

REFLEXIV⁺

SPORTS SCIENCE

THE POWER OF NMN

LIFE IS A SPORT. EVERYONE IS AN ATHLETE.
PLAY LONGER.



Jeff Eakins
CEO & President



jeakins@reflexivplus.com



www.ReflexivPlus.com

“Taken orally, NMN is rapidly absorbed and converted to NAD+. In numerous studies, supplementation with NMN has increased NAD+ biosynthesis, suppressed age-related adipose tissue inflammation, enhanced insulin secretion and insulin action, improved mitochondrial function, improved neuronal function in the brain, and more.

- NIH National Library of Medicine
*The Science Behind NMN—A Stable, Reliable
NAD+ Activator and Anti-Aging Molecule*

In June of 2018, the World Health Organization (WHO) released the 11th edition of its International Classification of Diseases, and for the first time added aging. The classification of aging as a disease paves the way for new research into novel therapeutics to delay or reverse age-related illnesses such as cancer, cardiovascular and metabolic disease, and neurodegeneration. By middle age, our NAD+ levels have plummeted to half that of our youth. Numerous studies have demonstrated that boosting NAD+ levels increases insulin sensitivity, reverses mitochondrial dysfunction, and extends lifespan. NAD+ levels can be increased by supplementing with nicotinamide mononucleotide (NMN).



“There is abundant evidence for anti-aging and health-enhancing effects of NMN”

