RAENEN®

NMN 60000

Cellular Health & Longevity

- *Promotes Stem Cell Growth*
- *Delays Aging in Cells*
- *Improving Brain Health*
- *Improving Heart Health*
- *Improving Sleep Qaultiy*

ANTI-AGING EFFECT

NMN, or Nicotinamide Mononucleotide, is a natural compound in the human body. It is derived from niacin (vitamin B3) and acts as a precursor to NAD+ (Nicotinamide Adenine Dinucleotide). As we age, NAD+ levels decrease. This decline contributes to health issues and the aging process. Promotes Stem Cell Growth: NMN expands skeletal (SSCs) and mesenchymal stem cells. Delays Aging in Cells: It reduces senescence in older stem cells. Enhances Tissue Repair: NMN improves stem cell migration to damaged areas. By increasing NAD+ levels, NMN boosts stem cell health and regeneration, making it a promising anti-aging and therapeutic tool.

RRP $198.00

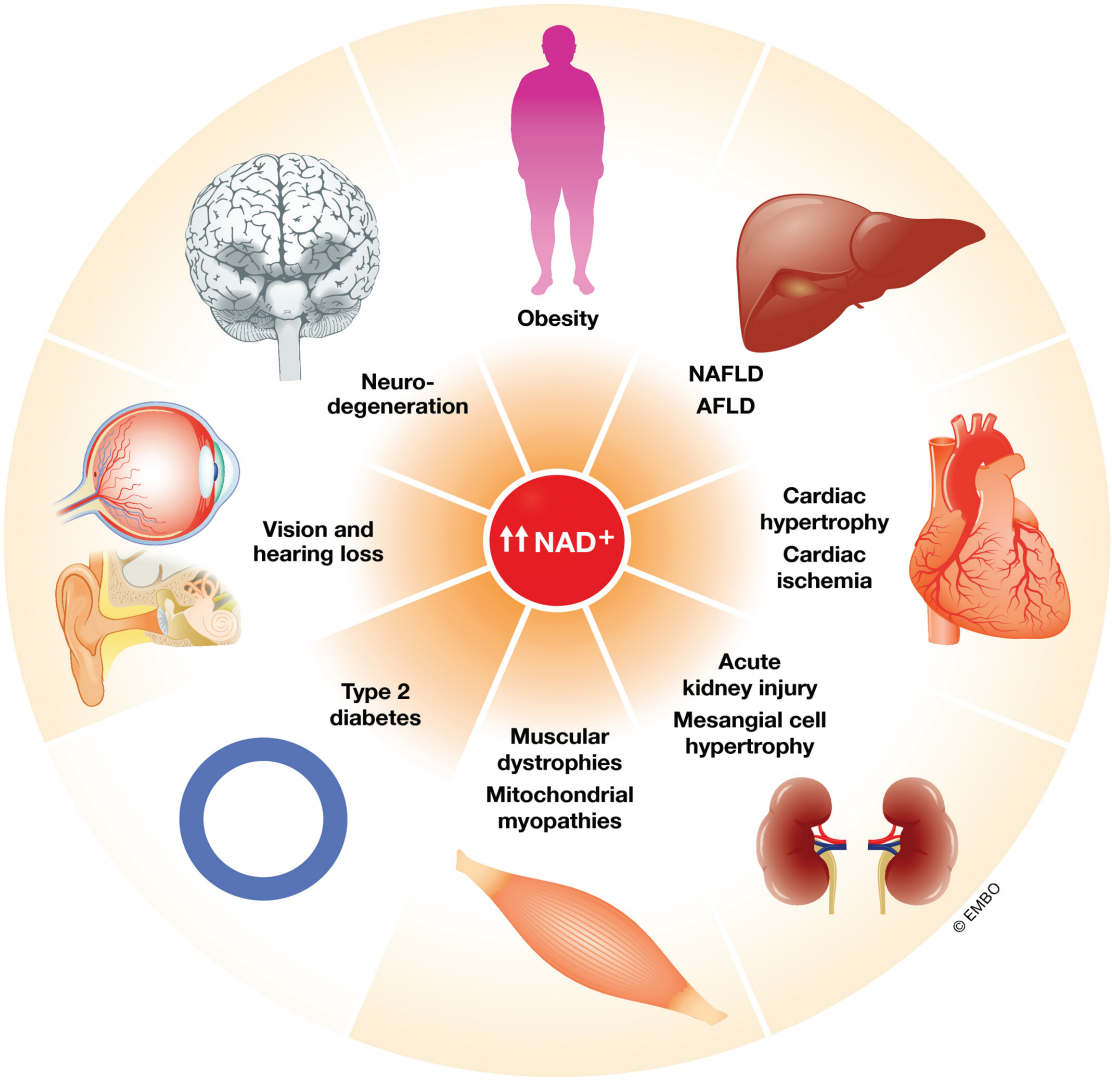
Supplement Facts
Serving Size: 1-2 Capsules Daily
Serving Per Container: 60 - 120

