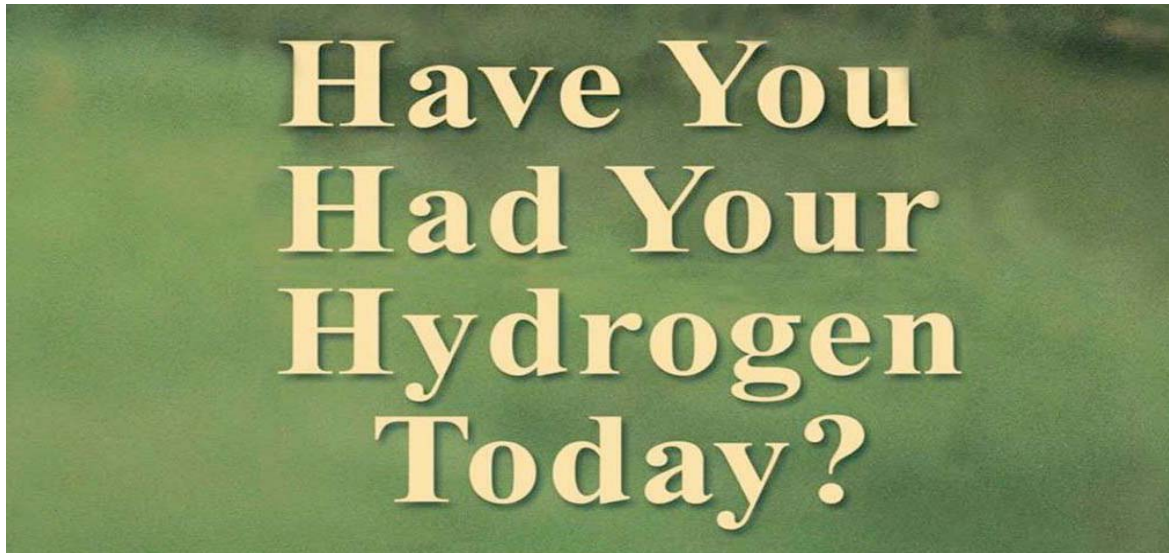


**Dr. Patrick Flanagan**

**The Secret of Longevity & Fountain of Youth**



**The Age of H<sup>-</sup>  
Fuel of Life without Carbon and  
Non-Sugar Caloric Nutrient  
Beyond Nutrition  
Restoring Our Biological Terrain**

**Zero Your Knowledge Before You Can Understand  
Hydrogen**

**Preface**

Written by Lim Cheu Song ©

**Hydrogen** constitute from two sub-words, that is '**hydro**' and '**gen**'. '**Hydro**' means water while '**gen**' in Latin word means forming. Therefore, hydrogen means water former. As far as we drink water, then we are 'consuming' hydrogen. But the hydrogen that we consumed from the water molecule is '**oxidised**' hydrogen. What we need is '**active**' hydrogen. Only active hydrogen (Negative Hydrogen) can control **active oxygen**. Active oxygen is also known as Reactive Oxygen Species and they are produced by mitochondria in the cell during energy production.

We are destined to Birth → Old Age → Sickness → Death. Although Birth and Death are beyond our control, but we can definitely manage our old age and sickness through our effort. As we aged we may gain wealth but we lose our health as well. Money can't buy health but we need to put in effort to earn our health. Exercise, friendship and acquiring knowledge through reading require time and effort. Effort to acquire nutritional knowledge has nothing to do with wealth or money. Acquiring nutritional knowledge needs time to cultivate interest in

ourselves to gain better health. Cell needs **detoxification, hydration, absorption and rejuvenation** which I named as four therapies. These four therapies help the body to cleanse, to ration chemical in proportion and to get enough supplements in order to maintain a balanced biological terrain. One may eat tonnes of supplements but if without the four therapies to enhance cleansing, rationing and supplementing, then how are we going to get a balanced biological terrain. Do you feel **Tired, Sore, Numbness, Pain** and **Itchiness?** You may have thousand reasons to excuse yourself, but just bear one thing in mind, listen to your body, it

“Thousands have lived without love, not one without water.”