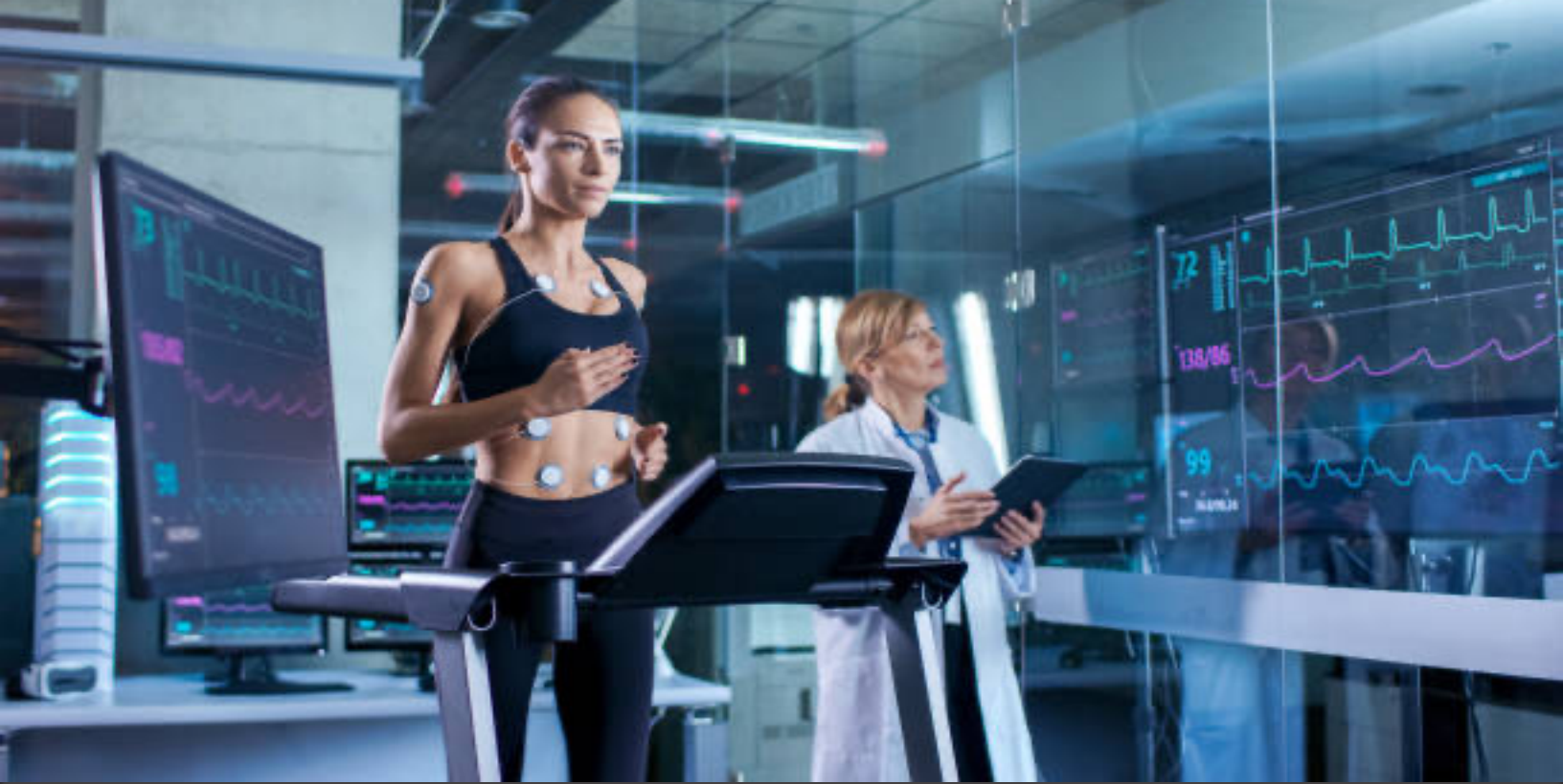
– Christopher Shade, PhD

- suppress age-associated weight gain,
- enhance energy metabolism and physical activity,
- improve insulin sensitivity
- improve eye function,
- improve mitochondrial metabolism
- prevent age-linked changes in gene expression
- lowers adipose tissue inflammation

NMN IS NOT JUST ANOTHER SUPPLEMENT

In this age of awareness and modern technology, everyone is looking for ways to better themselves physically and mentally. This causes most to turn to medications and supplements. People are looking for anything that will naturally help them sustain energy, avoid injury, and perform longer. When it comes to professional athletes, their bodies are their income. In addition, with new NIL rules in the U.S., collegiate and high school athletes have more incentive than ever to perform at peak efficacy and eliminate injury risk. Furthermore, those individuals who are retired from sports, but who want to remain active are in need of help to keep their bodies in good condition. NMN is the key to accomplishing these goals. NMN helps heal the body at the DNA level.



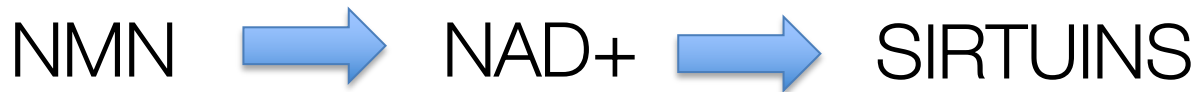


WHY IS NMN THE MOST IMPORTANT SUPPLEMENT A PERSON CAN TAKE?

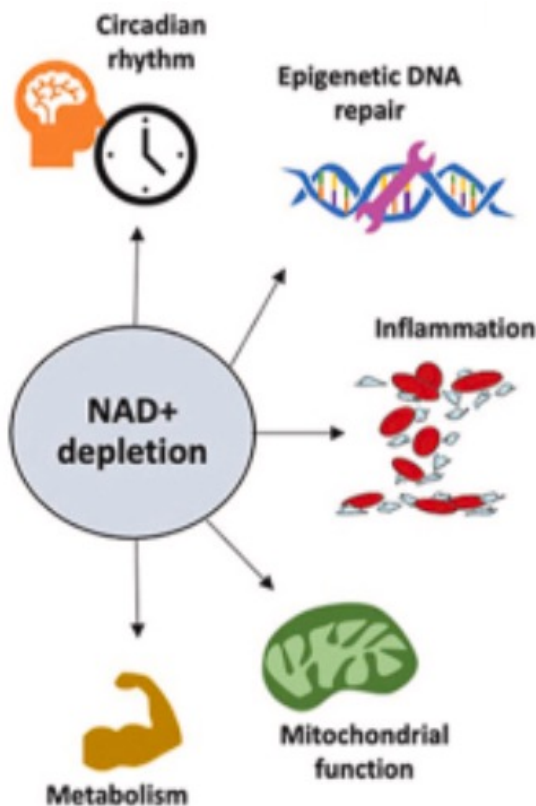
- CELLULAR ENERGY METABOLISM – (DIABETES, OBESITY, KIDNEY DISEASE, et. al.)
- ANTI-INFLAMMATORY
- SUPPORTS CIRCADIAN RHYTHM (SLEEP CYCLE) REGULATION
- EPIGENETIC DNA REPAIR
- POSSIBLE DECREASE IN NEURODEGENERATIVE DISEASES SUCH AS ALZHEIMER'S, PARKINSONS, HUNTINGTON'S DISEASE
- NORMAL CELL FUNCTION AND VIABILITY
- CRITICAL FOR GLYCOLYSIS, FATTY ACID OXIDATION, AND CITRIC ACID CYCLE



HOW DOES NMN WORK?