Ingredients:	Each Capsule
Nicotinamide Mononucleotide	500mg

Other Ingredients: Cellulose (Vegan Capsule), Microcrystalline cellulose.
No Artificial Ingredients, Wheat, Gluten, Yeast, Soy, Corn, Milk or Preservatives.
Direction: take 2 capsules per day without food.
Storage Instruction: Store in a dry place away from direct sun light.
Warning: Pregnant or nursing mothers, children under the age of 18 and individuals with a known medical condition should consult a physicain before using.

RAENEN NMN 60000 (500mg x 120)

Boosts NAD+ Levels (take 2 - 3 weeks)



Can you take NMN everyday?
NMN is an ideal supplement to increase cellular levels of NAD because it's well-tolerated, and both human and animal studies have observed it had minimal side effects. Research in humans has shown that doses of up to 1,200 mg daily are safe to consume.

How long does it take for NMN to start working?
Most people report seeing results in 2 to 3 weeks.

When should I take NMN morning or night?
They found that a young person, for example, should take NMN six hours after they wake up to achieve the highest

$2.50/day

JUST 1 BOTTLE
120 capsules
2 months serves
make life better

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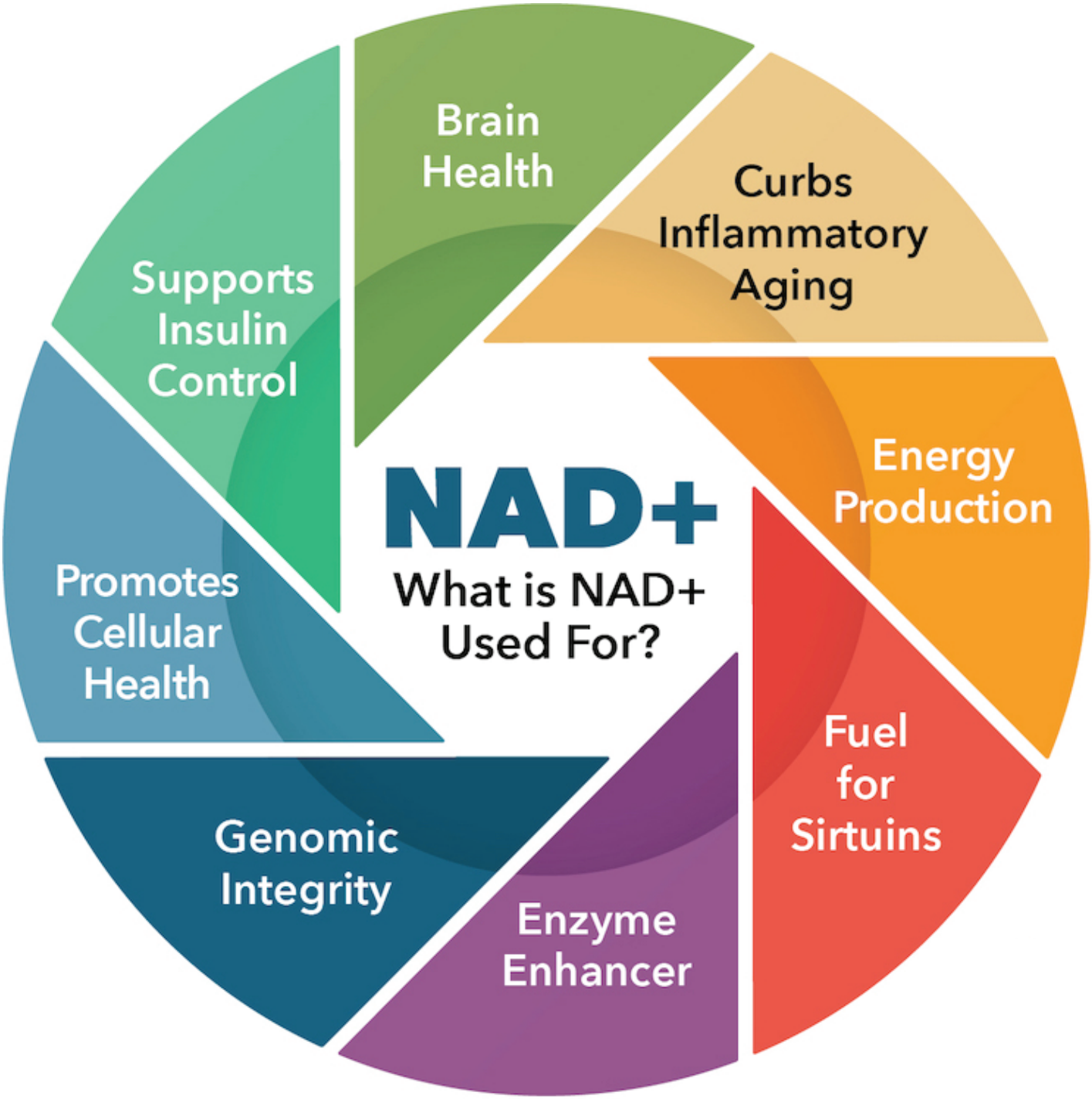
What is NAD+ Use For



