

How/Why hydrogen helps people live longer (Interim Notes) © 2018 by George Wiseman

Japanese are known to be one of the nations with the longest life expectancy with 83.6 years. The reason for their long life has been a matter of scientific interest for a long time. It has been vaguely attributed to the diet pattern of the Japanese.

But 2007 research paper on molecular hydrogen has changed the world view on not only hydrogen therapy of diseases, but also on the possibility to increase life expectancy by hydrogen.

Since then, there are hundreds of researches done on various therapeutic effects of hydrogen.

However hydrogen has long been in use before these effects were discovered. From the ancient times, Japanese used to bathe in natural pools with high molecular hydrogen level. The popularity of electrolyzed reduced water (ERW) in which the water is ionized by using an electrolyser were introduced from the early 1900's. This water has been called various names such as "shin'nooru solution" or "synnohl liquid". The electrolyzed reduced water has been known to contain healing powers.

Only recently the scientists got to know that the active substance in ERW is molecular hydrogen.

Meanwhile it's also known that healing waters such as the water of Lourdes or the Hunza-water contain a increased proportion of hydrogen.

If you search the market, there are many companies offering ERW as a way to prevent many diseases. But people are skeptic about these devices due to false marketing strategies. Although Japanese Ministry of Health, Labor and Welfare has approved the use of ERW back in 1965, these products came into the US market only recently. The way they are promoted often has no actual scientific basis. Good scientific basis is needed in order to back up the vast benefits of hydrogen without being shrouded by bogus marketing strategies. Meanwhile a lot of studies have shown the great potential of hydrogen mostly in animal models but in recent time also increasingly in human studies, it means performed with human patients.

We have a list of studies that you may be interested.

Many researchers have been conducted to seek the potential of hydrogen molecule. Some of these characteristics include anti-oxidative, anti-inflammatory, cyto-protective, anti-apoptotic and anti-allergic properties.

So how does hydrogen can help people to live longer? The answer to that question lies in these listed properties of hydrogen. Hydrogen has been shown to reduce the aging process.

In a study conducted in Japan in 2013 researchers have revealed that centenarians (people aged 100 years and over) have a high hydrogen concentration in their breath. It was significantly higher compared to elderly with diabetes and healthy young adults. These were especially elderly people who were lean and had no other disease. It was believed that their intestinal micro bacteria produced the hydrogen gas from the undigested carbohydrate and other food particles. This can be affected by the environment and the genetic makeup of the individual.

This was further supported by measuring hydrogen in breath in the offsprings living in the same house of the centenarians. There was no significant difference between the centenarians and their offspring, living in the same home.

The research concluded that increased intestinal production of hydrogen gas might contribute to longevity in Japanese centenarians, and it is related to the diet and gut microbiota of these people.

Oxidative stress due to formation of reactive oxygen species have been implicated in many disease processes. Although reactive oxygen species occur naturally in our body due to energy metabolism, it can be made in excess as a result of air pollution, smoking, strenuous exercise, ultra violet radiation and physical as well as psychological stress. Acute oxidative stress is known to occur in inflammation, organ transplantation, bleeding after operations, ischemia reperfusion injuries seen in myocardial infarctions or cerebral infarctions **and others**.

Diabetes mellitus, atherosclerosis, malignant diseases, neurodegenerative diseases, chronic inflammatory processes as well as aging process are being considered to occur due to chronic oxidative stress.

It is important to have antioxidants to prevent diseases and prolong the life. The researchers have found anti-oxidants **which people can additionally take, such as vitamins (for instance vitamin E and A)**, not only reduce the reactive oxidant species but also affect the important molecules used in the signal transduction of the cells. This side effect has increased the mortality and limited the use of anti-oxidants in order to prolong life.

But hydrogen was found to have only reduce the effects of harmful oxygen free radicals such as hydroxyl and do not disturb the physiological free radicals such as **hydrogen peroxide**. This makes hydrogen the ideal anti-oxidant to be used **for prevention of** all these disease processes.

One effect that occurs during aging is neuronal degeneration.

Even though the **lifespan** is prolonged, the quality of life can be affected if the brain does not function the way we want it to.

Hydrogen has been known to have protective effects against diseases such as **Parkinson's disease**. Mitochondrial dysfunction and associated oxidative stress are the major reasons for the loss of dopaminergic neuronal cells in the substantia nigra of the brain which is seen in patients with **Parkinson's disease**. By drinking hydrogen rich water the progress of Parkinson's disease could be halted in several models **with rats**.

Recently, there was been a pilot clinical trial to study the effects of hydrogen water on the progression of Parkinson's disease in Japanese patients. We mentioned this randomized, placebo-controlled, double-blind study in the article about cytoprotective properties of hydrogen. Examined by special scores there has been shown that the disease worsened in the group without hydrogen water application, whereas scores in the hydrogen water group improved (with significance).