Sirtuins are proteins that are essential for the survival of all living organisms. Sirtuins are longevity genes that are made by almost every cell in the body. Sirtuins regulate many cellular functions including:



Metabolism - Sirtuins regulate metabolic processes related to insulin resistance and modulate the activity of key metabolic enzymes.

DNA repair and cell cycle - Sirtuins support healthy DNA and may reduce the rate at which cells divide.

Epigenetics - Sirtuins make enzymes that control the epigenome and dial down gene expression by changing the design of lysine.

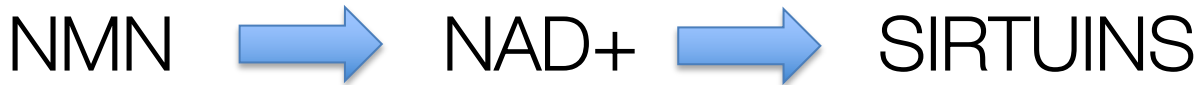
Inflammation - Most sirtuins have anti-inflammatory effects by inhibiting the NF-κB pathway.

Oxidative stress - Sirtuins participate in the process of oxidative stress, which is an important factor in cell damage.

Sirtuins are activated in response to threats or stress conditions



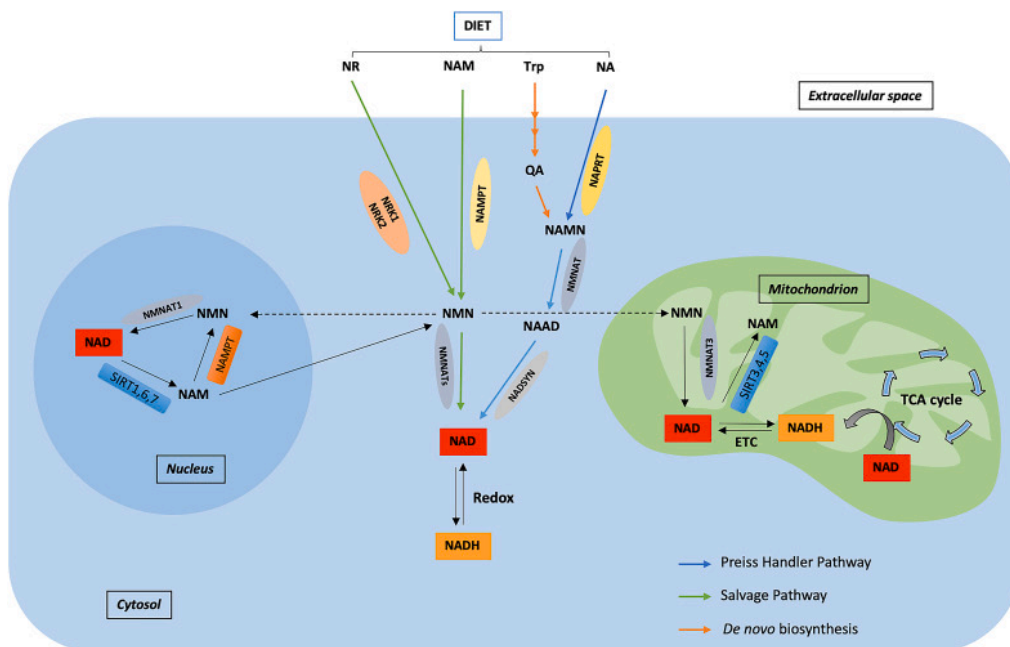
HOW DOES NMN WORK?



NAD+ is critical for human health and longevity as it plays a crucial role in various biological processes, including metabolism, DNA repair, and gene expression, among others. NAD+ also supports healthy ageing. Sirtuins play a crucial part in regulating cellular homeostasis, which involves keeping the cell in balance and protecting it from age-related decay. Sirtuins were first discovered in the 1970s, but their dependence on NAD+ wasn't realized until the 1990s. That means that to work properly, sirtuins need to be activated by NMN/NAD+. On top of that, NAD+ is involved in DNA repair that has been damaged by day-to-day processes and exposures, and research has shown that it can also protect your cells from stress. Sirtuins protect cells against oxidative stress, and NAD+ helps activate sirtuins. Sirtuins depend on NAD+ to work correctly, so a healthy circadian rhythm, sirtuins and NAD+ are all interconnected.

