benign so you can go up in dosage and not face too many side effects.

I like pairing it with the largest fasting window possible, not eating before or after for a few hours. The two best times I would take it are after dinner (about 2 hours after) in the middle of the night then upon waking. I would not eat for 3–4 hours after using it. Sometimes I would wake up early, take it and go back to sleep to make the fasting window even longer.

SERMORELIN

Link: <https://modernaminos.com/product/sermorelin-5mg/>

Code: Biohack

WHAT IS SERMORELIN?

Sermorelin is a synthetic peptide that mimics the action of growth hormone-releasing hormone (GHRH), stimulating the pituitary gland to naturally produce and release growth hormone (GH). Unlike direct growth hormone injections, sermorelin triggers the body's own GH production, making it a more regulated and physiologically aligned option.

How Sermorelin Works in the Body

Sermorelin binds to GHRH receptors in the pituitary gland, prompting it to release more growth hormone. The increased GH then acts on tissues throughout the body, stimulating the production of insulin-like growth factor 1 (IGF-1) in the liver. IGF-1 is responsible for many of the anabolic and restorative effects of growth hormone, such as tissue repair, muscle growth, and fat metabolism.

BENEFITS OF SERMORELIN

While generally well-tolerated, sermorelin can have some side effects, including:

- **Injection Site Reactions:** Redness, pain, or swelling at the injection site is a common reaction.
- **Flushing:** Some users report a feeling of warmth or redness in the face after injection.
- **Headaches:** Increased growth hormone production can occasionally lead to headaches.
- **Dizziness or Nausea:** Some individuals may experience dizziness or nausea after taking sermorelin.
- **Water Retention:** Sermorelin may cause slight fluid retention, although this is less common compared to direct GH use.

COMMON DOSING PROTOCOL

The typical sermorelin dosing protocol involves subcutaneous injections, usually at night, to mimic the body's natural GH release, which occurs during deep sleep.

- **Starting Dose:** 200–500 mcg per day is common, depending on individual goals and responses.
- **Duration:** Sermorelin is often administered for extended periods (e.g., 3–6 months) to achieve noticeable results, as it works gradually to stimulate natural GH production.
- **Administration Timing:** Since growth hormone release peaks during sleep, it's often recommended to inject sermorelin before bedtime on an empty stomach.

DELTA SLEEP INDUCING PEPTIDE (DSIP)

Link: <https://modernaminos.com/product/dsip-5mg/>

Code: Biohack

WHAT IS IT?

Delta Sleep Inducing Peptide (DSIP) is a naturally occurring neuropeptide that has been studied for its role in promoting sleep, specifically deep sleep (slow-wave sleep or delta sleep). It was first discovered in the brain tissue of rabbits in the 1970s and has since been researched for its potential impact on sleep regulation and a variety of other physiological functions.

DSIP is a short peptide composed of nine amino acids and is thought to influence sleep patterns, particularly the initiation of deep sleep. It is unique because it acts on various

regulatory pathways in the brain that impact the body's sleep-wake cycle, pain perception, and stress response.

How DSIP Works in the Body:

- **Sleep Regulation:** DSIP's primary role is associated with promoting delta-wave sleep, which is the deepest, most restorative stage of the sleep cycle. It modulates the activity of several neurotransmitters, including serotonin, GABA, and norepinephrine, which are all involved in sleep regulation.
- **Regulation of Hormones:** DSIP may impact the secretion of certain hormones, such as corticotropin (ACTH) and luteinizing hormone (LH), suggesting a role in regulating stress and reproductive hormone balance.
- **Antioxidant and Stress-Reducing Effects:** Some studies indicate that DSIP may help reduce oxidative stress and modulate the body's stress response, potentially lowering levels of stress-related hormones like cortisol.

BENEFITS OF DSIP:

- **Promotes Deep Sleep:** DSIP is primarily used for improving sleep quality, especially for individuals who struggle with deep sleep disturbances. It is thought to promote restful sleep without the sedative effects seen in other sleep aids.
- **Reduces Insomnia:** DSIP can help with certain forms of insomnia, particularly those related to difficulty falling into deep sleep.
- **Potential Stress Reduction:** DSIP has been shown to help reduce the body's stress response by lowering cortisol levels, which can also contribute to better sleep and overall relaxation.
- **May Aid in Pain Relief:** There is some evidence suggesting that DSIP may modulate pain perception, potentially reducing chronic pain in certain individuals.
- **Helps with Growth Hormone Release:** DSIP may promote the release of growth hormone, which is critical for recovery and muscle repair during sleep.

POTENTIAL SIDE EFFECTS:

While DSIP is generally well-tolerated, some potential side effects have been noted, though they are relatively mild and rare:

- **Fatigue or Drowsiness:** Some users may experience excessive daytime drowsiness if the dosage is too high.
- **Headache:** Mild headaches have been reported by some users after administration.
- **Nausea:** Gastrointestinal discomfort such as nausea has occasionally been noted.

COMMON DOSING PROTOCOL:

DSIP is usually administered via subcutaneous injection. Now everyone will have a different dosing protocol and it is important to remember that this peptide will not really help you fall asleep but more so help make the sleep you do get super good.

- **Dose:** A typical dose ranges from 100 mcg to 500 mcg, taken before bedtime. Many users start at the lower end (100 mcg) to assess tolerance and gradually increase the dose as needed.
- **Frequency:** I would say to use DSIP a few times a week on days where you are really focused on recovery and repair. You can use it more as well but make sure to give your body a break from it.
- **Cycle Duration:** Most users cycle DSIP, typically using it for 2–4 weeks followed by a break of 1–2 weeks. This break helps reset the body and allow it get back to normal. I would not recommend staying on indefinitely as it may negatively impact your natural sleep if you are overexposed to it.

IPAMORELIN

Link: <https://modernaminos.com/product/ipamorelin-5mg/>

Code: Biohack

WHAT IS IT?

Ipamorelin is a synthetic peptide consisting of five amino acids, which are the building blocks of proteins. It is specifically designed to stimulate the secretion of growth hormone (GH) from the pituitary gland. Unlike other growth hormone-releasing peptides, Ipamorelin does not significantly affect the levels of cortisol or prolactin, which are hormones that can have undesirable side effects. It exerts its effects through the ghrelin receptor

Ipamorelin was developed primarily for its potential in promoting growth hormone release, which is essential for normal growth and development. In a medical context, it has been explored for conditions related to growth hormone deficiency, muscle wasting, and age-related changes in body composition.

While it does have to be pinned more often it is cleaner than something like Mk677 in my opinion when it comes to its side effect profile.

BENEFITS OF DSIP:

Stimulation of Growth Hormone: Ipamorelin can stimulate the body's natural production of growth hormone, which can promote muscle growth, repair, and overall recovery. This makes it appealing for bodybuilders aiming to maximize their training results.

Fat Loss: Growth hormone has a role in regulating metabolism and can contribute to fat loss. Bodybuilders using Ipamorelin may experience improvements in body composition with a reduction in body fat.

Enhanced Recovery: An increase in growth hormone levels can accelerate muscle recovery, potentially allowing for more frequent and intense training sessions.

Better Hair and Skin Health: With the increase in growth hormone in the body you can expect stronger and thicker hair, and better skin.

Minimized Side Effects: Unlike some other growth hormone-releasing compounds, Ipamorelin's selective action on the pituitary gland minimizes the risk of undesirable side effects, such as changes in cortisol levels or excessive prolactin production.

SIDE EFFECTS:

Hunger and Appetite: Ipamorelin may stimulate hunger and increase appetite in some individuals, which can lead to weight gain if not managed.

Injection Site Reactions: Users may experience redness, itching, or swelling at the injection site, though these effects tend to be mild and temporary.

Tolerance: Over time, the body may develop some level of tolerance to Ipamorelin's effects, necessitating adjustments to dosing.

Regulatory and Legal Considerations: The use of Ipamorelin and other growth hormone-releasing peptides may be regulated in some regions, and it's important to be aware of legal and ethical considerations, especially in competitive sports.

Increased Blood Glucose Levels: Ipamorelin also can raise blood glucose levels in the body which can lead to worse metabolic health and less

DOSING/HOW TO USE:

Ipamorelin has a very short half life and must be pinned multiple times per day. You will need to pin around 200–300 mcg per shot. This dose can be raised or lowered by about 100 mcg but due to its short half life. It will have to be pinned 2–3 times per day.

Ipamorelin can be run for 12–16 weeks at a time and is often paired with something like CJC to help create a synergistic effect.

MOTS-C

Link: <https://modernaminos.com/product/mots-c-10mg/>

Code: Biohack

WHAT IS IT?

MOTS-C, short for Mitochondrial-Derived Peptide-C, is a lesser-known but increasingly researched peptide with potential implications for various aspects of health, including metabolic function and energy regulation.

MOTS-C is a small mitochondrial-encoded peptide that is part of the broader family of mitochondrial-derived peptides. It is involved in the regulation of metabolism and energy balance, playing a role in cellular processes related to mitochondrial function.

MOTS-C primarily exerts its effects by interacting with cellular pathways associated with metabolism and energy regulation. It enters the cell and targets specific receptors, influencing various processes within the mitochondria. One key aspect of its mechanism is its involvement in the activation of AMP-activated protein kinase (AMPK), a cellular energy sensor. Activation of AMPK helps regulate cellular energy levels, impacting metabolic processes such as glucose and lipid metabolism.

BENEFITS OF DSIP:

Metabolic Regulation: MOTS-C is linked to the regulation of metabolism, with a particular emphasis on glucose and lipid metabolism. It may contribute to maintaining optimal energy balance within cells.

Mitochondrial Function: As a mitochondrial-derived peptide, MOTS-C plays a role in supporting and maintaining mitochondrial function. Healthy mitochondrial function is crucial for energy production and overall cellular vitality.

Potential for Improved Insulin Sensitivity: Some studies suggest that MOTS-C may have a positive impact on insulin sensitivity, which is essential for the proper regulation of blood sugar levels.

Exercise Mimetic Effects: MOTS-C has been described as having exercise mimetic effects. This implies that it may induce cellular responses similar to those observed during physical exercise, potentially offering benefits related to fitness and metabolic health.

SIDE EFFECTS:

As of now we have very limited data on the side effect profile of MOTS-C. Injection site related issues have occurred. This is not to say that there are no side effects, but what it does mean is that we just may not have found them yet.

DOSING/HOW TO USE:

The dosing protocols do vary but many recommend

I would also recommend pairing it up with some sort of NAD or NAD precursor as this improves its efficacy alot.

There is a wide variety in dosing protocols but here are a few of the core ones that I like.

- 2–3mg 3 times per week
- 5–8mg 3 times per week
- 10mg 3 times per week

Some people will also do one of the above doses then do a once per week maintenance dose of around 5–10mg.

Usually people do 4–5 weeks on then a break of the same time they were on.

With all dosing protocols I would start low and then slowly work your way up. Assess what works best for you and if you can handle the lower dosage then work your way up slowly.

GHK-CU (INJECTABLE)

Link: <https://modernaminos.com/product/ghk-cu/>

Code: Biohack

WHAT IS IT?

GHK-Cu (Glycyl-L-histidyl-L-lysine copper) is a naturally occurring peptide that binds to copper ions, forming a complex known for its regenerative and healing properties. It was first discovered in human plasma and has since been recognized for its various roles in tissue repair, inflammation reduction, and anti-aging. The peptide's ability to promote skin and tissue regeneration has made it popular in both medical and cosmetic settings.

How GHK-Cu Works in the Body:

GHK-Cu is a **signaling peptide**, meaning it can bind to cells and trigger various biological responses. Its primary mechanism involves binding to copper ions, a mineral critical for numerous biological processes like collagen synthesis, wound healing, and immune function. Once GHK-Cu enters the bloodstream, it can:

- Promote collagen and elastin production: These are essential for skin and tissue repair, giving GHK-Cu its anti-aging and healing properties.
- Stimulate wound healing: By promoting the production of new blood vessels (angiogenesis) and reducing oxidative stress, it accelerates tissue repair.
- Anti-inflammatory effects: GHK-Cu reduces the production of pro-inflammatory cytokines, helping to lower inflammation and aid in healing processes.
- Antioxidant activity: The peptide enhances the body's antioxidant defenses, protecting cells from damage caused by free radicals.

BENEFITS OF GHK-CU:

- **Skin Rejuvenation:** GHK-Cu is widely recognized for improving skin elasticity, reducing wrinkles, and promoting a youthful appearance by stimulating collagen production.
- **Wound Healing:** Its ability to accelerate tissue repair makes it effective for healing wounds, cuts, and even burns.
- **Anti-Inflammatory Effects:** GHK-Cu reduces inflammation, helping manage chronic inflammation-related conditions and speeding up recovery after injury.
- **Hair Growth:** GHK-Cu has been shown to stimulate hair follicle proliferation, potentially reversing hair loss and improving scalp health.
- **Muscle and Tissue Repair:** Athletes and those recovering from surgery or injury use GHK-Cu for its role in speeding up muscle and tissue recovery.

SIDE EFFECTS OF GHK-CU:

GHK-Cu is generally well-tolerated, especially when used in proper dosages. However, as with any injectable treatment, there are some potential side effects:

- **Skin Irritation:** Some individuals may experience irritation at the injection site, such as redness, swelling, or tenderness.
- **Allergic Reactions:** Though rare, allergic reactions like itching, rash, or hives may occur.
- **Copper Overload:** Because GHK binds to copper, excessive or prolonged use might lead to copper accumulation in the body, which can result in toxicity. Symptoms of copper overload include fatigue, mood swings, and digestive issues.

COMMON DOSING PROTOCOL FOR INJECTING GHK-CU:

When GHK-Cu is injected, it is typically administered subcutaneously (under the skin) or intramuscularly, depending on the intended purpose. The dosing can vary based on individual needs and treatment goals, but a common protocol involves:

- **Dosage:** 1–2 mg injected once daily or every other day. You can raise this to 3–4 mg or lower up to 500 mcg depending on your goals and needs.
- **Cycle Length:** GHK-Cu is often used in cycles ranging from 4 to 6 weeks for skin rejuvenation or tissue repair, followed by a break period.

HGH-FRAG 176-191

Link: <https://modernaminos.com/product/hgh-frag-176-191-5mg/>

Code: Biohack

WHAT IS IT?

HGH Frag 176-191 is a synthetic peptide fragment derived from human growth hormone (HGH). Specifically engineered for its lipolytic properties, this peptide is of particular interest to bodybuilders seeking effective fat loss while preserving lean muscle mass.

The unique mechanism of action of HGH Frag 176-191 revolves around its ability to target and stimulate lipolysis, the breakdown of fat. Unlike the full-length HGH, which primarily promotes muscle growth, this fragment focuses on accelerating the process of fat metabolism. By doing so, HGH Frag 176-191 enables individuals to achieve targeted fat loss without affecting other aspects of growth hormone function.

BENEFITS OF DSIP:

Bodybuilders often turn to HGH Frag 176-191 to enhance their cutting phases, as its selective action on fat cells aligns with the goal of reducing body fat percentage while preserving lean muscle mass. This makes it an attractive option for those aiming to sculpt a defined and aesthetic physique.

HGH Frag being the isolated sequence of growth hormone allows for all the fat burning benefits of growth hormone without the side effects that come with standard growth hormone.

SIDE EFFECTS:

While generally considered safe, HGH Frag 176-191 may be associated with side effects such as headaches, increased hunger, or transient redness at the injection site. Monitoring for adverse reactions is essential, and discontinuing use if side effects persist is recommended. Users should approach its usage with a balanced perspective, weighing potential benefits against individual tolerances.

DOSING/HOW TO USE:

HGH Frag 176-179 must be used carefully

You must create a large fasting window when using this. I recommend not eating for about 4 hours before and 4 hours after when using this. Any food will ruin this peptide's effects.

Dosing can range from 100-500 IU. It can also be used pre-bed if you wait a few hours after eating your last meal.

The key with this is to create a large fasting window! If you do not do this it will not work.

SELANK

Link: <https://modernaminos.com/product/selank-10mg/>

Code: Biohack

WHAT IS IT?

Selank is a synthetic peptide derived from the naturally occurring human tetrapeptide tuftsin, which is involved in immune regulation. Selank is primarily known for its nootropic and anxiolytic (anti-anxiety) properties. It is classified as a heptapeptide (seven amino acids) and has been developed as a potential therapeutic for anxiety, depression, and cognitive enhancement.

HOW SELANK WORKS IN THE BODY:

Selank works by influencing neurotransmitters in the brain. Selank has been shown to manipulate certain genes relating to GABA. In fact selank has been shown to have similar effects to other anti anxiety medications.

Key mechanisms include:

- **Modulation of BDNF:** Selank has also been shown to help promote higher BDNF levels.
- **Inhibition of Enkephalinase:** This helps preserve natural enkephalins, which are involved in reducing stress and anxiety.

Immune Function: It can help modulate immune responses, potentially boosting the immune system by promoting anti-inflammatory effects.

BENEFITS:

- 1. Reduces Anxiety and Stress:** Selank is known for its strong anxiolytic effects, reducing symptoms of anxiety without the sedative effects common with other anti-anxiety medications.
- 2. Enhances Cognitive Function:** It can improve memory, learning, and mental clarity, making it a popular nootropic.
- 3. Improves Mood:** By affecting serotonin levels, Selank has mood-enhancing properties, potentially benefiting those with depression or mood disorders.
- 4. Boosts Immune Function:** Selank can modulate the immune response, helping the body deal with stress and inflammation more effectively.

SIDE EFFECTS OF SELANK:

Selank is generally well-tolerated with minimal side effects, especially compared to traditional medications used for anxiety or cognitive enhancement. However, some potential side effects include:

- **Irritation at Injection Site:** Some users may experience mild irritation, redness, or discomfort at the injection site.
- **Mild Headaches:** Rarely, some users report mild headaches after administration.
- **Possible Fatigue:** In some cases, individuals may experience mild drowsiness or fatigue after use.
- **Allergic Reactions:** Although rare, there is always the potential for an allergic reaction to any peptide.
- **Possible for Addiction:** Due to selank modulating GABA there is a slight risk of addiction so be cautious and make sure to not overuse.

COMMON DOSING PROTOCOL FOR INJECTED SELANK:

When used via subcutaneous injection (the most common method for peptide administration), Selank dosing can vary based on individual needs and response. A typical dosing protocol includes:

- **Dosage:** 250 mcg to 1 mg per injection.
- **Frequency:** 1 to 3 times per week, depending on the desired effect (higher doses may be used for more acute issues like anxiety, while lower doses can be used for general cognitive enhancement).
- **Administration:** Subcutaneously (into the fatty tissue under the skin) in areas such as the abdomen.
- **Duration:** I would be careful in the overuse of this compound as like I said above it could cause downregulation of GABA receptors. It is not widely reported but it is a risk to be aware of.

PEG-MGF

Link: <https://modernaminos.com/product/peg-mgf-2mg/>

Code: Biohack

WHAT IS IT?

Pegylated Mechano growth factor is a version of MGF that has been modified to give it a longer half life. MGF is derived from IGF-1

MGF plays crucial roles in recovery and healing in addition to growing new muscle tissue and fibers.

BENEFITS:

Prolonged Activity: One of the primary advantages of PEG MGF is its extended half-life compared to native MGF. The addition of polyethylene glycol helps to prolong its activity in the body, allowing for a sustained release and potentially enhancing its effectiveness.

Enhanced Muscle Growth:

Similar to native MGF, PEG MGF plays a crucial role in stimulating muscle growth and hypertrophy. It does so by promoting the repair and regeneration of muscle fibers, leading to an increase in muscle mass.

Improved Muscle Recovery: PEG MGF contributes to faster muscle recovery by accelerating the repair of damaged muscle tissues. This is particularly beneficial for individuals engaged in intense physical training or activities that induce muscle stress.

Stimulation of Satellite Cells: PEG MGF, like native MGF, activates satellite cells, which are essential for the regeneration of muscle tissue. This activation supports the proliferation and differentiation of satellite cells into new muscle cells, facilitating muscle repair.

Localized Effects: PEG MGF exhibits localized effects within muscle tissue. This specificity allows it to target and enhance the growth and repair processes directly where it is administered.

Increased Protein Synthesis: PEG MGF stimulates protein synthesis, contributing to the building of new proteins necessary for muscle growth and maintenance. This increase in protein synthesis is fundamental for the development of larger and stronger muscles.

Anti-Catabolic Effects: PEG MGF has been associated with anti-catabolic effects, meaning it may help prevent muscle breakdown. This can be particularly beneficial in situations where there is an increased risk of muscle catabolism, such as during periods of intense training or calorie restriction.

