



THE ENERGY BLUEPRINT

The Top Science-Backed Supplements For Energy Enhancement



by Ari Whitten

Why Stimulants Aren't The Answer

(Plus, The Real Secret to Building Your Energy)

When most people think of pills to boost energy, they think of stimulants.

Indeed, there is an entire giant industry that's been created by businesses selling "energy pills" and "energy drinks" that are basically nothing more than a bunch of caffeine, sugar, and/or other stimulants.

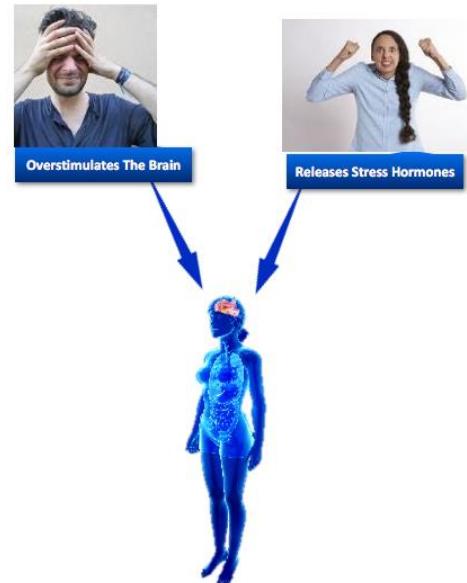
That's NOT what this ebook is about. That's not what we're about here at The Energy Blueprint.

Why not?

Well, here's the deal with stimulants...

Stimulants have direct effects on energy levels — they are compounds that cause an immediate and temporary increase in mental and physical performance. They do this by increasing the activity of the central nervous system stimulating hormones (like adrenaline) and/or by altering the balance of neurotransmitters in the brain that impact our energy.

How Stimulants and "Energy" Supplements/Drinks Work



Stimulants can absolutely enhance alertness, focus, wakefulness, and one's physical sense of energy.

Sounds pretty good so far, right?

Here's the big problem...

While the short-lived effects of stimulants can be a powerful tool when used correctly and RARELY, they are NOT a real solution to energy enhancement.

Why?

Two key reasons:

1. The body adapts to their effects and requires higher and higher doses to obtain the same effects. Eventually, no dose will suffice to provide energy and you will feel burned out and lethargic as you wean off the stimulants to regain your sensitivity to them.
2. Even worse (and the part that few people are aware of) is that stimulants and caffeine actually cause **NEGATIVE NEUROTRANSMITTER ADAPTATIONS IN THE BRAIN that LOWER YOUR BASELINE LEVELS OF ENERGY.**

Let me repeat that for emphasis: Caffeine and stimulants (e.g. synephrine, or nicotine) — when used daily — WORSEN your energy levels.

So while they give you a quick temporary boost, when taken every day, **they are actually COUNTER PRODUCTIVE for your energy and will cause more fatigue.**

For example...

Psychopharmacology (Berl). 2005 Oct;182(1):1-8. Epub 2005 Jul 2.

Effects of caffeine on performance and mood: withdrawal reversal is the most plausible explanation.

James JE¹, Rogers PJ.

 Author information

Abstract

RATIONALE: Although it is widely believed that caffeine can enhance human performance and mood, the validity of this belief has been questioned, giving rise to debate. The central question is whether superior performance and mood after caffeine represent net benefits, or whether differences between caffeine and control conditions are due to reversal of adverse withdrawal effects.

OBJECTIVES: To provide a focussed review of relevant experimental studies with the aim of clarifying current understanding regarding the effects of caffeine on human performance and mood.

METHODS: To avoid the shortcomings of standard placebo-controlled studies, which are ambiguous due to failure to control for the confounding influence of withdrawal reversal, three main experimental approaches have been employed: studies that compare consumers and low/non-consumers, pre-treatment and ad lib consumption studies, and long-term withdrawal studies.

RESULTS: Of the three approaches, only long-term withdrawal studies are capable of unambiguously revealing the net effects of caffeine. Overall, there is little evidence of caffeine having beneficial effects on performance or mood under conditions of long-term caffeine use vs abstinence. Although modest acute effects may occur following initial use, tolerance to these effects appears to develop in the context of habitual use of the drug.

CONCLUSIONS: Appropriately controlled studies show that the effects of caffeine on performance and mood, widely perceived to be net beneficial psychostimulant effects, are almost wholly attributable to reversal of adverse withdrawal effects associated with short periods of abstinence from the drug.

In this study they concluded: "*Appropriately controlled studies show that the effects of caffeine on performance and mood, widely perceived to be net beneficial psychostimulant effects, are almost wholly attributable to reversal of adverse withdrawal effects associated with short periods of abstinence from the drug.*"

In other words, in people who take caffeine daily, there is **NO energy or performance benefit to caffeine use.**

All it's doing is ruining your baseline energy (when the caffeine is not in your system) and then, when you consume it, it reverses the negative effects it caused in the first place and takes you back up to what used to be your NORMAL level of function.

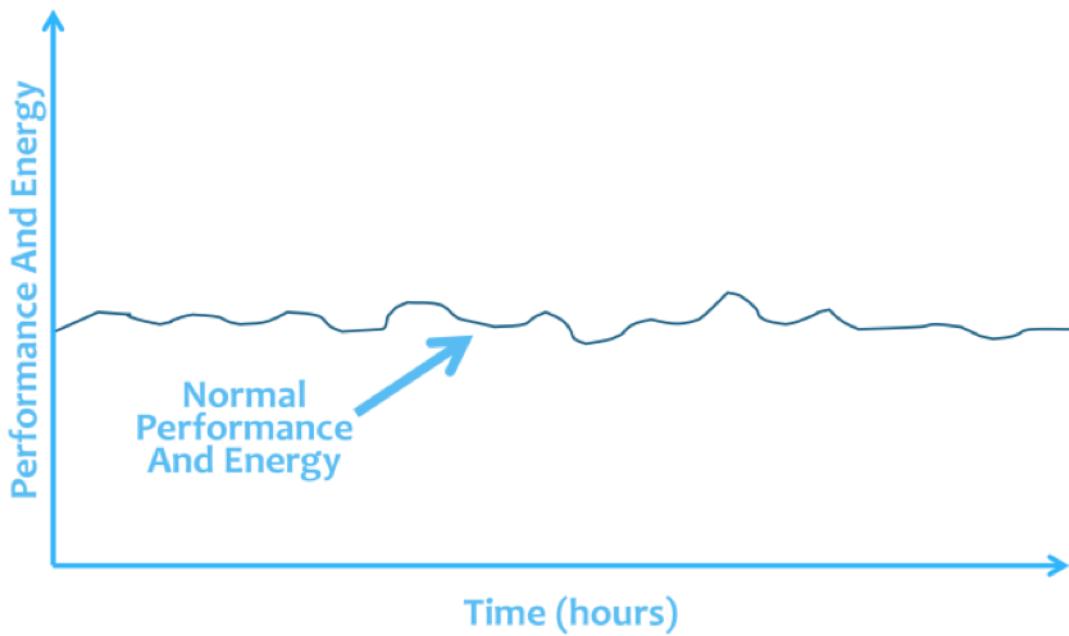
This is why people who drink multiple cups of coffee each day wake up groggy, fatigued, foggy headed, and can't function until they get caffeine in their body.

(Note: If you're skeptical of any of this, or just interested in exploring the research on this more deeply, we have an in-depth article with lots of research [HERE.](#))

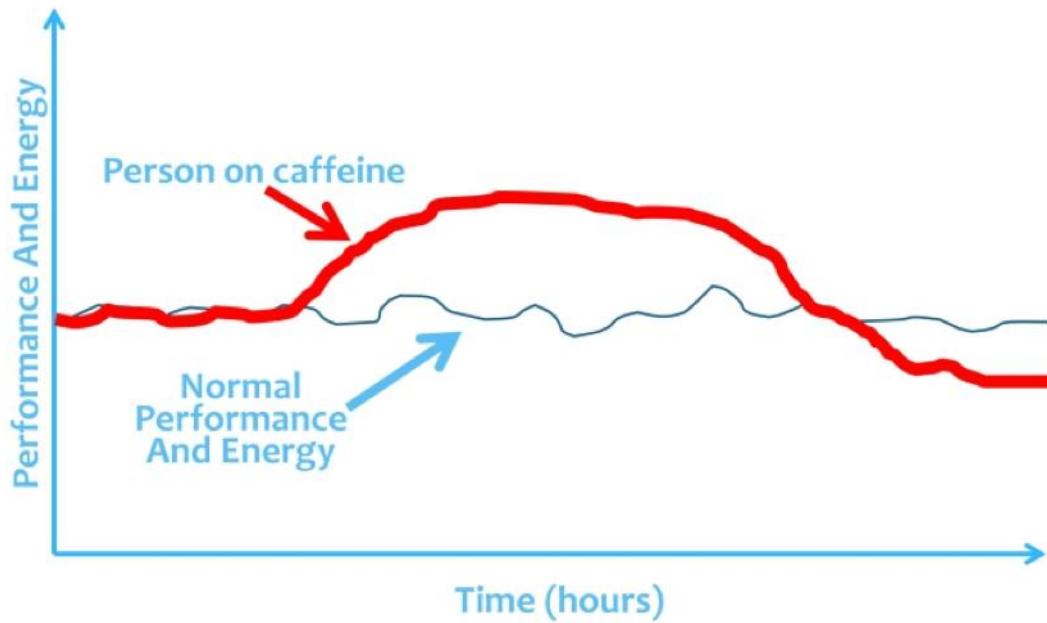
Daily caffeine consumption worsens your energy, and then makes you dependent on having caffeine in your system just to be able to function normally. (I.e. They have a drug dependence – your brain actually requires the presence of caffeine in order to function at what used to be its NORMAL level of function).

So let me show you this visually...

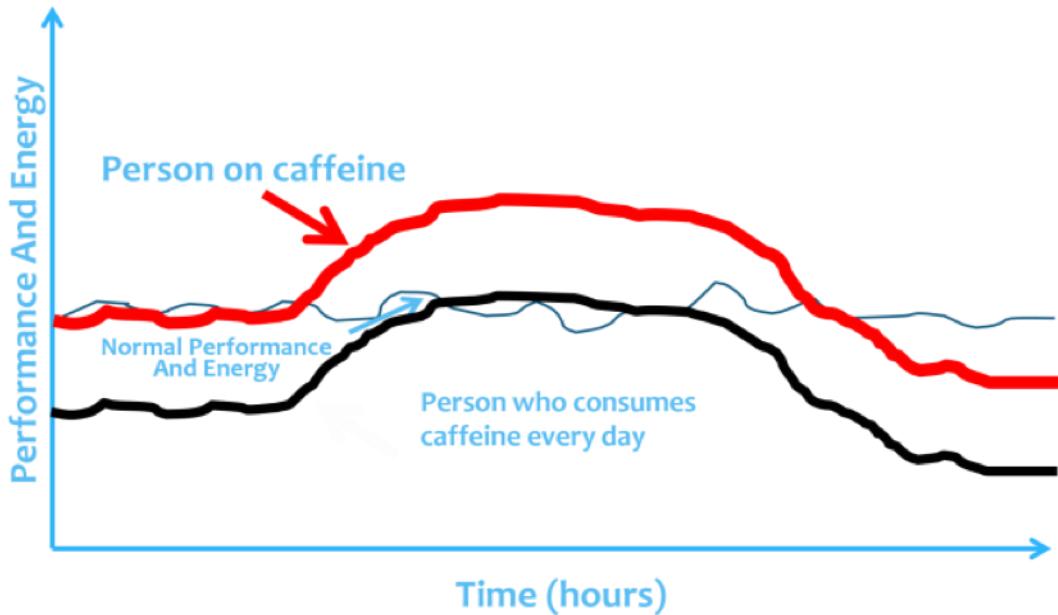
This is the normal performance and energy of somebody who does not drink coffee or caffeine...



Now here's what it looks like when you introduce caffeine...



Here is the person on caffeine EVERY DAY (the black line below)...



This is what most coffee drinkers and caffeine consumers do not realize about the boost that they are getting. **They do not realize that it is just taking them back up to normal, not actually giving them a boost.**

And what's worse, is that people don't realize that it's actually making their energy levels WORSE over time!

Keep in mind, coffee is a substance that can absolutely have many legitimate health benefits in terms of helping to prevent several diseases. There ARE beneficial compounds in it. BUT, it's also the case that when used daily, it harms your baseline energy levels and brain function.

Given what we just explained – that caffeine and stimulants are not only not a real solution to building your energy levels, but are actually counterproductive in the long run...

We recommend using stimulants or caffeine-containing beverages only occasionally, no more than every other day or roughly 3-4 days per week. Potentially useful stimulants include caffeine, synephrine, and nicotine (though we would advise doing it without smoking, e.g. through gum or lozenges).

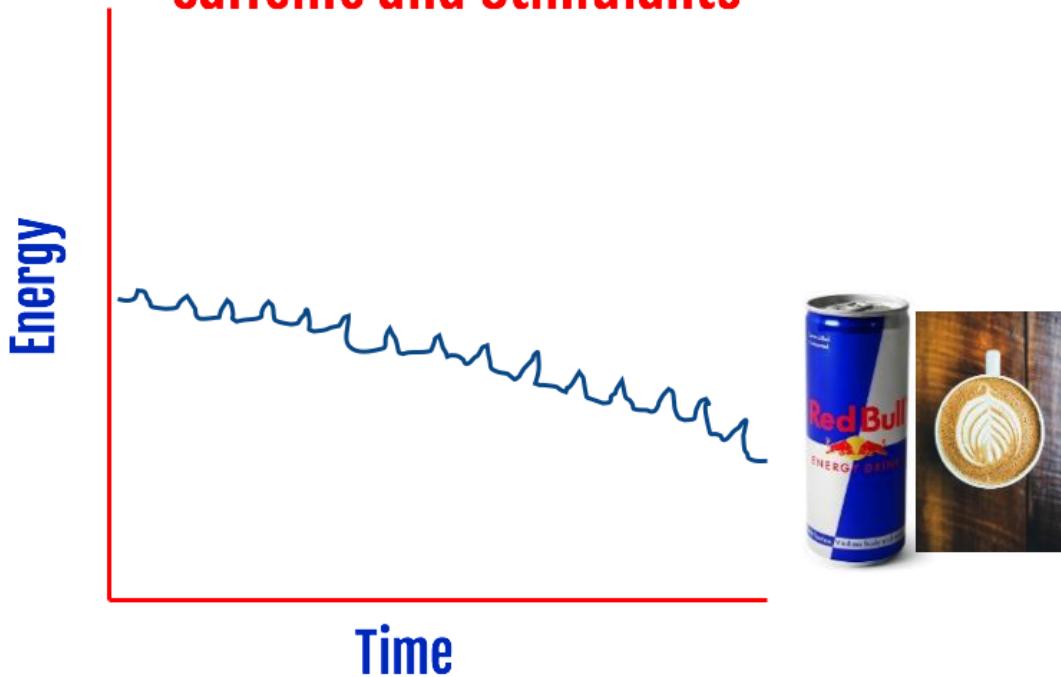
You can also simply avoid them altogether and focus on building your actual body's capacity to produce energy.

Bottom line: Ultimately, caffeine and other stimulants provide a temporary boost in energy for a few hours. But it's actually WORSENING your baseline

levels of brain function and physical energy levels over time. And it's making you **dependent** on caffeine just to function at what used to be your normal level of energy and brain function.