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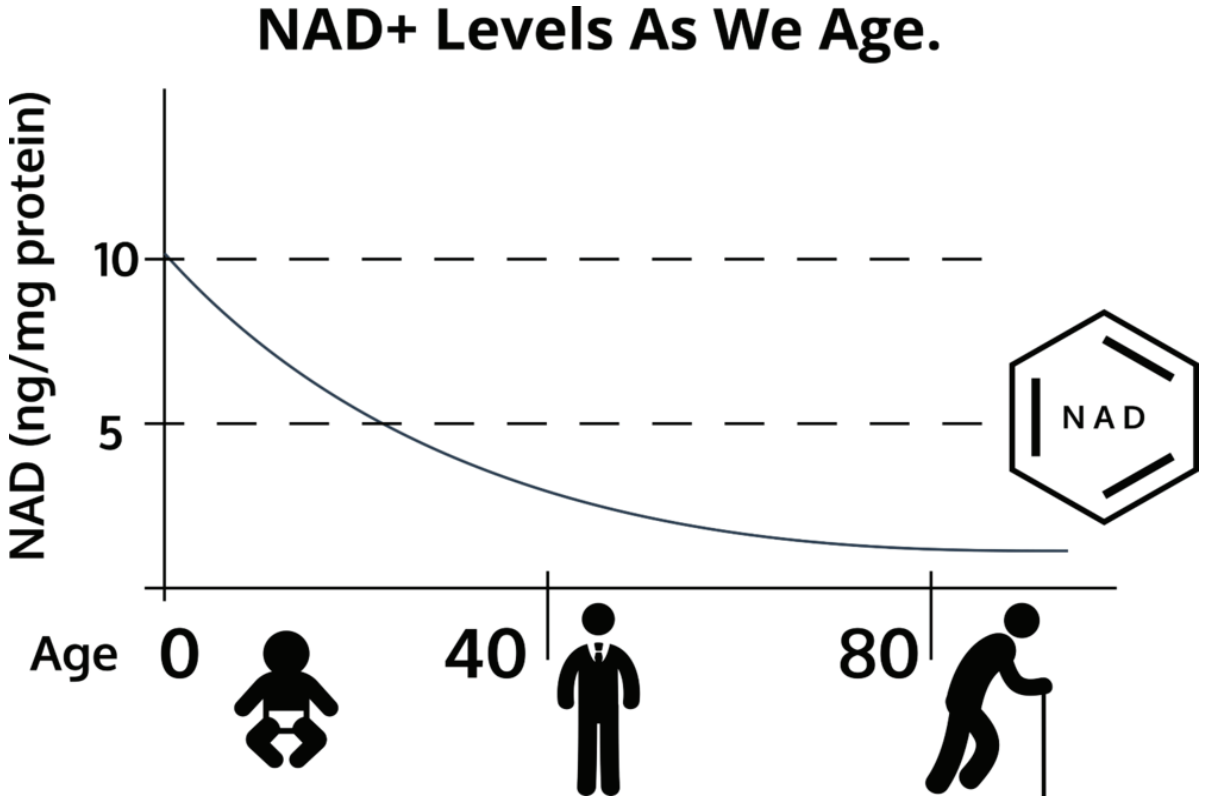
NAD+ Levels Drop with Aging



Published: 3:32 p.m. PST May 5, 2020 | Updated: 11:42 am PST Oct 20, 2020

As we age, NAD+ levels fall, suggesting important implications in metabolic function and age-related diseases. DNA damage accumulates and snowballs with aging.

The damage to our genetic blueprint activates several proteins, including enzymes called PARPs. By consuming NAD+, PARPs can perform DNA repair functions. The depletion of NAD+ through PARP activation during aging appears to contribute to various diseases. Out of all these functions that require NAD+, many scientists believe that PARPs contribute the most.

Enzymes in our immune system consume NAD+, too. The more active the immune system is the more NAD+ the enzyme consumes. The level of enzymes in our immune system increases as we age, depleting the NAD+ levels in the body.