Potential for Enhanced Endurance: Some research suggests that PEG MGF may have potential benefits for endurance athletes by promoting muscle adaptation to exercise-induced stress. This could contribute to improved endurance and performance over time.

Heart Muscle Repair: PEG was found to help promote health and survival of cardiac cells in cases of heart damage.

Neuroprotective: PEG MGF may also help with neurodegeneration.

Increased Osteoblast production: Peg has been shown to dramatically help with bone repair and growth. It also is effective at helping cartilage heal.

SIDE EFFECTS:

- Increased water retention (bloating)
- Hypoglycemia
- Rapid heart rate
- Increased blood pressure
- Do not use it if you have pre existing tumors.

DOSING/HOW TO USE:

Many people believe in using PEG MGF before an IGF-1 cycle because PEG helps to “prime the body” for IGF-1 by proliferating stem cells.

The standard dosing is between 200–500 mcg and it is best served in my opinion at least in a post workout setting for recovery. It is often times pinned directly into the muscle you are trying to grow so if is your chest you would pin it after your chest workouts

Due to its long half life it does not have to be pinned daily. 2–3 times per week should easily suffice.

KPV

Link: <https://modernaminos.com/product/kpv-10mg/>

Code: Biohack

WHAT IS IT?

KPV is a short peptide composed of three amino acids: lysine, proline, and valine. It is known for its potent anti-inflammatory and healing properties. KPV is naturally found in the alpha-melanocyte-stimulating hormone (α -MSH) and is involved in modulating inflammatory responses in the body. It can be administered either via injection or taken orally, with both methods offering distinct therapeutic benefits.

HOW KPV WORKS IN THE BODY:

KPV acts primarily by reducing inflammation and promoting tissue healing. It interacts with the melanocortin receptors in the body, which are involved in controlling immune responses and inflammation. By binding to these receptors, KPV:

- **Reduces Inflammation:** KPV downregulates pro-inflammatory cytokines, such as TNF- α and IL-6, thereby decreasing inflammation in the body.
- **Promotes Healing:** It enhances tissue repair by facilitating cellular regeneration and reducing inflammation at the site of injury or damage.
- **Antimicrobial Properties:** KPV also exhibits antimicrobial activity, helping to reduce infections, particularly in inflammatory conditions such as inflammatory bowel disease (IBD) and skin-related disorders.

BENEFITS OF KPV:

1. **Anti-Inflammatory Effects:** KPV is effective in managing inflammatory conditions, including Crohn's disease, ulcerative colitis, and other gut-related disorders. It also reduces systemic inflammation that can affect other organs and tissues.
2. **Wound Healing:** Due to its anti-inflammatory and regenerative properties, KPV can accelerate the healing of wounds, injuries, and skin conditions like eczema or psoriasis.
3. **Gut Health:** KPV is highly effective in reducing gut inflammation, particularly in cases of inflammatory bowel diseases like Crohn's and colitis, making it a strong candidate for improving gut integrity.
4. **Antimicrobial Action:** It can help combat infections due to its antimicrobial effects, which are beneficial for both skin conditions and gut health.

SIDE EFFECTS OF KPV

KPV is generally considered safe and well-tolerated, with minimal side effects. However, potential side effects may include:

- **Injection Site Reactions:** When administered via injection, some users may experience mild irritation, swelling, or redness at the injection site.
- **Digestive Issues:** When taken orally, some users may report mild gastrointestinal discomfort, though this is rare.
- **Allergic Reactions:** Although uncommon, individuals with sensitivities to peptides may experience allergic reactions.

KPV is relatively safe with no known severe adverse effects when used in moderate doses. However, as with any peptide therapy, it's important to consult a healthcare provider before starting.

COMMON DOSING PROTOCOL:

(Injected KPV (Subcutaneous or Intramuscular))

- **Dosage:** A common starting dose for KPV injections is 200–300 mcg (micrograms) per day, which can be increased based on individual tolerance and therapeutic response. Some protocols may go as high as 500 mcg to 1 mg daily, depending on the condition being treated.
- **Frequency:** Injected KPV is usually administered once daily, but for more acute conditions, it may be used 2–3 times per day for a limited period.
- **Administration:** It is typically injected subcutaneously (under the skin) into areas with fat, such as the abdomen or thigh.

ORAL KPV

- **Dosage:** Oral doses are usually higher due to reduced bioavailability compared to injections. A typical dose ranges from 500mcg to 2mg per day.
- **Frequency:** Oral KPV can be taken once or twice daily, depending on the dosing schedule.

MGF (IGF-1EB)

Link: <https://modernaminos.com/product/mgf-2mg/>

Code: Biohack

WHAT IS IT?

MGF (Mechano Growth Factor) is a variant of the insulin-like growth factor 1 (IGF-1) that plays a critical role in muscle repair and growth. It is naturally produced in the body in response to muscle damage or intense physical activity. This peptide has garnered interest for its ability to promote localized muscle recovery and regeneration, making it a popular choice in the world of performance enhancement and bodybuilding.

How MGF Works in the Body:

MGF is produced in response to mechanical overload or muscle damage (such as from exercise), and it activates satellite cells in the muscles. Satellite cells are muscle stem cells that repair and grow muscle fibers. MGF triggers the proliferation of these satellite cells, which is necessary for muscle repair and hypertrophy (growth).

Key mechanisms include:

Muscle Repair and Regeneration: MGF facilitates muscle recovery by activating satellite cells, which helps in repairing damaged muscle tissue and promoting muscle growth.

Localized Muscle Growth: Unlike systemic IGF-1, MGF works locally within the muscle where it is produced. This makes it particularly effective at targeting specific areas of muscle for repair and growth.

Increased Protein Synthesis: MGF can enhance protein synthesis, allowing for faster muscle recovery and greater gains in muscle size.

BENEFITS OF MGF

- **Accelerated Muscle Recovery:** MGF speeds up the recovery process following intense workouts by boosting muscle repair mechanisms.
- **Enhanced Muscle Growth:** Through satellite cell activation and increased protein synthesis, MGF helps in the development of new muscle fibers and promotes hypertrophy.
- **Improved Injury Recovery:** MGF may help heal injured muscles, tendons, and ligaments by facilitating tissue regeneration.
- **Localized Effect:** Because MGF works at the site of muscle damage, it provides targeted repair and growth without affecting other parts of the body as much as systemic growth factors like IGF-1.

SIDE EFFECTS OF MGF:

- **Injection Site Pain:** Since MGF is often injected directly into the muscle, some users may experience localized pain or irritation at the injection site.
- **Temporary Fatigue:** Some users report a feeling of tiredness or lethargy after administration.
- **Potential Growth of Unwanted Tissue:** Like other growth factors, MGF could potentially stimulate unwanted tissue growth if not used properly.
- **Hormonal Disruption:** Long-term use of MGF or improper dosing could potentially lead to imbalances in growth hormone (GH) or IGF-1 levels.

PEG-MGF VS. MGF:

PEG-MGF (Pegylated Mechano Growth Factor) is a modified version of MGF. The primary difference between MGF and PEG-MGF lies in their half-lives:

- **MGF** has a very short half-life, lasting only minutes in the bloodstream. As a result, it is less stable and must be administered frequently for maximum effectiveness.
- **PEG-MGF** is modified with polyethylene glycol (PEG), which extends its half-life to several hours. This modification allows it to circulate in the body for a longer time, making it more stable and potentially more effective over extended periods.

KEY DIFFERENCES:

Duration: MGF acts quickly and briefly, while PEG-MGF provides a more sustained release.

Administration Frequency: MGF needs to be administered more frequently (often post-workout), while PEG-MGF requires less frequent dosing due to its prolonged activity.

Localized vs Systemic Effect: MGF tends to be more localized in its effect, while PEG-MGF may have a more systemic influence due to its extended circulation time.

COMMON DOSING PROTOCOL FOR MGF AND PEG-MGF:

MGF Dosing:

- Typical dosing ranges from **200–400 mcg** injected directly into the muscle post-workout.
- It is usually administered immediately after exercise to take advantage of the muscle repair process.
- Given MGF's short half-life, some users opt to inject it into the muscle group worked during the workout.

PEG-MGF Dosing:

- A common dosing protocol is **200–400 mcg** injected subcutaneously or intramuscularly, usually **1–2 times per week**.
- Due to its longer half-life, it doesn't need to be injected post-workout and can be administered on rest days or between workouts for continuous muscle recovery.

CONCLUSION:

MGF and PEG-MGF are valuable peptides for muscle growth and recovery, with MGF being more short-acting and localized and PEG-MGF offering longer-lasting, systemic effects. Both are effective tools for those seeking to enhance muscle repair, hypertrophy, and recovery, although careful consideration of dosage and administration is essential to avoid potential side effects.

LL-37

Link: <https://modernaminos.com/product/ll-37-5mg/>

Code: Biohack

LL-37 is a peptide derived from **cathelicidin**, a protein produced by the body's immune system. It is primarily known for its antimicrobial properties, helping to fight off bacteria, viruses, and fungi. LL-37 plays a key role in the innate immune system and is involved in wound healing, inflammation regulation, and maintaining healthy skin and tissue. Its broad-spectrum

antimicrobial action and ability to modulate immune responses make it valuable for various therapeutic applications.

HOW IT WORKS IN THE BODY:

- **Antimicrobial Action:** LL-37 destroys the cell membranes of various pathogens, including bacteria, viruses, and fungi. By doing this, it disrupts their ability to replicate and spread.
- **Immune System Modulation:** LL-37 can modulate the immune system, helping to prevent excessive inflammation, while also promoting the recruitment of immune cells to areas of infection or injury.
- **Wound Healing:** LL-37 helps with wound healing by promoting tissue regeneration and reducing infection. It stimulates the migration of cells to the wound site, enhances angiogenesis (formation of new blood vessels), and reduces biofilm formation by harmful bacteria.
- **Anti-Inflammatory Effects:** LL-37 regulates the inflammatory response, balancing pro-inflammatory and anti-inflammatory processes to reduce tissue damage while fighting off pathogens.

BENEFITS OF LL-37:

1. **Enhanced Wound Healing:** LL-37 accelerates the healing process of wounds, burns, and skin injuries by stimulating tissue repair and reducing infection risk.
2. **Antimicrobial Defense:** Its broad-spectrum antimicrobial activity helps the body defend against bacterial, viral, and fungal infections.
3. **Immune System Support:** LL-37's ability to modulate the immune response can improve immune system function, reducing chronic inflammation while boosting the body's ability to fight infections.
4. **Reduced Biofilm Formation:** LL-37 prevents biofilm formation, a protective barrier created by bacteria that makes them resistant to antibiotics, thus making infections easier to treat.
5. **Anti-inflammatory:** By regulating inflammation, LL-37 helps reduce tissue damage caused by excessive inflammatory responses, which is beneficial in autoimmune conditions and chronic inflammation.

POTENTIAL SIDE EFFECTS:

While LL-37 is generally considered safe when used appropriately, it is a powerful modulator of the immune system and can have some potential side effects:

- **Overstimulation of the Immune System:** In some cases, LL-37 can overstimulate the immune system, leading to excessive inflammation, particularly if misused or overused.
- **Allergic Reactions:** Like any peptide, allergic reactions or hypersensitivity may occur in some individuals.
- **Temporary Discomfort at Injection Site:** Users may experience mild pain, redness, or irritation at the injection site.

COMMON DOSING PROTOCOL:

LL-37 is typically administered via subcutaneous injection (under the skin). The dosing can vary depending on the specific condition being treated, but here's a general guide:

- **Typical Dose:** 100 mcg to 300 mcg per day
- **Frequency:** Once per day, usually for 10 to 14 days in a cycle, depending on the therapeutic goals.
- **Administration:** LL-37 is usually injected subcutaneously, often around the abdominal area. Injections should be rotated to avoid irritation.

It's important to note that LL-37 is still under research, and the dosing protocol may vary.

FOLLISTATIN 344

Link: <https://modernaminos.com/product/follistatin-344-1mg/>

Code: Biohack

HOW KPV WORKS IN THE BODY:

Follistatin 344 is a peptide that plays a crucial role in regulating muscle growth by inhibiting the activity of certain proteins, most notably myostatin. Myostatin is a protein that limits muscle growth, so by blocking its action, Follistatin 344 can promote muscle hypertrophy (growth). Follistatin is naturally occurring in the human body, but Follistatin 344 is a synthesized version used for research and performance enhancement.

How It Works in the Body:

Follistatin 344 works primarily by inhibiting myostatin, a negative regulator of muscle growth. By blocking myostatin's effects, it allows for increased muscle cell growth and differentiation. Additionally, Follistatin has been shown to inhibit other members of the TGF- β (transforming growth factor-beta) family, which are also involved in tissue regulation. This broad inhibition of muscle-growth limiting factors leads to increased lean muscle mass and strength.

BENEFITS:

- **Muscle Growth:** Follistatin 344 significantly increases muscle mass by blocking myostatin, allowing muscle cells to grow beyond their normal limits.
- **Enhanced Strength:** The increase in muscle mass translates to gains in physical strength, making it appealing for athletes and bodybuilders.
- **Potential Fat Loss:** Some studies suggest that Follistatin 344 may also aid in fat loss, as increased muscle mass can raise metabolic rate.
- **Tissue Repair:** Follistatin may have regenerative properties, assisting in faster recovery from injuries by promoting tissue repair and healing.

SIDE EFFECTS:

- **Unknown Long-Term Risks:** Since Follistatin 344 is still largely experimental, the long-term effects on health, especially its potential impact on other tissues, are not fully understood.
- **Organ Growth:** Excessive inhibition of myostatin could theoretically lead to unwanted growth in organs or non-muscle tissues, though this is still under investigation.
- **Potential Fertility Effects:** As Follistatin plays a role in reproductive processes, its use could potentially affect fertility, although more research is needed.
- **Immunogenicity:** There may be a risk of the body developing antibodies against the synthetic peptide, reducing its effectiveness or causing an immune reaction.
- **Chorioretinopathy:** There was a study showing that some users developed this when using it.

COMMON DOSING PROTOCOL:

A typical **Follistatin 344 dosing protocol** used in research and bodybuilding involves administering the peptide through subcutaneous or intramuscular injections.

There is not a lot of hard data on how to properly dose this compound.

I have seen everything from 100mcg all the way up to 1 mg which is insane.

I would recommend most stay in the 100–300mcg and do not cycle for longer than 2–3 weeks. This is a very powerful compound and we still do not know enough about it yet.

Please use extreme caution when using this compound.

OXYTOCIN

Link: <https://modernaminos.com/product/oxytocin-5mg/>

Code: Biohack

WHAT IS OXYTOCIN:

Oxytocin is a peptide hormone and neuropeptide that plays a significant role in social bonding, reproduction, and childbirth. It is often referred to as the "love hormone" due to its association with feelings of trust, empathy, and bonding. The hormone is produced in the hypothalamus and secreted by the pituitary gland. Medically, oxytocin is used for various purposes, including inducing labor, enhancing social behaviors, and even in research settings for its potential mental health benefits.

How It Works in the Body:

Oxytocin primarily works by binding to oxytocin receptors, which are found in various parts of the body, including the brain, uterus, and heart. When released, it triggers several physiological responses, including:

- **Labor and Lactation:** In women, oxytocin stimulates uterine contractions during childbirth and helps with milk ejection during breastfeeding by contracting the muscles around the milk ducts.
- **Social and Emotional Effects:** In both men and women, oxytocin influences emotional bonding, reducing stress and anxiety, and increasing feelings of trust and empathy.
- **Sexual and Reproductive Function:** Oxytocin plays a role in sexual arousal and orgasm in both sexes, contributing to the emotional connection during intimate activities.

BENEFITS OF OXYTOCIN:

1. **Improved Social Interactions:** It enhances social bonding, trust, and emotional connection, making it a potential treatment for social anxiety, autism, and related disorders.
2. **Reduced Stress and Anxiety:** Oxytocin lowers cortisol levels, the body's primary stress hormone, helping to reduce anxiety and stress responses.
3. **Increased Emotional Well-being:** It promotes feelings of love, attachment, and empathy, which can benefit relationships and overall mental health.
4. **Sexual Function:** It may enhance sexual arousal, satisfaction, and intimacy by increasing the emotional connection between partners.
5. **Improved Muscle Building:** Oxytocin receptors are commonly found on muscle tissue and many think that it could be anabolic.
6. **Better Emotional Balance:** Oxytocin is great for helping to balance you emotionally better. Especially while on cycle if you are feeling apathetic oxytocin can be great for helping you to get those emotions back.

SIDE EFFECTS:

While oxytocin is generally well-tolerated, some side effects may occur, particularly with synthetic administration:

- **Headaches:** Some people may experience headaches after oxytocin administration.
- **Nausea:** Oxytocin can cause mild nausea in some cases.
- **Water Retention:** In rare cases, oxytocin may lead to water retention due to its antidiuretic effects.
- **Lowered Blood Pressure:** It may cause a temporary drop in blood pressure, particularly when administered in high doses.
- **Flushing and Redness:** Many who use it get a bad flushing and redness when they use it.

COMMON DOSING PROTOCOL:

Oxytocin dosing depends on the purpose of use, but here are typical protocols:

For Muscle Building: I like 300–400 mcg per day before your workout.

For Social Settings: For this I like to use a bit less, I personally enjoy around 100–150 mcg 45 minutes before going out as it really helps to make me more social and connect better with who I am talking with.

CJC-1295 (NO DAC + IPAMORELIN)

Link: <https://modernaminos.com/product/cjc-1295-no-dac-2mg/>

Code: Biohack

Now this book has already discussed both so I will keep it pretty simple. But essentially these two work synergistically together. This is because they are making your body make more growth hormone through two different pathways.

CJC works through the growth hormone receptor hormone pathway and ipamorelin works through ghrelin giving you the benefits of both pathways.

This is one of the best combinations of two growth hormone secretagogues.

Make sure when you are doing the dosing on this that you adjust for having both. Remember Ipamorelin has to be pinned more regularly so you will have to inject this regularly. Keep in mind the concentration of both compounds when reconstituting the compounds. If you want you can refer to the Ipamorelin and the CJC portion of the ebook to see what doses I recommend for both of those.

BPC/157+TB-500 CAPSULES

Link: <https://modernaminos.com/product/bpc-157tb-500-blend/>

Code: Biohack

BPC-157 and TB-500 combine the amazing gut and brain healing benefits of BPC and TB-500 in one capsule.

Typically I use about 1–2 of these capsules before bed as I anecdotally feel like they help me sleep a lot.

TB-500 is an oral drug that is very effective like BPC-157 at lowering inflammation and helping to fix gut and brain issues so this is an amazing combination!

EPITALON

Link: <https://modernaminos.com/product/epithalon-10mg-2/>

Code: Biohack

HOW IT WORKS IN YOUR BODY

Epitalon (also known as Epithalon or Epithalamin) is a synthetic peptide derived from a naturally occurring substance called **epithalamin**, which is produced in the pineal gland. This peptide is well-known for its anti-aging properties, and it has been studied for its ability to increase longevity and promote various aspects of health by influencing the regulation of the telomerase enzyme.

HOW IT WORKS IN THE BODY:

Epitalon primarily acts by regulating the activity of **telomerase**, an enzyme that helps repair and lengthen telomeres, the protective caps on the ends of chromosomes. Over time, telomeres naturally shorten as cells divide, contributing to the aging process. By stimulating telomerase, Epitalon may help prevent the shortening of telomeres, thus promoting cell longevity and overall health.

Additionally, Epitalon influences the pineal gland, helping regulate the body's circadian rhythm and promoting melatonin production, which is crucial for sleep quality and overall hormonal balance.

BENEFITS OF EPITALON:

- 1. Anti-Aging Effects:** By stimulating telomerase and extending telomere length, Epitalon may slow down the aging process at a cellular level.
- 2. Improved Sleep Quality:** By regulating melatonin production, it can enhance sleep, especially in individuals with disrupted circadian rhythms.
- 3. Increased Longevity:** Some studies suggest that Epitalon can prolong life expectancy by promoting the repair of DNA and improving cell function.
- 4. Immune System Support:** Epitalon may enhance the immune system by supporting the function of immune cells, potentially helping the body fight infections and diseases.
- 5. Antioxidant Effects:** The peptide has been shown to improve the body's antioxidant capacity, helping to neutralize free radicals and reduce oxidative stress, which is a key factor in aging and degenerative diseases.
- 6. Cancer Prevention:** There is preliminary research suggesting Epitalon may help prevent the formation of certain types of tumors due to its effects on cell division and immune modulation.
- 7. Eyesight:** Some studies have shown that Epitalon can improve vision.