So the reality is, caffeine, stimulants and all the typical stimulant-based "energy drinks" and "energy pills" are just not a real solution to energy.

Caffeine and Stimulants



At The Energy Blueprint, we're not into fooling people by selling them "energy supplements" that just give them a quick boost for a few hours – we're about helping people build REAL energy at the cellular level. All day energy.

We don't just want a temporary boost from relying on a drug – we want to actually build a HIGH ENERGY BODY AND BRAIN!

With that in mind, let's talk about the most powerful, evidence-backed supplements for building your own body's capacity to produce energy!

If that's your goal (and it should be!), then you need to know about mitochondria...

The Big Key To REAL Energy Enhancement Isn't Sugar and Stimulants – it's Optimizing Your Mitochondria

Mitochondria. The powerhouses of the cell.

They are the absolute most critical physiological system involved in our energy levels. If you are dealing with fatigue, that is almost certainly a sure sign that your mitochondria are not functioning well.

Virtually all of the energy that powers virtually all the trillions of cells in your body comes from your mitochondria.

Here's the problem: As you age, your mitochondria become damaged and dysfunctional.

And they even shrink in size.

(Think of how a muscle shrinks or atrophies if it's in a cast — the same thing happens to our mitochondria, our energy generators over time.)

Research has shown that for most people, from the age of 20-40, their mitochondrial capacity (the ability of our cells to produce energy) decreases by HALF. And then, from 40-70, it decreases by another HALF!



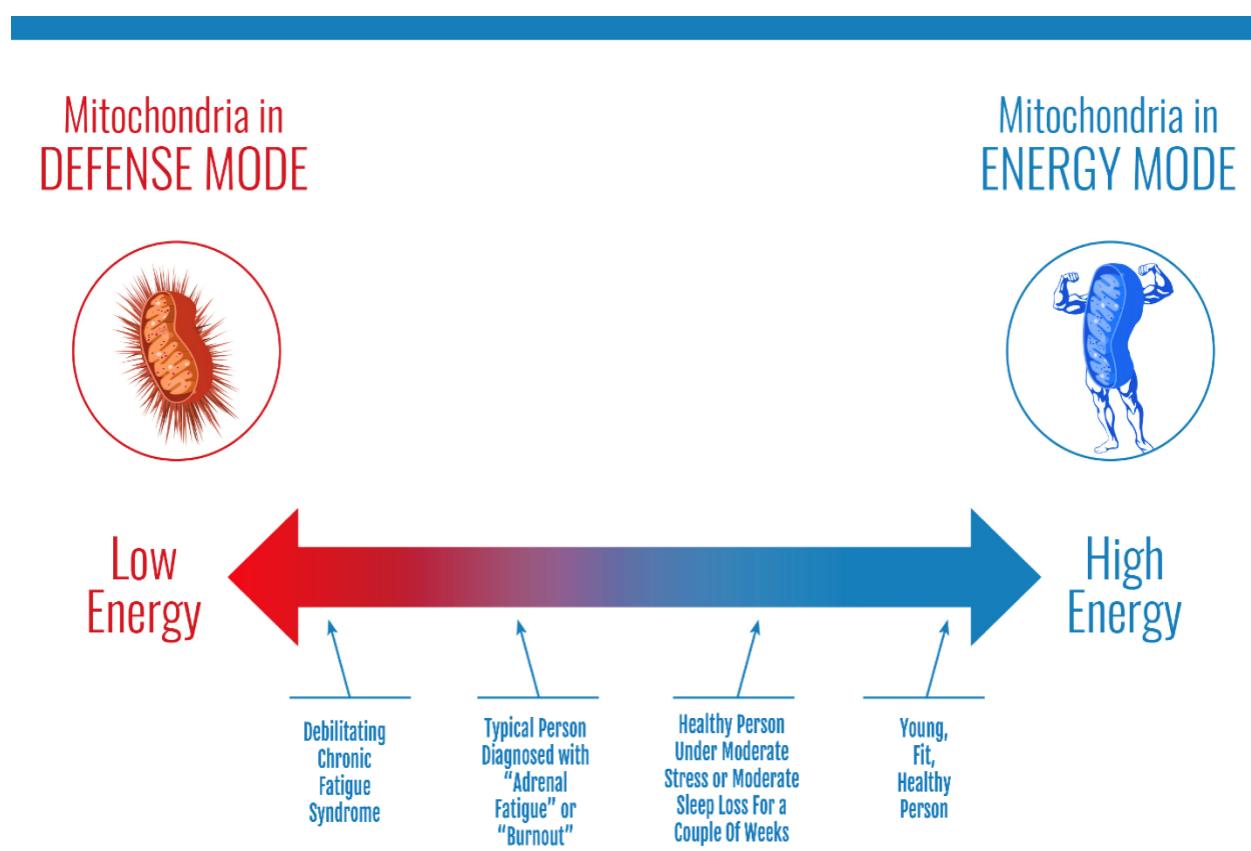
As a result, the energy your mitochondria produce naturally decreases over time, reducing your health and longevity — and ultimately, causing fatigue.

On top of that, stressors in our life — from psychological stress, to environmental toxins (like heavy metals and air pollutants), to a poor diet, to poor gut health, to chronic inflammation — all cause mitochondrial damage, dysfunction and shut down (they shift out of energy mode into a cell protection response).

Research is now showing that these three things — the loss of mitochondria, the damage/dysfunction of mitochondria, and the shut down of mitochondria — are the primary factors that drive low energy levels.

In other words, **if you've got low energy levels, it likely simply means that your mitochondria have become weak, damaged, dysfunctional, and switched off over time.**

Here's the spectrum of energy, so you can visualize where you are on this continuum.



Where are you on this spectrum?

If you'd like more energy, here's what you need to know...

Supporting your mitochondrial health is the single most important thing you can do to help overcome fatigue and increase your energy levels.

There are 6 key pathways you need to build if you really want to build big healthy mitochondria that pump out energy all day long.

1. **You Need BIGGER Mitochondria.** Building the size of your mitochondria so they can produce more energy is one of the most important factors in increasing energy levels over time.
2. **You Need MORE Mitochondria (i.e. Mitochondrial Biogenesis).** The more mitochondria you have, the bigger your "cellular engine" grows, the more energy you're able to produce. Several ingredients in this list can actually stimulate this process of mitochondrial biogenesis – allowing your body to build more mitochondria from scratch.
3. **It's VITAL to Repair and Protect Your Cell Membranes.** Research has shown that one of the most potent ways to improve energy levels is to repair the physical membranes of your mitochondria. (Several of the ingredients on this list can do this, but #1 and #2 are especially powerful).
4. **You Need Cofactors Involved Mitochondria Energy Production.** These are substances which facilitate the process of mitochondria producing cellular energy.
5. **You Need To Recharge NAD+ Levels.** NAD+ is a critical regulatory of mitochondrial energy production. Several key compounds in this list directly help rebuild our body's supply of NAD+ (like #13, #20, #23, and #24).
6. **You Need To Build Up Your Mitochondrial Internal Defense System (a.k.a. The NRF2 Pathway and the A.R.E.)** People speak about the importance of antioxidants, but don't realize that our cells' internal antioxidant defense system is hundreds of times more powerful and more important. Several of the compounds in this list don't just work as antioxidants, but even better, they build up the

body's internal cellular/mitochondrial antioxidant defense system — that makes our mitochondria more able to deal with stressors and protect themselves from damage, which ultimately means that instead of getting shut down, they stay in High Energy Mode pumping out energy.

(Important: I want to let you know that at the end of this e-book, we talk about our brand new breakthrough formula, Energenesis, that is designed to optimize all of these 6 factors. It is a premium supplement that combines real doses of over 20 ingredients, and it's simply the most powerful mitochondria supplement ever created. You can read about it [HERE](#), or towards the end of this book. Many of the ingredients listed in this e-Book are in Energenesis, and throughout this e-Book, I'll mention the exact doses that we personally use in our powerful formula, so you can see the optimal way to dose all these ingredients.)

Now that you understand all the background of how to build REAL ENERGY at the cellular level, let's get into the most powerful compounds for building your mitochondria and your energy levels!

1. NTFactor® Phospholipids



This is one of the most powerful compounds for mitochondrial regeneration, probably the single most impressive individual supplement ever tested to help people overcome fatigue. NTFactor® is a compound used in lipid replacement therapy, a method of replacing damaged membrane glycerophospholipids that accumulate during aging and in various clinical

conditions in order to restore cellular and mitochondrial function.

It has been shown to **increase energy levels by a whopping 24–43% in people with chronic fatigue syndrome in just 4 weeks.**¹⁻⁴

And it has been shown to many other types of fatigue, including age-related fatigue, fatigue from chemical exposure, as well as reduce cancer-associated fatigue and the fatigue effects of cancer therapy by similar amounts, again, in just a few weeks of use!^{5,6}

How does it work?

Well, mitochondria are wrapped in membranes composed of phospholipids. These membranes (i.e. the phospholipids that compose them) get damaged. And when they're damaged, they do two things:

1. The mitochondria don't produce as much energy
2. The mitochondria create more oxidative stress and inflammation
(basically, they create a vicious cycle whereby damaged mitochondria lead to more damaged mitochondria)

NTFactor® is a specially formulated and patented phospholipid formulation that consists of phospholipids that actually get absorbed into your bloodstream intact, and then get delivered to the cells and to the damaged mitochondria where they literally replace the old damaged phospholipids with new healthy ones.

That's why this is such an amazing supplement — it's literally like taking your mitochondria to the mechanic to be repaired. (That's why it's one of the key ingredients in my formula, [Energenesis](#).)

Where else are you going to take ANYTHING that is proven in numerous studies to increase energy levels by up to 43% in just a few weeks?

This is an incredibly powerful supplement, and it's truly a must-have supplement in your arsenal to increase your energy.

NTFactor® Phospholipids Dosage Recommendations:

- A standard dosage is 500–4,000 mg per day.

2. Astaxanthin

Astaxanthin is one of the most powerful non-stimulant ways to build up your cellular energy production. And it works through multiple powerful mechanisms, and has a massive amount of research supporting all kinds of seemingly miraculous health benefits.



Astaxanthin is the red pigment in shrimp, salmon, krill and various other seafood, but it is originally made by algae (mainly *Haematococcus pluvialis*). It is thought to be one of the most effective antioxidants known to man. It's also one of the most powerful protectors of our cellular energy generators (our mitochondria) in existence.

How does that translate into meaningful effects?

Well, just consider this: One study where male students ages 17 to 19 who took 4mg per day of astaxanthin for six months found that it improved their strength and endurance by an impressive 62 percent! Moreover, their endurance increased 300% faster than the control group!⁷

Obviously, if you're looking for something to increase your energy levels, the implications of that are pretty obvious.

Astaxanthin is able to:

- Protect mitochondria and support optimal cellular energy production^{8,9,10}
- Dramatically reduce inflammation¹¹
- Increase blood flow¹²
- Support heart health and reduce the oxidation of LDL¹³
- Help modulate blood glucose¹⁴
- Improve cognitive function¹⁵

- Protect neurons from damage (and likely help prevent dementia and neurological disease)
- Decrease anxiety¹⁶
- Decrease depression¹⁷
- Decrease muscle inflammation by more than 50%
- Improve physical endurance and exercise performance^{18 8,9,19}
- Increase muscle strength and mobility²⁰
- Act as an internal sunscreen and dramatically increase the skin's tolerance to sun exposure^{16,21}
- Improve the "heart-brain axis" (both mental and physical health)²²
- Improve energy levels^{23 8 24 25-27}

Importantly for our purposes here, astaxanthin is a very unique compound because it has the ability to penetrate inside of cells and actually incorporate itself inside of mitochondrial membranes, where it protects them from damage and supports energy production.^{11,28} Because of that, it is one of the most powerful ingredients for supporting mitochondrial health and energy levels.

Astaxanthin is a must-have energy and mitochondria-supporting compound that has literally dozens of positive side effects on everything from heart health, to brain health, to eye health, to skin health to energy levels and much more. It is one of nature's most powerful health and energy-supporting nutrients.²⁹

Astaxanthin Dosage Recommendations:

A standard dosage of astaxanthin is 4–12 mg per day, but an ideal dosage is not known. Doses up to 40mg/day have been shown to be without side effects. In rats, they've tested far higher doses (up to around 500 mg per kilogram per day) without toxic side effects! (For reference, this would be several hundred fold higher doses than typical astaxanthin doses.)

Anywhere in the range of 4 mg to up to 20 mg per day is likely optimal. (We include 6 mg per serving in [Energenesis](#).)

Note on how to use it: Due to being fat-soluble, supplements should be taken with a meal (ideally a meal with a significant amount of fats, e.g. avocado, nuts, animal foods, etc.).

3. PQQ (Pyrroloquinoline Quinone)



Pyrroloquinoline quinone (PQQ) is one of the most powerful promoters of mitochondrial biogenesis ever discovered.^{30,31} Mitochondrial biogenesis is the process of your cells literally building more new mitochondria — cellular energy generators — from scratch. Since loss of mitochondria is one of the key drivers of fatigue (especially aging-

associated fatigue), stimulating mitochondrial biogenesis is absolutely critical. And few things do it better than PQQ!

Interesting fact: PQQ is a growth factor in the human body, and our cells manufacture about 100-400 nanograms each day.

PQQ is a small quinone molecule which has the ability to be a REDOX agent, capable of reducing damaging oxidants ("free radicals") that contribute to cellular and mitochondrial damage. It's a remarkably powerful antioxidant — with some estimates being around 100 times more effective than vitamin C at eliminating free radicals. Via its actions as a REDOX agent in cells, it can modify signaling and supports mitochondrial function,³² which in turn can boost energy levels.^{30,31}

But most importantly, it's a powerful booster of mitochondrial growth and stimulator of mitochondrial biogenesis.

Studies have shown that PQQ can help with:

- Decrease systemic inflammation³³

- Improve sleep³⁴
- Improve brain function³⁵
- Speed metabolism, decrease insulin resistance and increase weight loss^{36, 37}
- Improve immune function³⁸
- Improve mitochondrial health and stimulate mitochondrial biogenesis^{30, 38}

PQQ Dosage Recommendations:

A standard dosage is 10–30 mg per day. (For reference, we include 10 mg per serving in [Energenesis](#).)

4. Panax Ginseng

Panax ginseng is probably the single most powerful herbal/botanical compound for boosting energy levels.

Panax Ginseng is commonly referred to as the 'True Ginseng' (being the most researched 'Ginseng' actually belonging to the plant family of 'Ginseng').

Panax Ginseng has proven benefits for:

- Increasing energy levels (decreasing fatigue)
- Boosting mitochondrial health/function^{39–42, 43, 44}
- Mood optimization⁴⁵
- Improving immune function⁴⁶
- Anti-cancer effects³⁹
- Anti-inflammatory and anti-oxidant effects^{39, 40}



- Increased resistance to stress³⁹⁻⁴¹
- Improving brain function and cognition⁴⁷⁻⁵⁰

Let's talk a bit more about the research on fatigue specifically...

One study in 52 people showed that a ginseng extract caused highly significant reductions in fatigue severity.⁵¹

Another study in 364 participants found that ginseng dramatically reduced cancer-related fatigue.⁵²

Another placebo-controlled study in 90 people with chronic fatigue found that ginseng increased levels of internal antioxidants like glutathione, decreased oxidative stress, and **reduced fatigue scores by about 30% in just 8 weeks.**⁵³

The researchers concluded "Taken together, these data lead us to conclude that *P. ginseng* can be used to combat chronic fatigue." ⁵³

A review of 4 different studies with a total of over 400 healthy (non-fatigued) participants found significant increases in energy levels.⁵⁴

Panax Ginseng Dosage Recommendations:

A standard dosage is 200–1,500 mg of an extract standardized for 2–3% ginsenosides per day, taken in 2-3 divided doses. (For reference, our formula [Energenesis](#) has a 7% ginsenosides extract, and 400 mg per serving.)