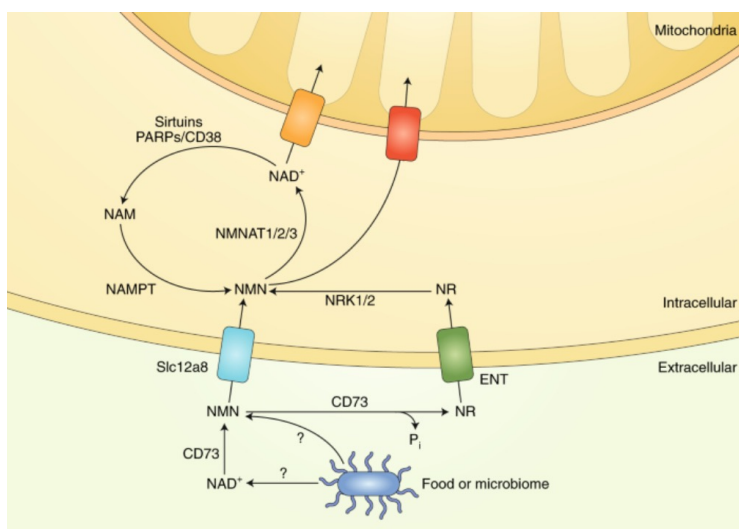
Sirtuins are completely dependent on NAD+ in order to function.

We cannot produce NAD+ without NMN!



WHY IS NMN CRITICAL FOR EVERYONE?

Changes in the balance between NAD⁺ and NADH can disrupt our body's biological systems and may contribute to neurodegenerative diseases, aging, and cancer. When DNA gets damaged, a protein called PARP gets activated, which uses up NAD⁺ and can lead to lower levels of this crucial molecule. This happens because either our bodies aren't making enough NAD⁺ or because it's being consumed too quickly. NAD⁺ is created from a natural, pure NMN.

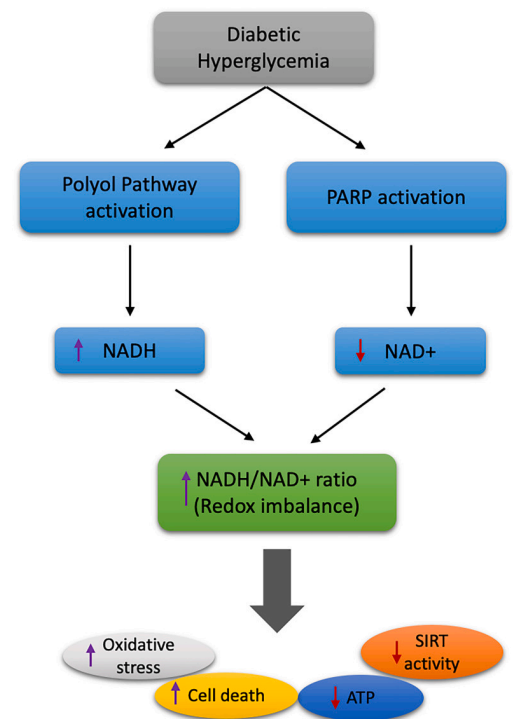


In response to physical exercise, the energy demand in heart and skeletal muscles increases significantly. To meet this demand, cells adjust their energy supply via the respiratory chain. Sirtuin 1 enhances the energy supply capacity, while sirtuin 3 increases energy production. Both sirtuins rely on NAD⁺, which is created by the body from NMN. Additionally, sirtuin 4, which regulates long-chain fatty acid oxidation also depends on NAD⁺. These sirtuins, and their activation, depend on NAD⁺ being available, which in turn requires Nicotinamide Mononucleotide (NMN) as a precursor.



