

NADH

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NADH is a substance that occurs naturally in every cell and is involved in countless metabolic processes in the organism. With the help of NADH, among other things, body energy is produced in the cell, which on the one hand increases physical and mental performance in challenging situations, but on the other hand can also provide help with illnesses, such as chronic fatigue syndrome.

What does NADH mean?

The abbreviation NADH stands for Nicotinamide Adenine Dinucleotide Hydride. Because this name is almost unpronounceable, it is usually referred to by its abbreviation NADH or also coenzyme 1. NADH occurs naturally in every plant, animal and human cell, which is why we take it in our daily food.



Energy production and cell function

NADH is an important cofactor for energy-providing reactions and cell growth. When energy is produced in the cell, the aim is to absorb the energy from food and make it available to the body in a suitable form. Put very simply, this works in such a way that energy-rich compounds from food (e.g. carbohydrates or fats) are broken down and "burned" with the help of the oxygen we take in through the lungs. For obvious reasons, however, the energy must not be released suddenly and massively as with a flame, but must be released continuously and regulated in small steps to short-term energy stores such as the ATP mentioned below. So there must be a whole chain of redox reactions. In this way, the oxidation of the various intermediates can take place in a controlled and gradual manner. This is exactly where NADH plays a decisive role. In these reaction chains, it acts as an electron acceptor or donor, as required, by accepting or releasing two electrons and one proton. NADH thus reacts in the mitochondria, the body's own power stations, with oxygen from the lungs and components from food. This leads to the formation of ATP, the universal energy carrier in every cell. The more NADH is available in the cell, the more ATP is produced. The more NADH is available (together with the coenzyme Q10), the more energy is produced, and vice versa.

Expressed in an equation: $\text{NADH} + \text{O}_2 = \text{H}_2\text{O} + \text{ATP}$

The universal energy molecule ATP, which is found in every cell, serves the organism as an energy carrier and store. ATP works like a small battery. The molecule is constantly "consumed" and rebuilt. Per day we convert about as much ATP by weight as our body weighs! The production and storage of energy is a central metabolic process for which various coenzymes are needed.

The cell uses ATP to produce all the necessary components needed for optimal cell function: components of the cell nucleus, the mitochondria ("cell power plants") and the cell membrane. The production of ATP in the cell is increased by NADH and the more ATP the cell has at its disposal, the better its function and also the longer its lifespan. NADH therefore influences the vitality of cells and ultimately of the organs and the entire organism.

Furthermore, NADH is an important cofactor in the synthesis of extremely important neurotransmitters, such as dopamine and serotonin, which act as signal substances and influence numerous bodily functions. And as a powerful antioxidant, NADH also protects nerve and other body cells from oxidative damage and premature aging.

Involved in countless metabolic processes

The mechanism of action of NADH is extremely effective! NADH is involved in over a thousand metabolic processes, here are the most important ones:

- Increases the energy in all cells
- Repairs damaged DNA
- Is a particularly powerful antioxidant
- Strengthens the immune system
- Reduces cholesterol
- Reduces blood pressure
- Increases dopamine
- Increases serotonin
- Improves circulation
- Relieves pain
- Increases libido in men and women



Possible indications of NADH

As NADH demonstrates the simple effect of producing more energy in the body, the list of ailments which it can help improve is unusually long. The most important are:

- Chronic Fatigue (CFS)
- Depressions
- Parkinson
- Multiple sclerosis
- Alzheimer's disease / dementia
- Burnout
- Brain disorders
- Stroke
- Sleep disorders
- ADD and ADHD
- Jet lag
- Anti-aging
- Cancer
- Type II diabetes
- Menopausal symptoms
- Arthrosis
- Increased performance
- Glaucoma (increased eye pressure)
- Macular degeneration (old age sight weakness)



Dosage

The dosage is dependent on the ailment pattern. For healthy people who just want to spike up their energy, a dosage of 2 x 10 mg per day is sufficient

Whilst one is ill, the dosage should be 60 to 100 mg per day. The best way to take this dosage is to take half of it in the morning about 20 minutes before breakfast and the remaining half around 2 hours after lunch. Taking NADH in the evening is not recommended as it can disturb your sleep.

In the case of some ailments, the effect of NADH is increased when additional substances are consumed. For example, with arthrosis, MSM, glucosamine and chondroitin, should be considered. For eye diseases and pain treatment, the use of L-arginine (600 mg) is recommended.

Trouvaille without side effects

NADH has no side effects! Up to a daily dose of 35 grams (!) no toxic effects have been proven. There are also no interactions with drugs. NADH is a substance produced naturally in the body and its positive effects have been proven by numerous studies. NADH is therefore a trouvaille with great effect and without side effects.