Another class of enzymes that use NAD+ are called sirtuins. These proteins, which are linked to healthy aging and longevity, use NAD+ to regulate metabolism, maintain stable chromosomes, and repair damaged DNA. As DNA damage and chromosome instability accumulate with age, sirtuins consume more NAD+.

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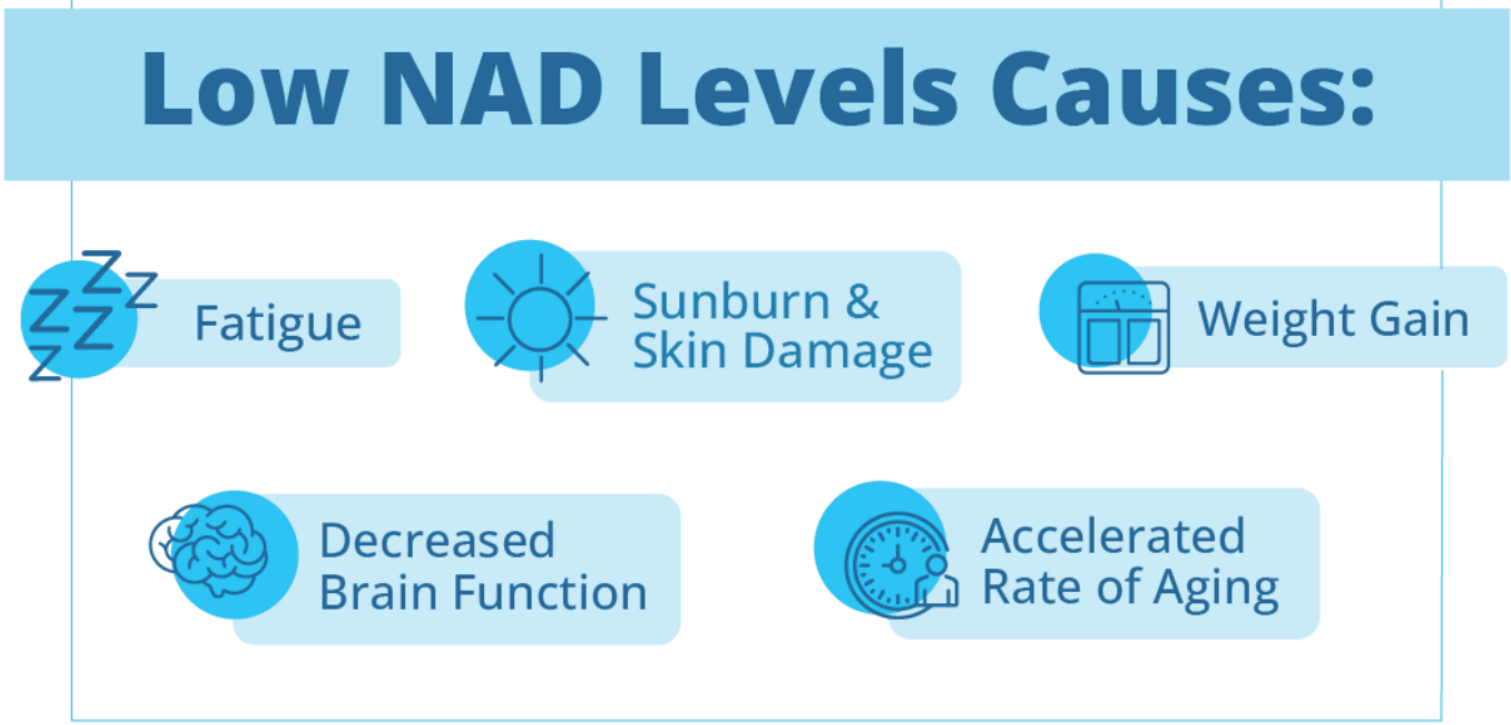
What happens when NAD+ levels are reduced



When NAD+ levels are reduced, it can lead to a number of issues, including:

Cellular processes

NAD+ is a cofactor for many enzymes, so when levels are low, it can impact many cellular processes. This includes reduced DNA repair, impaired mitochondrial function, and changes in gene expression.

Metabolism

NAD+ is essential for regulating metabolism, so low levels can lead to metabolic disorders like obesity and insulin resistance.

Cardiovascular health

Low NAD+ levels can lead to cardiovascular dysfunction, which can contribute to the development of cardiovascular disease.

Aging

NAD+ levels decline with age, and low levels are associated with mental decline, diabetes, and heart disease.

Cellular senescence

Senescent cells are malfunctioning cells that accumulate with age and contribute to adverse conditions associated with aging. Studies have shown that boosting NAD+ levels can rejuvenate and prevent senescence of muscle stem cells.