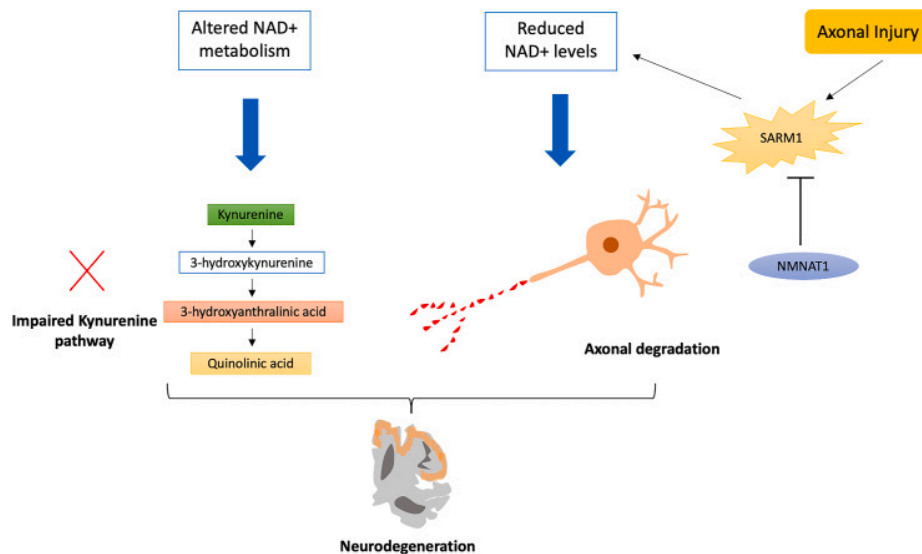
WHY IS NMN CRITICAL FOR EVERYONE?

- **NMN IN AGING** - As we age, NMN and NAD⁺ levels decline, contributing to aging signs. This drop is linked to changes in mitochondria, including damage to mitochondrial DNA from reactive oxygen species (ROS). One key factor is the activation of NMN-consuming enzymes like PARP1, often due to inflammation or DNA damage. While PARP1 helps repair DNA, its excessive activation depletes NMN, reducing SIRT1 activity and impairing mitochondrial function. Lower NMN levels lead to cellular dysfunction and worsen age-related conditions. Supplementing with NMN, a precursor to NAD⁺, offers numerous benefits, particularly for aging and metabolic health. NMN enhances NAD⁺ levels, which improves energy production, mitochondrial function, and insulin sensitivity. It helps mitigate age-related weight gain, enhances cognitive function, and boosts cardiovascular health. NMN supplementation rejuvenates muscle stem cells and intestinal stem cells, delaying cellular aging and improving gut repair. It also restores microvasculature in older mice, enhances synaptic plasticity, and extends lifespan. In conditions like Alzheimer's disease and retinal glaucoma, NMN can improve symptoms by promoting cellular repair and protecting against damage. Overall, NMN supports various physiological functions and combats age-related decline.
- **NMN IN METABOLIC DISORDERS** - In recent years, the rise of metabolic disorders like obesity, type 2 diabetes (T2D), and cardiovascular diseases has highlighted the importance of NAD⁺ metabolism. NMN, a key NAD⁺ precursor, is crucial for managing these conditions. It boosts NAD⁺ levels, which helps regulate metabolic enzymes and improve insulin sensitivity. NMN supplementation has been shown to alleviate insulin resistance and enhance glucose tolerance in diabetic models, partially by restoring NAD⁺ levels and improving lipid profiles. In obesity, NMN supports mitochondrial function, combats metabolic inflexibility, and mitigates fat accumulation, helping manage related health issues. NMN also plays a role in liver health by preventing fatty liver disease and reducing inflammation, and it protects kidneys by enhancing NAD⁺ levels and sirtuin activity. By replenishing NAD⁺, NMN helps address various metabolic and age-related disorders, making it a key player in improving overall metabolic health.



WHY IS NMN CRITICAL FOR EVERYONE?

