

INTRODUCING TRUE CREATINE+

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# THE ORIGIN STORY WHY WE CREATED TRUE CREATINE+

In today's world, maintaining optimal physical and mental health amidst the fast pace of life and its demands can be challenging. True Creatine+ meets the needs of not only highly active individuals but also anyone aiming to support brain health, energy levels and longevity.

Creatine is one of the most extensively researched supplements available.

Traditionally associated with elite athletes, bodybuilders, and those pursuing muscle gains, it's now well known that **its health benefits extend far beyond the realm of fitness**.

As we age, our natural creatine levels decline. Alongside this, our energy diminishes with our high demand lives and the motivation to move wanes. This "spark plug for energy" is a versatile supplement that can help optimise physical performance, cognitive function, and overall vitality.



#### - TAKE HOME TIP

True Creatine+ is a multifunctional tool to add to your wellness rituals, supporting you in leading a healthy, active lifestyle.

### THE IMPORTANCE OF MUSCLE HEALTH

Focusing on your muscle health goes way beyond aesthetics. Maintaining muscle is crucial for long-term health, yet **as a society, we are often "under muscled,"** and the importance of muscle function is frequently underestimated. Muscle is, of course, essential for all forms of movement - from daily activities to complex athletic performance. Muscle enables mobility, strength and endurance and therefore is **key to an active, brave lifestyle**.

However, muscle serves more than just powering movement or being a goal for

gym enthusiasts; it is **fundamental to your metabolism**. Strong, healthy muscles help to regulate blood sugar and determine how your body utilises carbohydrates and fats. Muscle is a metabolic sink and amino acid reservoir where the body can draw upon times of stress and illness to protect key organs such as the liver, kidney and brain.

Maintaining muscle mass is particularly important for menopausal women. Lean body mass (aka muscle) is associated with reduced symptoms like hot flashes



and night sweats. Strength training and maintaining muscle can also **preserve your bone health**, which is extremely important for women during or post menopause who are at higher risk of osteoporosis compared to men.

If you are worried about strength training causing you to 'bulk up', please remember that this is actually an extremely hard thing to achieve, and requires precision, dedication, very specific training and calorie surplus.

Just like **collagen depletes as we age, so does muscle** (unless we work to maintain it). The average person starts losing muscle as early as 25 years old. Maintaining muscle mass and strength is crucial for functional independence, especially as we age. It helps prevent falls, support balance and maintains the ability to perform everyday tasks.

In summary, preserving muscle as we age is crucial for blood sugar control, metabolism, protecting vital organs and bones, body composition, and maintaining functional independence. Prioritising movement and muscle-supporting nutrients can help you maintain healthy muscle mass and enjoy its benefits throughout your life.

#### TAKE HOME TIP

"Strength is the best predictor of all-cause mortality. It's more important than VO2 max, metabolic syndrome, or any of the other standard risk factors."

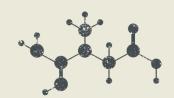
- PETER ATTIA, AUTHOR AND PHYSICIAN

# INTRODUCING TRUE CREATINE+

An expertly formulated blend designed to ignite your inner potential.

Enhanced with the amino-acid taurine, our True Creatine+ supports energy metabolism, muscle optimisation and peak performance. This daily ritual is enriched with vitamin D and bioavailable magnesium to combat tiredness and fatigue.





# UNDERSTANDING CREATINE

Creatine is a naturally occurring amino acid (a building block of protein) found in various cells in our body including muscle, the gut and the brain.

At a cellular level, creatine puts a little more usable energy into your cell so they can work a little harder. It does this by helping to produce ATP (adenosine triphosphate). ATP is the key energy carrier for our body and is vital for short bursts of intense physical activity like weightlifting or sprints (source). While it's often associated with muscle cells, creatine also benefits other energy-hungry cells, particularly those which have a high demand for energy including the brain and the immune system. Creatine supports a consistent supply of energy for cellular functions and overall performance.

Your body produces some creatine naturally, and you can also obtain it from certain foods like red meat and seafood (e.g. you'll gain around 5g of creatine in a 900g steak!). This makes it a particularly important supplement for vegetarians and vegans.



### HEALTH BENEFITS OF CREATINE

- + Elevated energy levels by supporting ATP production, creatine can improve energy and reduce fatigue.
- + Improved muscle mass 95% of all creatine is stored in your skeletal muscles. Creatine has been shown to promote muscle gain by <u>drawing water into the muscle</u>, increasing levels of a <u>hormone</u> <u>called IGF-1</u> (which increases muscle growth) and improving your performance ability and recovery.
- + May improve mood and cognitive function Not only has creatine been shown to <u>reduce mental fatigue</u>, which could then help you exercise more, it has also been shown to aid with depressive disorders. Creatine might influence neurotransmitter systems, including the serotonin and dopamine pathways, which play crucial roles in mood regulation (<u>source</u>).