NAD+ is indeed a miraculous molecule, but unfortunately, our body doesn't have an endless supply of it. In fact, it declines as we get older. As NAD+ levels decrease with age, this can lead to reduced DNA repair, cellular stress response, and regulation of energy metabolism.

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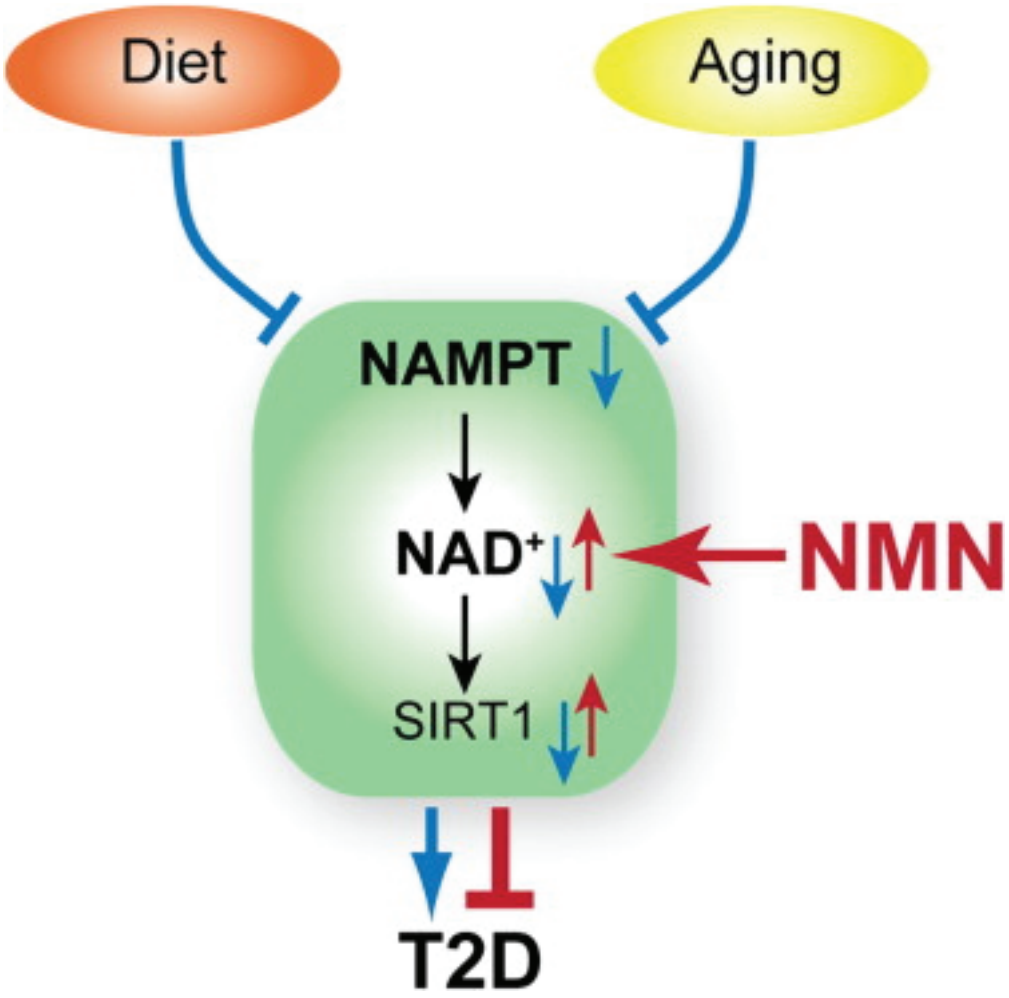
NMN Boosts NAD+ Levels



Yes, nicotinamide mononucleotide (NMN) can boost NAD+ levels in the body:

* **Human clinical trials: In one trial**, participants who took 250 mg of NMN daily for four weeks saw a 40% increase in blood NAD+ levels. Another trial found that taking 600 mg or 900 mg of NMN daily improved perceptions of health and wellbeing after 30 and 60 days.

* **Animal studies:** NMN has been shown to increase NAD+ levels in various tissues in animals.

NMN is a natural component found in small quantities in some vegetables, such as broccoli, cucumber, and edamame. Levels of NMN in the body decline with age, and aging can also make it harder for the body to convert NMN to NAD+ .