SIDE EFFECTS OF EPITALON:

Epitalon is generally considered safe and well-tolerated, especially in short-term use. However, some potential side effects may include:

- **Mild Irritation at the Injection Site:** Redness or swelling at the point of injection is possible.
- **Headaches:** Some users have reported mild headaches during usage.
- **Dizziness:** In rare cases, dizziness or lightheadedness may occur.
- **Fatigue:** As the body adjusts, some people may experience temporary fatigue.
- **Keeping Damaged Telomeres Functioning:** Some say that the main drawback is that this compound may lead to certain telomeres functioning longer than they should.

Since Epitalon impacts hormone regulation, long-term side effects are not fully understood, and it's important to use the peptide under medical supervision if planning extended use.

COMMON DOSING PROTOCOL:

A typical dosing protocol for Epitalon follows a cycle-based approach: Now there is more and less aggressive dosing protocols

- **Dosage:** Some people will use a lower dosage to help with more minor stuff like sleep. This may be around 200–400 mcg. There are also people who think that 10mg every day for 10 days is another common dosing protocol. This though is used more for the benefits with telomeres.
- **Method:** Administered via subcutaneous or intramuscular injection
- **Cycle Duration:** Commonly taken for 10–20 days with a break after for 3–4 weeks

CONCLUSION:

Epitalon is a promising peptide for anti-aging, longevity, and overall health optimization by influencing telomerase activity and supporting cellular repair mechanisms. Its benefits include improved sleep, enhanced immune function, and potentially longer life expectancy, though side effects are generally mild and rare. Like all peptides, it's important to use it under proper guidance to ensure safety and effectiveness.

CAGRISEMA SODIUM

Link: <https://modernaminos.com/product/cagrisema-sodium-10mg/>

Code: Biohack

WHAT IS IT?

This compound combines semaglutide the GLP-1 agonist with cagrilintide which works synergistically together to help to reduce HBA1C and help to promote weight loss

Cagrilintide: This compound mimics the amylin hormone, which can also help to make you feel full and satiated therefor leading to more less food consumption

Semaglutide mimics GLP-1 which has a similar effect. Together they combine for a product that is nearly effective based on the studies of Tirzepatide which is a GLP and GIP receptor agonist.

BENEFITS:

The benefits of this compound are as follows

- Improved Metabolic Health and Function
- Weight Loss
- Less Food Consumption
- More Effective then Semaglutide alone

SIDE EFFECTS:

Side effects on this are similar to the standard semaglutide side effects some users get bad lethargy, and GI issues when using this compound.

DOSING/HOW TO USE:

Typically this comes at 2.4mg of Semaglutide and 2.4mg Cagrilintide in a once per weekly shot. This is the most common dosing protocol in the literature.

MAZDUTIDE

Link: <https://modernaminos.com/product/mazdutide-5mg/>

Code: Biohack

WHAT IS IT?

Mazdutide combines a Glucagon like peptide 1 receptor agonist and glucagon receptor agonists which gives it a dual mechanism of action. By combining these mechanisms of actions you can expect a GLP-1 agonist that works even more effectively than standard ones.

Mazdutide was shown to have both beneficial effects for weight loss and for people with diabetes at improving their blood glucose levels.

It has also been shown to potentially reduce triglycerides, blood pressure, LDL, and HBA1C.

BENEFITS:

The benefits are as follows

- Better Weight Loss
- Lower Cholesterol Levels
- Lowered Blood Pressure
- Lower HBA1C

SIDE EFFECTS:

Now most GLP-1s and GLP-1 based drugs come with a similar side effect profile of GI distress and lethargy and mazdutide is no different as these were both common side effects reported in the clinical literature.

The other drawback is that Mazdutide has less data behind it than other GLP1s like semaglutide

DOSING/HOW TO USE:

Mazdutide is an injection that according to the literature is ran for 4–24 weeks Typical dosing starts at 3 mg per week and can work all the way up to 6mg based on how the user is responding.

TESAMORELIN

Link: <https://modernaminos.com/product/tesamorelin-5mg/>

Code: Biohack

WHAT IS IT?

Tesamorelin is a synthetic peptide that mimics the action of **growth hormone-releasing hormone (GHRH)**. Its primary function is to stimulate the pituitary gland to release growth hormone (GH), which in turn affects various metabolic and anabolic processes in the body. Tesamorelin is FDA-approved for treating lipodystrophy, particularly in HIV patients, where it helps reduce visceral fat, but it is also being explored for its broader metabolic and anti-aging benefits.

HOW TESAMORELIN WORKS IN THE BODY:

Tesamorelin binds to receptors in the pituitary gland, promoting the release of growth hormone. This increase in growth hormone leads to:

- **Enhanced lipolysis (fat breakdown):** Growth hormone mobilizes fat stores, particularly visceral fat, which can lead to a reduction in abdominal fat.
- **Increased IGF-1 levels:** Growth hormone triggers the liver to produce **Insulin-like Growth Factor 1 (IGF-1)**, which plays a key role in tissue growth, repair, and overall anabolic effects.
- **Improved metabolism and body composition:** Tesamorelin's action improves the balance between muscle and fat, helping users retain lean muscle while reducing fat mass.

BENEFITS OF TESAMORELIN:

1. **Fat Reduction:** One of the main benefits of tesamorelin is its ability to reduce visceral fat, particularly in the abdominal area. It is effective in lowering excess fat in patients with HIV-related lipodystrophy and may help with other conditions where visceral fat is a concern.
2. **Improved Metabolic Health:** By reducing visceral fat, tesamorelin can improve insulin sensitivity and lower the risk of metabolic disorders like type 2 diabetes.
3. **Increased Muscle Mass:** Through the release of growth hormone, tesamorelin can promote muscle growth and maintenance.
4. **Cognitive Health:** Some studies suggest that tesamorelin may have neuroprotective effects, improving cognitive function and possibly offering benefits against age-related cognitive decline.
5. **Anti-Aging Effects:** Increased GH and IGF-1 levels can promote skin elasticity, collagen production, and overall tissue repair, contributing to a more youthful appearance and function.

SIDE EFFECTS OF TESAMORELIN:

While tesamorelin is generally well-tolerated, some side effects may occur, including:

- **Injection Site Reactions:** Redness, itching, or swelling at the injection site.
- **Joint Pain:** Increased GH levels can cause joint discomfort or pain.
- **Water Retention:** Some users may experience bloating or mild edema due to fluid retention.
- **Increased Blood Sugar:** Growth hormone can impact insulin sensitivity, potentially raising blood sugar levels.
- **Carpal Tunnel Syndrome:** Prolonged use may lead to symptoms of carpal tunnel, such as numbness or tingling in the hands.

COMMON DOSING PROTOCOL:

Tesamorelin is usually dosed anywhere 500mcg to 2mg once per day. 2mg is the dose that is most commonly found in the studies. Some people split the dose into half in the morning (fasted) and half before bed (fasted), but what is most important is that your dosing is taken on a fasted stomach to improve how effectively it works.

Tesmorelin can typically be ran for 8–12 week cycles although if your bloodwork is clean I do not see why you could not use it for longer periods of time.

CAGRILINTIDE

Link: <https://modernaminos.com/product/cagrilintide-10mg/>

Code: Biohack

WHAT IS IT?

If you read our section on CagriSema then you probably already have a good idea on what Cagrilintide is, but we will go over it once more.

Cagrilintide is an amylin analog that works similar to how typical GLP1s work

This Amylin is released by the pancreas and can release a satiating effect. Which of course can contribute to its beneficial effects on weight loss.

BENEFITS:

The benefits of this compound are similar to that of Semaglutide although by itself it can be a bit weaker solo. Cagrilintide has shown great promise in being able to help people lose weight and cure obesity, and in helping to improve metabolic health and function

SIDE EFFECTS:

Side effects with this are typically similar to side effects of other compounds like semaglutide which can cause some GI distress and some lethargy although all in all the compound is safe to use according to the current data we have.

DOSING

Dosing typically as a once per weekly injection goes from .25mg all the way to 1.7mg



NOOTROPICS

In this next section we will dive all into nootropics. There are some compounds like for example tesofensine which can also be classified as a weight loss compound, but because it interacts with so many neurotransmitters we decided to leave it in. Nootropics relate to compounds that positively impact cognitive function.

TESOFENSINE

Link: <https://modernaminos.com/product/tesofensine-powder/>

Code: Biohack

WHAT IS IT?

Tesofensine is a serotonin-noradrenaline-dopamine reuptake inhibitor (SNDRI) initially developed to treat neurodegenerative conditions like Parkinson's disease and Alzheimer's

disease. However, during trials, it was discovered to have significant weight loss effects, leading to its exploration as a potential treatment for obesity.

How Tesofensine Works:

Tesofensine works by inhibiting the reuptake of three key neurotransmitters: serotonin, dopamine, and norepinephrine. This increases their levels in the brain, leading to several key effects:

- **Appetite Suppression:** By increasing serotonin and dopamine, Tesofensine helps regulate appetite and reduce food cravings, making it easier to maintain a caloric deficit for weight loss.
- **Increased Energy Expenditure:** Higher levels of norepinephrine can boost metabolism and energy expenditure, contributing to fat loss.
- **Improved Mood and Motivation:** Elevated dopamine and serotonin can enhance mood, motivation, and focus, which can be particularly helpful for those struggling with weight management.

BENEFITS OF TESAMORELIN:

1. **Significant Weight Loss:** Tesofensine has been shown to promote substantial weight loss in clinical trials, often surpassing the effects of other weight loss drugs.
2. **Improved Metabolism:** By increasing norepinephrine levels, Tesofensine can help boost metabolic rate, enhancing fat-burning potential.
3. **Appetite Control:** It effectively reduces appetite, which is one of the main challenges in maintaining a weight loss regimen.
4. **Mood Enhancement:** Tesofensine's effect on dopamine and serotonin can lead to improvements in mood and cognitive function, helping people stay motivated during dieting.
5. **Mood Stabilization:** Tesofensine can be extremely helpful at helping to stabilize mood.
6. **More Motivation:** Due to the increase in Dopamine some may face higher levels of motivation.

SIDE EFFECTS OF TESOFENSINE

As with any drug, Tesofensine can cause side effects, particularly due to its influence on neurotransmitters. Common side effects include:

- **Increased Heart Rate and Blood Pressure:** The stimulation of norepinephrine can cause cardiovascular side effects, so monitoring is essential, especially in those with pre-existing heart conditions.
- **Dry Mouth:** This is a common side effect due to the drug's action on the autonomic nervous system.
- **Insomnia:** Increased dopamine and norepinephrine can lead to difficulty sleeping, especially if taken later in the day.
- **Headaches:** Some users may experience headaches, likely due to changes in neurotransmitter levels.
- **Nausea and Gastrointestinal Discomfort:** These are common side effects as the body adjusts to the medication.
- **Mood Issues:** Just like with typical SSRIs some people feel worse mentally when using tesofensine. This all relates to their genetics.

COMMON DOSING PROTOCOL:

Tesofensine is typically taken once daily, and dosages can vary depending on individual factors like tolerance, body weight, and treatment goals. However, the common dosing protocol is:

- **Initial Dose:** 0.25 mg once daily to assess tolerance and minimize side effects.
- **Standard Dose:** 0.5 mg once daily after an initial period, which is the most common therapeutic dose for weight loss.
- **Higher Dose:** Some protocols may increase the dose to 1 mg daily if needed, but this comes with a higher risk of side effects.

It's recommended to take Tesofensine in the morning to avoid interference with sleep. Regular monitoring of blood pressure and heart rate is also suggested due to its potential cardiovascular effects.

PIRACETAM

Link: <https://modernaminos.com/product/piracetam-powder/>

Code: Biohack

Piracetam is a nootropic (cognitive enhancer) that belongs to the racetam family of compounds. It was first developed in the 1960s and is considered one of the original smart drugs. Piracetam is widely used for its ability to improve cognitive function, particularly in areas like memory, learning, and overall brain performance.

How Piracetam Works in the Body:

Piracetam's exact mechanism of action is not fully understood, but it is thought to work by:

- **Enhancing Neurotransmitter Activity:** Piracetam modulates the activity of neurotransmitters, especially acetylcholine and glutamate. It increases the density of receptors, improving synaptic transmission and communication between neurons, which enhances memory and learning processes.
- **Improving Brain Blood Flow:** It has been shown to improve cerebral blood flow, increasing oxygen and glucose uptake in the brain, which can enhance mental energy and cognitive performance.
- **Boosting Neuroplasticity:** Piracetam may promote the formation of new synaptic connections, improving the brain's ability to adapt and learn, which is key to memory and cognitive function.
- **Enhancing Membrane Fluidity:** It stabilizes cell membranes in neurons, making them more flexible and efficient at transmitting signals.

BENEFITS OF PIRACETAM:

- **Memory Enhancement:** Piracetam is widely known for its ability to improve both short-term and long-term memory, making it useful for people with cognitive impairments or age-related memory decline.
- **Increased Learning Ability:** Many users report improvements in their ability to learn and process new information.
- **Neuroprotection:** It has neuroprotective properties, helping to protect brain cells from damage caused by oxidative stress and aging.
- **Improved Focus and Mental Clarity:** Piracetam can increase focus and attention span, allowing users to concentrate for longer periods.
- **Potential Support for Dementia and Cognitive Decline:** Piracetam has been studied as a treatment for Alzheimer's disease and other forms of dementia, although its efficacy in these areas is still debated.

POTENTIAL SIDE EFFECTS:

Piracetam is generally well-tolerated, but side effects can occur, especially at higher doses or when combined with other substances. These may include:

- **Headache:** One of the most common side effects, often due to increased acetylcholine demand. This can usually be mitigated by taking a choline supplement.
- **Insomnia:** Some users may experience difficulty sleeping, especially if taken later in the day.
- **Nervousness or Anxiety:** Though rare, some individuals may experience increased anxiety or nervousness.
- **Gastrointestinal Issues:** Nausea or stomach discomfort can occur in some users.
- **Fatigue:** In rare cases, users report feeling fatigued, especially if the dosage is too high.

COMMON DOSING PROTOCOL:

Piracetam is typically taken in divided doses throughout the day due to its short half-life.

- **Standard Dosage:** The most common dosage range is between 1,200 mg to 4,800 mg per day. It is usually divided into two or three doses to maintain stable levels in the bloodstream.
- **Initial Dosing:** Many users start with 800 mg to assess tolerance and then gradually increase the dose.
- **Choline Supplement:** Since Piracetam increases the brain's demand for acetylcholine, pairing it with a choline source like Alpha-GPC or CDP-Choline is recommended to prevent headaches and enhance its effects.

NOOPEPT

Link: <https://modernaminos.com/product/noopept-30mg/>

Code: Biohack

Noopept is a synthetic nootropic compound derived from the racetam family, known for its cognitive-enhancing properties. It is highly potent, often considered up to 1,000 times stronger than its racetam relative, Piracetam, but works in smaller doses. Unlike some other nootropics, Noopept has both cognitive-enhancing and neuroprotective properties, making it popular among individuals looking to boost brain function.

How Noopept Works in the Body

Noopept primarily works by modulating neurotransmitters and enhancing communication between neurons. Some key mechanisms include:

- **Increases Brain-Derived Neurotrophic Factor (BDNF) and Nerve Growth Factor (NGF):** These are essential proteins involved in the growth, maintenance, and survival of neurons. By increasing their levels, Noopept helps improve long-term brain health and cognitive function.
- **Enhances Acetylcholine Signaling:** Acetylcholine is critical for learning and memory. Noopept enhances its activity, thereby improving cognitive function, memory recall, and learning capacity.

- **Antioxidant and Neuroprotective Effects:** Noopept reduces oxidative stress and inflammation in the brain, which can protect against neurodegenerative conditions and age-related cognitive decline.
- **Improves Blood Flow:** Noopept can increase cerebral blood flow, improving oxygen and nutrient delivery to the brain.

BENEFITS OF NOOPEPT:

- **Enhanced Memory and Learning:** Noopept is known for improving both short-term and long-term memory, making it beneficial for students or professionals who require memory recall.
- **Increased Focus and Mental Clarity:** It promotes clearer thinking and focus, helping individuals stay mentally sharp and attentive.
- **Mood Enhancement and Anxiety Reduction:** Noopept has mild anxiolytic (anti-anxiety) properties, which can help reduce stress and promote a more positive mood.
- **Neuroprotection:** Due to its ability to reduce oxidative stress and increase BDNF and NGF, Noopept supports brain health and may help protect against cognitive decline and neurodegenerative conditions.
- **Verbal Fluency:** Noopept does a fantastic job at helping to make you more articulate when you are talking or presenting.

SIDE EFFECTS OF NOOPEPT:

While Noopept is generally well-tolerated, some potential side effects may occur, especially at higher doses. These can include:

- **Headaches:** Likely due to increased acetylcholine activity, which can be managed by combining Noopept with a choline supplement.
- **Irritability:** Some users report feeling irritable or overstimulated.
- **Fatigue:** In rare cases, Noopept may cause drowsiness or fatigue, particularly if taken in excess.
- **Nausea or Digestive Issues:** Some people may experience mild gastrointestinal discomfort.

SIDE EFFECTS OF NOOPEPT:

While Noopept is generally well-tolerated, some potential side effects may occur, especially at higher doses. These can include:

- **Headaches:** Likely due to increased acetylcholine activity, which can be managed by combining Noopept with a choline supplement.
- **Irritability:** Some users report feeling irritable or overstimulated.
- **Fatigue:** In rare cases, Noopept may cause drowsiness or fatigue, particularly if taken in excess.
- **Nausea or Digestive Issues:** Some people may experience mild gastrointestinal discomfort.

COMMON DOSING PROTOCOL:

Noopept is highly potent, so lower doses are typically recommended compared to other nootropics. A standard dosing protocol looks like this:

DIHEXA

Link: <https://modernaminos.com/product/dihexa-5mg/>

Code: Biohack

WHAT IS DIHEXA?

Dihexa (also known as N-hexanoic-Tyr-Ile-(6) aminohexanoic amide) is a synthetic nootropic peptide developed for its potential to enhance cognitive function and promote neurogenesis (the growth of new brain cells). It is derived from angiotensin IV, a peptide involved in processes like memory, learning, and neuroprotection.

How Dihexa Works

Dihexa is unique in that it crosses the blood-brain barrier very efficiently. It interacts with the hepatocyte growth factor (HGF) and its receptor c-Met, which are critical to tissue growth, repair, and neurogenesis. By activating this pathway, Dihexa has been shown to:

- Stimulate the formation of new synapses (connections between neurons).
- Enhance neuroplasticity, which is the brain's ability to reorganize and form new connections.
- Improve learning and memory through increased neurogenesis.
- More powerful than BDNF

BENEFITS OF DIHEXA:

- **Enhanced Cognitive Function:** Dihexa is often touted for its ability to improve memory, learning, and overall cognitive performance. It is considered much more potent than Brain-Derived Neurotrophic Factor (BDNF) in promoting synaptic growth.
- **Neuroprotection:** It has shown potential in protecting neurons from damage and may be useful in conditions related to neurodegeneration like Alzheimer's disease.
- **Mood Enhancement:** By promoting better neural connections, Dihexa may also improve mood and emotional stability.
- **Potential for Repair:** Due to its ability to stimulate the repair and growth of brain cells, it may also help in recovering from brain injuries or cognitive decline.
- **Improved Sleep:** Anecdotally some have noted that their sleep did improve while on Dihexa.
- **Better Socializing:** Some have noticed that while on Dihexa they were able to socialize easier and better.
- **Improved Creativity:** Dihexa can also aid creativity.

POTENTIAL SIDE EFFECTS OF DIHEXA

While research on Dihexa is still limited, there are potential risks and side effects that may come with its use:

- **Unknown Long-term Effects:** Since it is a relatively new compound with limited clinical trials, the long-term effects are not well understood.
- **Possible Overstimulation:** Excessive synaptic growth or neurogenesis could, theoretically, lead to issues like neural excitotoxicity, where neurons become damaged due to overstimulation.
- **Headaches or Fatigue:** Anecdotal reports suggest that some users may experience headaches, fatigue, or brain fog after prolonged use.
- **Mood Changes:** Although it may improve mood, some individuals could experience irritability or mood swings, especially if the dose is too high.
- **Brain Cancer Growth:** Dihexa has the potential in theory to speed up the rate at which brain cancer could grow if it is already there.