5. Cordyceps



Cordyceps is a medicinal mushroom traditionally used in the east for thousands of years. It grows on the bodies of caterpillars, but is now more typically farmed (no caterpillars necessary).

Cordyceps is perhaps the most prized energy booster within Eastern medicine traditions.

So it has long been known as an energizer and fatigue fighter, and importantly, modern research backs these traditional claims up.

Cordyceps has been proven to:

- Exert anti-aging effects at the cellular level⁵⁵
- Combat several types of cancer⁵⁶
- Boost immune function⁵⁷
- Fight inflammation⁵⁸
- Combat insulin resistance and type II diabetes⁵⁹
- Dramatically increase cellular energy production and improve exercise performance^{60 61}

Cordyceps Dosage recommendations:

A standard dosage is 250-2,000 mg a day (depending on the potency of the extract). For reference, in Energenesis, we include 750 mg of a potent extract of the two strains of cordyceps – cordyceps sinesis and cordyceps militaris.

6. Creatine Monohydrate

Creatine is among the most well-researched, safe, and effective supplements for performance enhancement, especially activities involving short bursts of high-intensity activity, but also even endurance exercise (cardio) to some extent.⁶²⁻⁶⁴

It is proven to improve strength, increase lean muscle mass, and help the muscles recover more quickly during exercise.^{64,65}



Much less known by most people is that creatine also been shown to have neuroprotective and cardioprotective benefits and to improve brain function.⁶⁶⁻⁶⁹

In addition, it has been shown to increase both physical and mental energy in people with chronic fatigue syndrome.⁷⁰

Creatine has also been shown to improve mitochondrial function.⁶⁶

Overall, it's one of the most evidence-backed supplements for physical energy enhancement — especially during physical activity.

Creatine Dosage Recommendations:

Sometimes athletes use higher dosages of 5-15 g per day for the initial few days or weeks. Typical ongoing daily doses range from 500 mg - 5 g. One of the nice things about creatine is that it's very cheap and one of the easiest to afford supplements – especially in high doses.

7. Nitrates



Nitrates are naturally produced in a variety of foods and break down into nitric oxide (NO) after we consume it. Elevated NO levels provide a variety of benefits for cardiovascular health and physical vitality by increasing blood flow

and reducing blood pressure.^{71,72} During exercise, these effects translate into greater endurance performance and better muscle recovery.^{73,74}

Nitrate Dosage Recommendations:

A standard dosage is 500–1,500 mg per day, taken 1–2 hours before exercise or taken throughout the day if not exercising.

Because nitrates cannot be purchased as a standalone supplement due to regulations against high quantities of sodium nitrate (a food additive frequently used to preserve processed meats), they should be obtained from foods rich in nitrates — most studies use beetroot juice or powder. So for a supplement, beetroot powder is ideal.

Leafy greens and cruciferous vegetables are also good sources. These foods should be eaten raw or minimally cooked, as heat greatly reduces the nitrate content.

Nitrate content per 100 grams of food	Nitrate-rich vegetables
Excellent (>300 mg)	Arugula, turnip greens
Great (200–300 mg)	Dill, collard greens, spinach, Swiss chard, turnips, rhubarb, beetroot
Good (100–200 mg)	Celery, mustard greens, radish, lettuce, watercress, bok choy, kale, parsley

8. D-Ribose

D-ribose is a special type of sugar that is required to create energy and DNA.⁷⁵ Some evidence suggests that D-ribose can help boost energy and physical function in situations where energy levels are reduced, such as people who have suffered from heart disease or stroke,⁷⁶⁻⁷⁸ or people engaging in regular intense exercise.^{79,80}



D-ribose has been shown to **dramatically improve energy levels in people with fibromyalgia or chronic fatigue syndrome by over 30%!**

There were also big improvements in sleep, well-being and decreased sensitivity to pain.

But that's not the best part. The best part is that it accomplished this huge improvement in just **three weeks!**⁸¹

Another study reported similar findings after using 10 grams per day, with all benefits disappearing within a week of stopping supplementation.⁸²

D-Ribose Dosage Recommendations:

A standard dosage maintenance (daily) dose of 500 - 2,000 mg per day. Many people also do an initial loading dose of 10–15 grams per day (for just a few weeks, in 2-4 divided doses).

(Like creatine, this is another very cheap supplement, and easy to afford to take in larger quantities. Be wary of large doses however, as they can induce hypoglycemia for some people. So make sure to test yourself with smaller doses first, and also, you should ideally take it with meals. For this reason, we include a moderate – not too big, to avoid hypoglycemia – dose of ribose in [Energenesis](#).)

9. Coenzyme Q10



Coenzyme Q10 (CoQ10) is a molecule found in mitochondria that has a critical role in energy production. It is considered a pseudovitamin because it is vital for survival but does not need to be consumed in the diet of an otherwise healthy person — the body makes it on demand.

However, several diseases and low-energy conditions are associated with low CoQ10 levels, including people who have fibromyalgia,⁸³⁻⁸⁵ have survived heart attacks or heart failure,^{86,87} have multiple sclerosis,^{88,89} are infertile,⁹⁰⁻⁹² or suffer migraines.^{93,94} Generally speaking, CoQ10 will enhance blood flow, protect blood vessels, lower oxidative stress, and boost vitality in anyone who suffers from fatigue, but especially those people with the aforementioned conditions.

Additionally, statin drugs are known to deplete CoQ10 levels,⁹⁵ so supplementation is mandatory in people taking a statin (even doctors know this and will co-prescribe CoQ10 with a statin).⁹⁶

CoQ10 Dosage Recommendations:

The standard dose for CoQ10 is 100–200 mg per day, taken once daily with a meal containing some fat. Supplements exist as either ubiquinone or ubiquinol, with ubiquinol being preferred due to having superior bioavailability.

10. Rhodiola Rosea

Rhodiola rosea is an herb with traditional usage as an anti-fatigue agent and adaptogen compound.

It significantly reduces fatigue and stress in people suffering from 'burnout',⁹⁷ which can (consequently) improve cognitive function.⁹⁸



Rhodiola Rosea Dosage Recommendations:

A standard dosage is 80–160 mg taken once per day, with a meal. A single 500 mg dose can be used one hour before an acute stressful event. Look for the SHR-5 extract or an equivalent, which confer both 3% rosavins and 1% salidroside.

11. Spirulina



If you thought spirulina was just a bunch of hippy nonsense, think again! This is one of the most evidence-backed health supplements, with tons of amazing proven benefits.

Spirulina is a species of cyanobacteria traditionally eaten by native African populations and the Aztecs of Central America. It is a decent source of protein and several vitamins, including vitamin B12, possesses strong anti-inflammatory and antioxidant effects mediated by its ability to inhibit NADPH oxidase,⁹⁹ and

protects against mitochondrial dysfunction and degeneration.¹⁰⁰ This is also the basis for spirulina's ability to fight numerous diseases, including heart disease and diabetes.¹⁰¹

Spirulina is also one of the few compounds that can literally "detox" the body by helping minimize the buildup of heavy metals in the body, like arsenic.^{102,103}

The majority of benefits come from an amazing compound in spirulina called phycocyanin.

Spirulina is proven to help:

- Decrease inflammation
- Strengthen immune function
- Decrease oxidative stress
- Protect heart health
- Protect against cancer¹⁰⁴
- Lower blood sugar
- Improve liver function
- Protect the brain
- Increase energy levels

Several studies have shown that spirulina supplementation significantly improves exercise performance and endurance.^{105 106} And studies have shown spirulina reduces both mental and physical fatigue (i.e. increased energy levels).¹⁰⁶

Spirulina Dosage Recommendations:

A standard dosage is 2–8 grams per day.

THE TOP 25 SUPPLEMENTS FOR ENERGY



NTFactors Phospholipids



PQQ (Pyrroloquinoline Quinone)



Cordyceps



Nitrates



Coenzyme Q10



Spirulina



Quercetin



Magnesium



Shilajit/fulvic acid



Alpha-lipoic acid
(ideally R-ALA)



Green Tea Catechins



NMN, NR, Niacin
& Niacinamide



Astaxanthin



Panax Ginseng



Creatine
Monohydrate



D-Ribose



Rhodiola Rosea



Curcumin



Taurine



Acetyl L-Carnitine



Pomegranates & Chestnuts
(Ellagitannins)



Citrus Bioflavonoids
(Hesperidin, Rutin, Naringenin)



Cacao



N-Acetyl Cysteine (NAC)



Resveratrol (ideally
Trans-Resveratrol)



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12. Curcumin

Curcumin is the yellow pigment and primary bioactive substance in turmeric. It possesses powerful anti-inflammatory and antioxidant properties that can help reduce depression and anxiety.^{107,108}



There is also evidence that curcumin can help slow cognitive decline with aging, promote cardiovascular health, reduce the risk of developing diabetes, and alleviate other inflammation-related conditions.¹⁰⁹

One of the key mechanisms by which it exerts these effects is through protecting and stabilizing mitochondrial membranes, and helping the body build more mitochondria from scratch (mitochondrial biogenesis).^{110 111}

Curcumin Dosage Recommendations:

A standard dosage is 100 - 600 mg of curcumin complex taken 1–2 times per day. (But this varies tremendously depending on the type of curcumin used).

There are many forms of curcumin on the market that have increased bioavailability, and most studies have used curcumin with piperine (a black pepper extract) or the patented forms called BCM-95® and Meriva®.

While these forms have 20–48-fold greater bioavailability than regular curcumin, the most bioavailable forms are NovaSol® (185-fold), CurcuWin® (136-fold), and LongVida® (100-fold).¹¹²

Keep in mind, however, that plain turmeric also has tremendous health benefits, and a big part of the benefits of turmeric/curcumin supplementation may come from the effects it has in the gut. So the degree

of absorption into the bloodstream may ultimately turn out to be not that critical.

13. Quercetin



Quercetin is a well-known bioflavonoid found in fruits and vegetables, particularly onions and apples. It is a potent antioxidant and anti-inflammatory molecule that affects an array of mitochondrial processes, including mitochondrial biogenesis, mitochondrial energy production, and the protection of mitochondria from oxidative stress.^{113,114} It

is also involved in helping the mitochondria to regenerate NAD+ — a key molecule that supports mitochondrial health and energy production.

Quercetin Dosage Recommendations:

A standard dosage is 250-1,000 mg per day. The best form is dihydrate, followed by glycosides, aglycone, and rutinoside.

14. Taurine

Taurine is a sulfur-containing amino acid essential for cardiovascular function and the development and function of skeletal muscle, the retina, and the brain.¹¹⁵ It can help fight muscle loss with aging,¹¹⁶ as well as benefit many other disease states, including neurodegenerative diseases, diseases of the eye, diabetes, heart failure, high blood pressure, and muscular dystrophies.¹¹⁷



Taurine is also essential for the proper function of mitochondria.^{118,119}

Taurine Dosage Recommendations:

A standard dosage is 250 mg - 3 g taken 2–3 times per day.

15. Magnesium



Magnesium is an essential dietary mineral, and the second most prevalent electrolyte in the human body. Magnesium deficiencies are common in developed countries because prominent sources of magnesium, like leafy vegetables, are not often eaten.

A deficiency increases blood pressure, reduces glucose tolerance, and causes abnormal neural excitations that impair sleep.¹²⁰ It's also a critical cofactor for mitochondrial energy production.

Magnesium Dosage Recommendations:

A standard dosage is 200–400 mg of magnesium taken once a day or in divided doses with meals. It can also be taken before bed to give a more sedative effect.

Commonly supplemented forms of magnesium include magnesium citrate, gluconate, diglycinate, and malate. (Note: Magnesium oxide is also commonly in supplements, but is not well absorbed and can cause intestinal discomfort and diarrhea; it is therefore we do not recommend it.)

Avoid taking magnesium, calcium, zinc, and iron at the same time in combinations of 800+ mg, since high amounts of these minerals will

compete for absorption and limit the overall effectiveness of supplementation.

16. Acetyl L-Carnitine

Acetyl L-Carnitine (ALCAR) is a unique form of L-Carnitine that has incredible brain- and body-boosting properties.

Most importantly, it is one of the most evidence-backed anti-aging, and mitochondrial boosting (cellular energy-enhancing) compounds ever discovered.

ALCAR has been proven to:



- Reduces depression with a potency comparable to antidepressant drugs!¹²¹
- Protects and repairs neurons from damage (like that caused by diabetes).^{122,123}
- Improves insulin sensitivity.¹²⁴
- Improves cardiovascular health.^{125,126}
- Combats the side effects of aging, like neurological decline and chronic fatigue.¹²⁷⁻¹³¹
- Increases mitochondrial function by increasing their ability to produce energy.¹³²⁻¹³⁴

Notably, ALCAR has been known to cause fat loss, not because of any mechanism intrinsic to ALCAR, but simply because those taking it become more physically active due to the increased energy and vitality it provides.

Between powerful anti-depressant effects (likely even better than drugs like Prozac, but with far less side effects), general anti-aging/longevity benefits, brain protection, increased fat burning/weight loss, and increased energy levels, this is a must-have supplement.

ALCAR Dosage Recommendations:

The standard dosage for ALCAR is 500–2,500 mg per day, taken as 2–3 divided doses. (We include 750 mg per serving in [Energenesis](#).)

17. Shilajit/Fulvic Acid



Shilajit is a mixture of minerals used traditionally in Ayurveda, with the main bioactive being fulvic acid. It is a potent antioxidant that supports energy production and tissue recovery, improves blood flow, and reduces the negative impact of psychological and physical stress. Shilajit also promotes proper mitochondrial function and can alleviate the symptoms of chronic fatigue and neurodegeneration.^{135,136}

Shilajit Dosage Recommendations:

A standard dosage is 200–500 mg of Shilajit with 50% Fulvic acid content taken in two divided doses with meals.

(WARNING: It's very important to be aware of your source for Shilajit. There is a lot of contaminated, fake or low quality shilajit on the market. You must source from a company that is transparent about sourcing and provide 3rd party data on heavy metal content of their product).

18. Pomegranates & Chestnuts (Ellagitannins)

Ellagitannins are potent antioxidants found in pomegranates and chestnuts that can also be metabolized into other compounds (ellagic acid, urolithins) that themselves have antioxidant capabilities.^{137,138} **They can rejuvenate and rebuild the mitochondria**, as well as improve muscle function and remove damaged mitochondria that accumulate and cause cellular dysfunction in a process called mitophagy.^{139,140}



In fact, urolithin A — which our gut microbes make from ellagic acid (which is found in highest concentrations in chestnuts and pomegranates) — is **probably the most potent stimulator of mitophagy known**.

Dosage Recommendations:

A standard dosage is 800 mg Pomegranate Extract (318 mg punicalagins) taken once per day. Of course, you may also choose to eat fresh (or frozen) pomegranate fruit, which I strongly encourage.

Chestnuts are even richer in ellagic acid.

You can also supplement directly with ellagic acid. (I recommend Source Naturals brand).