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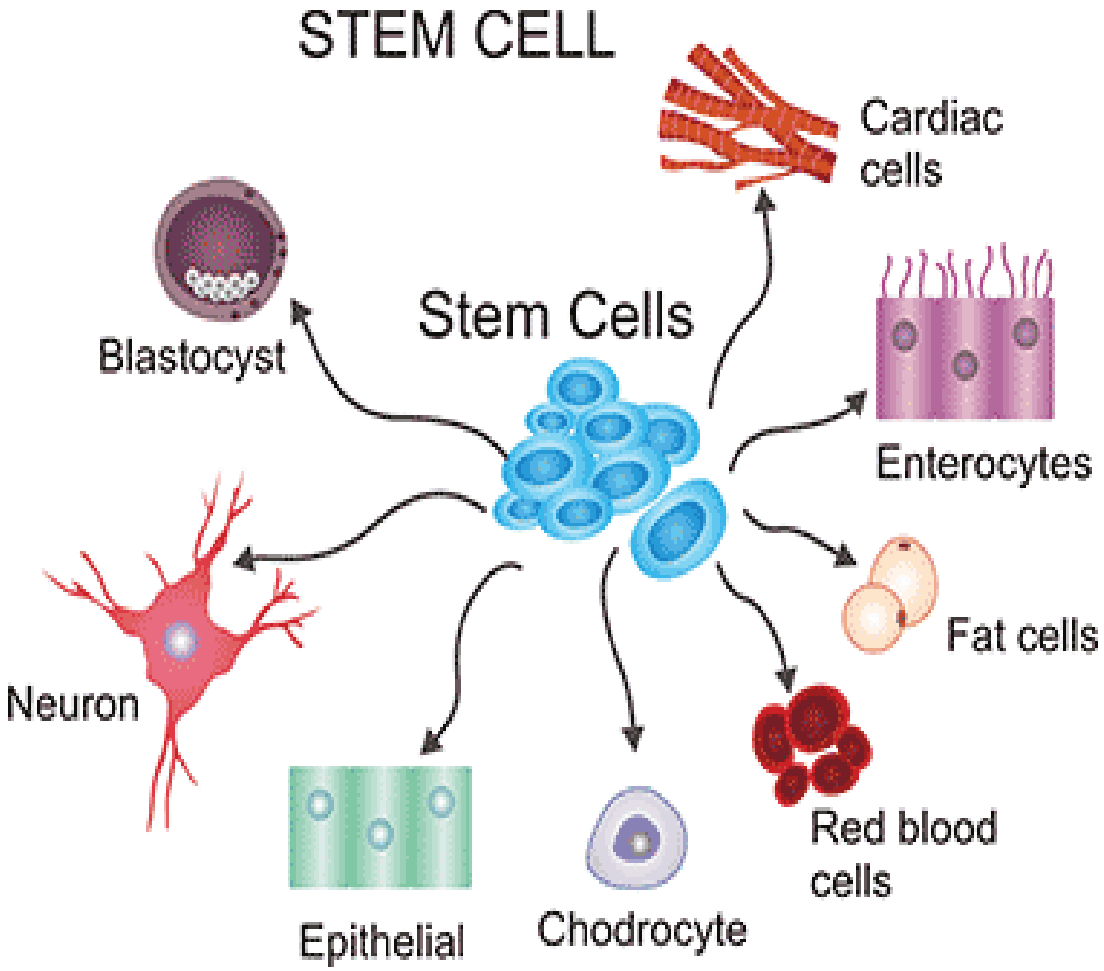
Knowledge About Stem Cells



Stem cells are cells that can develop into many different types of cells in the body, and are essential for repairing damaged tissue. They are unspecialized, meaning they can't perform specific functions in the body yet, but they can differentiate into cells like muscle, blood, and brain cells.

Blastocyst stem cells: they are important because they have the potential to help understand and cure debilitating conditions like diabetes, Parkinson's disease, and spinal cord injury. However, some argue that the research is unethical because it destroys the blastocyst, which is an unimplanted human embryo.

Neurons are nerve cells that send messages all over your body to allow you to do everything from breathing to talking, eating, walking, and thinking. Until recently, most neuroscientists (scientists who study the brain) thought we were born with all the neurons we were ever going to have.

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Knowledge About Stem Cells

Epithelium, endothelium and mesothelium are three types of epithelial cell layers that line your internal organs, body cavities and form the outer layer of your skin. Epithelium generally lines pathways that are open to the external environment, such as your respiratory tract and digestive system.

Chondrocytes maintain the extracellular matrix (ECM) and produce the cartilage matrix. Surrounded by collagenous fibers, chondrocytes release substances to make cartilage strong yet flexible. In general, chondrocytes are found within intervertebral discs and in any form of articular cartilage (AC).

The red blood cell's main function is to carry oxygen from the lungs and deliver it throughout our body. Red blood cells also transport waste such as carbon dioxide back to our lungs to be exhaled. Red blood cells can carry oxygen due to a protein called hemoglobin.