**Improved strength and power** - leading to improved performance in activities requiring explosive movements (<u>Source</u>, <u>Source</u>, <u>Source</u>)

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- + Improved exercise performance In one <u>study</u> in 2016, female participants experienced a 15% increase in exercise performance after supplementing with creatine for 10 weeks. This outcome may be due to increased energy availability through enhanced ATP turnover during exercise and delayed neuromuscular fatigue. In simple terms, supplementing with creatine could help you tire less quickly and sustain activity for longer periods.
- + Enhanced recovery It has been shown to reduce inflammation and cell damage following lengthy, intense exercise. This means less pain after training, and less time before you feel up to training again. (Source)
- + May support brain health There is emerging research that indicates the potential cognitive benefits of creatine, suggesting a role in neurological health and function. (Source, Source, Source). In a robust 2022 meta-analysis, it was concluded that creatine supplementation significantly improved memory (compared to placebo). This improvement was particularly impressive among older adults (aged 66-77).
  - Counteracts menopausal muscle, bone and strength loss.

For menopausal women, creatine supplementation in combination with resistance training has been shown to counterbalance muscle, bone and strength loss, by reducing inflammation, oxidative stress and bone resorption, while increasing bone formation. The research suggests that menopausal women taking creatine may increase muscle mass and function. (Source)

+ May help support menstrual health. Creatine can improve blood flow to the uterus - this can help support the growth and shedding of the uterine lining, essential for a healthy menstrual cycle (<u>Source</u>).

**Did you know?** Females have naturally lower creatine stores than men, meaning that females tend to respond better to creatine supplementation and could experience double the performance improvement than males (<u>source</u>).

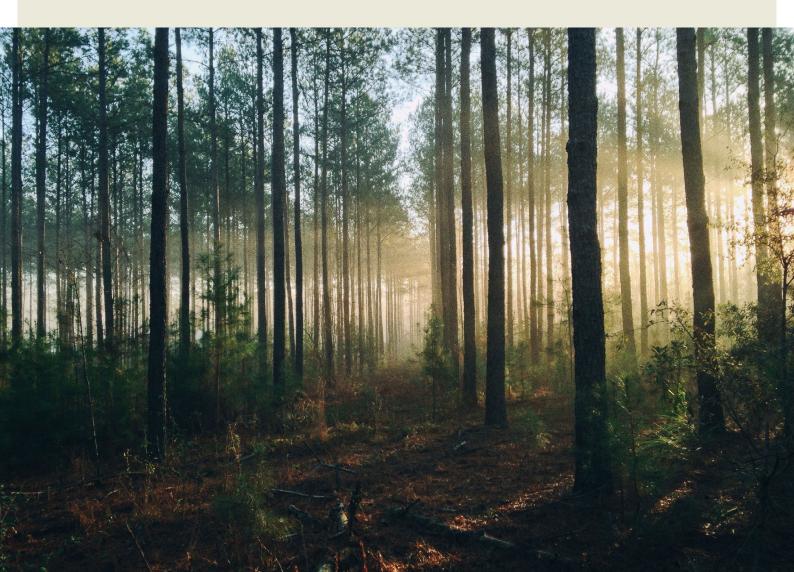
## THE ANCIENT LINK

Imagine for a moment our hunter-gatherer ancestor searching for the next meal to feed the tribe. During this hunt, our ancient ancestors would have required enhanced performance to focus, chase and survive. Fleeing from predators, and other survival activities required quick, powerful movements. Creatine was essential for our ancestors due to its critical role in muscle function and energy metabolism.

Adequate creatine levels would have supported greater strength, endurance, and mental resilience; a significant advantage in a mentally demanding and physically strenuous lifestyle.

Fast-forward to the present day and we can utilise this ancient physiology to elevate our own daily lives. Movement is a pillar of health and longevity. Creatine can be used as an important tool to help you rediscover and enjoy movement

The better you perform, recover, and feel, the more positive momentum you create to fuel your daily healthy habits.





# UNDERSTANDING TAURINE

Taurine, a key amino acid, is found naturally in your body's tissues and is essential for numerous bodily functions. It serves as a cellular antioxidant protector, aids in bile production, helps to maintain electrolyte balance and supports energy production as well as nerve and muscle health.

With its anti-inflammatory and antioxidant properties, taurine enhances exercise performance and recovery while promoting heart health. As we age, our bodies produce less taurine, making supplementation vital for sustaining vitality and longevity.



#### HEALTH BENEFITS OF TAURINE

- + Cellular health and longevity. Taurine is thought to be antiinflammatory, and protects tissues from oxidative stress associated with the pathology of various inflammatory diseases (<u>source</u>).
- + Cardiovascular support. Taurine can help to regulate blood pressure, improve blood lipid profiles, and support heart muscle function. There have been a few studies that show taurine can lower cholesterol (<u>source</u>).
- + Immune system support. Taurine has immunomodulatory effects, helping to maintain a balanced and effective immune response.
- + Cognitive function. Taurine is found in the brain, where its antioxidant activity supports healthy mitochondria and promotes smooth neurotransmission, therefore supporting mood, memory and learning.
- + Improved exercise performance. Taurine has been shown to increase the time until exhaustion, reduce exercise-induced fatigue and diminish damage from intense exercise (source).
- H Muscle maintenance. Taurine helps in muscle function and repair, which is crucial for preventing age-related muscle loss and maintaining physical strength and mobility.