19. Alpha-Lipoic Acid (ideally R-ALA)



Alpha-lipoic acid (ALA) is a mitochondrial compound involved in energy metabolism and the antioxidant system.¹⁴¹ It provides a short but potent reduction of oxidation by increasing antioxidant enzymes, which protects against a variety of inflammatory and oxidative diseases like neurodegeneration.¹⁴² ALA accumulates in various brain regions as soon as an hour after

ingestion,^{143,144} and it has been shown to protect against neuronal cell death.¹⁴⁵

ALA (especially R-ALA) is one of the most powerful evidence-backed compounds for mitochondrial repair and optimization.

Alpha-Lipoic Acid (Ideally R-ALA) Dosage recommendations:

A standard dosage of standard ALA is 300–600 mg per day, taken all at once or in multiple doses. It can be taken with meals or when fasted.

For R-ALA (the most ideal form), 50-300 mg per day is ideal. (Note: R-ALA is much more expensive and also much more effective.)

ALA exists as either an S or R isomer, with unspecified ALA being a 50-50 'racemic' solution of both. We want R-ALA because it is more bioavailable.¹⁴⁶ A study in mice found only R-ALA to extend life span in mice compared to S-ALA, even though the dose was 5.5 times lower.¹⁴⁷

(For reference, we include 75 mg of R-ALA per serving of Energenesis.)

20. Citrus Bioflavonoids (Hesperidin, Rutin, Naringenin)

Hesperidin is the primary bioactive compound in orange peels, alongside naringenin. They are powerful antioxidant and anti-inflammatory molecules,^{148,149} capable of protecting against several degenerative diseases and particularly brain diseases.¹⁵⁰ These effects are mediated, in part, by their ability to prevent mitochondrial dysfunction, to boost NAD+ and to combat oxidative stress.¹⁵¹



Citrus Bioflavonoids Dosage Recommendations:

A standard dosage is 500 mg per day. (We include 625 mg of a hesperidin-rich citrus bioflavonoid extract in each serving of [Energenesis](#).)

I also recommend consuming citrus peels from various citrus fruits — either raw or grated into salads.

21. Green Tea Catechins



Green tea (*Camellia Sinensis*) catechins are four phytochemical molecules, the most potent one being epigallocatechin-3-gallate (EGCG). It has been implicated in benefiting almost every organ system in the body in doses you can obtain easily.

from simply drinking green tea.¹⁵²⁻¹⁵⁴ EGCG is neuroprotective,^{155,156} cardioprotective,^{157,158} anti-obesity,¹⁵⁹⁻¹⁶¹ anti-carcinogenic,^{162,163} anti-diabetic,¹⁶⁴ and an overall powerful protector of your mitochondria.¹⁶⁵⁻¹⁶⁷

In a 12-week double-blind trial published in the [American Journal of Clinical Nutrition](#), researchers gave 38 overweight adults (ages 20 to 50) a daily polyphenol supplement or a placebo pill. The polyphenol supplement contained 282 milligrams EGCG (epigallocatechin-3-gallate, found in green tea) and 80 milligrams resveratrol (found in grape skins). People taking the polyphenol supplement had a highly significant increase in the function of mitochondria in their muscles compared to people given a placebo.

Green Tea Catechins Dosage Recommendations:

A standard dosage is 50–500 mg per day of EGCG.

Most doses are standardized for EGCG. Although the amount of EGCG-equivalent varies from one cup of tea to another, depending on many factors (species of tea, length of steeping, time spent oxidizing), one cup of *camellia sinensis* green tea contains approximately 50mg of tea polyphenols.

22. Cacao/Cocoa

Like green tea extract, cacao is packed with several powerful phytochemicals, including flavan-3-ol and epicatechin.

These catechins have wide-ranging health benefits, including everything from anti-aging effects in the skin, to boosting mood, to boosting mitochondrial energy production.



It's also one of the richest sources of PQQ, which is a powerful stimulator of mitochondrial biogenesis. (The base for [Energenesis](#) is made from cacao for this reason. Plus it tastes delicious!)

The unique phytochemical combination in cacao of epicatechin, flavan-3-ol, and PQQ likely have synergistic effects — making cacao an extremely potent concoction for energy and mitochondrial health.

Cacao Dosage Recommendations:

We recommend getting an organic raw cacao powder or cacao nibs and adding them to smoothies or making healthy "hot chocolate." 1-5 tablespoons a day.

23. B3 Variants (NMN, NR, Niacin & Niacinamide)



NAD+ has received a ton of attention in the last few years as possibly one of the most important compounds for anti-aging, disease prevention, prevention of DNA damage, and longevity. It also happens to be one of the most important compounds in regulating mitochondrial energy production.

Several studies have now found that boosting levels of NAD+ can have profound anti-aging effects, and can even "make old rats young again" (to steal some of the media headlines).¹⁶⁸⁻¹⁷⁰

This is where vitamin B3 (and versions of it, like niacin, niacinamide, nicotinamide riboside and nicotinamide mononucleotide) come in...

They boost levels of NAD+.¹⁷¹

While much focus is now on nicotinamide riboside (NR) and nicotinamide mononucleotide (NMN), the best available research indicates that these extremely expensive ingredients may not be significantly superior to plain old niacin and niacinamide (which are far cheaper, and easier to take in larger quantities). In fact, some have suggested that NR and NMN actually get broken down in the digestive tract into niacinamide anyway.

According to Neurohacker Collective, "The digestive tract contains enzymes that breakdown niacin-containing molecules like NAD+, NADH, nicotinamide riboside and nicotinamide mononucleotide. Available evidence indicates little of these larger molecules survives digestion intact."¹⁶⁸

In other words, it likely does not make a whole lot of sense to spend exorbitant amounts of money on these fancy versions of niacin/niacinamide (NR or NMN) when they may actually be getting digested into niacinamide anyway before being absorbed into the bloodstream.

It is however, true that NAD+ is a critically important compound for promoting youthful mitochondrial function and energy production.

Thus, we recommend simply using niacin or niacinamide — until solid research proves definitively that NR or NMN are so superior that they are worth 50-100x the cost.

NAD Dosage Recommendations:

Ideal dosages for these vitamin B3 variants varies wildly, from between 50 mg to 1,000 mg or more per day.

(For reference, we include a non-flushing 25 mg dose of niacin, and a 100 mg dose of niacinamide per serving of [Energenesis](#).)

24. N-Acetyl Cysteine (NAC)

N-acetyl cysteine is special variant of the sulfur-rich amino acid cysteine.

It is actually a commonly used medicine in conventional medicine, in the context of acetaminophen (tylenol) toxicity – which is a commonly used drug that is also highly toxic to the liver (and depletes one of the body's most important compounds for detoxification and antioxidant protection – glutathione).¹⁷²



Why is NAC used for this purpose? Because it has a uniquely powerful ability to quickly rebuild healthy levels of glutathione.

NAC has been very thoroughly studied, with close to 1,000 clinical trials already done as of 2020. It has countless proven benefits:

- It's antioxidant effects protect DNA¹⁷³
- It supports liver health and detoxification^{172,174}
- Treating COPD and other respiratory symptoms
- It boosts brain function and improves mental health^{175,176,177}
- Improves skin health
- It improves mood (combats depression, and bipolar disorder)^{175,178}
- Reduces fatigue after exercise¹⁷⁹
- It dramatically improves mitochondrial function (and protect the mitochondria from damage)^{180,181,179,182}

NAC Dosage Recommendations:

100 mg - 1,500 mg per day. High doses are generally used in the context of acute toxicity or detoxification protocols, or other disease treatment (like COPD). (For reference, Energenesis has 250 mg per serving.)

25. Resveratrol (ideally Trans-Resveratrol)



Resveratrol is a beneficial compound found in red wine that is associated with life extension and some of the health benefits in wine consumption.¹⁸³ It is produced in grape skins as a defense against insects.

called SIRT1 and another called NAD+. Together, these two compounds are part of our most important anti-aging, mitochondria-boosting and longevity circuit.

When the body is under stress and chronic inflammation/oxidative stress, certain cellular proteins (things like enzymes, and even DNA) get acetylated — an acetyl gets added to them. This essentially damages the structure and function of these important cellular proteins (that may be involved with key cellular processes, for example, in producing energy).

SIRT1 is a sort of a pacman enzyme that “chews” off acetyl groups from other proteins (including DNA). By getting rid of the acetyl groups, it allows these proteins to still function optimally and can even help prevent and repair damage to genes. Think of it like bringing your cellular proteins, enzymes and DNA back into the state when you were young.

- De-acetylated proteins = young proteins
- Acetylated proteins = old proteins

So again, SIRT1 basically helps turn older proteins into younger proteins. SIRT1 has been recognized to help protect against age-related diseases, such as cardiovascular disease, cancer, and neurodegeneration.

So where does resveratrol come in?

Resveratrol is direct booster of this SIRT1 pathway, and boosts NAD+ — which is like the accelerator pedal for the SIRT1 pathway.

It is a potent booster of our mitochondria and internal antioxidant defense system^{184,185} and is proven to have all sorts of incredible anti-aging effects, like:

- Activate longevity genes^{111,185,186}
- Stimulate mitochondrial biogenesis^{111,185}
- Increase levels of NAD+ (a key energy, longevity and anti-aging compound)^{187,188}
- Protect against heart disease^{111,185,186,189}
- Combat insulin resistance,¹⁹⁰
- Increasing blood flow (and oxygen and nutrient delivery) to the brain¹⁸⁹
- Fight senescent cells (immortal cells that produce inflammatory compounds that are one of the main mechanisms of aging)
- Activate autophagy (another key pathway of longevity)^{111,185}
- Improve immune function^{191,192}
- Fight oxidative stress and inflammation^{191,191,193}
- Combat/prevent cancer¹⁸⁹
- Mood-boosting and antidepressant effects^{194,187}
- Improve physical energy, stamina and endurance^{195–197,187,198}

Moreover, unlike other antioxidants that interfere with exercise-induced adaptations,¹⁹⁹ like muscle protein synthesis and mitochondrial biogenesis, resveratrol appears to enhance the physiological benefits of exercise.^{196,197} In fact, research shows that in animals, it DOUBLES the time it takes for animals to run to the point of exhaustion (i.e. they had energy for much longer than animals not taking resveratrol.)

Resveratrol Dosage Recommendations:

A standard dosage is 150-600mg per day, and some people go as high as 1,000 or 1,500mg per day. Trans-resveratrol is the ideal form. (For reference, we include 400mg of a potent trans-resveratrol extract in each serving of [Energenesis](#).)

Introducing The Most Powerful Mitochondria and Energy Support Supplement Ever Created – Energenesis



I'm excited to announce that after nearly 2 years of development, my team and I have developed the most powerful mitochondrial energy supplement ever developed.

I say this definitively, because once you see the list of ingredients in this (it includes almost all the ingredients mentioned in the list above) and the fact that it has REAL effective doses of these ingredients (which no other manufacturer is doing), you're going to be blown away...

Energenesis is the most powerful mitochondria-enhancing nutraceutical ever created!

Energenesis is the first non-stimulant energy formula that actually builds up your own body's ability to produce energy!

Packed with a potent dose of a whopping 23 of the most powerful mitochondria-building ingredients in existence, Energenesis is a NEW, premium, scientifically-backed formula to re-awaken your body's built-in energy system.

What makes Energenesis different?

Unlike previous generation "energy supplements," it contains no stimulants, no caffeine, and no sugar. This isn't about giving you a fake energy boost, while actually making your energy levels worse over time.

Energenesis builds REAL ENERGY!

This is not a supplement designed to fill people's desire for quick fixes and instant gratification through stimulants and temporary boosts of fake energy.

Energenesis is for people looking for REAL ANSWERS, who want to address ROOT CAUSES, and want to build real energy at the cellular level.

It works through entirely different physiological mechanisms than all the other energy supplements on the market.

In fact, this is the OPPOSITE of all the other energy supplements on the market (which give a quick jolt, but worsen your body's production of energy)...

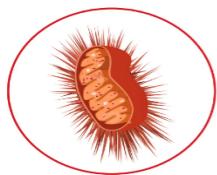
Instead of working by giving a temporary fake boost of energy (by overstimulating your brain or making your body run on stress hormones for a few hours)...

Energenesis actually builds up your own body's capacity to produce energy – at the cellular level!



Energenesis actually works by healing and recharging your natural cellular energy generators, your mitochondria. And by switching them back into "Energy Mode."

Mitochondria in DEFENSE MODE



Low Energy

Mitochondria in ENERGY MODE



High Energy

Debilitating Chronic Fatigue Syndrome

Typical Person Diagnosed with "Adrenal Fatigue" or "Burnout"

Healthy Person Under Moderate Stress or Moderate Sleep Loss For a Couple Of Weeks

Young, Fit, Healthy Person

As you take Energenesis consistently over several weeks, it builds up your cellular engine, your mitochondria.

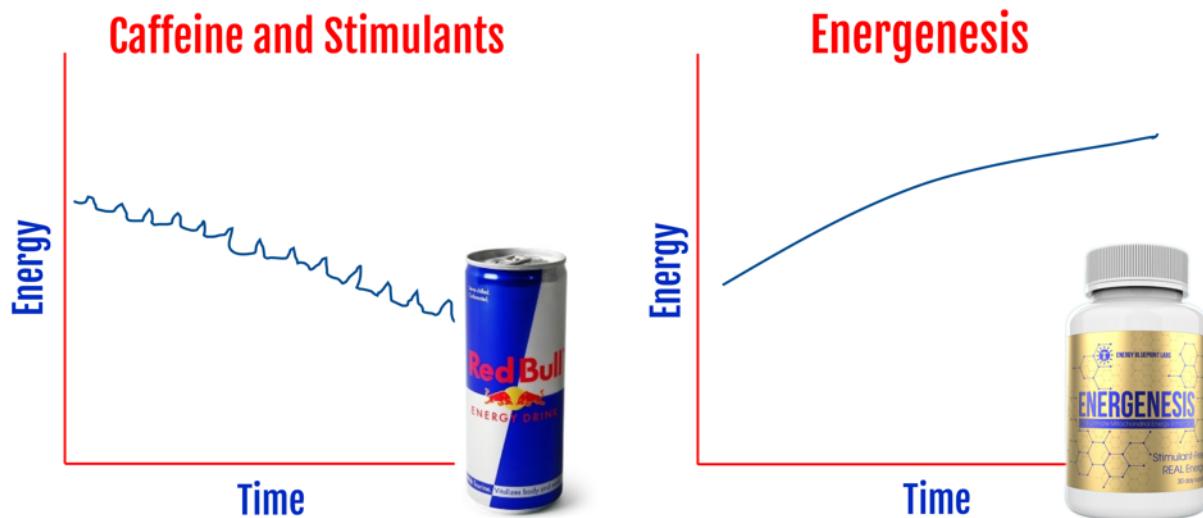
You may feel a slight energy boost from the very first time you take it, but **what it's really doing is steadily and sustainably re-charging and building up your mitochondria so that your body becomes capable of producing more energy on its own!**

In short, Energenesis is a repair system for the natural process of dysfunctional energy producing cells. It acts by restoring your body's ability to rely on itself for energy.

The old way to make an energy supplement was just about using caffeine, sugar and other stimulants to give a quick jolt. (While actually making you worse over time.)

We're here to introduce the NEW way to make an energy supplement – by using the science of how to actually build up the body's own production of cellular energy!