There is also a lack of data on Dihexa which makes it hard to understand the full side effect profile.

COMMON DOSING PROTOCOL:

Dihexa has a longer half life so dosing does vary.

A few of the common dosing protocols I have seen are as follows

- 5–10mg 2–3 times per week
- A lower dosage everyday
- A loading week of a higher dosage of 15–20 mg followed by a maintenance dosage of a lower dosage like 5mg a few times per week.

Due to the power of this compound I personally use 5mg 2–3 times per week for 4 weeks on then 4 weeks off.

FLADRAFINIL (CRL-40,941)

Link: <https://modernaminos.com/product/fladrafinil-crl-40941/>

Code: Biohack

WHAT IS FL-ADRAFINIL?

FL-Adrafinil is a derivative of Adrafinil, which is itself a prodrug of Modafinil, a popular wakefulness-promoting compound. FL-Adrafinil is designed to offer similar effects to Modafinil but with a potentially more potent and faster onset. It is known for its cognitive-enhancing and stimulatory properties, often classified as a nootropic.

How It Works in the Body:

Once ingested, FL-Adrafinil is converted into Modafinil in the liver, which then exerts its effects by:

- **Modulating neurotransmitter systems:** It primarily affects dopamine, norepinephrine, and orexin, which are involved in promoting wakefulness, alertness, and cognitive function.
- **Inhibiting dopamine reuptake:** This increases the availability of dopamine in the brain, which enhances mood, motivation, and focus without creating the same "high" or addiction potential as other stimulants like amphetamines.
- **Increasing histamine and orexin activity:** These neurotransmitters are crucial for maintaining wakefulness and alertness, particularly during prolonged periods of wakefulness.

BENEFITS OF FL-ADRAFINIL:

- **Increased Wakefulness:** Like Modafinil, FL-Adrafinil helps promote wakefulness and combat fatigue, making it useful for those who suffer from sleep disorders like narcolepsy or shift work disorder.
- **Enhanced Focus and Concentration:** FL-Adrafinil improves attention span, concentration, and task completion, which can benefit students, professionals, and anyone needing long periods of mental focus.
- **Improved Cognitive Function:** Users report enhanced memory retention, problem-solving abilities, and mental clarity.
- **Mood Enhancement:** By increasing dopamine levels, FL-Adrafinil can boost mood and motivation, making it easier to stay productive.

SIDE EFFECTS:

While generally considered safer than traditional stimulants, FL-Adrafinil can still produce side effects, especially with overuse or long-term use. Common side effects include:

- **Headaches:** A frequent side effect due to the modulation of neurotransmitters.
- **Insomnia:** Since FL-Adrafinil promotes wakefulness, taking it too late in the day can disrupt sleep patterns.
- **Increased Heart Rate and Blood Pressure:** Stimulant-like effects can lead to higher heart rates and increased blood pressure.

Potential Liver Strain: Since FL-Adrafinil is processed in the liver, prolonged use could potentially strain liver function. Monitoring liver enzymes may be necessary during long-term use.

COMMON DOSING PROTOCOL

With this compound I like to keep my usage to it more minimal. Really around 3–4 times a month. This is because it is a powerful stimulant based nootropic so it can be harsher on things like the heart.

I will typically use between 100–200 mg upon waking around 4 times a month on days that I really need a boost in cognitive function. I typically will pair this with a choline supplement like Alpha GPC to help lower risk of things like headaches.

NEFIRACETAM

Link:

Code: Biohack

WHAT IS NEFIRACETAM?

Nefiracetam is a nootropic compound that belongs to the racetam family, originally developed to treat neurological disorders such as Alzheimer's disease and cognitive decline. Like other racetams, it enhances cognitive function, but nefiracetam is particularly known for its potential effects on mood and its ability to lower anxiety.

What It Is and How It Works:

Nefiracetam is a derivative of the more well-known nootropic, piracetam, but with different pharmacological properties. It is fat-soluble, which allows it to cross the blood-brain barrier more easily, making it more potent than water-soluble racetams.

Mechanism of Action:

- **Modulates GABA Receptors:** Nefiracetam enhances the activity of GABA(A) receptors in the brain, which helps promote a calming, anxiolytic (anti-anxiety) effect without causing sedation. This modulation can help balance excitatory and inhibitory neurotransmission.
- **Enhances Cholinergic Activity:** It increases acetylcholine release, a neurotransmitter critical for learning and memory. By improving acetylcholine transmission, nefiracetam helps boost cognitive processes such as memory formation and recall.
- **Stimulates NMDA Receptors:** Nefiracetam influences NMDA (N-Methyl-D-Aspartate) receptors, which are involved in synaptic plasticity, learning, and memory. It increases calcium influx into neurons, enhancing memory function.
- **Neuroprotective Effects:** Nefiracetam protects neurons from damage, reducing neuroinflammation and oxidative stress, which can benefit long-term brain health.

BENEFITS OF FL-ADRAFINIL:

- **Memory Enhancement:** Nefiracetam has been shown to improve both short-term and long-term memory by enhancing synaptic plasticity and acetylcholine activity.
- **Anxiolytic Properties:** It reduces anxiety and promotes a calming effect through its modulation of GABA receptors, making it useful for people dealing with stress or anxiety. This also makes it extremely helpful during social issues.

- **Memory Enhancement:** Nefiracetam has been shown to improve both short-term and long-term memory by enhancing synaptic plasticity and acetylcholine activity.
- **Anxiolytic Properties:** It reduces anxiety and promotes a calming effect through its modulation of GABA receptors, making it useful for people dealing with stress or anxiety. This also makes it extremely helpful during social issues.
- **Improved Mood:** By increasing dopamine and serotonin receptor sensitivity, nefiracetam may have mood-boosting effects, potentially helping those with depression.
- **Neuroprotection:** Nefiracetam has neuroprotective properties that may help in preventing cognitive decline, making it beneficial for those with neurodegenerative diseases like Alzheimer's.
- **Enhanced Learning Capacity:** Nefiracetam improves learning processes by optimizing neurotransmitter function, making it useful for students or professionals aiming to enhance their cognitive performance.

SIDE EFFECTS OF NEFIRACETAM

Nefiracetam is generally well-tolerated, but some potential side effects include:

- **Headaches:** Common with many nootropics, headaches can occur due to increased acetylcholine activity. These can often be alleviated by taking a choline supplement.
- **Nausea:** Some users report gastrointestinal discomfort or nausea, particularly when starting the supplement.
- **Insomnia:** Due to its cognitive-enhancing effects, taking nefiracetam too late in the day may lead to difficulty falling asleep.
- **Overstimulation:** Some users may feel jittery or overstimulated, especially at higher doses.
- **Potential Liver Toxicity:** While rare, there is some evidence to suggest that long-term or high-dose use of nefiracetam could negatively impact liver health.
- **Kidney Stress:** In dog studies it was shown to cause stress to the kidneys.

COMMON DOSING PROTOCOL:

Common dosing with this compound is between around 100–300mg. Like Fladrafinil I recommend that you use this compound sparingly maybe a few times a month at that.

I think this is best used before high stress situations, like first dates, job interviews, presentations, etc, this should not be an everyday nootropic.

PHENYLPIRACETAM

Link: <https://modernaminos.com/product/phenylpiracetam-hydrazide-175mg/>

Code: Biohack

WHAT IS PHENYLPIRACETAM?

Phenylpiracetam is a synthetic nootropic and a derivative of the original racetam family, particularly piracetam. What makes phenylpiracetam unique is the addition of a phenyl group to the piracetam molecule, which enhances its bioavailability and allows it to cross the blood-brain barrier more effectively. This results in stronger cognitive and physical effects.

In my opinion Phenylpiracetam is in my opinion the strongest racetam in the racetam family.

How It Works:

Phenylpiracetam works through several mechanisms in the brain:

- **Modulates Neurotransmitters:** It enhances the activity of neurotransmitters like acetylcholine, dopamine, and glutamate, which play key roles in cognition, memory, and focus.
- **Neuroprotective Effects:** It protects brain cells from damage due to various stressors, including oxidative stress, inflammation, and environmental toxins.
- **Improves Brain Energy:** By increasing the utilization of glucose and oxygen in brain cells, phenylpiracetam helps improve mental stamina and reduce cognitive fatigue.
- **Increases Dopamine and Serotonin:** It also impacts dopamine and serotonin receptors, which can improve mood and motivation, contributing to its stimulant-like effects.

BENEFITS OF FL-ADRAFINIL:

- **Enhanced Cognitive Function:** Users report improved memory, learning, and focus, particularly in mentally demanding tasks.
- **Improved Physical Performance:** Due to its stimulant-like effects, phenylpiracetam can enhance endurance, strength, and resilience to cold.
- **Mood Enhancement:** It can promote a positive outlook and increase motivation, partly due to its effects on dopamine.
- **Neuroprotection:** Phenylpiracetam offers protection to neurons, which may make it beneficial for long-term brain health and recovery from neurological injuries.
- **Reduction in Fatigue:** It can help reduce both mental and physical fatigue, making it useful for individuals needing extended periods of focus or physical exertion.
- **Increase In Energy:** Phenylpiracetam can definitely help to give you a surge in mental energy and drive.
- **Better Verbal Fluency:** With this compound you will be able to communicate much easier and smoother.

SIDE EFFECTS OF NEFIRACETAM

While phenylpiracetam is generally well-tolerated, side effects may occur, particularly with high doses or prolonged use:

- **Stimulation:** Its stimulant properties may cause jitteriness, insomnia, or anxiety, especially when taken in larger amounts.
- **Headaches:** Some users experience headaches, which may be mitigated by using it with a choline supplement to balance acetylcholine levels.
- **Tolerance:** Over time, the body may build a tolerance, requiring higher doses to achieve the same effects, potentially diminishing its benefits.
- **Nausea and Irritability:** Mild gastrointestinal upset or mood changes can occur in some individuals.

COMMON DOSING PROTOCOL:

- **Typical Dosage:** The standard dosage for phenylpiracetam is 100 to 200 mg taken once or twice per day. Beginners should start at the lower end of the range to assess tolerance.
- **Cycle Use:** Due to its stimulant nature and potential for tolerance, phenylpiracetam is often used cyclically—e.g., 3 days on, 2 days off, or a few weeks on followed by a break.
- **Stacking:** It can be stacked with other nootropics like choline sources (Alpha-GPC, CDP-Choline) to enhance its cognitive effects and reduce the risk of headaches.

9-ME-BC

Link: <https://modernaminos.com/product/9-me-bc-9-methyl-%ce%b2-carboline-15mg/>

Code: Biohack

WHAT IS 9-ME-BC?

9-Methyl- β -carboline (9-ME-BC) is a research chemical classified as a nootropic and neuroprotective agent. It belongs to the beta-carboline family of compounds, which are naturally occurring alkaloids found in various plants and animal tissues. 9-ME-BC has drawn attention for its potential cognitive-enhancing and neuroprotective properties, making it popular in the biohacking and nootropic community.

It is one of the best tools that you can use to help to repair your dopaminergic system.

How It Works in the Body:

- **Dopaminergic Modulation:** 9-ME-BC works by influencing the dopaminergic system, specifically upregulating the production and activity of dopamine, a neurotransmitter responsible for motivation, focus, reward, and pleasure. It inhibits dopamine reuptake and enhances dopamine release, which can lead to improved mood, cognitive function, and mental clarity.

- **Neuroprotection:** 9-ME-BC has neuroprotective effects by reducing oxidative stress and neuroinflammation. It promotes the growth of new neurons and protects against dopamine-related neurotoxicity. This makes it potentially beneficial in protecting brain cells and supporting long-term cognitive health.
- **Inhibition of Monoamine Oxidase A (MAO-A):** It inhibits MAO-A, an enzyme that breaks down neurotransmitters like dopamine, serotonin, and norepinephrine. By inhibiting this enzyme, 9-ME-BC helps maintain higher levels of these neurotransmitters, which may result in enhanced cognitive function and mood.

BENEFITS OF 9-ME-BC

- **Cognitive Enhancement:** 9-ME-BC has shown potential for improving learning, memory retention, and overall mental performance due to its influence on dopamine levels and neurogenesis.
- **Neuroprotection:** It may protect neurons from damage, potentially reducing the risk of neurodegenerative diseases like Parkinson's or Alzheimer's.
- **Mood Enhancement:** By modulating dopamine, 9-ME-BC can have mood-boosting effects, helping with motivation, energy, and reducing feelings of lethargy or low mood.
- **Increased Focus and Mental Clarity:** The dopamine-enhancing effects may improve attention, focus, and mental sharpness, making it a popular choice among nootropic users.
- **Upregulated Dopaminergic Neurons:** 9-ME-BC is one of the most effective tools you can use to help fix your dopamine system. Your dopamine system can become down regulated for a reason but a common one is from abusing stimulants.

SIDE EFFECTS:

- **Lack of Long-Term Data:** As a research chemical, there is limited long-term safety data on 9-ME-BC, so the full spectrum of potential side effects is not yet well understood.
- **Sensitivity to the Sun:** 9-ME-BC can also make you very sensitive to the sun so you should be cautious when using it.

COMMON DOSING PROTOCOL:

For 9-ME-BC I like using it for a few week cycle starting at 15mg per day then raising it 30mg per day for the final half of this cycle. During the cycle I am very cautious with how much sun exposure I get, because it can make you very sun sensitive.

I really like to introduce this compound after an intense stimulant period. So if I go on an adderall, modafinil, or high dosed caffeine bender I will follow it up with a course of 9-ME-BC.

The other time I will use it is when I feel like life is starting to lose its magic that it used to have. The music that I used to like does not sound as good, the food doesn't taste as good, etc. When I take 9-ME-BC it resensitizes me again to make me love the things that used to give me joy.

NSI-189 PHOSPHATE

Link: <https://modernaminos.com/product/nsi-189-phosphate-20mg/>

Code: Biohack

WHAT IS NSI-189 PHOSPHATE?

NSI-189 Phosphate is a synthetic derivative of nicotinamide and pyrazine that was developed as a neurogenic and neuroprotective compound. It is part of a class of drugs designed to stimulate neurogenesis, or the growth of new neurons, particularly in the hippocampus, an area of the brain associated with memory, emotion, and cognitive function. Originally developed as a treatment for major depressive disorder (MDD), NSI-189 has also shown promise for cognitive enhancement and neuroprotection.

How It Works:

NSI-189 primarily works by stimulating neurogenesis in the hippocampus. This region of the brain is crucial for learning, memory, and mood regulation. The compound promotes the growth of new neurons and synaptic connections, which may help improve cognitive function and emotional resilience. It is believed to exert its effects by interacting with the transcriptional pathways that regulate brain plasticity and cell survival, although the precise mechanism is not fully understood.

BENEFITS OF FL-ADRAFINIL:

- 1. Improves Mood and Reduces Symptoms of Depression:** Clinical studies have shown that NSI-189 may alleviate symptoms of depression, particularly in treatment-resistant individuals, by promoting neurogenesis in the hippocampus, a region that is often impaired in people with depression.
- 2. Cognitive Enhancement:** NSI-189 has been found to improve various aspects of cognitive function, including memory, learning, and executive function. This may be particularly beneficial for individuals with cognitive impairments or those looking to enhance their brain performance.
- 3. Neuroprotection:** By promoting the growth of new neurons, NSI-189 may help protect the brain from age-related cognitive decline, neurodegenerative diseases, and damage from stress or injury.
- 4. Anxiolytic Effects:** Some users report reduced anxiety and improved emotional stability, likely due to NSI-189's impact on brain regions associated with emotional regulation.

SIDE EFFECTS:

While NSI-189 has been generally well-tolerated in clinical trials, some potential side effects include:

- **Headaches:** Mild to moderate headaches are a common side effect.
- **Dizziness:** Some users may experience dizziness, particularly when starting the treatment.
- **Irritability or Mood Swings:** Although it is designed to improve mood, in some cases, individuals may experience increased irritability or emotional fluctuations.
- **Fatigue:** In certain individuals, NSI-189 may cause drowsiness or fatigue.

As with any nootropic or neurogenic compound, individual reactions can vary, and long-term safety data are still limited.

COMMON DOSING PROTOCOL

- The typical dosing protocol for **NSI-189 Phosphate** in clinical studies is anywhere from 20 to 60mg per day. The doses are also usually split up meaning that you would use it 2–3 times per day.

I have noticed for me my sweet spot was 40mg as I think this improved my mode the best for me.

PHENIBUT

Link: <https://modernaminos.com/product/phenibut-hcl-300mg/>

Code: Biohack

WHAT IS PHENIBUT?

Phenibut is a nootropic and anxiolytic substance originally developed in Russia in the 1960s. It is used primarily for reducing anxiety, promoting relaxation, and improving sleep. Phenibut is a derivative of the neurotransmitter GABA (gamma-aminobutyric acid), but with added functionality that allows it to cross the blood-brain barrier more easily, making it more effective than GABA supplements.

It has gained tons of popularity within the bodybuilding space for its ability to be a safer version to drinking which can not be done by many bodybuilders who are on gear due to the liver toxicity with alcohol.

While it is likely safer and has less health consequences than alcohol it still has some very notable side effects that you should be aware of.

How Phenibut Works in the Body

Phenibut acts as a GABA-B receptor agonist and to a lesser extent as a GABA-A agonist. By binding to these receptors, it enhances the calming effects of GABA, the brain's primary inhibitory neurotransmitter. This leads to a reduction in neuronal excitability, producing feelings of calm, relaxation, and anxiety relief.

Additionally, Phenibut can modulate the release of dopamine, leading to mood improvement, enhanced social behavior, and increased motivation.

BENEFITS OF PHENIBUT:

- **Anxiety Reduction:** Phenibut's main use is to alleviate symptoms of anxiety, providing a calming effect without causing significant sedation.
- **Improved Sleep:** It promotes restful sleep, especially in those dealing with insomnia caused by stress or anxiety.
- **Mood Enhancement:** Due to its effect on dopamine, it can improve mood and provide mild euphoria, making it helpful for social situations.
- **Cognitive Support:** Some users report enhanced cognitive function, better focus, and improved mental clarity.

- **Stress Relief:** Phenibut helps reduce stress by calming overactive brain circuits, which can improve overall well-being.
- **Increased Sociability:** Phenibut is a very unique compound in the sense that it makes you much more sociable. Your social anxiety will disappear while on this drug.

SIDE EFFECTS OF PHENIBUT

While Phenibut can offer significant benefits, it also comes with potential risks, especially with improper use. Be very cautious when using Phenibut as addiction and dependence is possible!

- **Tolerance and Dependence:** Regular use can lead to tolerance, meaning higher doses are required to achieve the same effects. This can lead to dependence and withdrawal symptoms when stopping use.
- **Withdrawal Symptoms:** These may include anxiety, insomnia, irritability, and, in severe cases, hallucinations or psychosis if the user discontinues after long-term use.
- **Drowsiness and Sedation:** At higher doses, Phenibut can cause drowsiness, making it important to avoid activities like driving.
- **Cognitive Impairment:** Some users experience brain fog or impaired cognitive function with prolonged use.
- **Gastrointestinal Issues:** Nausea, stomach discomfort, and dizziness can occur in some individuals.

COMMON DOSING PROTOCOL

Phenibut is highly dose-dependent, and proper cycling is crucial to avoid tolerance or dependency. A common dosing protocol includes:

Beginner: 300–600mg

Intermediate: 600 mg–900 mg

Advanced 900mg+

For me I find that it is much better when I take it on an empty stomach. It does take a while for it to kick in so I use it around 1–2 hours before whatever event I am going to.

I really will only use phenibut 3–4 times a month on days where I really need to drop my social anxiety.

BROMANTANE

Link: <https://modernaminos.com/product/bromantane-powder/>

Code: Biohack

Bromantane is a unique compound classified as an adamantane derivative. Initially developed in Russia as an adaptogen and stimulant, it enhances both physical and mental performance without overstimulation. It is considered a mild psychostimulant with anxiolytic (anti-anxiety) properties and has been used to enhance performance and recovery.

How it Works in the Body

Bromantane functions primarily by enhancing the activity of dopamine and serotonin. It works by inhibiting the reuptake of dopamine and modulating serotonin levels, leading to increased concentrations of these neurotransmitters in the brain. Unlike traditional stimulants that act on the central nervous system, Bromantane also boosts energy production in cells by increasing mitochondrial function and overall cellular energy output. Its adaptogenic properties help the body manage stress and adapt to physical and mental demands by normalizing functions such as energy production and immune response.