+

Metabolic health. Taurine can support blood sugar balancing.



## UNDERSTANDING MAGNESIUM

We use a highly bioavailable source of magnesium which is derived naturally from seawater. Magnesium is an essential mineral which is pivotal for over 300 biochemical reactions in the body, including muscle, brain and nerve function, energy production, and nervous system function.

With our modern day busy lives, depleted soils, sleepless nights and higher levels of stress, it is crucial we replenish the magnesium our body craves.



#### HEALTH BENEFITS OF MAGNESIUM

- + Contributes to a reduction of tiredness and fatigue Magnesium is required for the production and stability of ATP, which provides energy for basic bodily processes. Magnesium also plays a role in converting the glucose in food to energy. It also promotes lactate clearance in the muscles, which in turn helps to prevent muscle fatigue and improves your exercise performance.
- + Can improve mood Magnesium plays a crucial role in regulating neurotransmitters. For example, magnesium interacts with GABA receptors and helps to support the calming effect of this neurotransmitter, which is why it is frequently called 'nature's tranquiliser'.
- + Can improve sleep quality Magnesium promotes relaxation by activating the parasympathetic nervous system, which produces a calming effect on the mind and body. Magnesium has also been shown to promote melatonin production.
- + **Can support heart health** Magnesium may protect heart health by reducing inflammation and maintaining the functioning of the cell membranes. Studies have shown supplementing with magnesium may help to manage blood pressure (<u>source</u>).
- Plays a key role in bone health It is estimated that about 60% of magnesium is actually found in the bones (<u>source</u>). One review of 12 studies linked increased magnesium intake with increased overall bone mineral density (<u>source</u>).



# UNDERSTANDING VITAMIN D

Vitamin D is made by skin when exposed to sunlight. National studies carried out across many European countries indicate that deficiencies in vitamin D are commonplace.

Every cell in your body has a receptor for vitamin D, which makes it more like a hormone than a vitamin and demonstrates just how important this key nutrient is for almost every bodily system. Vitamin D is naturally found in meat, fish and dairy products making this vitamin hard to find when following a plant-based diet.

#### HEALTH BENEFITS OF VITAMIN D

- + Contributes to bone health Vitamin D promotes calcium absorption and helps to maintain adequate levels of calcium and phosphorus in the blood, which is necessary for healthy bones and teeth.
- Plays an important role in immune function Vitamin D plays a role in the proper functioning of T cells, B cells and dendritic cells which are all key to immune function and protecting your body from infection.
- Hay improve mood According to research, vitamin D can help to reduce depressive symptoms. There are vitamin D receptors present in the prefrontal cortex, an area of the brain known to play a role in mood regulation.



# HOW TO TAKE TRUE CREATINE+

True Creatine+ is a flavourless, highly soluble powder. Mix 6g into your favourite drink like water, coffee or a protein shake. Take daily for optimal effects. It is also best consumed immediately. Avoid long-term storage in liquid: Creatine degrades when left in liquid for extended periods, so it's not ideal to keep it in your water bottle throughout the day.

Mix it only when you're ready to drink it.

# BEST TIME TO TAKE

For overall health benefits and to maintain elevated creatine levels, taking True Creatine+ at the same time each day can be beneficial. Whether it's morning, afternoon, or evening, consistency is key to ensuring your body receives a steady supply of creatine, taurine, vitamin D, and magnesium.

Taking True Creatine+ with a meal can enhance absorption and reduce the likelihood of any gastrointestinal discomfort. This can be particularly useful if you experience any stomach issues when taking supplements on an empty stomach.

While there is flexibility in timing, the most important factor is consistency. Choose a time that fits best with your daily routine, whether it's before or after your workout, or at a specific time each day. This will help you maximise the benefits of True Creatine+ for muscle energy, performance, recovery, and overall health.

#### HOW LONG UNTIL I SEE RESULTS?

When taking a daily dose of True Creatine you can start to see some results quite quickly within the first week including initial cellular hydration and minor performance improvements.

Within 2-3 weeks there will be enhanced workout performance, including improved strength and endurance. By this time, your muscle creatine stores are increasing, contributing to better energy availability during high-intensity exercise, improved cognition, and less brain fog.

Optimal improvements occur after 4-6 weeks followed by continued gains in performance and recovery, along with sustained benefits from the supporting nutrients. You'll likely experience ongoing improvements in your workout performance, muscle growth, and general health.

Regular exercise will help you maximise the benefits of creatine and other nutrients. People respond differently to supplements, so some may see results faster than others.