THE DIFFERENCE BETWEEN CAFFEINE/STIMULANT "ENERGY" SUPPLEMENTS VS. ENERGENESIS



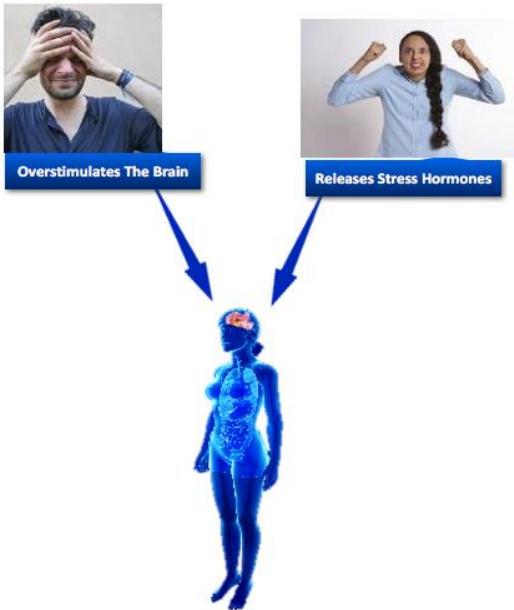
Energenesis is a next-generation energy supplement.

Remember the 6 key mechanisms you need to support optimal mitochondrial health.

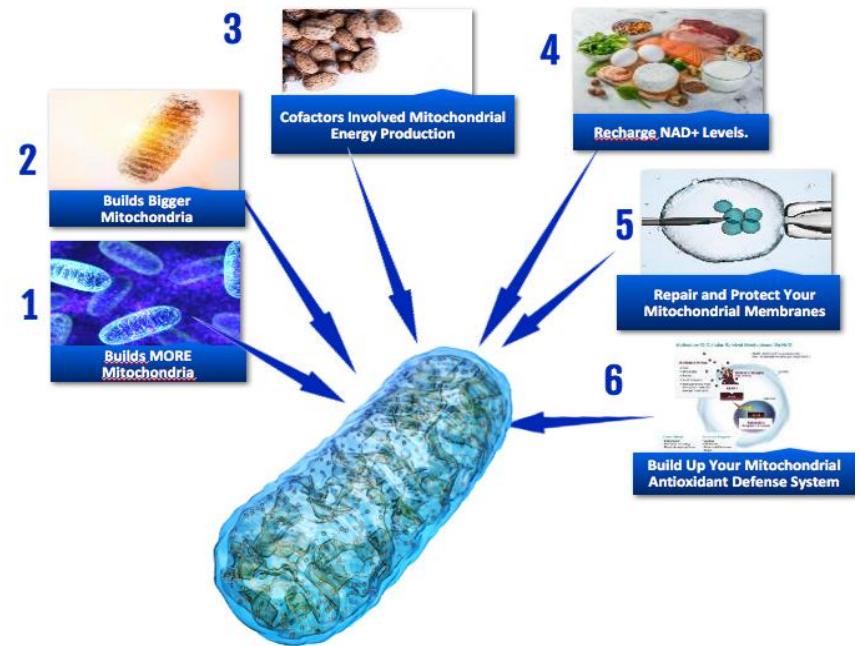
1. You Need BIGGER Mitochondria.
2. You Need MORE Mitochondria (i.e. Mitochondrial Biogenesis).
3. It's VITAL to Repair and Protect Your Mitochondrial Membranes.
4. You Need Cofactors Involved Mitochondria Energy Production.
5. You Need To Recharge NAD+ Levels.
6. You Need To Build Up Your Mitochondrial Internal Defense System

This is EXACTLY what Energenesis is designed to do!

How Stimulants and “Energy” Supplements/Drinks Work



How Energenesis Works



What's In Energenesis?

Energenesis is loaded with 23 of the most potent mitochondria-building ingredients in existence.

THE 23 MITOCHONDRIA-BUILDING INGREDIENTS IN ENERGENESIS



1. NT Factor Phospholipid
2. Astaxanthin
3. Resveratrol
4. Acetyl-L-Carnitine
5. MCT Oil Powder
6. D-Ribose
7. Creatine
8. CoQ10
9. Cordyceps
10. Magnesium Citrate
11. Magnesium Malate
12. Triphala
13. Taurine
14. Panax Ginseng
15. Turmeric
16. R-Alpha Lipoic Acid
17. Green Tea
18. PQQ (Pyrroloquinoline Quinone)
19. Citrus Bioflavonoid
20. Quercetin 95%
21. N-Acetyl Cysteine (NAC)
22. Niacin and Niacinamide
23. Cacao

Energenesis is like a 5-star MEAL for your Mitochondria (LOADED with rare nutrients, energy boosters and powerful antioxidants, because your body needs a variety - each one works differently!) AND... we have went to amazing lengths to source the highest quality ingredients, with unparalleled potency, purity, biological availability, and effectiveness...

If you want to see a breakdown of the exact ingredients and amounts, you can look in the right column of the image below...

Supplement Facts

Serving size: 17.3 grams
Servings Per Container: 25

	Amount Per Serving	%DV
Calories	37	
Total Carbohydrate	3.2 g	1%
Fiber	3 g	8%
Sugar	0 g	
Cholesterol	< 2mg	
Protein	3 g	6%
Total Fat	1.4 g	2%
Saturated Fat	0.85 g	4%
Unsaturated Fat	0.56 g	
Trans Fat	<0.01 g	
Sodium	3mg	0.125%
Vitamin A	< 50mg	0%
Vitamin C	< 0.1mg	0%
Iron	3 mg	16%
Calcium	11 mg	1%
Potassium	82 mg	1.7%

	Amount Per Serving	%DV
Mitochondrial Membrane Support Complex:		
NT Factor® Phospholipid Complex	1,000 mg	**
Astaxanthin (Haematococcus Pluvialis)	6.5 mg	**
Mitochondrial Energy Production Cofactor Complex:		
MCT Oil Powder	1,000 mg	**
Acetyl-L-Carnitine	700 mg	**
D-Ribose	600 mg	**
Creatine Monohydrate	500 mg	**
Magnesium Citrate	125 mg	**
CoQ10	75 mg	**
Mitochondrial Biogenesis and Defense (NRF2 Activation) Complex:		
Cordyceps Sinesis and Cordyceps Militaris	750 mg	**
Embllica Officianalis (Amla), Terminalia Chebula (Haritaki) and Terminalia Bellerica	750 mg	**
Taurine	500 mg	**
Panax Ginseng (7% Ginsenosides)	400 mg	**
Turmeric (95% Curcumin)	300 mg	**
R-Alpha lipoic acid	75 mg	**
Green Tea (95% Polyphenol, 40% EGCG)	50 mg	**
Pyrroloquinoline Quinone (PQQ)	10 mg	**
NAD+ Regeneration Complex:		
Citrus Bioflavanoid Powder 50%	625 mg	**
Trans-Resveratrol 50%	400 mg	**
Quercetin 95%	300 mg	**
N-Acetyl Cysteine (NAC)	200 mg	**
Magnesium Malate	125 mg	**
Niacinamide	100 mg	**
Niacin	25 mg	**

** Daily Value (DV) Not Established

Not a significant source of Vitamin A, Vitamin C, and Calcium.

Other ingredients: Organic Cocoa Powder, Ceylon Cinnamon, Natural Chocolate Flavor, Luo han guo (Monk fruit), Himalayan Sea Salt.

It's a potent cocktail of the most powerful mitochondrial regenerating ingredients designed to literally CHARGE your cells back up, so you can have the energy you had when you were young – ALL DAY ENERGY.

If you've been struggling with fatigue or low energy levels, it's time to stop dragging yourself through the day with caffeine and stimulants...

It's time to start building REAL ENERGY.

You can certainly use the information in this book to go out and buy all these compounds as separate supplements, but I strongly encourage you to simply get Energenesis. It's obviously far more convenient to get everything in one formula rather than fiddling with 20 different bottles and 25 pills each day. Also, you don't have to worry about dosing everything correctly. And, on top of that, **I've tried to make it a complete no brainer for you by making it way cheaper for you** to order it this way (as opposed to buying 20+ different supplements).

Energenesis is simply the most powerful formula ever developed for that purpose.

We have it available in either 1, 3 or 5 bottle packages (obviously, the more you order, the cheaper it gets).



1 bottle - \$119

**3 bottles - \$259
(\$86 per bottle)**

**5 bottles - \$379
(\$76 per bottle)**

Free shipping within the US
International shipping available!

Not Just One Supplement – It's 23 Supplements In One!

Energenesis is truly a PREMIUM, one-of-a-kind supplement.

But the truth is, while it's technically one bottle, it's really NOT just ONE supplement – it's 23 supplements in just one bottle. There are 23 high quality ingredients and REAL EFFECTIVE DOSES in each serving.

And no, this is not one of those supplements that list 20-30 ingredients on the label but actually includes very weak dosages of each, like 1/10th or even 1/50th the effective dosages.

Energenesis is legitimately 20+ supplements in ONE – 20+ powerful, science-backed ingredients in EFFECTIVE DOSAGES.

That's the big key.

Trust me, no other supplement manufacturers are doing this.

And your cost to get it is \$76-\$119 per bottle.

Yes, this might seem expensive at first, but it's actually FAR CHEAPER – about 1/4 the cost – to buy just one bottle of Energenesis than it is to buy these ingredients separately.

So, what seems like a fairly pricey single supplement is in reality, an amazingly cheap deal on 20+ supplements (that you conveniently take, all in one powder.)

The truth is, you're actually getting an incredible deal when you buy Energenesis.

Here's what it would cost you to buy all these ingredients individually:

#1 - NT Factor Phospholipid - \$50



Allergy Research Group - NT FactorsTM Energy Lipid Powder 150g

by Allergy Research Group

★★★★★ 26 ratings | 11 answered questions

Price: **\$50.00 (\$9.52 / Ounce)** ✓prime FREE Same-Day

Get \$125 off: Pay \$0.00 upon approval for the **Amazon Business Prime Card**. Terms apply.

- Allergy Research Group - NT Factor Energy Lipids Powder - 150 Grams

[Compare with similar items](#)

11 new from **\$50.00**

[Report incorrect product information](#)

#2 - Astaxanthin - \$46.97

Dr. Mercola, Astaxanthin (90 Capsules)

by Dr. Mercola

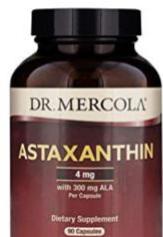
★★★★★ 142 ratings | 20 .

Amazon's Choice for "dr mercola ast

Price: **\$46.97 (\$0.52 / Count)** ✓prime

Get \$125 off: Pay \$0.00 upon approval for the **Amazon Business Prime Card**. Terms apply.

Size: **90 Caps**



#3 - Resveratrol - \$20.78



Doctor's Best Trans-Resveratrol 600, Non-GMO, Vegan, Gluten Free, Soy Free, 600 mg, 60 Veggie Caps

by Doctor's Best

★★★★★ 9 ratings

Amazon's Choice for "trans resveratrol 500mg"

Price: **\$30.15 (\$0.50 / Count)** ✓prime FREE Same-Day

Get \$60 off instantly: Pay \$0.00 upon approval of the Amazon Prime Store Card.

Get FREE delivery **Today** if you order \$35 of qualifying items within 24 mins and choose this date at checkout. [Details](#)

② To Solana Beach, CA 92075

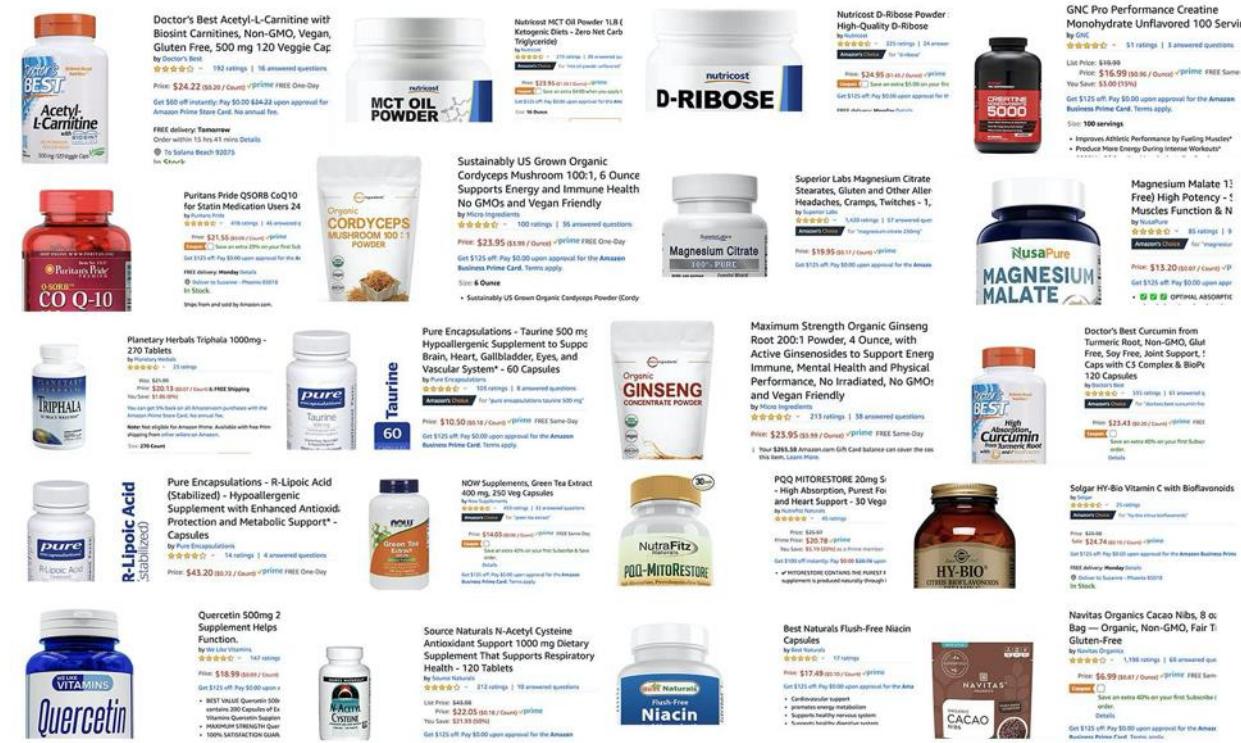
SUBTOTAL: \$127.12

Let's stop here for a minute...

1 bottle of Energenesis (\$119) is LESS EXPENSIVE than buying even the first 3 ingredients on the label!

Can you guess what it would cost you to buy the other 20 ingredients?

You'll probably be shocked...



- # 4. Acetyl-L-Carnitine - \$24.22 (Doctor's Best)
- # 5. MCT Oil Powder - \$23.95 (Nutricost)
- # 6. D-Ribose - \$24.95 (Nutricost)
- # 7. Creatine - \$16.99 (GNC)
- # 8. CoQ10 - \$21.55 (Puritan's Pride)
- # 9. Cordyceps - \$23.95 (Micro Ingredients)
- # 10. Magnesium Citrate - \$19.95 (Superior Labs)
- # 11. Magnesium Malate - \$13.20 (NusaPure)
- # 12. Triphala - \$20.13 (Planetary Herbals)
- # 13. Taurine - \$10.50 (Pure Encapsulations)
- # 14. Panax Ginseng - \$23.95 (Micro Ingredients)

- # 15. Turmeric (Curcumin) - \$23.43 (Doctor's Best)
- # 16. R-Alpha Lipoic Acid - \$43.20 (Pure Encapsulations)
- # 17. Green Tea - \$14.03 (NOW Supplements)
- # 18. PQQ (Pyrroloquinoline Quinone) - \$20.78 (NutraFitz)
- # 19. Citrus Bioflavonoid Powder - \$24.74 (Solgar)
- # 20. Quercetin - \$18.99 (We Like Vitamins)
- # 21. N-Acetyl-Cysteine (NAC) - \$22.05 (Source Naturals)
- # 22. Niacin and Niacinamide - \$17.49 (Best Naturals)
- # 23. Cacao - \$6.99 (Navitas Organics)

TOTAL COST = OVER \$540!