Hydrogen also protects the cells against apoptosis or cell death by regulation of genes. This effect is important in diseases like **Alzheimer's disease**, where is found a degeneration and loss of neurons.

By studies in animal models it has been shown that hydrogen is able to protect these cells and maintain the cognitive function.

Metabolic syndrome and especially **diabetes mellitus type 2** are diseases that occur more frequently in the present time. This includes derangements in the metabolic processes in the body leading to diseases such as **cardiovascular diseases**, the number one cause of death worldwide.

By drinking hydrogen rich water, the plasma levels of glucose and triglycerides can be decreased and long term use can even lead to reduced fat and obesity. It can protect the liver against changes **into fatty liver**, which can lead to cirrhosis even though no alcohol **has been consumed**. Hydrogen **has also a positive influence on the development** of atherosclerosis (as described in former articles),

considering that stroke can debilitate a person and make that person bedridden which can significantly reduce the quality of life.

Molecular hydrogen can also suppress **chronic inflammatory diseases**. These are seen in elderly people leading to disability and chronic pain. The constant pain can depress a person and adversely affect his health. Osteoarthritis and rheumatoid arthritis are some of the diseases in which debilitating symptoms can be reduced by the administration of hydrogen.

When we age, the body gradually dysfunction and the skin is the first to show that a human is old by being wrinkled and thin. Antioxidants already have been delivered to skin in lotions, creams and others.

Hydrogen rich water has been proven in humans to reduce the already formed wrinkles by preventing cell death and damages to DNA. In a recent study Japanese subjects had take a bath in hydrogen riched water (0.2 - 0.4 ppm H₂) daily for 3 months. The result was that type-1 collagen synthesis was increased over 2-fold after 3 - 5 days by an elevated fibroblast activity in the hydrogen enriched water samples compared to controls. The neck wrinkles has been shown to improve significantly at the end of the 90-day bathing sessions. Thus, hydrogen can be a future skin care product. (Infact it has already been made by American dermatologists).

All these evidence points us that hydrogen can turn back the clock in a way and lead us to a long and healthy life by scavenging free radicals, regulating gene expression and modifying signal transduction processes in our cells. Although hydrogen was once considered to be an inert gas with no function at all, it has been shown that it may be the elixir of life we all have been waiting for.

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Please don't write here the articles about fruit flies. Though you are right, but it does not fit here. What are we waiting for are studies with human, not with fruit flies, to convince people. You understand?? And brevity is the soul of wit (an also of true informations)!!

The reader get tired at some point....

(No offense please!!!)

Secret to longevity may lie in the microbiome and the gut

Experiments in fruit flies show increased lifespan thanks to a combination of probiotics and an herbal supplement

Date: May 31, 2018

Source: McGill University

Summary: Scientists fed fruit flies with a combination of probiotics and an herbal supplement called Triphala that was able to prolong the flies' longevity by 60 percent and protect them against chronic diseases associated with aging.

<https://www.sciencedaily.com/releases/2018/05/180531114611.htm>

I just saw that article earlier today.

The scientists have MISSED a vital point.

WHY these particular probiotics and heal supplement increase longevity.
They proved that they DO increase longevity, but not HOW.

The answer is simple.

Because THESE are the bacteria that live in the colin and do most of the work to extract HYDROGEN from our food.

The HYDROGEN is responsible for the good health and life extension.

These are the bacteria that are mostly killed by our 'normal' foods and antibiotics, shortening our lifespan due to lack of HYDROGEN.

DE-hydration in the most literal sense.

May the blessings be
George

On Jun 2, 2018, at 11:17 PM, joseph in holiday <inthebodyofmeher@gmail.com> wrote:

Do you want live longer ? Here is one support tip aside from bg . This also is why i eat mostly fruits only after bubbling it in bg 1L or 2L container

In india we take triphala daily along with probiotis

You are what you eat. Or so the saying goes. Science now tells us that we are what the bacteria living in our intestinal tract eat and this could have an influence on how well we age. Building on this, McGill University scientists fed fruit flies with a combination of probiotics and an herbal supplement called Triphala that was able to prolong the flies' longevity by 60 % and protect them against chronic diseases associated with aging.

The study, published in Scientific Reports, adds to a growing body of evidence of the influence that gut bacteria can have on health. The researchers incorporated a symbiotic -- made of probiotics with a polyphenol-rich supplement -- into the diet of fruit flies.

The flies fed with the synbiotic lived up to 66 days old -- 26 days more than the ones without the supplement. They also showed reduced traits of aging, such as mounting insulin resistance, inflammation and oxidative stress.

"Probiotics dramatically change the architecture of the gut microbiota, not only in its composition but also in respect to how the foods that we eat are metabolized,"

<20180514_105839.mp4>

Antibiotics half the life of cancer patients

<http://www.dailymail.co.uk/news/article-5800577/Antibiotics-HALVE-life-expectancy-cancer-sufferers-medics-reveal-world-conference.html>