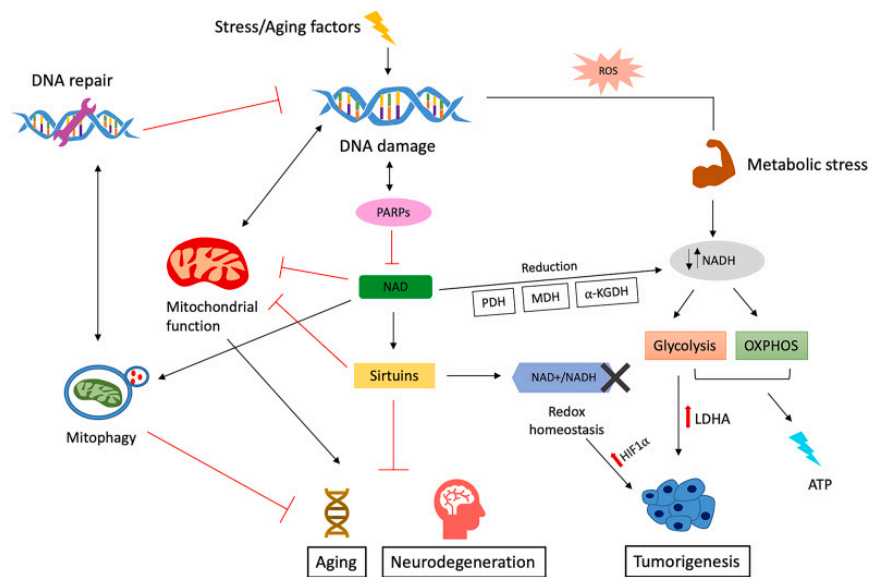
- **NMN IN NEURODEGENERATIVE DISEASES** - Mitochondrial dysfunction in neurons significantly contributes to age-related neurodegenerative disorders like Alzheimer's and Parkinson's disease. As we age, increased production of reactive oxygen species (ROS) damages DNA and impairs mitochondrial function. NMN, a crucial precursor to NAD⁺, plays a key role in mitigating this damage. NMN boosts NAD⁺ levels, which supports the function of NAD⁺-dependent sirtuins that protect neurons and improve mitochondrial health. The KYN pathway, involved in NMN metabolism, produces both protective and harmful metabolites that affect neuronal function. To counteract NAD⁺ depletion linked to aging, NMN supplementation, along with other NAD⁺ augmentation strategies such as PARP inhibitors, can restore mitochondrial and neuronal function, enhancing cognitive health. Additionally, while PARP1 inhibition shows potential in treating neurodegenerative diseases, NMN's role in preserving axonal integrity is highlighted by its ability to counteract NAD⁺ depletion and support neuronal health through mechanisms involving NMNAT1.



NMN is crucial for maintaining nerve health and preventing damage associated with neurodegenerative diseases. When nerves are injured, a protein called SARM1 is activated, which depletes NAD⁺ levels and leads to further nerve damage. NMN helps counteract this by boosting NAD⁺ levels, which supports another protein, NMNAT1, that can block SARM1 and protect injured nerves. Proper levels of NAD⁺, supported by NMN, are essential for nerve function. Additionally, disruptions in the KYN pathway, which affects NAD⁺ levels, can impair nerve communication and contribute to neurological disorders. Therefore, NMN plays a key role in preserving NAD⁺ levels, protecting nerves from damage, and maintaining overall nerve health.

WHY IS NMN CRITICAL FOR EVERYONE?

- **NMN IN ANTI-INFLAMMATORY** – NMN, NAD⁺ and sirtuins, particularly SIRT1, play a critical role in regulating inflammation and potential therapeutic strategies for inflammatory diseases. SIRT1, a protein dependent on NAD⁺, acts as a deacetylase, removing acetyl groups from various proteins. This process affects many cellular functions, including inflammation. NMN is a precursor to NAD⁺, and increasing NMN levels can boost NAD⁺ and consequently enhance SIRT1 activity. Elevated NAD⁺ levels ensure that SIRT1 can effectively deacetylate proteins involved in inflammation, reducing the inflammatory response. Thus, maintaining high NAD⁺ levels through NMN supplementation can support SIRT1's anti-inflammatory functions, offering a potential avenue for treating inflammatory diseases.



- **CRITICAL FOR GLYCOLYSIS, FATTY ACID OXIDATION, AND CITRIC ACID CYCLE (KREBS CYCLE)** - NMN plays a crucial role in several metabolic processes essential for athletic performance and overall energy production. In glycolysis, NMN, through its role in boosting NAD⁺ levels, helps regulate the energy burst needed for short, high-intensity activities like sprints and weightlifting, by activating Sirtuins (SIRT1, SIRT3, and SIRT6) which can modulate glycolysis pathways. For fatty acid oxidation (FAO), NMN enhances endurance and metabolic efficiency by stimulating the complete oxidation of fatty acids, essential when glycogen is low or during recovery periods. It achieves this by regulating dehydrogenases involved in FAO, thus preventing muscle breakdown and improving recovery. Additionally, in the citric acid cycle (Krebs cycle), NMN, as a precursor to NAD⁺, facilitates the transfer of electrons from nutrients to the respiratory chain, aiding in the production of ATP—vital for sustained energy production.