To buy all 23 ingredients on a site like Amazon, for a 30-day supply, would easily cost between \$350-\$500!

Wow! That's basically 300-400% the cost of ONE BOTTLE of Energenesis, which is only \$119.

And, if you buy more than one bottle of Energenesis, you can actually SAVE EVEN MORE MONEY:

- 1 bottle of Energenesis - \$119
- 3 bottles of Energenesis - \$259 (\$86 per bottle)
- 5 bottles of Energenesis - \$379 (\$76 per bottle)



1 bottle - \$119

**3 bottles - \$259
(\$86 per bottle)**

**5 bottles - \$379
(\$76 per bottle)**

At \$76 per bottle (when you buy 5 bottles), you're getting all these ingredients at about 1/5th the cost of how much you'd spend to get these ingredients separately on Amazon.

(Also, it's really quite inconvenient to have to fiddle around with 20+ bottles and take 25-30 pills each day!)

The truth is that I wanted to not only make the world's most powerful mitochondrial supplement, but I also wanted to create something that's far cheaper and way more convenient to take than if you were to get these ingredients elsewhere.

So, I think it's pretty clear...

You can save yourself a lot of time and a huge amount of money when you order Energenesis — all while picking up the most powerful mitochondrial supplement ever created. :-)

In the end, Energenesis is the only supplement you'll ever need for energy enhancement.

What people are saying about Energensis



Eileen Brooker I've had a great increase in my overall health. I had overwhelming fatigue and illness following dengue fever. I had to start slowly, on my 1st day of taking it I got a headache. So after leaving it for a few days I started more slowly with a third of a scoop and have built up from there. The energensis combined with the EB protocols have given me my life back. Thank you!



Valerie Doz I add Energensis to my morning smoothie. Five days on, 2 days off cycle that was recommended. I felt an steady increase of energy over few weeks. I enjoy the taste. I was more focused which caused reduced anxiety as I always need to get so much done everyday. Looking forward to being able to take it again. Thanks for creating a product that truly delivers what was promised.



Raquel Schwab Fogarty I ordered 6 of the energensis and loved it immediately!! The taste was better than I thought it would be because I've had a lot of different natural powders and they taste pretty bad. My energy was better and sustained throughout day and I look forward to it in the morning!! When I ran out I purchased more from another member of this group. Great job on all your hard work and great ingredients in it Ari Whitten!! 😊💪



Diane Jolly I was lucky and purchased 5. I gave two away and they are begging for more. I really notice the energy even the day after taking it. I also was able to reduce supplements as this has so many included. One drink instead of handfuls of pills! The ingredients work. Great sleep and no jitters. Helped me focus and my brain fog really lifted after few weeks. My functional medicine dr wanted to take credit but I told him they needed your program





Getty Payson I am 58 years old and have been taking energenesis for 3 months. I feel a definite improvement in my energy, mood and even sleep, and also my capacity at the gym where I do CrossFit. I take it in the morning prior to working out and I have become stronger and more fit which is evidenced by the weight I can lift and the way I feel when I am working out. I am 100% looking forward to when it comes out once again!!



Denise Pollitt Energensis gave me my life back. Within a couple weeks it had cleared my brain fog and I had more energy than I'd had in years. I had a great summer. Was able to walk my dog twice per day, get to the beach about once per week, and do extra stuff. But what I was happiest about is that it really helped lessen my social anxiety. When I ran out of Energensis at the end of August I noticed myself slowly running out of steam... the brain fog and anxiety have returned though not as bad as they were in the spring. I'm eagerly waiting til it's in stock again. 😊



1 bottle - \$119



3 bottles - \$259
(\$86 per bottle)



5 bottles - \$379
(\$76 per bottle)

I hope you enjoyed this guide to the top evidence-backed supplements for energy enhancement!

You can certainly go out and get these ingredients as separate supplements. [But I hope you'll try out Energenesis.](#) I'm sure you'll fall in love with how it makes you feel!

Now go forth, start taking these compounds and enjoy all the incredible health benefits and energy they add to your life!

References

1. Nicolson, G. L. & Ash, M. E. Lipid Replacement Therapy: a natural medicine approach to replacing damaged lipids in cellular membranes and organelles and restoring function. *Biochim. Biophys. Acta* 1838, 1657–1679 (2014).
2. Nicolson, G. L. & Ellithorpe, R. Lipid Replacement and Antioxidant Nutritional Therapy for Restoring Mitochondrial Function and Reducing Fatigue in Chronic Fatigue Syndrome and Other Fatiguing Illnesses. *J. Chronic Fatigue Syndr.* 13, 57–68 (2006).
3. L. Nicolson, G., Settineri, R. & Ellithorpe, R. Lipid Replacement Therapy with a Glycophospholipid Formulation with NADH and CoQ10 Significantly Reduces Fatigue in Intractable Chronic Fatiguing Illnesses and Chronic Lyme Disease Patients. *IJCM* 03, 163–170 (2012).
4. Agadjanyan, M. *et al.* Nutritional Supplement (NT FactorTM) Restores Mitochondrial Function and Reduces Moderately Severe Fatigue in Aged Subjects. *J. Chronic Fatigue Syndr.* 11, 23–36 (2003).
5. Nicolson, G. L. & Conklin, K. A. Reversing mitochondrial dysfunction, fatigue and the adverse effects of chemotherapy of metastatic disease by molecular replacement therapy. *Clin. Exp. Metastasis* 25, 161–169 (2008).
6. Nicolson, G. L. Lipid replacement/antioxidant therapy as an adjunct supplement to reduce the adverse effects of cancer therapy and restore mitochondrial function. *Pathol. Oncol. Res.* 11, 139–144 (2005).
7. Malmsten, C., et al., Dietary Supplementation with Astaxanthin-Rich Algal Meal Improves Strength Endurance
8. Kidd, P., Astaxanthin, Cell Membrane Nutrient with Diverse Clinical Benefits and Anti-Aging Potential
9. Daniells, S, (2015) Astaxanthin may extend endurance by boosting mitochondrial action
10. Yu, T., Dohl, J., Chen, Y., Gasier, H. G. & Deuster, P. A. Astaxanthin but not quercetin preserves mitochondrial integrity and function, ameliorates oxidative stress, and reduces heat-induced skeletal muscle injury. *Journal of Cellular Physiology* vol. 234 13292–13302 (2019).
11. The power of natural astaxanthin for increased muscle performance.
12. Pashkow, F. J., Watumull, D. G. & Campbell, C. L. Astaxanthin: a novel potential treatment for oxidative stress and inflammation in cardiovascular disease. *Am. J. Cardiol.* 101, 58D–68D (2008).
13. Goulinet, S. & Chapman, M. J. Plasma LDL and HDL subspecies are heterogenous in particle content of tocopherols and oxygenated and hydrocarbon carotenoids. Relevance to oxidative resistance and atherogenesis. *Arterioscler. Thromb. Vasc. Biol.* 17, 786–796 (1997).

14. Mashhadi, N. S. *et al.* Astaxanthin improves glucose metabolism and reduces blood pressure in patients with type 2 diabetes mellitus. *Asia Pac. J. Clin. Nutr.* 27, 341–346 (2018).
15. Ito, N., Saito, H., Seki, S., Ueda, F. & Asada, T. Effects of Composite Supplement Containing Astaxanthin and Sesamin on Cognitive Functions in People with Mild Cognitive Impairment: A Randomized, Double-Blind, Placebo-Controlled Trial. *J. Alzheimers. Dis.* 62, 1767–1775 (2018).
16. Nishioka, Y. *et al.* The antianxiety-like effect of astaxanthin extracted from *Paracoccus carotinifaciens*. *Biofactors* 37, 25–30 (2011).
17. Thalbott, S., et al., (2019) Astaxanthin Supplementation Reduces Depression and Fatigue in Healthy Subjects
18. Earnest, C. P., Lupo, M., White, K. M. & Church, T. S. Effect of astaxanthin on cycling time trial performance. *Int. J. Sports Med.* 32, 882–888 (2011).
19. Polotow, T. G. *et al.* Astaxanthin Supplementation Delays Physical Exhaustion and Prevents Redox Imbalances in Plasma and Soleus Muscles of Wistar Rats. *Nutrients* 6, 5819 (2014).
20. Liu, S. Z. *et al.* Building strength, endurance, and mobility using an astaxanthin formulation with functional training in elderly. *J. Cachexia Sarcopenia Muscle* 9, 826–833 (2018).
21. Ito, N., Seki, S. & Ueda, F. The Protective Role of Astaxanthin for UV-Induced Skin Deterioration in Healthy People—A Randomized, Double-Blind, Placebo-Controlled Trial. *Nutrients* vol. 10 817 (2018).
22. Talbott, S. M. *et al.* Effect of Astaxanthin Supplementation on Psychophysiological Heart-Brain Axis Dynamics in Healthy Subjects. *Functional Foods in Health and Disease* vol. 9 521 (2019).
23. Malmsten, C., et al., Dietary Supplementation with Astaxanthin-Rich Algal Meal Improves Strength Endurance
24. Capelli, B., et.al. (2016) The Anti-Aging Benefits of Astaxanthin and How it Can Protect our Cells and DNA
25. New study shows Astaxanthin is effective against daily mental and physical fatigue
26. pubmeddev & Imai A, E. al. Effects of Dietary Supplementation of Astaxanthin and Sesamin on Daily Fatigue: A Randomized, Double-Blind, Placebo-Controlled, Two-Way Crossover S... - PubMed - NCBI.
27. Clinical study shows AstaReal® astaxanthin effective in reducing both mental and physical fatigue - AstaReal.
28. Astaxanthin protects mitochondrial redox state and functional integrity against oxidative stress. *J. Nutr. Biochem.* 21, 381–389 (2010).
29. Capelli, B., et.al. (2016) The Anti-Aging Benefits of Astaxanthin and How it Can Protect our Cells and DNA .
30. Chowanadisai, W. *et al.* Pyrroloquinoline quinone stimulates mitochondrial biogenesis through cAMP response element-binding protein phosphorylation and increased PGC-1alpha expression. *J. Biol. Chem.* 285, 142–152 (2010).

31. Hwang, P. & Willoughby, D. S. Mechanisms Behind Pyrroloquinoline Quinone Supplementation on Skeletal Muscle Mitochondrial Biogenesis: Possible Synergistic Effects with Exercise. *J. Am. Coll. Nutr.* 1–11 (2018).
32. Harris, C. B. *et al.* Dietary pyrroloquinoline quinone (PQQ) alters indicators of inflammation and mitochondrial-related metabolism in human subjects. *J. Nutr. Biochem.* 24, 2076–2084 (2013).
33. pubmeddev & Harris CB, E. al. Dietary pyrroloquinoline quinone (PQQ) alters indicators of inflammation and mitochondrial-related metabolism in human subjects. - PubMed - NCBI.
34. Nakano, M., Yamamoto, T., Okamura, H., Tsuda, A. & Kowatari, Y. Effects of Oral Supplementation with Pyrroloquinoline Quinone on Stress, Fatigue, and Sleep. *Functional Foods in Health and Disease* 2, 307–324 (2012).
35. pubmeddev & Takatsu H, E. al. Effect of vitamin E on learning and memory deficit in aged rats. - PubMed - NCBI.
36. pubmeddev & Bauerly K, E. al. Altering pyrroloquinoline quinone nutritional status modulates mitochondrial, lipid, and energy metabolism in rats. - PubMed - NCBI.
37. pubmeddev & Muoio D M And. Skeletal muscle adaptation to fatty acid depends on coordinated actions of the PPARs and PGC1 alpha: implications for metabolic disease. - PubMed - NCBI.
38. pubmeddev & Steinberg F, E. al. Pyrroloquinoline quinone improves growth and reproductive performance in mice fed chemically defined diets. - PubMed - NCBI.
39. pubmeddev & Jin X, E. al. Ginseng consumption and risk of cancer: A meta-analysis. - PubMed - NCBI.
40. Kim, J. Y., Park, J. Y., Kang, H. J., Kim, O. Y. & Lee, J. H. Beneficial effects of Korean red ginseng on lymphocyte DNA damage, antioxidant enzyme activity, and LDL oxidation in healthy participants: a randomized, double-blind, placebo-controlled trial. *Nutr. J.* 11, 47 (2012).
41. pubmeddev & Nocerino E, E. al. The aphrodisiac and adaptogenic properties of ginseng. - PubMed - NCBI. <https://www.ncbi.nlm.nih.gov/pubmed/10930706>.
42. pubmeddev & Chanana P And Kumar. GABA-BZD Receptor Modulating Mechanism of Panax quinquefolius against 72-h Sleep Deprivation Induced Anxiety like Behavior: Possible Roles of Oxida... - PubMed - NCBI.
43. Ginseng protein protects against mitochondrial dysfunction and neurodegeneration by inducing mitochondrial unfolded protein response in *Drosophila melanogaster* PINK1 model of Parkinson's disease. *J. Ethnopharmacol.* 247, 112213 (2020).
44. pubmeddev & Dong GZ, E. al. Red ginseng abrogates oxidative stress via mitochondria protection mediated by LKB1-AMPK pathway. - PubMed - NCBI. .
45. pubmeddev & Wiklund IK, E. al. Effects of a standardized ginseng extract on quality of life and physiological parameters in symptomatic postmenopausal women: a double-blind, plac... - PubMed - NCBI.

46. pubmeddev & Scaglione F, E. al. Efficacy and safety of the standardised Ginseng extract G115 for potentiating vaccination against the influenza syndrome and protection against the... - PubMed - NCBI.
47. Coleman, C. I., Hebert, J. H. & Reddy, P. The effects of Panax ginseng on quality of life. *J. Clin. Pharm. Ther.* 28, 5–15 (2003).
48. Kim, J.-H. Pharmacological and medical applications of and ginsenosides: a review for use in cardiovascular diseases. *J. Ginseng Res.* 42, 264–269 (2018).
49. Lee, S.-T., Chu, K., Sim, J.-Y., Heo, J.-H. & Kim, M. Panax ginseng enhances cognitive performance in Alzheimer disease. *Alzheimer Dis. Assoc. Disord.* 22, 222–226 (2008).
50. Lho, S. K. *et al.* Effects of lifetime cumulative ginseng intake on cognitive function in late life. *Alzheimers. Res. Ther.* 10, 50 (2018).
51. pubmeddev & Lee N, E. al. Anti-Fatigue Effects of Enzyme-Modified Ginseng Extract: A Randomized, Double-Blind, Placebo-Controlled Trial. - PubMed - NCBI.
<https://www.ncbi.nlm.nih.gov/pubmed/27754709>.
52. Barton, D. L. *et al.* Wisconsin Ginseng (Panax quinquefolius) to Improve Cancer-Related Fatigue: A Randomized, Double-Blind Trial, N07C2. *JNCI Journal of the National Cancer Institute* 105, 1230 (2013).
53. Kim, H.-G. *et al.* Antifatigue Effects of Panax ginseng C.A. Meyer: A Randomised, Double-Blind, Placebo-Controlled Trial. *PLoS One* 8, (2013).
54. Bach, H. V., Kim, J., Myung, S.-K. & Cho, Y. A. Efficacy of Ginseng Supplements on Fatigue and Physical Performance: a Meta-analysis. *J. Korean Med. Sci.* 31, 1879 (2016).
55. [No title]. https://www.fasebj.org/doi/abs/10.1096/fasebj.25.1_supplement.599.192758/.
56. Ng, T. B. & Wang, H. X. Pharmacological actions of Cordyceps, a prized folk medicine. *J. Pharm. Pharmacol.* 57, 1509–1519 (2005).
57. Lin, B.-Q. & Li, S.-P. Cordyceps as an Herbal Drug. in *Herbal Medicine: Biomolecular and Clinical Aspects*. 2nd edition (CRC Press/Taylor & Francis, 2011).
58. pubmeddev & Kuo YC, E. al. Cordyceps sinensis as an immunomodulatory agent. - PubMed - NCBI.
<https://www.ncbi.nlm.nih.gov/pubmed/8874668>.
59. pubmeddev & Lo HC, E. al. The anti-hyperglycemic activity of the fruiting body of Cordyceps in diabetic rats induced by nicotinamide and streptozotocin. - PubMed - NCBI.
61. Hirsch, K. R., Smith-Ryan, A. E., Roelofs, E. J., Trexler, E. T. & Mock, M. G. Cordyceps militaris improves tolerance to high intensity exercise after acute and chronic supplementation. *J. Diet. Suppl.* 14, 42 (2017).
62. Bird, S. P. Creatine supplementation and exercise performance: a brief review. *J. Sports Sci. Med.* 2, 123–132 (2003).