BENEFITS:

- **Cognitive Enhancement:** Bromantane improves cognitive function, including focus, memory, and mental clarity, making it useful for tasks requiring sustained attention.
- **Anxiolytic Effects:** It reduces anxiety and stress while promoting a calm and focused state, without the sedative effects of typical anxiolytics.
- **Physical Performance Enhancement:** Increases physical endurance and resistance to fatigue, making it popular among athletes.
- **Mood Enhancement:** By increasing dopamine and serotonin levels, it boosts mood and emotional well-being, potentially helping those with depression or anxiety.
- **Neuroprotection:** Bromantane may protect neurons from oxidative stress and damage, contributing to overall brain health.

BENEFITS:

While Bromantane is generally well-tolerated, potential side effects can include:

- **Insomnia:** Due to its stimulant properties, taking it too late in the day may disrupt sleep.
- **Headaches:** Some users report mild headaches, especially at higher doses.
- **Digestive Discomfort:** Mild nausea or gastrointestinal discomfort has been reported in some cases.
- **Overstimulation:** Though rare, excessive doses may lead to overstimulation or jitteriness, similar to other stimulants.

COMMON DOSING PROTOCOL:

- **Starting Dose:** It is often recommended to start at a lower dose, around 25 to 50 mg per day, to assess tolerance.
- **Timing:** Bromantane is typically taken in the morning or early afternoon due to its long-lasting stimulant effects. Avoid taking it late in the day to prevent sleep disruption.
- **Cycling:** Users often cycle Bromantane to prevent tolerance build-up, using it for 2–4 weeks followed by a break.

AMINOS

Amino blends are amino acid based blends that contain natural supplements that are usually taken orally in pre workouts or other natural supplements.

By making them injectable you unlock the compound's true power and potential. For example L-Carnitine injected is going to be way more effective than carnitine orally.

We will also discuss in this section compounds like DADA and NAD+

L-CARNITINE

Link: <https://modernaminos.com/product/l-carnitine-20ml/>

Code: Biohack

WHAT IS IT?

L-Carnitine is an amino acid derivative synthesized in the liver and kidneys from essential amino acids, lysine and methionine. It plays a crucial role in the transportation of fatty acids into the mitochondria, where they are oxidized to produce energy. L-Carnitine exists in various forms, with L-Carnitine, Acetyl-L-Carnitine (ALCAR), and Propionyl-L-Carnitine (PLCAR) being the most common and widely used.

L-Carnitine operates through a mechanism that facilitates the transport of fatty acids into the mitochondria, the energy-producing powerhouses of cells. This process involves several steps:

BENEFITS:

- **Enhanced Fat Metabolism:** L-Carnitine's primary role is to aid in the transport of fatty acids, making it a popular supplement among those looking to support fat loss and improve metabolic efficiency.
- **Increased Endurance:** By facilitating the utilization of fat as an energy source, L-Carnitine can improve endurance and stamina during exercise, reducing reliance on glycogen stores.
- **Muscle Recovery:** L-Carnitine has been suggested to reduce exercise-induced muscle damage and muscle soreness, potentially expediting recovery post-workout.
- **Heart Health:** Some studies suggest that L-Carnitine may benefit heart health by improving cardiac function, reducing oxidative stress, and lowering the risk of cardiovascular diseases.

- **Brain Function:** Acetyl-L-Carnitine (ALCAR) has been studied for its potential cognitive benefits, including improved memory and focus, and as a supportive treatment for neurodegenerative disorders like Alzheimer's disease.
- **Sperm Mobility and Health:** Studies have always shown that carnitine is able to help aid in sperm motility and fertility.
- **Depression:** Some studies have shown that Carnitine may be useful at helping to treat depression.

SIDE EFFECTS:

Injectable L-Carnitine is one of the safest products that is offered on the market. Really the main drawback worth discussing is the fact that for some the injection can be a tad bit painful. By using proper injecting procedures like injecting deep enough you can reduce this post injection pain (PIP)

SIDE EFFECTS:

Typically carnitine can be titrated up to a dosage that can be tolerated by the user. I recommend starting with something like 200mg in the morning before fasted cardio and working up to 500–600 mg. Of course you can always take more but in my opinion it is really what you can handle when it comes to injecting and pip. A Lot of times injection frequency is the main rate limiting step when it comes to carnitine usage.

ZEUS JUICE

Link: <https://modernaminos.com/product/zeus-juice/>

Code: Biohack

WHAT IS IT?

Zeus Juice is one of the most potent injectable amino acid blends on the market. Per ML it has....

- L-Arginine 110mg/ml
- L-Citrulline 120mg/ml
- L-Glutamine 40mg/ml
- L-Taurine 60mg/ml
- L-Ornithine 110mg/ml
- L-Lysine 70mg/ml
- L-Proline 60mg/ml
- L-Carnitine 220mg/ml
- N-Acetylcysteine (NAC) 75mg/ml

BENEFITS:

Zeus Juice is in my opinion one of the most powerful pump products on the market. The pump you will get on this even if you are cutting is insane and unlike anything else.

The benefits of Zeus Juice are as followed

- Insane Pumps
- Increased Muscular Endurance in the Gym
- Increased Vascularity
- Improved Fat Loss
- Improved Liver values

SIDE EFFECTS:

There are minimal side effects associated with this product.

The one thing I will say is that it does carry with it some post injection pain. This is simply because of how loaded up this amino acid blend is.

It is by no means unbearable though and is not bad by any stretch of the imagination especially compared to other things that I have pinned.

DOSING/ HOW TO USE:

I would start with a half ml pinned bilaterally into the muscle you are training about 45 minutes before your workout. You can work up to a higher dosage but be cautious as sometimes the pump can be too extreme and interfere with the workout.

This blend shines during cuts and bulks and pairs extremely well with cialis and other pre workout androgens. You will be amazed at the pump you get when you use even while in a steep caloric deficit.

You can pair this with other pump ingredients like cialis, pre workout androgens, and or pump based pre workout formulas just be cautious so that your blood pressure does not go too low.

DAILY DRIVER

Link: <https://modernaminos.com/product/daily-driver-20ml/>

Code: Biohack

WHAT IS IT?

The Daily Driver is an Amino Blend that features per 1ml

- 400mg Carnitine
- 100mg Arginine
- 100mg L-Ornithine

This blend of ingredients is a fantastic daily stack that can be great in your day to day life. Carnitine, Arginine, and Ornithine are a mix of ingredients that can help to boost fat loss, pumps, and recovery!

BENEFITS:

Now this product has three amazing ingredients so you get a whole host of benefits from it including

- Improved Endurance
- Better Pumps
- Better Recovery In The Gym
- Better Mood and Mental Focus
- Better Vascularity

SIDE EFFECTS:

This product is fairly side effect free as most of these are natural ingredients that would not cause any issues. Really the main drawback is that it has to be pinned but it is an extremely smooth product.

DOSING/ HOW TO USE:

I like 1ml of this before either my fasted cardio or before my training! Can also use more but for me 1ml is perfect. I typically pin it intramuscularly.

COQ10 (INJECTABLE)

Link: <https://modernaminos.com/product/daily-driver-20ml/>

Code: Biohack

WHAT IS COQ10?

Oral COQ10 is awesome, but let me tell you injectable is even better

CoQ10 (Coenzyme Q10) is a naturally occurring antioxidant that plays a critical role in energy production within cells. It is not technically a peptide but a fat-soluble compound found in every cell of the body, especially in organs with high energy demands like the heart, liver, and kidneys. CoQ10 is essential for the production of adenosine triphosphate (ATP), which powers cellular processes. It also functions as a powerful antioxidant, protecting cells from oxidative damage.

How CoQ10 Works in the Body:

- **Energy Production:** CoQ10 is a key component of the mitochondrial electron transport chain, where it helps convert nutrients into ATP. This is vital for cellular energy and overall function.
- **Antioxidant Protection:** CoQ10 neutralizes free radicals, reducing oxidative stress and preventing damage to cells and tissues. This is particularly important for heart health, as the heart requires a lot of energy and is vulnerable to oxidative damage.
- **Supports Heart Health:** CoQ10's role in energy production is especially beneficial for heart function, as the heart needs constant energy to pump blood efficiently. It has been shown to improve symptoms of heart failure and may reduce the risk of cardiovascular events.
- **Boosts Immune Function:** By supporting cellular energy production, CoQ10 helps the immune system function more effectively.

BENEFITS:

Improved Heart Health: CoQ10 is commonly used to treat heart-related conditions, including heart failure and hypertension. It may improve heart function, reduce blood pressure, and improve outcomes in people with cardiovascular disease.

Enhanced Energy Levels: CoQ10 can help reduce fatigue, particularly in people with conditions that affect energy metabolism, such as chronic fatigue syndrome or mitochondrial disorders.

Anti-Aging Properties: By reducing oxidative stress and improving cellular energy production, CoQ10 may slow the aging process, particularly in the skin, where it helps reduce wrinkles and improves elasticity.

Exercise Performance: Some studies suggest that CoQ10 supplementation can improve exercise performance by increasing energy availability and reducing muscle fatigue.

Neurological Health: CoQ10's antioxidant properties may help protect the brain from oxidative damage, potentially slowing the progression of neurodegenerative diseases like Parkinson's and Alzheimer's.

SIDE EFFECTS

CoQ10 is generally well tolerated, but some mild side effects may occur, including:

- Gastrointestinal issues like nausea, diarrhea, or stomach upset.
- Insomnia in some individuals.
- Headaches or dizziness.

DOSING

The COQ10 in this product comes in at 300mg per 1 ml. For me I will typically use a full ml or 1.5ml just because this product is so amazing for cardiac health and overall energy. I usually do it during the morning because it gives me some great energy.

ACETYL D-GLUCOSAMINE

Link: <https://modernaminos.com/product/acetyl-d-glucosamine-20ml/>

Code: Biohack

WHAT IS COQ10?

Acetyl-D-glucosamine is a monosaccharide and a derivative of glucose. It plays a crucial role in various biological processes, including the formation of glycosaminoglycans, which are essential components of connective tissues such as cartilage.

Acetyl-D-glucosamine functions as a precursor to glycosaminoglycans, which are integral to the structure and function of joints and connective tissues. By contributing to the synthesis of these molecules, Acetyl-D-glucosamine supports joint health and may aid in the maintenance of cartilage integrity. This can be particularly relevant for bodybuilders who subject their joints to intense physical stress during weightlifting and resistance training.

BENEFITS:

Now Glucosamine has some amazing benefits for your joints and when it comes to supplements that promote joint health and injury prevention it is one of the best. It also has some amazing benefits when it comes to inflammation.

SIDE EFFECTS

While not many major side effects it is worth noting that Glucosamine is genuinely well tolerated. Some injection pain, and other minor side effects may occur. Be cautious if you have shellfish allergies because it is derived from there.

DOSING/HOW TO USE:

I typically use it in injury prevention protocol or an injury healing protocol. As a background maintenance player for stronger joints and tendons I like to use around 50–100 mg per day everyday. Sometimes I will pin close to certain areas I know have joint issues.

To repair an injury I would typically do a few weeks at a higher dosage of 150–225mg, and then pair it with something like BPC-157 and TB-500

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CARVED

Link: <https://modernaminos.com/product/carved-20ml/>

Code: Biohack

Carved is a powerful fat loss formula that works through multiple different pathways per 1ml it contains

- 10mg Methionine
- 50mg Inositol
- 50mg Choline
- 250mg Carnitine
- Vitamin B12 500mcg
- 25mg B6
- 20mg NAD+

These ingredients work together to promote fat loss in a more side effect free than normal fat burners like Clenbuterol.

Here is how they work together to boost fat loss

1. Methionine (10 mg)

- **How It Works:** Methionine is an essential amino acid that aids in fat metabolism. It supports liver function by helping break down fats and convert them into energy, preventing fat buildup in the liver.
- **Fat Loss Benefits:** As a lipotropic agent, methionine helps reduce fat deposits and promotes efficient fat utilization in the body.

2. Inositol (50 mg)

- **How It Works:** Inositol regulates insulin sensitivity and fat metabolism, helping the body use insulin more effectively. This prevents fat storage and encourages the body to use stored fat as energy.
- **Fat Loss Benefits:** By improving insulin sensitivity and balancing hormones, inositol helps reduce fat accumulation, especially around the abdomen.

3. Choline (50 mg)

- **How It Works:** Choline is essential for the metabolism and transport of fats. It supports liver function by moving fats from the liver to cells where they can be burned for energy.
- **Fat Loss Benefits:** Choline is another lipotropic agent that promotes fat burning and reduces the likelihood of fat buildup in the liver.

4. L-Carnitine (250 mg)

- **How It Works:** L-carnitine facilitates the transport of fatty acids into the mitochondria, where they are converted into energy. This process is vital for fat burning, especially during exercise.
- **Fat Loss Benefits:** L-carnitine enhances fat oxidation, which increases the body's ability to use fat as a primary fuel source, aiding in weight loss and improving endurance during workouts.

5. Vitamin B12 (500 mcg)

- **How It Works:** Vitamin B12 is crucial for converting fats and carbohydrates into energy and is necessary for proper nervous system function.
- **Fat Loss Benefits:** By boosting energy metabolism, B12 helps support sustained energy levels during fat loss phases and reduces fatigue during physical activity.

6. Vitamin B6 (25 mg)

- **How It Works:** Vitamin B6 is involved in many metabolic processes, including the metabolism of proteins, fats, and carbohydrates. It also plays a key role in neurotransmitter function and hormone regulation.
- **Fat Loss Benefits:** Vitamin B6 helps regulate metabolism, particularly by assisting in the breakdown of glycogen and fat stores for energy. It also supports mood regulation, reducing stress and emotional eating, which can aid in weight loss.

7. NAD+ (20 mg)

- **How It Works:** NAD+ (Nicotinamide Adenine Dinucleotide) is a coenzyme that is essential for cellular energy production and mitochondrial function. It helps convert nutrients into ATP, the body's main energy currency.
- **Fat Loss Benefits:** NAD+ supports mitochondrial activity, which enhances fat oxidation and overall metabolic efficiency. This increases the body's ability to burn fat and produce energy.

BENEFITS

Benefits of this product are as follows

- Better Fat Loss (probably one of the best things for fat loss with minimal side effects)
- Better Endurance and workout performance
- Better mental focus
- Improved Energy (I noticed a massive boost of energy when using this)

SIDE EFFECTS

Make sure to keep an eye on your B Vitamins on your blood work so they are not getting too high on bloodwork. These do have them and having too many B vitamins can be problematic.

NAD+ can cause some shortness of breath for some people when injected but for the most part it is pretty benign.

BIOTIN

Link: <https://modernaminos.com/product/biotin-20ml/>

Code: Biohack

WHAT IS BIOTIN?

Biotin, also known as vitamin B7 or vitamin H, is a water-soluble B-complex vitamin that plays a critical role in converting food into energy. It acts as a coenzyme for carboxylase enzymes, which are involved in the metabolism of fats, carbohydrates, and proteins. Biotin is essential for maintaining healthy skin, hair, nails, and nervous system function.

HOW IT WORKS IN THE BODY:

Biotin works by:

- **Supporting Metabolism:** It helps convert macronutrients (carbohydrates, fats, proteins) into usable energy by acting as a coenzyme for several key metabolic pathways.
- **Supporting Healthy Hair, Skin, and Nails:** Biotin promotes keratin production, a protein essential for the health and strength of hair, skin, and nails.
- **Supporting Gene Expression:** Biotin is involved in regulating gene expression, particularly in the processes related to cell growth and repair.

Supporting Nervous System Function: Biotin plays a role in maintaining proper nervous system function and may support cognitive health.

BENEFITS OF BIOTIN:

1. **Improved Hair Health:** Biotin is widely used in supplements for hair growth, thickness, and strength, making it popular for addressing hair loss or brittle hair.
2. **Strengthened Nails:** Biotin can help improve nail strength and reduce brittleness.
3. **Healthy Skin:** Biotin supports skin health, helping to improve hydration and reduce the symptoms of skin conditions like dermatitis.
4. **Metabolic Support:** Biotin supports energy production by aiding in the metabolism of fats, carbohydrates, and proteins.
5. **Cognitive Function:** Biotin may contribute to a healthy nervous system, potentially benefiting brain function and mood regulation.

SIDE EFFECTS

Biotin is generally considered safe, as it is a water-soluble vitamin and excess amounts are excreted through urine. However, some rare side effects may include:

- **Skin Rash:** Although biotin is beneficial for the skin, in some cases, very high doses can cause skin issues.
- **Digestive Upset:** Some users may experience mild gastrointestinal discomfort with high doses.
- **Interference with Lab Tests:** Excessive biotin intake can interfere with certain blood tests, leading to inaccurate lab results, particularly for thyroid or heart function markers.

COMMON DOSING PROTOCOL:

Now this is an injectable form. When I am trying to improve my hair and skin I will use 500 mcg twice per week as a maintenance dosage. I do not over do it because again too much can lead to having too much B7

VITAMIN B12

Link: <https://modernaminos.com/product/vitamin-b12-20ml/>

Code: Biohack

WHAT IS IT?

Vitamin B12 is a key member of the B-vitamin family, essential for maintaining nerve function, producing DNA, and supporting the formation of red blood cells. This vitamin is not produced by the body, emphasizing the importance of obtaining it through diet or supplements.

BENEFITS:

Energy Metabolism: Vitamin B12 is instrumental in converting food into energy, aiding in the metabolism of fats and carbohydrates.

Red Blood Cell Formation: Essential for the production of red blood cells, Vitamin B12 helps prevent anemia and ensures optimal oxygen delivery to cells.

Neurological Function: B12 is crucial for maintaining healthy nerve cells and supporting neurological function. deficiencies may lead to symptoms such as numbness, tingling, and difficulty walking.

DNA Synthesis: B12 is involved in the synthesis of DNA, playing a critical role in cell division and growth.

Heart Health: Vitamin B12, in conjunction with other B-vitamins, helps regulate homocysteine levels, promoting cardiovascular health.

Mood Regulation: Adequate B12 levels contribute to the synthesis of neurotransmitters like serotonin, impacting mood and mental well-being.

SIDE EFFECTS:

Allergic Reactions: While rare, some individuals may experience allergic reactions to B12 supplements, presenting as itching, swelling, or difficulty breathing.

Digestive Issues: High oral doses of B12 may cause digestive discomfort, including nausea, diarrhea, or abdominal cramps.

Hypervitaminosis: Excessive B12 intake is generally well-tolerated, but extremely high doses may lead to hypervitaminosis, potentially impacting kidney function.

DOSING/HOW TO USE:

The dosing on this changes for everyone. But the biggest thing is to check how your blood work is responding to the injections.

Typically I recommend loading it for about a week and using around 100–200 mcg ED or EOD

Then from there you can pin 1–2 times per week to maintain for about 4 weeks

Once your levels are stable you can pin it once per month to help maintain your B12 levels.

Again guys this will be different for everyone depending on how deficient you are or how much your body processes.

PUMP

Link: <https://modernaminos.com/product/pump-20ml/>

Code: Biohack

WHAT IS IT?

Pump is a simpler version of the zeus juice that features per 1 ml

- 100mg L-Arginine
- 100mg L-Citrulline
- 100mg L-Ornithine

This is the perfect introduction to amino blend products for those who maybe have not used them before but want to try.

It is great at giving you a skin splitting pump and is super easy to pin!

BENEFITS

Benefits users can expect from this blend are

- Better Pumps In The Gym
- Better Recovery
- Better Vascularity
- Increase Performance In The Gym

SIDE EFFECTS

Like some of the others the biggest drawback to the product is that it has to be pinned although pinning this product is so smooth it is incredibly easy to pin it. There is 0 pip when using this.

DOSING/HOW TO USE

I like using .5ml-1ml bilaterally into the body part I am training around 45 minutes before the workout.

DADA

Link: <https://modernaminos.com/product/dada-20ml/>

Code: Biohack

WHAT IS IT?

Diisopropylamine Dichloroacetate (DADA) is a derivative of dichloroacetate (DCA), a compound that has been studied for its potential benefits in promoting cellular energy production and mitochondrial function. DADA is believed to work by improving metabolic efficiency, particularly by stimulating the activity of the pyruvate dehydrogenase enzyme complex. This helps shift the body's energy metabolism towards aerobic pathways, which can improve energy production and efficiency in cells, including muscle cells.

How DADA Works in the Body:

DADA's primary mechanism of action involves activating the **pyruvate dehydrogenase complex (PDC)**, an enzyme critical for converting pyruvate (derived from glucose) into acetyl-CoA, a key substrate for energy production in the mitochondria. By stimulating PDC, DADA promotes the oxidation of glucose and enhances the efficiency of energy production through aerobic respiration.