White fat cells (adipocytes) have a simple structure composed of a single lipid droplet (fat molecule) and a few cellular organelles. They provide energy storage, insulation from extreme temperatures and cushioning around soft organs.

Enterocytes, or intestinal absorptive cells, are simple columnar epithelial cells which line the inner surface of the small and large intestines. A glycocalyx surface coat contains digestive enzymes. Microvilli on the apical surface increase its surface area.

Cardiac muscle cells (also called cardiomyocytes) are the contractile myocytes of the cardiac muscle. The cells are surrounded by an extracellular matrix produced by supporting fibroblast cells. Specialised modified cardiomyocytes known as pacemaker cells, set the rhythm of the heart contrac-

Stem cells can be guided into becoming specific cells that can be used in people to regenerate and repair tissues that have been damaged or affected by disease. People who might benefit from stem cell therapies include those with leukemia, Hodgkin disease, non-Hodgkin lymphoma and some solid tumor cancers.

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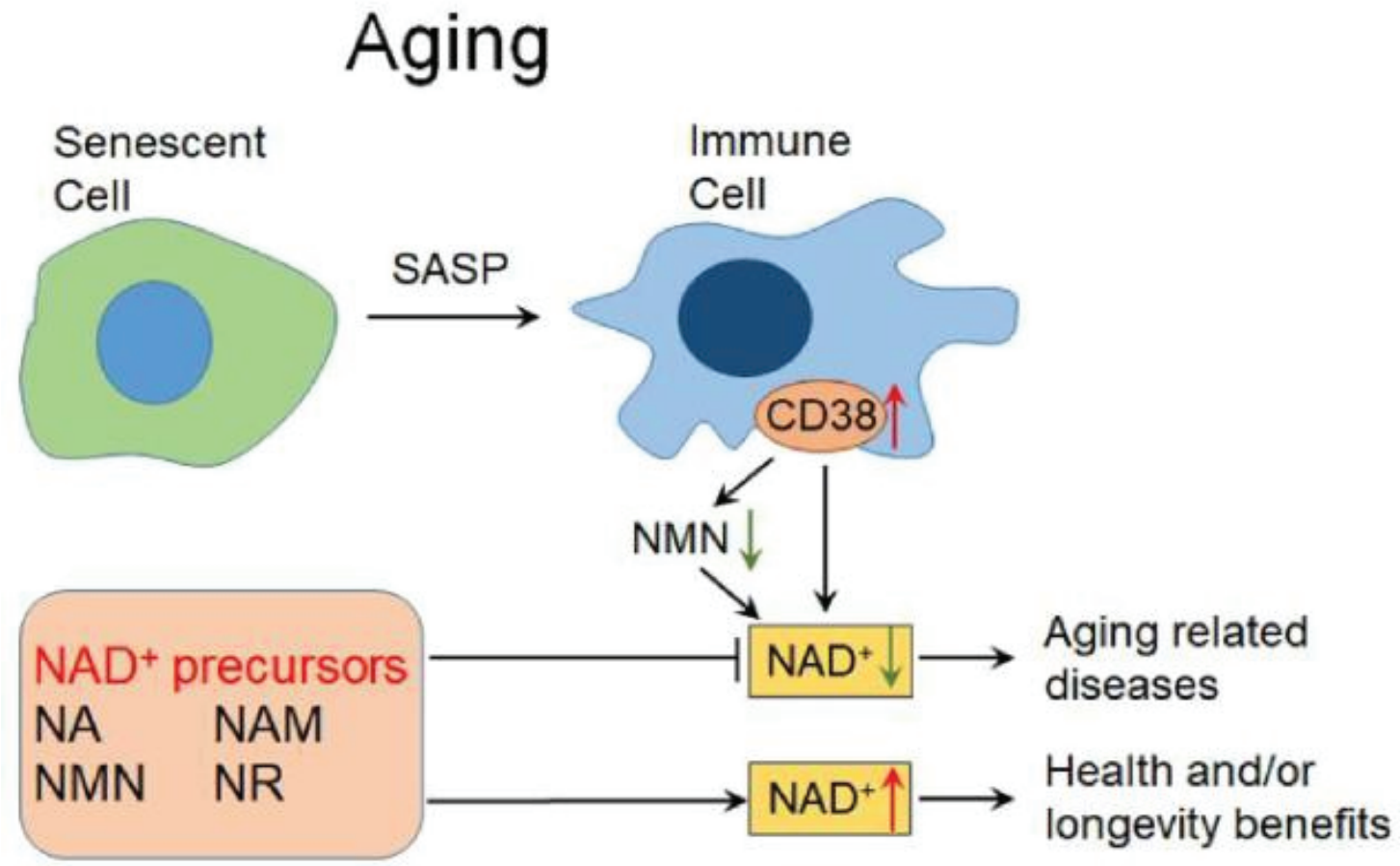
Boosts NAD+ Level and Enhances Stem Cell