NMN IN THE SUPPLEMENT INDUSTRY

The reality is that the supplement industry is saturated with thousands of supplements and many new procedures already being used to help individuals feel and perform better. However, these supplements and procedures *do not* and *cannot* increase longevity by repairing our DNA. Only pure NMN can do this by synthesizing NAD+ which activates Sirtuins.

FACT #1 – Not all NMN is effective. Studies show that NMN is very susceptible to the elements. Because Reflexiv+ Sports Science NMN is the only NMN in the world processed to pharmaceutical standards and enhanced with extended-release technology, this makes us the most effective NMN in the world for individuals when it comes to recovery, sustainability, and longevity.

FACT #2 – Not all NMN is actually NMN. A third-party study concluded that 86% of NMN products sold failed lab testing and 64% of NMN products contained no NMN!

FACT #3 - NMN is not new. NMN was discovered in 1963, but research interest in it as an anti-aging agent didn't start until about 10 years ago. NMN is a world-wide supplement used by millions of people.

FACT #4 – NMN is safe and natural for everyone. Researchers have been doing clinical trials to investigate the safety and efficacy of the molecule in humans for years. These studies are producing amazing results of the positive effects of NMN and its abilities in improving health. Of course, the goal is to develop treatments that slow, stop or even reverse aging – which is key to the success of athletes.

- NMN is not a drug!
- NMN is an organic molecule in DNA that is naturally produced by the body.
- It is safe for consumption



CURRENT PRODUCTS

We are already selling pharmaceutical grade NMN in the U.S. and international markets. Our Reflexiv+ Nicotinamide Mononucleotide (NMN) is the purest NMN in the world. Period. Seriously. It has pro-grade ingredients safe for athletes. Our products don't have fillers, chemicals, or other dangerous crap in them like other NMN products. We ensure that every ingredient is held to the highest standards, making them the purest and most stable products on the market today. Designed by a team of highly experienced pharmaceutical scientists, our products are made in FDA-inspected manufacturing facilities and tested three times via different globally recognized independent labs.



NMN15000 is our premier pharma-grade NMN geared for anyone looking for daily energy, mental clarity, and overall great health. NMN15000 is created with a special formula that incorporates an extended 12-hour release of NMN to the body. This provides people with sustained energy, clarity, and longevity throughout the day. This product is already being sold in hospitals and wellness centers throughout international markets with great success. Because of its efficacy and purity, it is gaining a reputation for the premier NMN on the market today.



NMN-SPORT is created from our pharma-grade NMN formula that is focused to help athletes with longevity and sustainability. NMN-SPORT is also NSF certified for athletes so that they can take the product without worrying about testing. Offering a burst of energy before games, workouts, training, etc. NMN-Sport works directly in the DNA to help promote injury prevention, sustained energy during competition, and a faster recovery from fatigue, injury, et. al. NMN-Sport can be taken by any fitness/sport enthusiast who wants to stay at the top of their game. They do not need to take NMN-Sport and NMN15000 together. NMN-SPORT is set for release October 2024.



WHY JOIN THE REFLEXIV+ TEAM?

With the competitors mentioned above being firmly entrenched on the competitive landscape, gaining market share amongst them will be no easy task. That being said, the market is sizeable and has great growth potential - and there's plenty of room for new entrants like us. We've also tied a distinct set of competitive advantages into Reflexiv+ Sports Science, which will help us differentiate ourselves from these competitors and ascend to a market leadership position. The top three factors that allow us to stand out from the current eCommerce giants of the world are presented below:

Simply put, we have the highest quality and purest products in the industry.

The biggest problem with the NMN that our competitors are selling is that their products are of a lesser quality and purity than what Reflexiv+ Sports Science will be selling. (See Appendix A) These companies receive a lower grade of NMN from manufacturers. There are also dangers with many of the competitors' NMN supplements. For one, third-party reports regularly find high levels of supplement contamination. Heavy metals, impurities, and other banned substances lurk in some products. Some products don't even contain ANY of the primary ingredient! Reflexiv+ and Oryza Pharmaceutical NMN has passed the SGS Qualitative analysis of 360 Chemicals for clinical use. This means that there are zero harmful contaminants in Reflexiv+ NMN. Reflexiv+ will receive the highest purity of 99.9% from Oryza Pharmaceutical.