This shift in metabolism from anaerobic (lactic acid-producing) pathways to more efficient aerobic (oxygen-using) pathways can improve endurance and reduce lactate buildup, which is especially beneficial for athletes.

BENEFITS OF DADA:

- 1. Enhanced Athletic Performance:** DADA improves cellular energy metabolism, making it highly beneficial for athletes involved in endurance sports. By enhancing aerobic capacity and reducing lactic acid buildup, DADA helps athletes sustain higher levels of exertion without experiencing fatigue as quickly.
- 2. Increased Endurance:** By promoting a more efficient energy cycle through the pyruvate dehydrogenase complex, DADA allows the body to use oxygen more efficiently, delaying the onset of muscle fatigue.
- 3. Improved Recovery:** The ability to shift energy metabolism towards aerobic pathways can also support better recovery after intense physical activity by reducing post-exercise muscle soreness and aiding in quicker replenishment of energy stores.
- 4. Support for Metabolic Health:** DADA may help improve metabolic flexibility, which is crucial for maintaining stable energy levels, particularly in individuals with impaired glucose metabolism or mitochondrial dysfunction.

5. **Neuroprotection:** Preliminary research suggests that DADA and other DCA derivatives may have neuroprotective properties by supporting mitochondrial function and reducing oxidative stress, though this area requires further investigation.
6. **Liver Protective:** DADA has also been shown to be extremely liver protective and can help to correct high liver values/
7. **Better Sleep:** DADA has also been shown to work synergistically with melatonin to help improve sleep.

SIDE EFFECTS OF DADA

- **Gastrointestinal Issues:** Some individuals may experience nausea, upset stomach, or diarrhea, especially at higher doses.
- **Peripheral Neuropathy:** Long-term or high-dose use of compounds like DCA can sometimes lead to peripheral neuropathy (nerve damage), though this effect has not been extensively studied in DADA specifically.
- **Fatigue:** Paradoxically, while DADA may improve energy metabolism, some users report experiencing fatigue, especially when first starting supplementation.

DOSING PROTOCOL FOR DADA

I will dose this anywhere between 100–300 mg either before my workout, before bed, or before my fasted cardio to help boost my cardio.

Typically I will dose higher if I am doing it before an endurance based activity and lower at around 100 mg if I dose it before bed with melatonin

It is also great before bodybuilding training sessions as it can help to increase muscular endurance. Some people also stack this with

Some also stack with Calcium Pyruvate to help improve how effective it is.

FOCUS

Link: <https://modernaminos.com/product/focus-20ml/>

Code: Biohack

WHAT IS IT?

Focus is a blend of

- L-Carnitine 100mg/ml
- Acetyl-L-Carnitine 100mg/ml
- Carnosine 100mg/ml
- Choline 100mg/ml

This product is amazing for using before the gym or before an athletic event and is also great for helping to improve focus and concentration.

What is cool about this product is that I can use it before an exam and or before a mountain bike ride and still yield amazing results.

BEENFITS

The benefits are as follows

- Improved Endurance
- Improved Power Output
- Better Athletic Performance
- Better Mind to Muscle Connection
- Better Focus
- Better Fat Loss

SIDE EFFECTS

There are not many side effects to this product other than a bit of PIP when pinning it.

DOSING/ HOW TO USE

I would recommend using 1–2 mls of this 30–45 minutes before a workout, athletic competition, or before a test or a situation where you will need mental focus and acuity.

LIGHTS OUT

Link: <https://modernaminos.com/product/lights-out-20ml/>

Code: Biohack

WHAT IS IT?

Lights Out from Modern Aminos is your ultimate cure to insomnia and late night overthinking and stress.

It contains a blend of amino acids and melatonin designed to give you an amazing nights sleep

- Gamma-aminobutyric acid (GABA) 100mg/ml
- L-Histidine 100mg/ml
- L-Theanine 50mg/ml
- Taurine 30mg/ml
- Melatonin 200mcg/ml

BENEFITS

The benefits of lights out are as follows

- Deeper Sleep
- Decreased Anxiety
- Decreased Inflammation
- Improved Muscular Recovery
- Improved Ability to get to sleep faster.

SIDE EFFECTS

The side effects that many people get is some shortness of breath when pinning the product. This is likely due to the GABA in the product.

DOSING/ HOW TO USE

Many people get shortness of breath from this product. For this reason I recommend starting at .25mls and slowly working up to a full ML before bed.

I would pin this IM about 30 minutes before bed. Do not drive or operate heavy machinery after using this product as it will make you extremely tired.

GLOW UP

Link: <https://modernaminos.com/product/glow-up-20ml/>

Code: Biohack

WHAT IS IT?

Glow Up is a blend of vitamins and aminos acids that are designed to help improve hair, skin, and nail health. Users of glow up have reported significant improvement in their overall complexion when using this product.

Each 20ml vial contains:

B vitamins

- Vitamin B2 Riboflavin 100mg/ml
- Vitamin B3 Niacin 5mg/ml
- Vitamin B3 Niacinamide 50mg/ml
- Vitamin B5 Pantothenic Acid 25mg/ml
- Vitamin B9 Folic Acid 100mcg/ml
- Thiamine 50mg/ml
- Biotin 100mcg/ml

Amino Acids

- L-Choline 10mg/ml
- L-Inositol 10mg/ml

BENEFITS

The benefits of glow up are as followed

- Improved hair growth and thickness
- Improved skin health and complexion
- Improved Nail Health
- Improved Energy Levels

SIDE EFFECTS

The side effects are a bit of post injection pain and the potential for some vitamin B toxicity. Make sure to pay attention to your Vitamin B levels on your bloodwork to ensure they are not getting too high.

DOSING/ HOW TO USE

You can pair this with all of your favorite topical skin care products for some amazing results.

I would use about .5–1ml of this stuff morning or night everyday to improve skin complexion and hair growth.

JOINTS OF STEEL

Link: <https://modernaminos.com/product/joints-of-steel-20ml/>

Code: Biohack

WHAT IS IT?

Joints of Steel is an injectable joint support formula designed to improve joint health and mobility. It contains three primary components: **Acetyl-D-Glucosamine**, **MSM (Methylsulfonylmethane)**, and **Chondroitin Sulfate**, all of which work together to provide comprehensive joint support by reducing inflammation, promoting cartilage repair, and enhancing joint lubrication.

While there are many oral joint formulas on the market, this being an injectable really unlocks the full power of the compounds.

Per 1ml it features

- N-Acetyl-D-Glucosamine 150mg/ml
- Chondroitin Sulfate 40mg/ml
- Methylsulfonylmethane (MSM) 40mg/ml

How It Works in the Body:

- **Acetyl-D-Glucosamine:** This is a derivative of glucosamine, which plays a key role in the formation and repair of cartilage. It helps in the production of hyaluronic acid, which lubricates the joints and improves their overall function. Acetyl-D-Glucosamine also has anti-inflammatory properties, which can reduce joint pain and swelling.
- **MSM (Methylsulfonylmethane):** MSM is an organic sulfur compound that supports the production of collagen and connective tissue. It helps reduce inflammation and oxidative stress in the joints, promoting faster recovery and reducing pain associated with arthritis or joint injuries. MSM also enhances cell permeability, allowing nutrients to be absorbed more efficiently by the cells in the joint tissues.
- **Chondroitin Sulfate:** This compound is a major component of cartilage, helping to retain water and provide elasticity, which is essential for cushioning joints. Chondroitin sulfate also inhibits enzymes that break down cartilage, preserving joint integrity and slowing the progression of degenerative joint diseases like osteoarthritis.

BENEFITS

- **Improves Joint Lubrication:** By increasing the production of hyaluronic acid and promoting water retention in cartilage, Joints of Steel enhances joint lubrication, improving mobility and flexibility.
- **Reduces Joint Pain and Inflammation:** MSM and Acetyl-D-Glucosamine help reduce inflammation, which in turn alleviates joint pain, making it beneficial for conditions like osteoarthritis, rheumatoid arthritis, and general joint wear and tear.
- **Promotes Cartilage Repair:** Chondroitin sulfate helps repair damaged cartilage and protects it from further breakdown, which is crucial for long-term joint health and reducing stiffness.
- **Supports Collagen Production:** MSM boosts collagen synthesis, which is essential for maintaining the structure and elasticity of joints and connective tissue.

SIDE EFFECTS

- **Injection Site Reactions:** Some may experience redness, swelling, or pain at the injection site.

HOW TO USE IT

Now I like to keep this compound in the background to help keep my body pushing hard in the gym and to keep my joints healthy and feeling good to lift without disruption. So for everyday usage I will use 1ml before bed.

But when I am going through an injury or trying to really heal or recover I will pin 1.5–2mls per day to help with the healing process with things like GH, TB-500, BPC-157, etc

RIBOFLAVIN (INJECTABLE)

Link: <https://modernaminos.com/product/riboflavin-20ml/>

Code: Biohack

WHAT IS IT?

Riboflavin, also known as vitamin B2, is a water-soluble vitamin that plays a vital role in maintaining overall health. It is part of the B-vitamin family and is essential for energy production, the metabolism of fats, proteins, and carbohydrates, and supporting cellular function. Since the body doesn't store riboflavin, it must be obtained through diet or supplementation.

HOW RIBOFLAVIN WORKS IN THE BODY?

Riboflavin is crucial for several biochemical processes:

- **Energy Production:** Riboflavin is a key component of the coenzymes FAD (flavin adenine dinucleotide) and FMN (flavin mononucleotide), which are involved in cellular energy production (ATP synthesis). These coenzymes participate in the electron transport chain within mitochondria, helping to convert nutrients into energy.
- **Antioxidant Support:** Riboflavin helps regenerate glutathione, one of the body's most potent antioxidants, which protects cells from oxidative damage.

- **Metabolism of Nutrients:** It plays a role in the breakdown of fats, carbohydrates, and proteins into energy, supporting metabolic function.

BENEFITS OF RIBOFLAVIN SUPPLEMENTATION

1. **Energy Production:** By supporting the metabolic pathways that convert food into energy, riboflavin helps fight fatigue and boosts overall energy levels.
2. **Migraine Prevention:** Research suggests that riboflavin may help reduce the frequency and severity of migraines, likely due to its role in mitochondrial function.
3. **Eye Health:** Riboflavin may protect against cataracts and other eye disorders due to its antioxidant properties and role in maintaining healthy eye cells.
4. **Skin and Hair Health:** Riboflavin is involved in maintaining healthy skin, hair, and nails. A deficiency can lead to dry, cracked skin and hair loss.
5. **Iron Absorption:** Riboflavin supports iron metabolism, helping to prevent anemia by enhancing iron absorption and its incorporation into hemoglobin.

SIDE EFFECTS OF RIBOFLAVIN

Riboflavin is generally considered safe, even at higher doses, as excess amounts are excreted in the urine. Some potential side effects include:

- **Bright Yellow Urine:** This is a harmless effect caused by the body excreting excess riboflavin.
- **Allergic Reactions:** Though rare, some people may experience allergic reactions, such as itching, swelling, or difficulty breathing, when taking riboflavin supplements.

DOSING

I like to use 25mg (1ml) of this to help boost my energy levels and for my skin and hair health.

NAD+

Link: <https://modernaminos.com/product/nad-20ml/>

Code: Biohack

WHAT IS NAD+?

NAD+ (Nicotinamide Adenine Dinucleotide) is a coenzyme found in every living cell in the body. It plays a critical role in energy metabolism and is involved in various cellular processes. NAD+ is essential for converting nutrients into energy, supporting cellular repair, and maintaining the health of the mitochondria, the "powerhouses" of the cells.

HOW NAD⁺ WORKS IN THE BODY

NAD⁺ operates as a crucial coenzyme for redox reactions, where it alternates between its oxidized form (NAD⁺) and its reduced form (NADH). These reactions are key for cellular energy production, particularly in the **Krebs cycle** and **electron transport chain**, where glucose and fatty acids are converted into ATP (adenosine triphosphate), the energy currency of the body.

NAD⁺ IS ALSO VITAL FOR:

- **DNA Repair:** NAD⁺ helps activate proteins like PARPs (poly-ADP ribose polymerases) that repair damaged DNA.
- **Sirtuin Activation:** NAD⁺ activates a group of proteins called sirtuins, which regulate gene expression related to aging, inflammation, and stress resistance. Sirtuins are associated with promoting longevity and improving overall metabolic function.
- **Mitochondrial Health:** NAD⁺ supports mitochondrial function and biogenesis, helping to prevent age-related decline in cellular energy production.

BENEFITS OF NAD⁺

1. **Enhanced Energy Production:** By supporting mitochondrial function, NAD⁺ boosts cellular energy levels, leading to improved physical performance and mental clarity.
2. **Anti-Aging Properties:** NAD⁺ helps activate sirtuins and repair damaged DNA, which can slow down aging processes at the cellular level, promoting longevity and reducing the risk of age-related diseases.
3. **Cognitive Enhancement:** NAD⁺ has neuroprotective effects, supporting brain health by maintaining mitochondrial function, reducing oxidative stress, and enhancing neurotransmitter function.
4. **Improved Metabolism:** It can help improve insulin sensitivity, fat metabolism, and glucose utilization, making it beneficial for those with metabolic disorders like diabetes or obesity.
5. **Cellular Repair and Regeneration:** NAD⁺ helps repair DNA damage and supports cellular repair mechanisms, aiding in tissue regeneration and recovery from stress.
6. **Reduction of Inflammation:** By promoting sirtuin activity, NAD⁺ reduces inflammation and oxidative stress, improving overall health and resilience to chronic diseases.

SIDE EFFECTS OF NAD⁺

While NAD⁺ is generally considered safe, some side effects can occur, especially with high doses or intravenous administration. These include:

- **Nausea:** Some users may experience mild nausea, particularly with rapid IV administration.
- **Headaches:** This may result from rapid detoxification and cellular repair triggered by NAD⁺.

- **Flushing:** A sensation of warmth or redness, particularly if taken in larger doses or via infusion.
- **Fatigue or Insomnia:** While NAD+ boosts energy, some users report temporary fatigue or difficulty sleeping after initial doses as their body adjusts.

COMMON DOSING PROTOCOL

- **Injections:** NAD+ can also be administered through subcutaneous or intramuscular injections. Doses vary but are generally in the range of 100 mg to 300 mg per injection.
- I will typically use it around 2–3 times per week, on days where I really need a boost in energy.
- I will typically use it for around 4–5 weeks then take a break from the compound.

NAD+ supplementation is most effective when combined with a healthy diet, regular exercise, and lifestyle factors that promote cellular health.

THE BUILDER

Link: <https://modernaminos.com/product/the-builder-20ml/>

Code: Biohack

WHAT IS NAD+?

The builder is an injectable BCAA formula that also features other ingredients for recovery, performance, pumps, and more!

Per 1ml the builder features

- L-Arginine 110mg/ml
- L-Citrulline 110mg/ml
- L-Ornithine 120mg/ml
- L-Glycine 60mg/ml
- L-Taurine 100mg/ml
- L-Glutamine 110mg/ml
- L-Lysine 80mg/ml
- BCAA 2:1:1 150mg/ml

As you can see this is one of the most powerful and comprehensive formulas on the website.

BENEFITS

Now the benefits of this compound are pretty amazing. With all the ingredients in this there are so many benefits that you can reap from it. Below I will try to list all of them out.

- Better Muscle Recovery
- Better Pumps In The Gym
- Improved Vascularity
- Improved workout performance
- Decreased anxiety (from the glycine)

As you can see the benefits are very prevalent not only for preworkout for pumps and performance, but also for post workout recovery.

SIDE EFFECTS

Due to how full this compound is there is some slight pip when using, but it is very tolerable. Also with things like L-Citrulline make sure your blood pressure does not dip too low.

DOSING

Dosing with this compound can be a bit tricky because it has benefits both pre and post workout. I will usually split my dosing and do .5ml-1ml pre workout and .5ml-1ml post workout. This is again due to the fact that is product can bring both amazing benefits preworkout and postworkout (for recovery)

MAX DRIVE

Link: <https://modernaminos.com/product/max-drive/>

Code: Biohack

WHAT IS NAD+?

This is a blend that contains two of the best things that you can inject yourself with.

1. Carnitine at 200mg per ml
2. CDP Choline 300mg per ml

While it may seem simple this is an extremely powerful formula that can be used by a wide range of people.

BENEFITS

Carnitine and Choline together, especially in an injectable form, have nearly unlimited benefits.

Whether you are a student, an athlete playing virtually any sport (not just a bodybuilder), someone who is having some mood issues max drive is for you. Here are the benefits

- Improved Athletic Performance.
- Improved Endurance
- Better Fat Loss
- Better Focus
- Better Energy
- Improved Mind to Muscle Connection
- Improvement in Cognitive Function
- Better Mood

SIDE EFFECTS

There are minimal side effects with this compound with the exception of any injection related side effects. This compound pins super smooth 0 pip.

HOW TO USE IT?

I love this thing so much that I use 1ml basically every single morning just for everything: my weight loss, my mood, my focus, my energy, my endurance, etc.

It just makes everything I do better and is a great base compound for optimal brain and body function.

THE MOTIVATOR

Link: <https://modernaminos.com/product/the-motivator/>

Code: Biohack

WHAT IS THE MOTIVATOR?

The Motivator is an injectable nootropic designed to enhance mental clarity, cognitive function, energy levels, and overall focus. It combines six key ingredients: NADH, TMG, CDP Choline, L-Arginine, NALT, and L-Methionine, each working synergistically to boost brain health and performance.

HOW IT WORKS

- 1. NADH (40mg/ml):** NADH is the active form of nicotinamide adenine dinucleotide, a critical coenzyme involved in cellular energy production. It supports mitochondrial function, enhances ATP production, and contributes to overall cognitive energy. In the brain, NADH is essential for neurotransmitter synthesis, helping to optimize mental function.
- 2. TMG (Trimethylglycine) (30mg/ml):** TMG acts as a methyl donor in the body, aiding in the conversion of homocysteine into methionine, which supports neurotransmitter balance, detoxification, and cognitive function. TMG also helps protect against oxidative stress, improving brain health and mood stability.
- 3. CDP Choline (45mg/ml):** CDP Choline (Citicoline) is a powerful nootropic that increases the availability of choline in the brain, enhancing the production of acetylcholine, a key neurotransmitter for memory, focus, and learning. It also supports brain cell membrane repair and improves neural communication.
- 4. L-Arginine (200mg/ml):** L-Arginine is an amino acid that boosts nitric oxide (NO) production, increasing blood flow to the brain. This enhances nutrient delivery and oxygenation, supporting mental clarity, cognitive function, and physical endurance.
- 5. NALT (N-Acetyl L-Tyrosine) (35mg/ml):** NALT is a more bioavailable form of L-Tyrosine, an amino acid that plays a role in the production of dopamine, norepinephrine, and adrenaline. These neurotransmitters are vital for focus, mood regulation, and stress response, making NALT effective for improving mental performance under pressure.
- 6. L-Methionine (50mg/ml):** L-Methionine is an essential amino acid that supports methylation processes, detoxification, and the synthesis of glutathione, the body's master antioxidant. It helps protect neurons from oxidative damage and supports neurotransmitter production, contributing to improved cognitive function and mood.

BENEFITS

- **Enhanced Mental Clarity:** The combined action of NADH, CDP Choline, and NALT helps sharpen focus, improve memory retention, and enhance learning abilities.
- **Increased Energy:** NADH plays a crucial role in cellular energy production, reducing mental fatigue and boosting overall cognitive stamina.
- **Improved Mood and Motivation:** NALT and TMG support the synthesis of dopamine and other mood-regulating neurotransmitters, promoting a more positive outlook and increased motivation.
- **Better Blood Flow:** L-Arginine boosts nitric oxide production, increasing cerebral blood flow and oxygen delivery to the brain, supporting cognitive function and endurance.
- **Neuroprotection:** CDP Choline, L-Methionine, and TMG work together to protect neurons from oxidative stress and support brain health over the long term.

POTENTIAL SIDE EFFECTS

- **Headaches:** CDP Choline can cause mild headaches in some individuals, particularly when starting supplementation.
- **Increased Heart Rate:** L-Arginine, due to its role in nitric oxide production, may cause slight increases in heart rate or changes in blood pressure in some users.

HOW TO USE IT?

For me I always like to use this compound first thing upon waking as it gives me such a great rush and a great boost of energy.

