

# To Really Enjoy Superb Wine - Top-up with NAD

By: Theo Verwey

When an alcoholic beverage is swallowed, it passes through the stomach into the small intestine where the ethanol is rapidly absorbed and distributed throughout the body. The ethanol enters body tissues in proportion to their water content. Therefore, more ethanol is found in the blood and the brain than in muscle or fat tissue. The ethanol is greatly diluted by body fluids. For example, a 1-ounce shot of 100-proof whiskey, which contains 0.5 fluid ounces of ethanol (about 15 mL), is diluted 5000-fold in a 150-pound human, producing a 0.02% blood alcohol concentration. Alcohol and our Body's Biochemistry Ethanol is toxic, (especially for the one out of ten people born with a NAD Energy Deficiency) and the body begins to dispose of it immediately upon its **consumption**. Over 90% of it is processed by the liver. In the liver, the alcohol dehydrogenase enzyme powered by NAD converts ethanol into acetaldehyde, which is itself toxic.

Acetaldehyde is destroyed almost immediately by the aldehyde dehydrogenase enzyme, only if enough NAD molecules are available to power the process, which converts it to acetate ions. If enough NAD is not available the acetaldehyde builds up resulting in a reaction similar to a so-called alcoholic treated with Antabuse (disulfiram).

Acetate is a high energy compound, especially for our billions of brain cells and is available 8 minutes after the first drink. Food roughly takes 42 days to act similarly. So-called alcoholics obtain 35% or more of their daily energy needs from alcohol because their normal biochemical route of food to energy are impaired due to their maternally inherited NAD Energy Deficiency.

Every day an adult converts a quantity of ATP (bio-energy metabolized from food by NAD and the energy metabolic co-factors) corresponding to at least half his or her body weight, and nearly a ton during a day of hard work. The body needs 1kg of NAD for every 2kg of ATP to be converted from food particles.

The hydrogen **atoms** represented by these equations are not unattached, but are picked up by another biologically important compound, nicotinamide adenine dinucleotide (NAD), one of its more than 100 functions is to carry hydrogen **atoms**. NAD is involved in both of the above disposal processes of alcohol, and by doing this NAD is converted to NADH.

NADH must be recycled to NAD for the disposal of ethanol to continue. If the amount of ethanol consumed is not great, the recycling can keep up with the disposal of ethanol. The ethanol disposal rate in a 150-pound human is about 0.5 ounce of ethanol per hour, which corresponds to 12 ounces of beer, 4 ounces of wine, or 1 ounce of hard liquor requiring 586mmol of NAD.

This natural biochemical processing of alcohol is impaired in NAD Deficient persons and if alcoholic beverages are consumed on a regular basis (without the supplementation of the body's natural NAD resources) the condition referred to as "alcoholism" can develop.

The average NAD Energy Level of "alcoholics" based on the results of blood tests done independently by major South African Pathological Labs (Ampath, Lancet etc) is 66 instead of the normal level of 100+.

**NAD in our Bodies (Dr Charl Stevens MBChB)** There is a particular area of instability in the biochemistry of our bodies, which contributes to problems with memory, irritability, problems with concentration, depression, a decrease in mental energy, anxiety, chronic fatigue and a craving for alcohol, nicotine and sugar. This condition is a deficiency in Co-enzyme 1 or nicotinamide-adenine-dinucleotide (NAD). We refer in this instance to a metabolic energy deficiency!

You read correctly: We are dealing here with a measurable energy deficiency. Most of the symptoms, which are referred to in the above-mentioned, are merely masks which hide the actual problem. Behind these masks there is most probably a genetic defect - and you can definitely do something about it.

All human activities require energy. Each cell in your body has a particular function and requires energy, to be able to do **its job**. This energy is produced by various chemical processes in the cells, in little "power plants", which exist as small parts in the cell. We refer to such a power plant as the mitochondrion.

Food, which we consume, is converted into glucose by means of digestion. The glucose is the fuel in the power plants. Most processes in a power plant, which releases energy, however require a particular assistant. We call such an assistant a co-enzyme. Without the co-enzyme, the power plant will simply not function.

NAD is the co-enzyme, which maintains the processes in all power plants. It is therefore clear, that if there is a deficiency in NAD or if there are too few power plants in the cells, that there is an energy deficiency. NAD is also produced by the body on its own, from food.

A metabolic energy deficiency refers to a deficiency in chemical energy, with which 10% of all people are burdened. As a result of a genetic deficiency in mitochondria (power plants), this energy deficiency will clearly be observed in families, where various masks hide the deficiency. Grandmother might therefore suffer from obesity, her son from workaholicism, her daughter from depression and her granddaughter might be a drug addict.

The egg cell of the woman starts with a shortage of power plants. The children inherit no power plants from their father, because all of his "power generators" are located in the tail of the sperm cell and the tail is discarded during conception. The daughter and son will therefore inherit an energy deficiency, but the son can marry a woman, who has enough power plants. The problem therefore ends at that stage. The daughter however spreads the problem.

There are standard laboratory tests, which indicate a metabolic energy deficiency. A blood sample is taken and lactate and pyruvate blood tests are used, which are good indicators of the biochemical NAD energy level. Three NAD Energy Levels and the NAD Energy Block are then calculated. The NAD Energy Block is then used as basis to recommend a NAD Nutrition Protocol.

### **NAD as Nutritional Supplement (Prof John Cleary MD)**

The problem was that relapses were common and many addicts had to return to the hospital. O'Holleran did realize his patients would need a lifetime extra daily source of NAD. Attempts to develop an oral NAD daily tablet were not successful at that time.

Now we also have oral NAD capsules available from Alkogen Products in South Africa that will allow long term therapy for addicts and prevent relapses. Theo Verwey and his clinic physicians have published an e-Book on the use of NAD, and have treated over 7,000 patient's at their clinic in Pretoria, South Africa. They are treating addictions and energy deficiency diseases with a stabilized form of oral NAD.

**Conclusion:** The scientific facts clearly illustrate that so-called alcoholism is mainly due to a maternally inherited NAD Energy Deficiency that is easily and affordably measurable by two simple blood tests and if the NAD Energy deficiency is present it can be supplemented with affordable oral NAD Nutrition Supplements.

So 90% of people can enjoy alcoholic beverages without lasting consequences but the remaining 10% must first supplement their NAD Energy deficiency to share this same experience likewise!

To really enjoy Superb Wine - Top-up with NAD

Copyright (c) 2006 Theo Verwey