Yes, nicotinamide mononucleotide (NMN) can enhance stem cells in several ways, including:

* **Increasing NAD levels:** NMN can increase NAD levels, which can improve stem cell health and self-renewal.
* **Reducing senescence:** NMN can prevent stem cells from entering a dormant, pro-inflammatory state called senescence.
* **Increasing growth and migration:** NMN can increase the growth and migratory function of stem cells, which can help them target damaged tissues.
* **Reducing reactive oxygen species (ROS)**: NMN can reduce the levels of ROS, which can hinder stem cells.
* **Increasing mitochondrial function:** NMN can increase mitochondrial function by activating sirtuin 3 (Sirt3), a longevity-associated protein.
* **Promoting stem cell expansion:** NMN can promote the expansion of various stem cells in vivo and in vitro.
* **Enhancing stem cell vesicle therapy:** NMN can enhance stem cell vesicle-mediated cardiac tissue repair.

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NAD+ Slow and Reverse the Aging Process

NAD+ plays a pivotal role in cellular metabolism and is a co-substrate for enzymes that play key roles in pathways that modify aging. Thus, interventions that increase NAD+ may slow aspects of the aging trajectory, and there is great interest in methods for cellular NAD+ restoration. The prevention of NAD+ degradation and the increased availability of NAD+ can influence, delay and even somewhat reverse the aging process and age-related diseases.

Nicotinamide adenine dinucleotide (NAD+) is a coenzyme that plays a key role in cellular metabolism and may help slow or reverse some aspects of aging:

Cellular processes: NAD+ is a co-substrate for enzymes that regulate cellular repair and longevity. It also helps cells make energy.
DNA repair: NAD+ helps regulate DNA repair.
Chromosomal maintenance: NAD+ protects chromosomes from oxidative effects that can suppress a cell's ability to regenerate.
Sirtuins: NAD+ is a coenzyme for sirtuins, a group of proteins that promote longevity.
Aging: NAD+ levels naturally decrease over time, starting in young adulthood and dropping by almost 50% by age 40. A decline in NAD+ is associated with aging and may contribute to age-related diseases like cancer, metabolic disorders, and neurodegenerative diseases.

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NMN Promotes Vascular Health and Blood Flow

NMN treatment improved the function of these hearts, increasing the amount it could pump under stressful conditions. It also prevented the amount of death of heart cells.

Dietary NMN, an NAD+ precursor, increases muscle vascularity, blood flow and exercise performance in aged mice . This study determined the effects of dietary NMN on endothelium-dependent dilation (EDD) and vascular stiffness in skeletal muscle arteries isolated from aged mice.

Highlights. NMN alleviates heart muscle enlargement and tissue disorganization in chemically-induced scar tissue buildup. Boosting NAD+ with NMN activates cell health-maintaining proteins to inhibit genes facilitating fibrosis and dysfunction.

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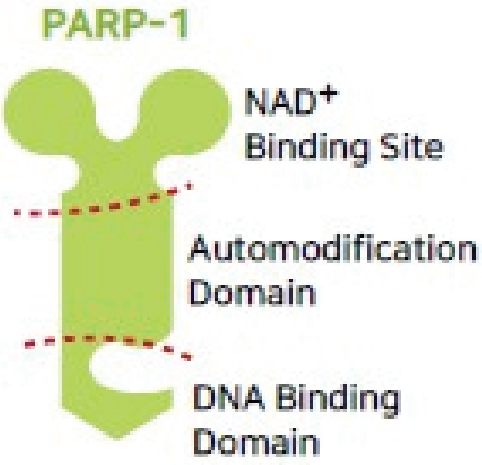
NMN Enhances Maintenace of DNA Repair



PARP1 is 'Middleman' of DNA Repair

Schematic of How PARP1 Helps Repair Damaged DNA

NMN is a precursor molecule to nicotinamide adenine dinucleotide (NAD+), a metabolite in all living cells. NAD+ is critical for fundamental biological processes, namely, DNA repair and energy metabolism, vital processes for cell function and tissue health.

Nicotinamide mononucleotide (NMN) is one of the main precursors of nicotinamide adenine dinucleotide (NAD+) — an essential enzyme for various critical cell functions, including metabolism, DNA repair, cell growth and survival.

NAD+ supplements have been demonstrated to positively impact DNA repair in the context of aging and neurodegeneration in diseases such as Xeroderma pigmentosum complementation group A (XPA), Cockayne syndrome group B (CSB), Ataxia-Telangiectasia (A-T) syndrome as well as in Alzheimer's disease and other age.

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