I have found for me going above 1 ml is a bit too stimulating so I keep my dose to .5ml-1ml. That is my perfect sweet spot. I have also noticed that this compound pairs perfectly with other nootropics like noopept, piracetam, dihexa, etc.

I take this pretty regularly at least a few times a week due to the ingredient profile being pretty easy on the body.

ANCILLAIRES

Ancillaries refer to corrective compounds that can be used during your cycling phases to help improve your health markers, or other side effects like gyno, high estrogen, etc.

MODERN GLUCOSE DISPOSAL AGENT

Link: <https://modernaminos.com/product/modern-glucose-disposal-agent-gda-90-capsules/>

Code: Biohack

WHAT IT IS?

Modern GDA (Glucose Disposal Agent) is a supplement formulated to help regulate blood sugar levels by improving insulin sensitivity and optimizing glucose metabolism. It is designed to enhance the body's ability to utilize carbohydrates efficiently, making it especially beneficial for those on high-carbohydrate diets or individuals looking to manage their blood sugar levels.

How It Works in the Body:

Modern GDA works by facilitating the movement of glucose from the bloodstream into the muscles and other tissues where it can be used for energy. This is primarily achieved through improving insulin sensitivity and enhancing glucose uptake. Here's how the key ingredients work:

- **Vitamin D (3000 IU):** Supports overall metabolic function and enhances insulin sensitivity, which can improve blood sugar regulation.
- **Zinc Picolinate (50mg):** Zinc is crucial for insulin production and signaling, improving glucose uptake in cells.
- **Methylfolate (400mcg):** Supports the methylation cycle, which is important for metabolic health and insulin function.
- **Berberine (500mg):** Known for its ability to lower blood sugar by improving insulin sensitivity and promoting glucose uptake into cells, similar to the effects of metformin.
- **Cinnamon Extract (500mg):** Helps reduce blood sugar spikes after meals by slowing the digestion of carbohydrates and improving insulin function.
- **Turmeric (500mg):** Contains curcumin, which has anti-inflammatory properties and supports metabolic health, contributing to better glucose control.
- **Chromium (400mcg):** Essential for insulin function and glucose metabolism, helping to enhance the effects of insulin and improve blood sugar regulation.
- **R-Alpha-Lipoic Acid (R-ALA, 150mg):** A potent antioxidant that improves insulin sensitivity and enhances glucose uptake in cells, promoting better carbohydrate utilization.
- **Banaba Leaf Extract (200mg):** Contains corosolic acid, which mimics insulin and helps lower blood sugar by enhancing glucose transport into cells.
- **Black Pepper Extract (10mg):** Improves the bioavailability of other ingredients, ensuring better absorption and efficacy.

BENEFITS

- **Improved Insulin Sensitivity:** Modern GDA enhances the body's response to insulin, allowing for better glucose control and more efficient energy utilization.
- **Stabilized Blood Sugar Levels:** By regulating glucose metabolism, it helps reduce blood sugar spikes and crashes, leading to more stable energy levels.
- **Enhanced Muscle Glycogen Storage:** Improved glucose uptake in muscles can enhance performance and recovery, particularly for athletes or individuals consuming higher carbohydrate diets.
- **Support for Weight Management:** Better blood sugar control can help prevent fat storage and cravings, supporting overall weight management goals.
- **Anti-Inflammatory and Antioxidant Effects:** Ingredients like turmeric and R-ALA reduce oxidative stress and inflammation, contributing to better metabolic health.

SIDE EFFECTS

While Modern GDA is generally safe when used as directed, potential side effects may include:

Digestive Upset: Some users may experience mild gastrointestinal discomfort, such as bloating or gas, particularly with berberine and cinnamon extract.

Lowered Blood Sugar: In rare cases, excessive use can lead to hypoglycemia (low blood sugar), especially when taken alongside medications that lower blood sugar.

Allergic Reactions: Individuals with allergies to any ingredients, such as cinnamon or turmeric, may experience allergic reactions.

DOSING PROTOCOL

Now there are a few different ways that I like to use. Either I will take 1 capsule with each meal that I eat, or I will take 2–3 capsules with my two biggest meals of the day.

You can also take one capsule before fasted cardio to help drop your blood glucose levels and put you in a better fat burning state before fasted cardio.

COSMETIC

Cosmetic Compounds are compounds that go on topically and typically impact hair growth, and skin quality.

RU58841

Link: <https://modernaminos.com/product/5-ru-58841/>

Code: Biohack

WHAT IT IS?

RU-58841 is a non-steroidal anti-androgen compound primarily researched for its potential to treat hair loss, particularly androgenetic alopecia (male pattern baldness). It works by blocking the androgen receptors in hair follicles, preventing the effects of dihydrotestosterone (DHT), the hormone responsible for shrinking hair follicles and causing hair loss.

How RU-58841 Works:

RU-58841 binds to androgen receptors in the scalp without affecting systemic hormone levels. It competes with DHT, preventing it from attaching to the receptors in the hair follicles. DHT is a potent androgen that causes hair follicles to miniaturize, leading to hair thinning and eventual hair loss. By blocking DHT at the scalp, RU-58841 can help maintain the health of hair follicles, promoting thicker and healthier hair.

Unlike systemic treatments like finasteride, RU-58841 is applied topically, meaning it targets the hair follicles directly without significantly impacting hormone levels in other parts of the body.

BENEFITS OF RU-58841:

- **Prevents Hair Loss:** By blocking DHT from binding to receptors in the hair follicles, RU-58841 helps slow or stop the progression of hair loss.
- **Promotes Hair Growth:** Many users report regrowth of hair in areas affected by androgenetic alopecia, especially when used consistently over time.
- **Non-Systemic Action:** Since it is applied topically, RU-58841 has a localized effect on the scalp, reducing the risk of systemic side effects commonly associated with oral hair loss medications like finasteride.
- **Minimal Hormonal Disruption:** Unlike oral anti-androgens, RU-58841 is less likely to interfere with the body's natural hormone balance. It is still possible that it could go downstream and impact hormones a bit.

SIDE EFFECTS OF RU-58841:

Although RU-58841 is generally considered safer than systemic treatments, it can still have some side effects, particularly for sensitive individuals or when used in high concentrations:

- **Scalp Irritation:** Some users may experience redness, itching, or irritation at the site of application.
- **Heart Palpitations:** Some people when using this compound have heart palpitations.
- **Hormonal Imbalance (in rare cases):** While RU-58841 is localized, if used excessively or absorbed systemically, it might cause mild hormonal disruptions, potentially affecting libido or causing fatigue.
- **Dryness of the Scalp:** Overuse or sensitivity can lead to dryness or flaking on the scalp.
- **Potential Long-Term Unknowns:** Since long-term studies on RU-58841 are limited, the full scope of side effects, especially with prolonged use, is not entirely understood.

COMMON DOSING PROTOCOL:

- **Application:** Apply 1 ml of the solution to the affected areas of the scalp once daily, usually after showering or before bed. I recommend first starting with a half ml to assess how you respond.
- **Consistency:** It is important to use RU-58841 consistently for several months to see noticeable results, as hair growth is a slow process.

Results can vary between individuals, and for optimal outcomes, users may need to adjust the concentration or frequency based on their scalp's sensitivity or the severity of hair loss.

PURE POTION

Link: <https://modernaminos.com/product/pure-potion/>

Code: Biohack

WHAT IT IS?

Pure Potion is a topical agent designed to enhance skin health, rejuvenation, and repair. Its key ingredients—GHK-Cu, NAD+, glycerin, and hyaluronic acid—each offer unique benefits for the skin. When combined, they create a powerful formula for anti-aging, skin hydration, and cellular repair.

How It Works in the Body

- 1. GHK-Cu (Copper Peptide):** GHK-Cu is a naturally occurring copper-binding peptide that plays a significant role in skin remodeling, wound healing, and collagen production. It helps stimulate the production of collagen and elastin, two key proteins that maintain skin elasticity and firmness. GHK-Cu also exhibits anti-inflammatory and antioxidant properties, reducing oxidative stress and promoting skin repair.
- 2. NAD+ (Nicotinamide Adenine Dinucleotide):** NAD+ is a coenzyme involved in cellular energy metabolism and DNA repair. Topically applied NAD+ supports the skin's ability to repair damage and maintain cellular health by boosting energy levels in skin cells. It also plays a role in reducing signs of aging by promoting cellular turnover and repair.
- 3. Glycerin:** A humectant that attracts water to the skin, glycerin helps keep the skin hydrated by pulling moisture from the environment and sealing it into the skin. It creates a protective barrier, preventing dehydration and promoting smooth, soft skin.
- 4. Hyaluronic Acid:** Hyaluronic acid is a naturally occurring molecule that can hold up to 1,000 times its weight in water. It hydrates the skin by retaining moisture, making it appear plumper and more youthful. Hyaluronic acid also supports tissue regeneration and reduces fine lines and wrinkles.

BENEFITS OF PURE POTION

- **Anti-Aging:** By boosting collagen production and cellular repair, Pure Potion helps reduce fine lines, wrinkles, and age spots, making the skin appear more youthful.
- **Improved Skin Hydration:** Glycerin and hyaluronic acid work together to retain moisture, making the skin more supple and reducing dryness.
- **Enhanced Skin Repair:** GHK-Cu and NAD+ promote wound healing, tissue regeneration, and repair of damaged skin. Especially with things like acne scars.
- **Antioxidant Protection:** GHK-Cu provides antioxidant defense against free radicals, reducing oxidative damage to skin cells.
- **Skin Firmness and Elasticity:** By supporting collagen and elastin synthesis, the formula improves skin texture, firmness, and overall appearance.

POTENTIAL SIDE EFFECTS:

- **Skin Irritation:** Some individuals may experience mild skin irritation, redness, or itching, especially if they have sensitive skin.
- **Allergic Reactions:** While rare, allergic reactions to any of the ingredients are possible. It is advisable to perform a patch test before full application.
- **Breakouts:** In rare cases, individuals with oily or acne-prone skin may experience breakouts if the formula disrupts their skin's natural balance.

COMMON DOSING PROTOCOL:

First I like to apply it to a small patch and patch test it to make sure I have no negative reaction.

I will typically use 1ml before bed as part of my skin care routine. It is essential to note that the pure potion will not get rid of acne but instead improve skin health and quality. So make sure to have anti acne medication in your supplements.

I also like to rub it in my beard and my scalp as I feel that it helps me with hair growth although this is not fully backed in the research.

Pure Potion is a potent blend designed to improve skin health, combat aging, and repair skin damage when used consistently.

COMMON DOSING PROTOCOL:

Do be aware some of these products have not launched yet but they are still interesting ones to touch up on. If you have purchased this ebook in its early days then some of these like BAM-15 are probably not yet quite available but will be soon.

5-AMINO-1MQ

Link: <https://modernaminos.com/product/5-amino-1mq-50mg/>

Code: Biohack

5-Amino-1MQ is a small molecule inhibitor of the enzyme nicotinamide N-methyltransferase (NNMT), which plays a significant role in metabolism, fat storage, and energy regulation. By inhibiting NNMT, 5-Amino-1MQ promotes metabolic activity and may aid in fat loss and muscle preservation.

How It Works in the Body:

- **NNMT Inhibition:** NNMT is an enzyme that regulates energy metabolism and fat storage. High levels of NNMT are associated with increased fat storage and metabolic slowdown. By inhibiting NNMT, 5-Amino-1MQ boosts the body's ability to burn fat and improve energy expenditure. This can lead to fat loss while preserving muscle mass.
- **Increases NAD+ Levels:** NNMT activity is linked to the consumption of nicotinamide, a precursor to NAD+, a crucial molecule involved in cellular energy and metabolism. By inhibiting NNMT, 5-Amino-1MQ helps to increase NAD+ availability, supporting cellular energy production and improving overall metabolic health.

BENEFITS OF 5-AMINO-1MQ:

- **Fat Loss:** One of the primary uses of 5-Amino-1MQ is its ability to promote fat loss by enhancing metabolic activity and increasing the rate at which the body burns fat.
- **Muscle Preservation:** In addition to fat loss, 5-Amino-1MQ may help preserve lean muscle mass during calorie deficits, making it useful for individuals looking to lose fat without sacrificing muscle.
- **Increased Energy and Metabolism:** By raising NAD+ levels and enhancing mitochondrial function, this compound may improve overall energy levels and boost metabolism.
- **Anti-Aging Potential:** Increased NAD+ availability is linked to better cellular repair and longevity, giving 5-Amino-1MQ potential anti-aging benefits by supporting healthy cellular function.

POTENTIAL SIDE EFFECTS:

- **Possible Insomnia:** Due to its effects on energy metabolism, some users may find that taking the compound too late in the day can disrupt sleep patterns.
- **Limited Long-Term Data:** Since 5-Amino-1MQ is still under research, long-term safety data is not yet fully available, so caution should be exercised with prolonged use.

COMMON DOSING PROTOCOL:

For dosing I like to keep it to 50mg taken 2–3 times per day. Many people when they use this compound use too low of a dose and do not reap the full effects of it.

5-AMINO-1MQ can be great at helping to potentiate MOTS-C.

I would use 5-AMINO-1MQ really whenever except for right before bed as it can cause some sleeplessness.

I like to use this for around 6–8 weeks then take a break although it is fairly safe to use so you can use it for longer potentially.

As with any supplement, it's important to consult with a healthcare provider before starting 5-Amino-1MQ, especially considering the limited long-term research available.

DMAA

Link: <https://modernaminos.com/product/dmaa-50mg-ml/>

Code: Biohack

WHAT IS DMAA?

What is DMAA? DMAA (1,3-Dimethylamylamine) is a synthetic stimulant originally developed as a nasal decongestant in the 1940s. It gained popularity as an ingredient in pre-workout supplements and fat burners due to its powerful stimulant properties.

How DMAA Works in the Body

DMAA stimulates the central nervous system (CNS), producing effects similar to amphetamines. It works primarily by increasing levels of norepinephrine, a neurotransmitter responsible for the "fight or flight" response. This results in:

- **Vasoconstriction:** Narrowing of blood vessels, which increases blood pressure and heart rate.
- **Release of Dopamine:** DMAA also enhances dopamine levels, which may lead to feelings of euphoria, heightened focus, and motivation.

BENEFITS OF DMAA:

1. **Increased Energy:** DMAA is well-known for providing an intense energy boost, making it popular in pre-workout formulas to enhance exercise performance.
2. **Enhanced Focus and Cognitive Performance:** Due to its stimulant effects on the CNS, DMAA can improve concentration, mental clarity, and alertness.
3. **Appetite Suppression:** DMAA is often used in fat-burning supplements because it suppresses appetite, aiding in weight loss efforts.
4. **Improved Athletic Performance:** Many users report heightened endurance and improved strength output during workouts, which can lead to better performance in the gym.
5. **Better Fat Loss:** Due to DMAA helping suppress appetite and increase energy it can be great for fat loss.

SIDE EFFECTS OF DMAA:

While DMAA can provide significant benefits, it also comes with a range of potential side effects, especially when taken in excessive doses or combined with other stimulants:

- **Increased Blood Pressure:** The vasoconstrictive effect can raise blood pressure, potentially leading to heart-related issues.
- **Rapid Heart Rate (Tachycardia):** DMAA can cause the heart to beat faster than normal, increasing the risk of heart palpitations, arrhythmias, and other cardiovascular issues.

- **Jitters and Anxiety:** Due to its stimulant properties, DMAA can cause jitteriness, nervousness, and anxiety in some users, especially those sensitive to stimulants.
- **Headaches:** DMAA's ability to constrict blood vessels can result in headaches for some users.
- **Risk of Heart Attack or Stroke:** In rare and extreme cases, high doses of DMAA have been linked to more serious outcomes like heart attacks or strokes, particularly when combined with other stimulants or taken by individuals with underlying health conditions.

COMMON DOSING PROTOCOL:

- **Typical Dosage:** The commonly recommended dose of DMAA is around **25–75 mg per day**, often taken before workouts or in the morning. The exact amount can vary based on individual tolerance.
- I would personally make sure to only use this 1–2 times per week at most and make sure you are not stacking it with other powerful stimulants like clenbuterol as it can lead to some severe anxiety and or heart issues.

CLEN

Link: <https://modernaminos.com/product/clen-40mcg-ml/>

Code: Biohack

Clenbuterol (commonly referred to as "Clen") is a bronchodilator traditionally used to treat asthma and other respiratory conditions. However, it is more popularly used off-label for its ability to promote fat loss and enhance athletic performance. Despite being originally intended for medical use, Clenbuterol has gained popularity among bodybuilders, athletes, and individuals aiming for weight loss due to its potent thermogenic effects.

How Clenbuterol Works:

Clenbuterol is classified as a **beta-2 agonist**, meaning it binds to beta-2 receptors in the body, causing a stimulant-like effect. This triggers the sympathetic nervous system, leading to several outcomes:

- **Increases metabolic rate:** Clenbuterol stimulates the body to burn more calories by raising the basal metabolic rate (BMR). This thermogenic effect makes it effective for fat loss.
- **Promotes fat breakdown:** It stimulates lipolysis, the breakdown of fat cells, helping the body use fat as a fuel source.
- **Enhances oxygen transportation:** As a bronchodilator, Clenbuterol improves the body's oxygen delivery, which can enhance physical endurance and performance.

BENEFITS OF CLENBUTEROL:

- **Fat Loss:** Clenbuterol is most popular for its ability to help users shed body fat, especially during cutting cycles or weight loss programs.
- **Preserves Muscle Mass:** Unlike some fat burners, Clenbuterol helps preserve lean muscle mass while promoting fat loss, making it ideal for bodybuilders or athletes during a calorie deficit.
- **Improved Endurance:** Its bronchodilating properties can improve cardiovascular endurance, allowing users to perform better in aerobic activities.

SIDE EFFECTS OF CLENBUTEROL:

While effective, Clenbuterol can come with a range of side effects due to its stimulant nature:

- **Increased Heart Rate:** Clen can lead to rapid heart rate (tachycardia) and palpitations, potentially leading to cardiovascular strain.
- **Shakiness and Tremors:** Many users experience shaking hands or muscle tremors due to nervous system overstimulation.
- **Anxiety and Insomnia:** The stimulant effects can cause feelings of nervousness or difficulty sleeping, especially if taken later in the day.
- **Headaches:** Clenbuterol can cause dehydration and electrolyte imbalance, which may lead to headaches.
- **Muscle Cramps:** The depletion of taurine and potassium can cause painful muscle cramps, which is a common side effect.
- **Possible Cardiac Hypertrophy:** Long-term use or abuse of Clen can lead to the enlargement of the heart muscle, posing a risk of serious heart conditions.

COMMON DOSING PROTOCOL:

Many bodybuilders have misused clen in the past. They use way too high of a dosage for too long. When using clen you need to make sure.

1. You are properly hydrating AND taking in a sufficient amount of electrolytes
2. You consider a Beta receptor antagonist like Nebivolol to protect your heart.
3. You take taurine with it to help deplete taurine levels that can occur from clen.

When using clen I recommend starting very low at 20 mcg per day then slowly working your way up to 40mcg. I do not like to use it for much longer than 6 weeks, before taking a break.

Also make sure to keep an eye on heart rate and blood pressure while taking clen. If these get too high cease usage immediately.

BAM-15

Link: (Coming Soon)

Code: Biohack

WHAT IS DMAA?

BAM15 is a mitochondrial uncoupler that is considered the next generation of DNP essentially. It is supposed to provide the similar insane fat loss benefits without nearly as many toxic side effects of DNP.

HOW BAM15 WORKS

- **Mitochondrial Uncoupling:** Normally, mitochondria generate ATP through oxidative phosphorylation, a process that relies on a proton gradient across the mitochondrial membrane. BAM15 "uncouples" this process by allowing protons to pass through the mitochondrial membrane without producing ATP. As a result, the energy that would normally be used to produce ATP is dissipated as heat instead.
- **Increased Energy Expenditure:** By uncoupling oxidative phosphorylation, BAM15 increases metabolic rate and energy expenditure. This leads to higher calorie burning, even at rest, as the body has to work harder to maintain its normal functions.

Many other uncouplers are cytotoxic. BAM-15 is able to be less by depolarizing mitochondria without affecting the plasma membrane. This can lower off target effects of plasma membrane depolarization.

BENEFITS:

When discussing benefits of BAM-15 please keep in mind that there is more data needed on a lot of these.