63. Jagim, A. R., Stecker, R. A., Harty, P. S., Erickson, J. L. & Kerksick, C. M. Safety of Creatine Supplementation in Active Adolescents and Youth: A Brief Review. *Front Nutr* 5, 115 (2018).
64. Vukovich, M. D. & Peeters, B. M. EFFECTS OF CREATINE SUPPLEMENTATION ON EXERCISE PERFORMANCE: A META-ANALYTICAL REVIEW. *Medicine & Science in Sports & Exercise* vol. 31 S263 (1999).
65. Chilibeck, P. D., Kaviani, M., Candow, D. G. & Zello, G. A. Effect of creatine supplementation during resistance training on lean tissue mass and muscular strength in older adults: a meta-analysis. *Open Access J Sports Med* 8, 213–226 (2017).
66. Barbieri, E. *et al.* Creatine Prevents the Structural and Functional Damage to Mitochondria in Myogenic, Oxidatively Stressed C2C12 Cells and Restores Their Differentiation Capacity. *Oxidative Medicine and Cellular Longevity* vol. 2016 1–12 (2016).
67. Avgerinos, K. I., Spyrou, N., Bougioukas, K. I. & Kapogiannis, D. Effects of creatine supplementation on cognitive function of healthy individuals: A systematic review of randomized controlled trials. *Exp. Gerontol.* 108, 166–173 (2018).
68. Rawson, E. S. & Venezia, A. C. Use of creatine in the elderly and evidence for effects on cognitive function in young and old. *Amino Acids* 40, 1349–1362 (2011).
69. Korpacheva, O. V., Dolgikh, V. T., Shikunova, L. G. & Zolotov, A. N. [Cardioprotective effect of exogenous creatine phosphate in acute hemorrhage]. *Anesteziol. Reanimatol.* 13–16 (2002).
70. Study links nutritional supplement, creatine, to increased metabolic energy. *EurekAlert!*
71. Bondonno, C. P., Croft, K. D. & Hodgson, J. M. Dietary Nitrate, Nitric Oxide, and Cardiovascular Health. *Crit. Rev. Food Sci. Nutr.* 56, 2036–2052 (2016).
72. Bondonno, C. P. *et al.* Vegetable-derived bioactive nitrate and cardiovascular health. *Mol. Aspects Med.* 61, 83–91 (2018).
73. Stanaway, L., Rutherford-Markwick, K., Page, R. & Ali, A. Performance and Health Benefits of Dietary Nitrate Supplementation in Older Adults: A Systematic Review. *Nutrients* 9, (2017).
74. Jones, A. M., Thompson, C., Wylie, L. J. & Vanhatalo, A. Dietary Nitrate and Physical Performance. *Annu. Rev. Nutr.* 38, 303–328 (2018).
75. Mahoney, D. E. *et al.* Understanding D-Ribose and Mitochondrial Function. *Adv Biosci Clin Med* 6, 1–5 (2018).
76. Omran, H., Illien, S., MacCarter, D., St Cyr, J. & Lüderitz, B. D-Ribose improves diastolic function and quality of life in congestive heart failure patients: a prospective feasibility study. *Eur. J. Heart Fail.* 5, 615–619 (2003).
77. MacCarter, D. *et al.* D-ribose aids advanced ischemic heart failure patients. *Int. J. Cardiol.* 137, 79–80 (2009).

78. Pliml, W. *et al.* Effects of ribose on exercise-induced ischaemia in stable coronary artery disease. *Lancet* 340, 507–510 (1992).
79. Hellsten, Y., Skadhaug, L. & Bangsbo, J. Effect of ribose supplementation on resynthesis of adenine nucleotides after intense intermittent training in humans. *Am. J. Physiol. Regul. Integr. Comp. Physiol.* 286, R182–8 (2004).
80. Seifert, J. G., Brumet, A. & St Cyr, J. A. The influence of D-ribose ingestion and fitness level on performance and recovery. *J. Int. Soc. Sports Nutr.* 14, 47 (2017).
81. Teitelbaum, J. E., Johnson, C. & St Cyr, J. The use of D-ribose in chronic fatigue syndrome and fibromyalgia: a pilot study. *J. Altern. Complement. Med.* 12, 857–862 (2006).
82. Gebhart, B. & Jorgenson, J. A. Benefit of ribose in a patient with fibromyalgia. *Pharmacotherapy* 24, 1646–1648 (2004).
83. Cordero, M. D. *et al.* Coenzyme Q10 distribution in blood is altered in patients with fibromyalgia. *Clin. Biochem.* 42, 732–735 (2009).
84. Di Pierro, F., Rossi, A., Consensi, A., Giacomelli, C. & Bazzichi, L. Role for a water-soluble form of CoQ10 in female subjects affected by fibromyalgia. A preliminary study. *Clin. Exp. Rheumatol.* 35 Suppl 105, 20–27 (2017).
85. Cordero, M. D. *et al.* Can coenzyme q10 improve clinical and molecular parameters in fibromyalgia? *Antioxid. Redox Signal.* 19, 1356–1361 (2013).
86. Jafari, M., Mousavi, S. M., Asgharzadeh, A. & Yazdani, N. Coenzyme Q10 in the treatment of heart failure: A systematic review of systematic reviews. *Indian Heart J.* 70 Suppl 1, S111–S117 (2018).
87. DiNicolantonio, J. J., Bhutani, J., McCarty, M. F. & O’Keefe, J. H. Coenzyme Q10 for the treatment of heart failure: a review of the literature. *Open Heart* 2, e000326 (2015).
88. Sanoobar, M., Dehghan, P., Khalili, M., Azimi, A. & Seifar, F. Coenzyme Q10 as a treatment for fatigue and depression in multiple sclerosis patients: A double blind randomized clinical trial. *Nutr. Neurosci.* 19, 138–143 (2016).
89. Sanoobar, M. *et al.* Coenzyme Q10 supplementation ameliorates inflammatory markers in patients with multiple sclerosis: a double blind, placebo, controlled randomized clinical trial. *Nutr. Neurosci.* 18, 169–176 (2015).
90. Lafuente, R. *et al.* Coenzyme Q10 and male infertility: a meta-analysis. *J. Assist. Reprod. Genet.* 30, 1147–1156 (2013).
91. Xu, Y. *et al.* Pretreatment with coenzyme Q10 improves ovarian response and embryo quality in low-prognosis young women with decreased ovarian reserve: a randomized controlled trial. *Reprod. Biol. Endocrinol.* 16, 29 (2018).
92. Ben-Meir, A. *et al.* Coenzyme Q10 restores oocyte mitochondrial function and fertility during reproductive aging. *Aging Cell* 14, 887–895 (2015).

93. Shoeibi, A. *et al.* Effectiveness of coenzyme Q10 in prophylactic treatment of migraine headache: an open-label, add-on, controlled trial. *Acta Neurol. Belg.* 117, 103–109 (2017).
94. Sándor, P. S. *et al.* Efficacy of coenzyme Q10 in migraine prophylaxis: a randomized controlled trial. *Neurology* 64, 713–715 (2005).
95. Deichmann, R., Lavie, C. & Andrews, S. Coenzyme q10 and statin-induced mitochondrial dysfunction. *Ochsner J.* 10, 16–21 (2010).
96. Skarlovnik, A., Janić, M., Lunder, M., Turk, M. & Šabovič, M. Coenzyme Q10 supplementation decreases statin-related mild-to-moderate muscle symptoms: a randomized clinical study. *Med. Sci. Monit.* 20, 2183–2188 (2014).
97. Kasper, S. & Dienel, A. Multicenter, open-label, exploratory clinical trial with extract in patients suffering from burnout symptoms. *Neuropsychiatr. Dis. Treat.* 13, 889–898 (2017).
98. Anghelescu, I.-G., Edwards, D., Seifritz, E. & Kasper, S. Stress management and the role of Rhodiola rosea: a review. *Int. J. Psychiatry Clin. Pract.* 1–11 (2018).
99. McCarty, M. F. Clinical potential of Spirulina as a source of phycocyanobilin. *J. Med. Food* 10, 566–570 (2007).
100. Nawrocka, D., Kornicka, K., Śmieszek, A. & Marycz, K. Spirulina platensis Improves Mitochondrial Function Impaired by Elevated Oxidative Stress in Adipose-Derived Mesenchymal Stromal Cells (ASCs) and Intestinal Epithelial Cells (IECs), and Enhances Insulin Sensitivity in Equine Metabolic Syndrome (EMS) Horses. *Mar. Drugs* 15, (2017).
101. Zheng, J. *et al.* Phycocyanin and phycocyanobilin from Spirulina platensis protect against diabetic nephropathy by inhibiting oxidative stress. *Am. J. Physiol. Regul. Integr. Comp. Physiol.* 304, R110–20 (2013).
102. Saha, S. K., Misbahuddin, M., Khatun, R. & Mamun, I. R. Effect of hexane extract of spirulina in the removal of arsenic from isolated liver tissues of rat. *Mymensingh Med. J.* 14, 191–195 (2005).
103. Saha, S. K., Misbahuddin, M. & Ahmed, A. U. Comparison between the effects of alcohol and hexane extract of spirulina in arsenic removal from isolated tissues. *Mymensingh Med. J.* 19, 27–31 (2010).
104. pubmeddev & Wu LC, E. al. Antioxidant and antiproliferative activities of Spirulina and Chlorella water extracts. - PubMed - NCBI. <https://www.ncbi.nlm.nih.gov/pubmed/15884862>.
105. pubmeddev & Johnson M, E. al. A randomized, double blind, placebo controlled study of spirulina supplementation on indices of mental and physical fatigue in men. - PubMed - NCBI. <https://www.ncbi.nlm.nih.gov/pubmed/26888417>.
106. pubmeddev & Kalafati M, E. al. Ergogenic and antioxidant effects of spirulina supplementation in humans. - PubMed - NCBI. <https://www.ncbi.nlm.nih.gov/pubmed/20010119>.
107. Ng, Q. X., Koh, S. S. H., Chan, H. W. & Ho, C. Y. X. Clinical Use of Curcumin in Depression: A Meta-Analysis. *J. Am. Med. Dir. Assoc.* 18, 503–508 (2017).

108. Noorafshan, A., Vafabin, M., Karbalay-Doust, S. & Asadi-Golshan, R. Efficacy of Curcumin in the Modulation of Anxiety Provoked by Sulfite, a Food Preservative, in Rats. *Prev Nutr Food Sci* 22, 144–148 (2017).
109. Hewlings, S. J. & Kalman, D. S. Curcumin: A Review of Its' Effects on Human Health. *Foods* 6, (2017).
110. Soto-Urquieta, M. G. *et al.* Curcumin restores mitochondrial functions and decreases lipid peroxidation in liver and kidneys of diabetic db/db mice. *Biol. Res.* 47, 74 (2014).
111. Curcumin, mitochondrial biogenesis, and mitophagy: Exploring recent data and indicating future needs. *Biotechnol. Adv.* 34, 813–826 (2016).
112. Jamwal, R. Bioavailable curcumin formulations: A review of pharmacokinetic studies in healthy volunteers. *J. Integr. Med.* 16, 367–374 (2018).
113. de Oliveira, M. R. *et al.* Quercetin and the mitochondria: A mechanistic view. *Biotechnol. Adv.* 34, 532–549 (2016).
114. Davis, J. M., Murphy, E. A., Carmichael, M. D. & Davis, B. Quercetin increases brain and muscle mitochondrial biogenesis and exercise tolerance. *Am. J. Physiol. Regul. Integr. Comp. Physiol.* 296, R1071–7 (2009).
115. Ripps, H. & Shen, W. Review: taurine: a ‘very essential’ amino acid. *Mol. Vis.* 18, 2673–2686 (2012).
116. Scicchitano, B. M. & Sica, G. The Beneficial Effects of Taurine to Counteract Sarcopenia. *Curr. Protein Pept. Sci.* 19, 673–680 (2018).
117. Schaffer, S. & Kim, H. W. Effects and Mechanisms of Taurine as a Therapeutic Agent. *Biomol. Ther.* 26, 225–241 (2018).
118. Jong, C. J., Ito, T., Prentice, H., Wu, J.-Y. & Schaffer, S. W. Role of Mitochondria and Endoplasmic Reticulum in Taurine-Deficiency-Mediated Apoptosis. *Nutrients* 9, (2017).
119. Hansen, S. H., Andersen, M. L., Cornett, C., Gradinaru, R. & Grunnet, N. A role for taurine in mitochondrial function. *J. Biomed. Sci.* 17 Suppl 1, S23 (2010).
120. Schwalfenberg, G. K. & Genuis, S. J. The Importance of Magnesium in Clinical Healthcare. *Scientifica* 2017, 4179326 (2017).
121. Veronese, N. *et al.* Acetyl-L-Carnitine Supplementation and the Treatment of Depressive Symptoms: A Systematic Review and Meta-Analysis. *Psychosom. Med.* 80, 154–159 (2018).
122. Rump, T. J. *et al.* Acetyl-L-carnitine protects neuronal function from alcohol-induced oxidative damage in the brain. *Free Radic. Biol. Med.* 49, 1494–1504 (2010).
123. Scafidi, S., Racz, J., Hazelton, J., McKenna, M. C. & Fiskum, G. Neuroprotection by acetyl-L-carnitine after traumatic injury to the immature rat brain. *Dev. Neurosci.* 32, 480–487 (2010).