W. H. Auden  
(1907-1973)

**Forcing the body to work with insufficient amounts of fluid is like trying to wash the dinner dishes in a cupful of water.**

won't tell lie. They are just answering you. You are **dehydrated**.

We produce wastes and therefore we need water to **CLEANSE** our body.

We eat and accumulate things and therefore we need water to **RATION** them in proportion.

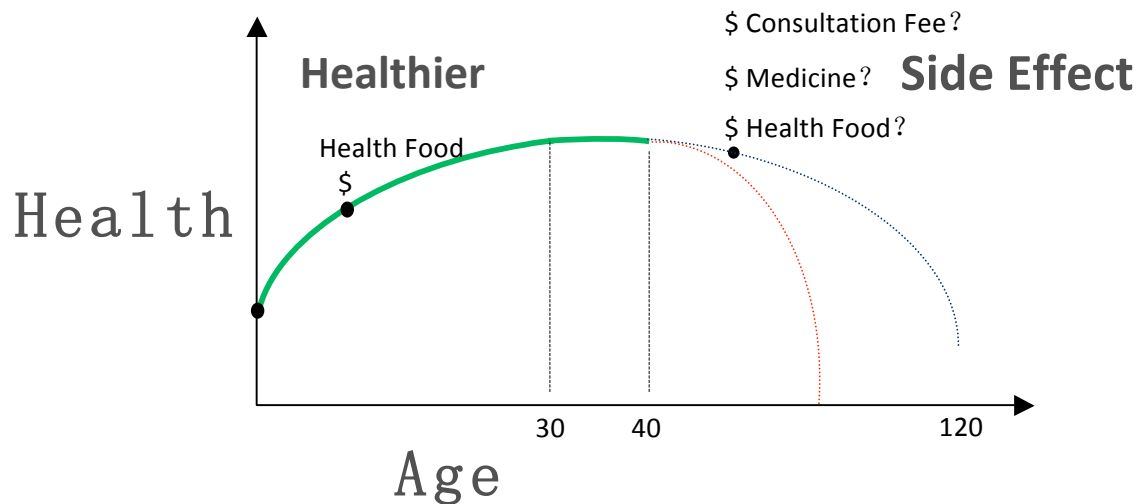
We 'burn' foods to get energy and therefore we need to **SUPPLEMENT** our body with the right fuel. If you don't want your body to be burned (catabolic), then you better get something for the body to burn it (anabolic). Do you know what our body burns when we breathe in oxygen? Is there an exceptional thing such as life force that can best match the power of sun and yet has influential role on the lifespan of every living thing on earth? Some of you may think the answer is oxygen or water. Water is a byproduct of hydrogen burns with oxygen. Oxygen is NOT a fuel. Therefore the answer is hydrogen because hydrogen is the fuel of life.

Presently, there are many methods practise in the market to detoxify our body. They may include pumping water through colon for bowel cleansing, liver cleansing, cholesterol discharge from liver, SPA, detoxifying using electromagnetic chair, foot reflexology etc, the practise will be incomplete unless it is coupled with lymphatic hydration and detoxification.

# Part 1

# Product Introduction

# Birth、 Old Age、 Sickness、 Death



As we aged, we may gain wealth but we lose our health.

## We can't buy health We have to earn our health

Do you have a **SMART DEAL** to earn both **Health & Wealth**?

Smart **DEAL** is definitely the Right Decision for you!