- Fat Loss (very very effective for fat loss)
- Less Side Effects and Toxicity then other uncouplers like DNP
- Anti Cancer effects
- Improved Mortality in mice.
- Neuroprotective (may help to stop neurodegeneration)
- Sepsis
- May Help with NAFLD
- May Help With Cardiovascular Disease
- Helps with Diabetes

SIDE EFFECTS OF DMAA:

Again there is a lack of human data with this but it is important to understand that there may be other side effects that we do not know about yet.

- Heartburn
- Increased Body Temperature
- Unknown long term side effects
- Slight raise in anxiety
- GI distress

DOSING

Dosing of BAM-15 can go all the way from 50mg up to 300mg and in some cases even higher. The dosing dose vary a lot and due to lack of information on the compound I do recommend starting low and then moving up a bit higher based on your needs.

For most people 50 mg taken 1–3 times per day will be more than enough.

Cycles can range from 4–8 weeks

Again with the lack of data on it there are tons of different dosing protocols and cycle lengths the can be done with this.

ITPP

Link: (Coming Soon)

Code: Biohack

ITPP (myo-Inositol Trispyrophosphate) is a synthetic compound designed to enhance the oxygen-carrying capacity of red blood cells. It works by modifying hemoglobin's affinity for oxygen, making it easier for oxygen to be released from red blood cells into tissues, which can improve oxygen delivery to muscles and organs.

How It Works

ITPP acts on hemoglobin by reducing its affinity for oxygen. Hemoglobin usually binds oxygen tightly, releasing it gradually to tissues. ITPP decreases this tight bond, allowing more oxygen to be released where it's needed most, such as in tissues undergoing high metabolic activity like muscles during exercise. This results in improved tissue oxygenation without altering the overall oxygen content in the blood.

BENEFITS OF ITPP:

- **Increased Endurance:** By improving oxygen delivery to muscles, ITPP can boost physical endurance and delay fatigue, which can be beneficial for athletes or those with conditions that impair oxygenation, such as anemia or chronic obstructive pulmonary disease (COPD).
- **Potential for Performance Enhancement:** Athletes and biohackers may use ITPP to enhance exercise performance, allowing for longer and more intense workouts by improving the efficiency of oxygen use in the body.
- **Improved Tissue Oxygenation:** In medical contexts, ITPP shows potential in improving oxygenation for people with cardiovascular diseases or hypoxia-related conditions.
- **Potentially helpful for certain cardiovascular diseases:** Early studies have shown ITPP to be very helpful for the heart and certain cardiovascular diseases.
- **Anti Cancer:** Very early studies have shown that ITPP may hold onto cancer properties with it.

SIDE EFFECTS:

While ITPP appears to have promising benefits, research is still in its early stages, and the long-term safety profile is not well established. Potential side effects may include:

- **Hemodynamic changes:** Since ITPP alters the oxygen-carrying dynamics of blood, there is a possibility that it could cause cardiovascular strain or other imbalances in oxygen delivery in certain tissues.
- **Unknown long-term effects:** Because of the lack of comprehensive studies, the long-term impact on liver, kidney, or overall metabolic function is not fully understood.

COMMON DOSING PROTOCOL:

The ITPP at Modern Aminos is an injectable version. For me I like to pin it at 200mg 3–4 times per week on my hardest cardio days. I will typically put it around 30–45 minutes before my workout or before my cardio session. It really helps to give me unlimited energy and is very similar to cardarine.

SLU-PP-332

Link: (Coming Soon)

WHAT IS IT?

SLU-PP-332 is a compound that is a selective estrogen related receptor agonist. It acts strongest on the ERRA.

This compound is currently being designed to help treat certain metabolic syndromes. This makes it an extremely intriguing compound for helping with fat loss and weight loss in a safer manner than something like clenbuterol.

BENEFITS:

Benefits of this compound are as follows

- a. Improved metabolic function
- b. Improved Weight Loss
- c. Improved Endurance and Cardiovascular Performance
- d. Boosted Muscle Activity
- e. More Energy off of less sleep (anecdote)

SIDE EFFECTS

This compound is very new so it is impossible to give a full side effect profile, but what I will say is that based on the current data we have it does not carry with it too many side effects. Be aware more may come!

DOSING/HOW TO USE IT

I have been using about 200 mcg a day before my fasted cardio with other fat burners like L-carnitine. You can use a bit less and or a bit more but what is important is that you start with a low dosage of around 100 mcg with no other fat burners and work your way up slowly as there is no reason to use a super high dosage right off the bat. Sometimes in my day I will redose this at another 200mcg before my training session to boost muscular endurance bringing my daily total to around 400 mcg. I have seen some people go higher into 600 mcg and 800 mcg dosing schemes.

A very popular stack I have seen from other people is to combine SLU with other mitochondrial boosting or endurance boosting compounds to really unlock its full power.

Things like 5-AMINO-1MQ, Methylene Blue, Cardarine, SR-9009, and MOTS-C have all been popular to pair with SLU-PP-332

Other Compounds Coming Soon

PALMITOYLETHANOLAMIDE (PEA)

Link: (Coming Soon)

Palmitoylethanolamide (PEA) is a naturally occurring fatty acid amide that plays a role in the body's response to inflammation and pain. It was first discovered in the 1950s and is classified as an endocannabinoid-like molecule, although it doesn't directly bind to cannabinoid receptors like THC or CBD. Instead, PEA works through other pathways to reduce pain and inflammation.

HOW IT WORKS

PEA is thought to exert its effects primarily by modulating several cellular processes involved in inflammation and pain signaling. Key mechanisms include:

- **Inhibition of Mast Cell Activation:** PEA reduces the release of pro-inflammatory mediators by stabilizing mast cells, which are key players in the body's immune response.
- **Activation of PPAR-α:** By binding to the peroxisome proliferator-activated receptor-alpha (PPAR-α), PEA helps reduce inflammation and pain perception.

Endocannabinoid System Modulation: PEA indirectly enhances the effects of the body's own endocannabinoids, particularly anandamide, which plays a role in pain relief.

BENEFITS:

- 1. Pain Relief:** PEA is widely used for managing chronic pain, particularly in conditions like neuropathy, sciatica, and fibromyalgia. It is non-opioid, making it a safer alternative to traditional painkillers.
- 2. Anti-Inflammatory Effects:** PEA reduces inflammation by modulating immune cell activity, making it useful in conditions where chronic inflammation is present, such as arthritis.
- 3. Neuroprotective Properties:** Studies suggest that PEA may protect neurons from damage, making it potentially beneficial in neurodegenerative conditions like Alzheimer's and Parkinson's disease.
- 4. Allergy and Immune Support:** Its ability to stabilize mast cells makes PEA useful in reducing allergic reactions and supporting the immune system's function.
- 5. Mood and Well-Being:** By modulating the endocannabinoid system, PEA may also support mood regulation and mental health, potentially offering benefits for anxiety and depression.
- 6. Improved Sexual Function:** PEA can also increase allopregnanolone levels which is a key neurotransmitter in sexual function and sex drive. This increase in allopregnanolone can play a huge role in helping to improve your sex life.

POTENTIAL SIDE EFFECTS:

PEA is generally well-tolerated, with a low risk of adverse effects. However, in some cases, mild side effects may occur, such as:

- **Gastrointestinal Upset:** Some users report nausea or digestive discomfort.
- **Drowsiness or Fatigue:** Rarely, PEA may cause mild fatigue or sleepiness.
- **Headaches:** Headaches may occur in some individuals, particularly when taking higher doses.

COMMON DOSING PROTOCOL:

- **Standard Dosage:** PEA is typically taken in doses ranging from 300 mg to 1,200 mg per day, divided into two or three doses.
- **Initial Dosage:** For pain management, starting with a lower dose of around 300–600 mg per day is common, with the option to increase the dose after assessing tolerance and effectiveness.
- **Duration:** It may take several weeks of consistent use for the full effects of PEA to become noticeable, particularly in chronic conditions.

ACETYL- L GLUTATHIONE

Link: (Coming Soon)

WHAT IS IT?

Now If you have read earlier in the guide you read all about the benefits of Glutathione. This form of glutathione is oral but is modified so that it can be more bioavailable. This glutathione becomes stabilized with the addition of the Acetyl group which can help it not be broken down prematurely by things like the stomach.

BENEFITS:

Here are the benefits of Glutathione

- **Powerful Antioxidant:** Acetyl glutathione helps combat oxidative stress, reducing the risk of chronic diseases like heart disease, diabetes, and neurodegenerative conditions.
- **Boosts Immune Function:** It plays a key role in supporting the immune system by maintaining the activity of lymphocytes and other immune cells.
- **Detoxifies the Body:** It aids in the detoxification of harmful substances like heavy metals, environmental toxins, and metabolic waste.
- **Supports Cellular Health:** It helps protect cells from damage, aids in tissue repair, and supports overall cellular function.

SIDE EFFECTS:

The side effects are very similar to standard Glutathione that I listed above. Make sure to not over use this product to prevent redox imbalances, and downregulation of the body's creation of glutathione. There are also anecdotal reports that this form has caused insomnia when used before bed.

DOSING

Now because of the bioavailability of this product you do not need much. I like using around 100–300mg upon waking to help start my day. I typically will cycle on and off of it and do around 2 weeks on and 2 weeks off. Also during periods of high stress on my body whether it be cycles or it be I drank alcohol I will use around 400mg for the following days.

METHYLENE BLUE

Link: (Coming Soon)

WHAT IS METHYLENE BLUE?

Methylene Blue (MB) is a synthetic dye first developed in the 19th century. While initially used as a textile dye, it later found a variety of medical applications, primarily as an antiseptic, a diagnostic tool, and a treatment for specific conditions like methemoglobinemia (a blood disorder). In recent years, it has gained attention for its potential nootropic and neuroprotective properties.

How It Works in the Body

Methylene Blue works through several mechanisms in the body, most notably as a:

- 1. Mitochondrial Enhancer:** MB acts as an electron donor and acceptor in the mitochondria, improving energy production (ATP) and enhancing cellular function, particularly in the brain.
- 2. Antioxidant:** It neutralizes reactive oxygen species (ROS), reducing oxidative stress and protecting cells from damage.
- 3. Neuroprotectant:** MB supports neuronal function by increasing brain oxygen consumption and protecting neurons from degeneration.
- 4. MAO Inhibitor:** It acts as a mild reversible monoamine oxidase (MAO) inhibitor, which can elevate levels of neurotransmitters like dopamine and serotonin.

BENEFITS:

- **Cognitive Enhancement:** MB may improve memory, attention, and overall cognitive function by supporting mitochondrial function and enhancing brain energy.
- **Neuroprotection:** MB helps protect against neurodegenerative diseases by reducing oxidative stress, promoting mitochondrial health, and supporting neuronal function. This makes it potentially useful for conditions like Alzheimer's and Parkinson's disease.
- **Mood Improvement:** Due to its role as a mild MAO inhibitor, MB can enhance mood by increasing levels of key neurotransmitters involved in well-being and mood regulation.
- **Antioxidant Properties:** MB helps mitigate oxidative damage to cells, which is important for slowing the aging process and reducing the risk of diseases related to oxidative stress.
- **Antimicrobial:** MB has been used for its antimicrobial properties to treat infections, particularly in urinary tract infections (UTIs).
- **Improved Workout Performance:** Methylene Blue can do an amazing job at helping to improve your endurance and your performance during your workouts.

SIDE EFFECTS

While generally well-tolerated at low doses, Methylene Blue can cause side effects, especially at higher doses:

- **Urine and Stool Discoloration:** One of the most common side effects is the blue or greenish tint in urine and stool.
- **Nausea and Diarrhea:** Gastrointestinal discomfort, including nausea or diarrhea, can occur.
- **Headaches or Dizziness:** Some individuals may experience headaches, dizziness, or confusion at higher doses.
- **Serotonin Syndrome:** Since MB is a mild MAO inhibitor, it can potentially increase serotonin levels too much if combined with other serotonergic drugs, leading to a risk of serotonin syndrome, a serious condition that causes agitation, high blood pressure, and hyperthermia.

COMMON DOSING PROTOCOL

For cognitive enhancement or neuroprotection, lower doses of Methylene Blue are typically recommended. A standard dosing protocol looks like this: 20–40 mg used everyday. For me the best dose is taking 20mg before my workout. This is like my dosing sweet spot. Some people online have gone up in their dosing and used more but for me this works perfectly.

GC-1 (SOBETIROME)

Link: (Coming Soon)

WHAT IS IT?

GC-1 (Sobetirome) is a selective **thyroid hormone receptor beta (THR-β) agonist**. It is a synthetic compound developed to mimic the actions of natural thyroid hormones but with a specific focus on the **beta form of thyroid hormone receptors (THR-β)**. Unlike traditional thyroid hormone treatments like **T3 (triiodothyronine)** and **T4 (thyroxine)**, which activate both **THR-α** and **THR-β**, GC-1 selectively targets the THR-β receptors, making it a more specialized treatment for certain thyroid-related and metabolic conditions.

How GC-1 (Sobetirome) Works in the Body

GC-1 works by selectively activating **THR-β receptors**, which are primarily located in the **liver, heart, and brain**. The goal of this selective activation is to achieve the metabolic benefits of thyroid hormone stimulation—such as improved cholesterol levels, increased energy expenditure, and enhanced fat burning—without causing the **adverse effects** associated with overstimulation of **THR-α receptors**, which are predominantly found in the **heart, muscles, and bone tissue**.

Key Mechanism of Action:

- 1. Increased Energy Expenditure:** By activating THR-β receptors, GC-1 boosts the metabolic rate by increasing mitochondrial activity and fat oxidation, which can lead to weight loss and improved energy levels.
- 2. Cholesterol Reduction:** GC-1 is particularly effective at lowering LDL cholesterol levels, as THR-β activation in the liver enhances the metabolism of cholesterol. This makes it an attractive option for addressing hyperlipidemia without the cardiovascular risks of THR-α activation.
- 3. Brain and Cognitive Function:** GC-1 may positively impact brain function by improving thyroid hormone signaling in areas critical for cognitive health, particularly through THR-β activation.

Why GC-1 is Superior to Traditional Thyroid Drugs Like T3 and T4

Traditional thyroid hormone replacement therapies like T3 and T4 activate both **THR-α** and **THR-β receptors**, resulting in widespread effects across multiple tissues. While this can be effective for treating **hypothyroidism**, it comes with several downsides due to non-selective receptor activation.

Advantages of GC-1 over T3 and T4:

- 1. Selective Targeting of THR- β Receptors:** Sobetrome focuses on THR- β receptors, which are key for regulating metabolism and cholesterol without overstimulating the heart or muscles. This selectivity minimizes unwanted effects such as tachycardia (rapid heartbeat) and muscle catabolism that are common with traditional thyroid hormone therapy.
- 2. Improved Cardiovascular Safety:** Because GC-1 avoids activating THR- α receptors in the heart, it does not produce the cardiovascular side effects often associated with T3 and T4, such as increased heart rate, arrhythmias, and potential heart strain. This makes GC-1 a safer option for long-term use, particularly in individuals with underlying cardiovascular issues.
- 3. Metabolic and Lipid Benefits:** GC-1 effectively lowers LDL cholesterol and triglycerides by enhancing cholesterol clearance in the liver via THR- β receptor activation. This effect is more pronounced and specific than what can be achieved with T3 and T4, making GC-1 a more targeted solution for individuals with dyslipidemia.
- 4. Weight Loss Without Muscle Loss:** Unlike T3, which can cause muscle breakdown due to its broad activation of THR- α receptors, GC-1 enhances fat loss without significantly affecting muscle tissue. This makes it a more anabolic-friendly treatment option, especially for those aiming to lose fat while preserving muscle mass.

BENEFITS

Benefits of GC-1 (Sobetrome)

- 1. Lower Cholesterol and Improved Lipid Profile:** GC-1 has been shown to reduce LDL cholesterol levels effectively, making it a potential therapy for treating hypercholesterolemia and reducing the risk of cardiovascular disease.
 - 2. Fat Loss:** Through increased energy expenditure and enhanced fat oxidation, GC-1 may aid in weight loss, particularly in individuals struggling with obesity or metabolic syndrome.
 - 3. Reduced Risk of Cardiac Side Effects:** The selective activation of THR- β receptors minimizes the heart-related side effects seen with T3 and T4 therapies, offering a safer metabolic therapy option.
 - 4. Cognitive Benefits:** By modulating THR- β receptors in the brain, GC-1 may improve cognitive function, potentially offering benefits in conditions associated with cognitive decline or brain fog.
 - 5. Reduced Risk of Muscle Loss:** Because Thyroid beta is not abundant in muscle tissue it comes with less risk of making you go catabolic.
 - 6. Liver Health:** This compound has also been shown to be helpful in certain liver diseases.
 - 7. Tumor Suppression:** Thyroid Beta has been shown to be extremely helpful in Tumor Suppression.
- Shifting of White Fat to Brown Fat: This compound has also been shown to shift white fat into the more optimal brown fat.

SIDE EFFECTS

1. **Lack of Human Data:** GC-1 still does not have a full body of data around it so it may be needing more research before we can understand it fully.
2. Other thyroid mimetics have faced some issues in the research like eprotirome. Which caused thyrotoxic effects in the heart and emergence of cartilage defects in dogs after long-term use. While this is not the same as GC-1 still needs more long term data.

HOW TO USE IT DOSING?

This compound can serve as an alternative to T3 and T4. It can be used with them or not with them as both strategies have been deployed.

The idea of using a low dose of T3 or T4 is to keep TSH from creeping up which can lead to an enlarged thyroid and other thyroid based issues. Some anecdotes have noted an increase in TSH but the literature does claim that actually GC-1 can lower TSH.

I personally will use this at around 200 mcg per day but I have seen people dose it much higher for liver based issues.

For context I am a 200lb male so if you are a lighter female then 100mcg may be the right dosage for you.

At 200mcg I felt that I was at a good spot where my energy and fat loss were both dialed in without the typical raise it in HR I would get with using something like high dose T3 or T4. I did pair it with 12.5mcg of T3 as I found I felt better using them together then GC-1 solo.

Ultimate Research Chemical Q&A (Peptides, Sarms, Nootropics, Endurance Boosting Agents, Weight Loss, Muscle Gain, ETC)

Here I will give you guys some amazing stacks, protocols, and tips on some of the most common questions that I get!

Question: What is the best stack to protect my heart on cycle?

Answer: Telmisartan and Nebivolol are two great choices for heart health while on cycle.

Question: What are the best fat burners I can take to get shredded?

Answer: Getting shredded involves making sure that your diet, cardio, training, and sleep are all locked in. I would say the most powerful are going to be BAM-15 and Clen, but the best with the least side effects are AOD, SLU-PP-332, Injectable L-Carnitine

Question: Why should I inject Aminos?

Answer: Great questions why should you inject them if you can just take them orally? While you can take them orally they become much more effective when you inject them. I was genuinely blown away by how effective it was. 100mg of L-Citrulline injected blows 10g of L-Citrulline taken orally out of the water.

Question: Best Compounds for My Mood?

Answer: Remember some of these can not be used daily but I would say: Phenibut, Noopept, Glutathione (less inflammation less stress and anxiety), Semax, Selank, Bromantane, 9-ME-BC are some great options.

Question: Best Nootropics for Memories?

Answer: To me the best are Dihexa, Phenylpiracetam, Semax, and Noopept

Question: Does Modern Aminos ship worldwide?

Answer: At the time of writing this we do not but we should have shipping to the EU and Canada for select products within the next month (October 2024)

Question: Best Compounds for Building Muscle?

Answer: From what Modern Aminos carries I would say IGF-LR3, any growth hormone products like Mk-677, and LGD-3033 are some powerful muscle builders. Injectable YK-11 and LGD-4033 are also insane.

Question: Best products for having better sex?

Answer: I would say, PT-141, PEA, Cialis, are some great products for the bedroom! Caber can also be great if your prolactin is high.

Question: I am seeing there is a product called Modern S3ma. What Is that?

Answer: Please review the "Before Reading Section for clarification"

Question: Do Modern Aminos not have semaglutide or Tirzepatide?

Answer: Please review the "Before reading this section"

Question: How fast can I expect my order?

Answer: Usually if placed before midday central time you can get it in 2-4 days. Turn around time is very fast.

Question: Best beginner Sarm?

Answer: Ostarine or S4 are two great sarms for beginners.

Question: Best Compound to Get Rid of My Gyno?

Answer: First make sure to get your hormones in check, then you can deploy something like raloxifene or tamoxifen. While raloxifene is better on paper, for some people tamoxifen is more effective!

Question: If I recently hurt my elbow what can I implement to heal faster?

Answer: BPC, 157, GHK-CU, Tb-500, Joints of Steel, Anything in the GH pathway are all great things!