124. Xu, Y. *et al.* L-carnitine treatment of insulin resistance: A systematic review and meta-analysis. *Adv. Clin. Exp. Med.* 26, 333–338 (2017).
125. Song, X. *et al.* Efficacy and Safety of L-Carnitine Treatment for Chronic Heart Failure: A Meta-Analysis of Randomized Controlled Trials. *Biomed Res. Int.* 2017, 6274854 (2017).
126. Shang, R., Sun, Z. & Li, H. Effective dosing of L-carnitine in the secondary prevention of cardiovascular disease: a systematic review and meta-analysis. *BMC Cardiovasc. Disord.* 14, 88 (2014).
127. Rai, G. *et al.* Double-blind, placebo controlled study of acetyl-L-carnitine in patients with Alzheimer's dementia. *Curr. Med. Res. Opin.* 11, 638–647 (1990).
128. Passeri, M. *et al.* Acetyl-L-carnitine in the treatment of mildly demented elderly patients. *Int. J. Clin. Pharmacol. Res.* 10, 75–79 (1990).
129. Thal, L. J. *et al.* A 1-year multicenter placebo-controlled study of acetyl-L-carnitine in patients with Alzheimer's disease. *Neurology* 47, 705–711 (1996).
130. Tomassini, V. *et al.* Comparison of the effects of acetyl L-carnitine and amantadine for the treatment of fatigue in multiple sclerosis: results of a pilot, randomised, double-blind, crossover trial. *J. Neurol. Sci.* 218, 103–108 (2004).
131. Plioplys, A. V. & Plioplys, S. Amantadine and L-carnitine treatment of Chronic Fatigue Syndrome. *Neuropsychobiology* 35, 16–23 (1997).
132. Nicassio, L. *et al.* Dietary supplementation with acetyl-L-carnitine counteracts age-related alterations of mitochondrial biogenesis, dynamics and antioxidant defenses in brain of old rats. *Exp. Gerontol.* 98, 99–109 (2017).
133. Patel, S. P., Sullivan, P. G., Lytle, T. S. & Rabchevsky, A. G. Acetyl-L-carnitine ameliorates mitochondrial dysfunction following contusion spinal cord injury. *J. Neurochem.* 114, 291–301 (2010).
134. Rosca, M. G., Lemieux, H. & Hoppel, C. L. Mitochondria in the elderly: Is acetylcarnitine a rejuvenator? *Adv. Drug Deliv. Rev.* 61, 1332–1342 (2009).
135. Carrasco-Gallardo, C., Guzmán, L. & Maccioni, R. B. Shilajit: a natural phytocomplex with potential procognitive activity. *Int. J. Alzheimers. Dis.* 2012, 674142 (2012).
136. Surapaneni, D. K. *et al.* Shilajit attenuates behavioral symptoms of chronic fatigue syndrome by modulating the hypothalamic-pituitary-adrenal axis and mitochondrial bioenergetics in rats. *J. Ethnopharmacol.* 143, 91–99 (2012).
137. Heber, D. Pomegranate Ellagitannins. in *Herbal Medicine: Biomolecular and Clinical Aspects* (eds. Benzie, I. F. F. & Wachtel-Galor, S.) (CRC Press/Taylor & Francis, 2012).
138. Ismail, T. *et al.* Ellagitannins in Cancer Chemoprevention and Therapy. *Toxins* 8, (2016).
139. Rodriguez, J. *et al.* Urolithin B, a newly identified regulator of skeletal muscle mass. *J. Cachexia Sarcopenia Muscle* 8, 583–597 (2017).

140. Zhao, W. *et al.* Metabolite of ellagitannins, urolithin A induces autophagy and inhibits metastasis in human SW620 colorectal cancer cells. *Mol. Carcinog.* 57, 193–200 (2018).
141. Shay, K. P., Moreau, R. F., Smith, E. J., Smith, A. R. & Hagen, T. M. Alpha-lipoic acid as a dietary supplement: molecular mechanisms and therapeutic potential. *Biochim. Biophys. Acta* 1790, 1149–1160 (2009).
142. Poon, H. F. *et al.* Proteomic analysis of specific brain proteins in aged SAMP8 mice treated with alpha-lipoic acid: implications for aging and age-related neurodegenerative disorders. *Neurochem. Int.* 46, 159–168 (2005).
143. Panigrahi, M. *et al.* alpha-Lipoic acid protects against reperfusion injury following cerebral ischemia in rats. *Brain Res.* 717, 184–188 (1996).
144. Arivazhagan, P., Shila, S., Kumaran, S. & Panneerselvam, C. Effect of DL-alpha-lipoic acid on the status of lipid peroxidation and antioxidant enzymes in various brain regions of aged rats. *Exp. Gerontol.* 37, 803–811 (2002).
145. Zhang, L. *et al.* Alpha-lipoic acid protects rat cortical neurons against cell death induced by amyloid and hydrogen peroxide through the Akt signalling pathway. *Neurosci. Lett.* 312, 125–128 (2001).
146. Breithaupt-Grögler, K. *et al.* Dose-proportionality of oral thioctic acid--coincidence of assessments via pooled plasma and individual data. *Eur. J. Pharm. Sci.* 8, 57–65 (1999).
147. Freisleben, H. J., Neeb, A., Lehr, F. & Ackermann, H. Influence of selegiline and lipoic acid on the life expectancy of immunosuppressed mice. *Arzneimittelforschung* 47, 776–780 (1997).
148. Tejada, S. *et al.* Potential Anti-inflammatory Effects of Hesperidin from the Genus Citrus. *Curr. Med. Chem.* 25, 4929–4945 (2018).
149. Manchope, M. F., Casagrande, R. & Verri, W. A., Jr. Naringenin: an analgesic and anti-inflammatory citrus flavanone. *Oncotarget* 8, 3766–3767 (2017).
150. Benavente-García, O. & Castillo, J. Update on uses and properties of citrus flavonoids: new findings in anticancer, cardiovascular, and anti-inflammatory activity. *J. Agric. Food Chem.* 56, 6185–6205 (2008).
151. Kumar, A., Prakash, A. & Dogra, S. Naringin alleviates cognitive impairment, mitochondrial dysfunction and oxidative stress induced by D-galactose in mice. *Food Chem. Toxicol.* 48, 626–632 (2010).
152. Singhal, K., Raj, N., Gupta, K. & Singh, S. Probable benefits of green tea with genetic implications. *J. Oral Maxillofac. Pathol.* 21, 107–114 (2017).
153. Suzuki, Y., Miyoshi, N. & Isemura, M. Health-promoting effects of green tea. *Proc. Jpn. Acad. Ser. B Phys. Biol. Sci.* 88, 88–101 (2012).
154. Chacko, S. M., Thambi, P. T., Kuttan, R. & Nishigaki, I. Beneficial effects of green tea: a literature review. *Chin. Med.* 5, 13 (2010).

155. Ortiz-López, L. *et al.* Green tea compound epigallo-catechin-3-gallate (EGCG) increases neuronal survival in adult hippocampal neurogenesis in vivo and in vitro. *Neuroscience* 322, 208–220 (2016).
156. Pervin, M. *et al.* Beneficial Effects of Green Tea Catechins on Neurodegenerative Diseases. *Molecules* 23, (2018).
157. Babu, P. V. A. & Liu, D. Green tea catechins and cardiovascular health: an update. *Curr. Med. Chem.* 15, 1840–1850 (2008).
158. Bhardwaj, P. & Khanna, D. Green tea catechins: defensive role in cardiovascular disorders. *Chin. J. Nat. Med.* 11, 345–353 (2013).
159. Rains, T. M., Agarwal, S. & Maki, K. C. Antioesity effects of green tea catechins: a mechanistic review. *J. Nutr. Biochem.* 22, 1–7 (2011).
160. Hursel, R. & Westerterp-Plantenga, M. S. Catechin- and caffeine-rich teas for control of body weight in humans. *Am. J. Clin. Nutr.* 98, 1682S–1693S (2013).
161. Hursel, R., Viechtbauer, W. & Westerterp-Plantenga, M. S. The effects of green tea on weight loss and weight maintenance: a meta-analysis. *Int. J. Obes.* 33, 956–961 (2009).
162. Cooper, R., Morré, D. J. & Morré, D. M. Medicinal benefits of green tea: part II. review of anticancer properties. *J. Altern. Complement. Med.* 11, 639–652 (2005).
163. Lambert, J. D. Does tea prevent cancer? Evidence from laboratory and human intervention studies. *Am. J. Clin. Nutr.* 98, 1667S–1675S (2013).
164. Park, J.-H., Bae, J.-H., Im, S.-S. & Song, D.-K. Green tea and type 2 diabetes. *Integr Med Res* 3, 4–10 (2014).
165. Forester, S. C. & Lambert, J. D. The role of antioxidant versus pro-oxidant effects of green tea polyphenols in cancer prevention. *Mol. Nutr. Food Res.* 55, 844–854 (2011).
166. Ohishi, T., Goto, S., Monira, P., Isemura, M. & Nakamura, Y. Anti-inflammatory Action of Green Tea. *Antiinflamm. Antiallergy Agents Med. Chem.* 15, 74–90 (2016).
167. Bernatoniene, J. & Kopustinskiene, D. M. The Role of Catechins in Cellular Responses to Oxidative Stress. *Molecules* 23, (2018).
168. Greg Kelly. ND, (2019) NAD: INTRODUCTION TO AN IMPORTANT HEALTHSPAN MOLECULE
169. Klimova, B., Novotny, M. & Kuca, K. Anti-Aging Drugs - Prospect of Longer Life? *Curr. Med. Chem.* 25, 1946–1953 (2018).
170. Park, A. Scientists Can Reverse DNA Aging in Mice. *Time* <https://time.com/4711023/how-to-keep-your-dna-from-aging/> (2017).
171. Dölle, C., Skoge, R. H., Vanlinden, M. R. & Ziegler, M. NAD biosynthesis in humans--enzymes, metabolites and therapeutic aspects. *Curr. Top. Med. Chem.* 13, 2907–2917 (2013).

172. pubmeddev & de Andrade KQ, E. al. Oxidative Stress and Inflammation in Hepatic Diseases: Therapeutic Possibilities of N-Acetylcysteine. - PubMed - NCBI.
<https://www.ncbi.nlm.nih.gov/pubmed/26694382>.
173. pubmeddev & Rushworth G F And. Existing and potential therapeutic uses for N-acetylcysteine: the need for conversion to intracellular glutathione for antioxidant benefits. - PubMed - NCBI.
<https://www.ncbi.nlm.nih.gov/pubmed/24080471>.
174. pubmeddev & Elbini Dhouib I, E. al. A minireview on N-acetylcysteine: An old drug with new approaches. - PubMed - NCBI. <https://www.ncbi.nlm.nih.gov/pubmed/26946308>.
175. pubmeddev & Fernandes BS, E. al. N-Acetylcysteine in depressive symptoms and functionality: a systematic review and meta-analysis. - PubMed - NCBI.
<https://www.ncbi.nlm.nih.gov/pubmed/27137430>.
176. pubmeddev & Afshar H, E. al. N-acetylcysteine add-on treatment in refractory obsessive-compulsive disorder: a randomized, double-blind, placebo-controlled trial. - PubMed - NCBI.
<https://www.ncbi.nlm.nih.gov/pubmed/23131885>.
177. pubmeddev & Hardan AY, E. al. A randomized controlled pilot trial of oral N-acetylcysteine in children with autism. - PubMed - NCBI. <https://www.ncbi.nlm.nih.gov/pubmed/22342106>.
178. pubmeddev & Magalhães PV, E. al. N-acetylcysteine for major depressive episodes in bipolar disorder. - PubMed - NCBI. <https://www.ncbi.nlm.nih.gov/pubmed/22189927>.
179. pubmeddev & Kelly MK, E. al. Effects of N-acetylcysteine on respiratory muscle fatigue during heavy exercise. - PubMed - NCBI. <https://www.ncbi.nlm.nih.gov/pubmed/18992854>.
180. Fries, G. R. & Kapczinski, F. N-acetylcysteine as a mitochondrial enhancer: a new class of psychoactive drugs? *Braz. J. Psychiatry* 33, 321–322 (2011).
181. Therapeutic potential of N-acetylcysteine in age-related mitochondrial neurodegenerative diseases. *Med. Hypotheses* 56, 472–477 (2001).
182. Protective effects of N-acetyl-cysteine in mitochondria bioenergetics, oxidative stress, dynamics and S-glutathionylation alterations in acute kidney damage induced by folic acid. *Free Radical Biology and Medicine* 130, 379–396 (2019).
183. Pezzuto, J. M. Resveratrol: Twenty Years of Growth, Development and Controversy. *Biomol. Ther.* 27, 1–14 (2019).

184. M Andrea Markus, B. J. M. Resveratrol in prevention and treatment of common clinical conditions of aging. *Clin. Interv. Aging* 3, 331 (2008).
185. Resveratrol Improves Mitochondrial Function and Protects against Metabolic Disease by Activating SIRT1 and PGC-1α. *Cell* 127, 1109–1122 (2006).
186. Maroon, J. *The Longevity Factor: How Resveratrol and Red Wine Activate Genes for a Longer and Healthier Life.* (Simon and Schuster, 2008).
187. Evans, H., Howe, P. & Wong, R. Clinical Evaluation of Effects of Chronic Resveratrol Supplementation on Cerebrovascular Function, Cognition, Mood, Physical Function and General Well-Being in Postmenopausal Women—Rationale and Study Design. *Nutrients* vol. 8 150 (2016).
188. Grant, R. Resveratrol Increases Intracellular NAD Levels Through Up regulation of The NAD Synthetic Enzyme Nicotinamide Mononucleotide Adenylyltransferase. *Nature Precedings* (2010) doi:10.1038/npre.2010.4421.1.
189. Carrizzo, A. et al. Antioxidant effects of resveratrol in cardiovascular, cerebral and metabolic diseases. *Food Chem. Toxicol.* 61, 215–226 (2013).
190. Xia, N., Daiber, A., Förstermann, U. & Li, H. Antioxidant effects of resveratrol in the cardiovascular system. *Br. J. Pharmacol.* 174, 1633–1646 (2017).
191. Omidian, M. et al. The Effects of Resveratrol on Oxidative Stress Markers: A Systematic Review and Meta-Analysis on Randomized Clinical Trials. *Endocr. Metab. Immune Disord. Drug Targets* (2019) doi:10.2174/1871530319666191116112950.
192. Khan, N. et al. Resveratrol and Bioactive Flavonoids in Immune Function. *Dietary Components and Immune Function* 397–420 (2010) doi:10.1007/978-1-60761-061-8_23.
193. Inoue, H. & Nakata, R. Resveratrol Targets in Inflammation. *Endocrine, Metabolic & Immune Disorders-Drug Targets* vol. 15 186–195 (2015).
194. Hurley, L. L., Akinfiresoye, L., Kalejaiye, O. & Tizabi, Y. Antidepressant effects of resveratrol in an animal model of depression. *Behavioural Brain Research* vol. 268 1–7 (2014).
195. pubmeddev & Lagouge M, E. al. Resveratrol improves mitochondrial function and protects against metabolic disease by activating SIRT1 and PGC-1alpha. - PubMed - NCBI.
<https://www.ncbi.nlm.nih.gov/pubmed/17112576>.
196. Kan, N.-W. et al. The Synergistic Effects of Resveratrol combined with Resistant Training on Exercise Performance and Physiological Adaption. *Nutrients* 10, (2018).

197. Alway, S. E. et al. Resveratrol Enhances Exercise-Induced Cellular and Functional Adaptations of Skeletal Muscle in Older Men and Women. *J. Gerontol. A Biol. Sci. Med. Sci.* 72, 1595–1606 (2017).
198. Scholey, A., Benson, S., Stough, C. & Stockley, C. Effects of resveratrol and alcohol on mood and cognitive function in older individuals. *Nutrition and Aging* vol. 2 133–138 (2014).
199. Merry, T. L. & Ristow, M. Do antioxidant supplements interfere with skeletal muscle adaptation to exercise training? *J. Physiol.* 594, 5135–5147 (2016).