Our NMN will be a much better value.

Another issue the competition faces is that their product is sold to them in limited quantities because they are not able to purchase as much NMN due to the demand in the Asian market. If they don't have enough NMN to sell, then there are significant delays in product delivery which causes dissatisfaction in customer service. Oryza Pharmaceutical has contracted with Reflexiv+ so that they will always have enough NMN to fulfill demand. In addition, our competitors have no idea how much NMN a consumer should take each day. Every company recommends a different dosage amount. Most of them are ineffective amounts which cause people to not be satisfied with the effects of the NMN they are taking. While their products are often sold at lower prices, customers will need to spend more to get the same effects of our NMN. We will sell a higher dosage of NMN at a competitive price that will make our NMN the greatest value in the industry.



We have the only sports-focused NMN in the industry.

NMN is currently sold "as-is" to the general public. It is simply marketed as a longevity product with benefits for all. Our NMN has been tested with professional and collegiate athletes over the past two years. This has allowed us to adjust the daily recommended dosage amounts per person based on activity levels and body types. We are specifically marketing our products towards athletes in order to help them perform better and longer. In addition, we will have popular athletes who promote our products for other athletes to use. We will be the first - and best - company to do this.

We manufacture in the United States.

We will be manufacturing the NMN here in the United States. This means that our consumers will trust the quality of our products over the competition. Consumers in China look for the "Made in the USA" label when purchasing a product - so do consumers in the U.S. Most competitors manufacture their products in China because it is much cheaper to do so. We choose to invest in our products in order to establish trust with our consumers.

We are not limited in what we can do.

Sports science is not just a name for us. It is a vision - a motivating factor. We are creating a company that will be the most innovative in the sports industry. We don't just want to sell NMN; we want to revolutionize the industry! We plan to team up with sports athletes, trainers, scientists, and medical professionals to continue researching and developing new products, second and third generation products, and more. We want to study the athlete and their bodies. We want to be the leader in technology and innovation!



SUPPORTING RESEARCH AND DATA FROM THE NATIONAL INSTITUTE OF HEALTH (NIH)

The Science Behind NMN—A Stable, Reliable NAD⁺ Activator and Anti-Aging Molecule
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7238909/>

The Safety and Antiaging Effects of Nicotinamide Mononucleotide in Human Clinical Trials: an Update
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10721522/>

Role of NAD⁺ in regulating cellular and metabolic signaling pathways
[https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7973386/#:~:text=NAD%2B%20and%20another%20essential%20intracellular,\(ATP\)%20%5B3%5D.](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7973386/#:~:text=NAD%2B%20and%20another%20essential%20intracellular,(ATP)%20%5B3%5D.)

NMN research shows the body is constant need of NMN
<https://www.verifiedmarketresearch.com/product/nicotinamide-monomucleotide-nmn-market/>

NAD⁺ and Sirtuins in Aging and Disease
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4112140/#R8>

The NAD⁺-Dependent Deacetylase SIRT1 Modulates CLOCK-Mediated Chromatin Remodeling and Circadian Control
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3526943/>

SIRT4 and Its Roles in Energy and Redox Metabolism in Health, Disease and During Exercise.
<https://www.frontiersin.org/journals/physiology/articles/10.3389/fphys.2019.01006/full>

Sirtuin Biology in Medicine. Chapter 14 - Sirtuins, mitochondria, and exercise in health and disease
<https://www.sciencedirect.com/science/article/abs/pii/B9780128141182000161#:~:text=Furthermore%2C%20sirtuins%20are%20important%20regulators,capacity%20of%20mitochondrial%20energy%20supply>

Will Sirtuins Be Promising Therapeutic Targets for TBI and Associated Neurodegenerative Diseases?
<https://www.frontiersin.org/journals/neuroscience/articles/10.3389/fnins.2020.00791/full>

Nicotinamide mononucleotide (NMN) alleviates the poly(I:C)-induced inflammatory response in human primary cell cultures
<https://www.nature.com/articles/s41598-023-38762-x>

