

Niacin: The Even-If-You-Think-It-Can't-Probably-Can Vitamin

While many people have heard of this wonderful little vitamin, few people are aware of the wide range of uses for it. Some of you may have heard of its famous “flush”, the common reaction where the cheeks turn red and prickle and itch temporarily. Others may know it for its effects on heart disease, or arthritis. The best way, however, to gain a true appreciation of all niacin has to offer is to know its history.

The original name (and current technical name) for niacin is nicotinic acid. Its name comes from Hugo Weidel in 1873 during his studies of nicotine. When the biological significance of nicotinic acid was realized, it was thought appropriate to choose a name to dissociate it from nicotine, to avoid the perception that vitamins or niacin-rich food contains nicotine, or that cigarettes contain vitamins. The resulting name 'niacin' was derived from **nicotinic acid + vitamin**.

The real story of niacin begins in the early 1900s, in the deep south of the United States which was gripped by a growing number of casualties to an ugly disease called Pellagra. Pellagra is manifested by a number of symptoms including diarrhea, dementia, and (most noticeably) skin lesions. The name, Pellagra, comes from Italy where it was named "pelle agra" (pelle = skin; agra = sour).

Pellegra has been around for hundreds of years where it occurred predominantly in cultures where the diet consisted mostly of corn, leading to the belief that there was a germ or toxin in certain corn crops that caused the disease. Dr. Joseph Goldberger

noticed this pattern in the southerners he studied. He remarked, “if poor people subsist on a diet of cornbread, cane syrup and pork fat they will inevitably get sick.” Goldberger published numerous studies on Pellagra, but died before he could see an effective cure developed. His work, however, did inspire another scientist at the University of Wisconsin named Conrad Elvehjem. He was very familiar with Pellagra, but his research was with dogs. Pellagra in dogs causes the tongue to turn dark, hence the name “black tongue”. Elvehjem had discovered that liver extract protected dogs against black tongue, so he systematically tried various individual chemicals that occur in the liver, looking for one that may hold the key to solving the Pellagra problem. In 1937 he found it, nicotinic acid.

After his discovery, other researchers immediately tested the animal cure on human subjects with Pellagra. In 1938, they reported that seventeen patients had been cured of their physical symptoms (Pellagra is accompanied by mental symptoms; dementia, etc.) after the administration of nicotinic acid or nicotinamide (a form of niacin that does not cause flushing). The undisputed conclusion is that Pellagra is a direct result of niacin deficiency. Improperly processed corn does not contain niacin, and thus, when this corn is used as the primary food source, as in the poorer states of the south, Alabama, Mississippi, as well as prisons and orphanages, Pellagra is likely to follow.

Curiously, another common precursor to Pellagra is chronic alcoholism. Alcohol abuse causes a number of both physiological and psychological effects, including liver damage, mal-absorption, schizophrenia, and a host

of other problems we won't discuss here. We know that Pellagra is directly related to a niacin deficiency, but is alcoholism the cause of the deficiency?

A study by Dr. Russel F. Smith conducted a study of 507 alcoholics. The only treatment was niacin (niacinamide, for those who could not tolerate niacin). Of those patients, 103 were classified as excellent results, 240 good, 98 fair, and 66 poor. Among the hardcore alcoholics, 87 derived benefit. Twenty percent of this group maintained complete abstinence, which, despite other rigorous therapies, had been impossible before beginning the niacin treatment.

This study demonstrated that niacin, and niacinamide, greatly surpassed other common therapeutic agents used to treat alcoholism. Some of these agents, unlike niacin, have a risk of abuse, as well as a suicide risk. Dr. Abraham Hoffer, a famous doctor who has done extensive research on the role of niacin in treating schizophrenia and depression, once had a patient try to commit suicide on 90 grams of niacin, the result of which was nausea, vomiting and diarrhea. Even aspirin at that dose would have been much more toxic.

Niacin is not only prevents Pellagra and treats alcoholism, but is capable of benefiting a myriad of common, and even not so common, health problems. For example, niacin, in dosages as little as 200mg per day, has been shown to reduce sun sensitivity in people who are affected by minimal exposure.

One of niacin's better known uses, though, is in the prevention, and even reversing, of heart disease. Niacin

lowers cholesterol and triglycerides. It also reduces the blood fats called "very low density lipoproteins" which have been linked to heart disease, and even cancer. It also dilates the blood vessels, which improves circulation, which in turn increases oxygenation and nutrient flow to the rest of the body. Niacin also handles blood sugar problems which is a known precursor to arterial wall damage. Numerous studies have confirmed the fantastic benefits niacin has on heart patients. One study showed that heart patients taking niacin had less illness and lower death rates after five years than those not using niacin. Also, another study showed that niacin actually *reversed* signs of heart disease in patients who had genetically induced cholesterol problems.

Because niacin opens up the blood vessels and increases circulation, it is an obvious choice for treating arthritis. Niacin's other form, niacinamide, opens up the deep blood vessels surrounding the joints creating opportunities for relief from arthritis symptoms.

Niacin also has amazing therapeutic value for the brain, as it relates to memory and cognitive function. Niacin is one of the primary energy boosters of mitochondria (cellular energy factories) in brain cells. Dutch psychologists at the Free University in Amsterdam tested high doses of niacin and niacinamide on ninety-six healthy adults to test the effects. The ninety-six were divided into two groups, one group on the actual niacin, while the other was a control on a placebo. Over the course of eight weeks, the researchers tested the short and long-term memory, as well as the sensory memory of both groups before and after taking the pills.

The results showed that niacin alone boosted memory performance by ten to forty percent over placebo. It boosted short, long and sensory memory in young brains, middle-aged brains and the elderly. Though incredible, this is only one aspect of the effects of niacin in the brain. In another radical experiment, Harvard researcher Flint Beal demonstrated niacin's ability to diminish brain cell damage of the type suffered from Parkinson's and Alzheimer's. When taken with CoQ10, niacin helped prevent such damage when CoQ10 alone was not effective.

In summary, niacin is great for:

- Arthritis
- Cholesterol and Triglycerides
- Blood Pressure
- Atherosclerosis
- Memory Loss
- Insomnia
- Alcoholism
- Dementia
- Senility
- Motion Sickness
- Vertigo
- Tinnitus
- Acne
- Migraines
- Free Radical Damage

This is just the short list. Niacin has a list and range of benefits that is much too long to discuss here. While the benefits and effects may be wonderful, there are a few important things to keep in mind when considering niacin supplementation. The first rule is to start small. It can take some time before the body becomes used to processing larger therapeutic doses of niacin, so it is important to ease into it. Secondly, niacin can irritate the

stomach if taken without food, so always take it after meals.

A word of caution to anyone who has problems with gout. Niacin competes with the excretion of uric acid from the body. Large dosages of niacin in the system can boost uric acid levels and precipitate a gout attack.

Another important fact to keep in mind is that niacin is actually a member of the B-vitamin family (B3) and as such, it is even more effective when taken together with the other B-vitamins like B6 and B12.

Like any other decision regarding your health, it is always important that you discuss changes to your diet and supplement program with a qualified healthcare professional.



**4789 Vineland Ave.
Toluca Lake, CA 91602
(818) 761-1661
www.nutrikon.com**