**Drink Smart**

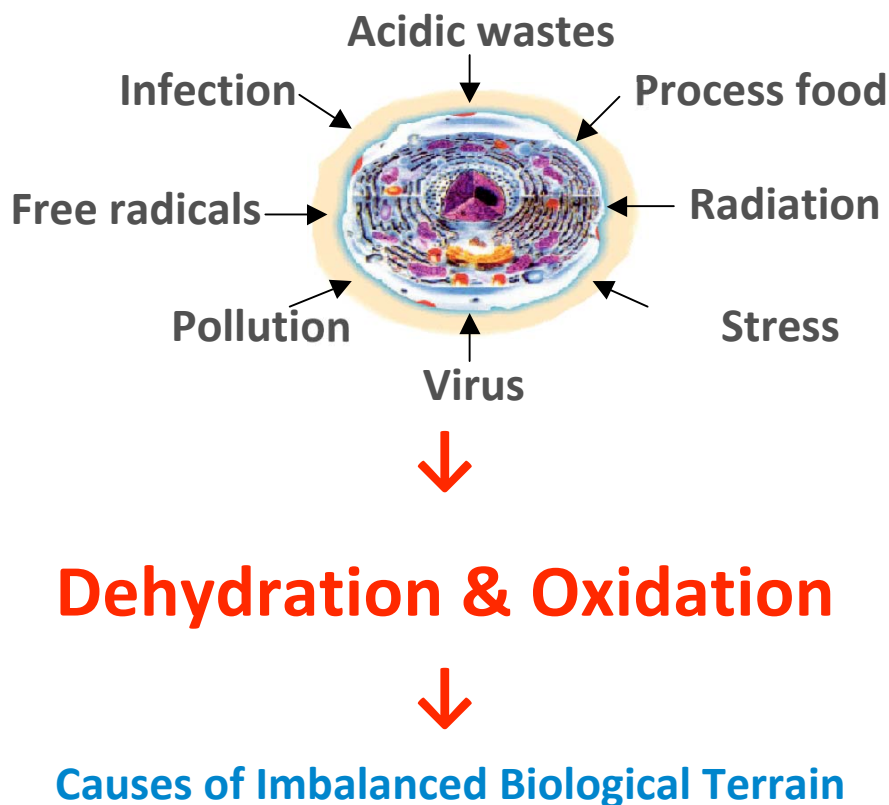
**Eat Smart**

**Absorb Smart**

Never treat yourself to YOU ARE WHAT YOU THINK when comes to Flanagan Microcluster<sup>®</sup> silica. For years, we learned what to eat but never learn **how to absorb** in the nutritional teaching. Food manufacturers and advertising agents are imparting negative concept more on nutrient deficiency related to health problem. Through advertisement, marketers come out a highly effective strategy to supersede the way we think on health food supplements. With Microcluster<sup>®</sup> Technology via Microcluster<sup>®</sup> silica, it improves hydration and better circulation. It guarantees the food we ate is 100% absorbed but at the same time pulls out toxins out of the body. Microcluster<sup>®</sup> Technology offers you an exclusive home based business opportunity to gain both Health & Wealth.

Never treat yourself to **YOU ARE WHAT YOU THINK** when comes to Flanagan Microcluster<sup>®</sup> silica. For years, we learned what to eat but never learn **how to absorb** in the nutritional teaching. Food manufacturers and advertising agents are imparting negative concept more on nutrient deficiency related to health problem. Through advertisement, marketers come out a highly effective strategy to supersede the way we think on health food supplements. With Microcluster<sup>®</sup> Technology via Microcluster<sup>®</sup> silica, it improves hydration and better circulation. It guarantees the food we ate is 100% absorbed but at the same time pulls out toxins out of the body. Microcluster<sup>®</sup> Technology offers you an exclusive home based business opportunity to gain both Health & Wealth.

## Live Smart



## Biological Terrain is our basis of health



Nowadays most people didn't know how to differentiate process food and natural food. Even the natural food is also grown with fortified hormones and chemicals that may acidify our body. Modern lifestyle prefers delicious food. Delicious foods are acidic foods. **Acidic foods dehydrate our body.** Dehydration is the root cause of Common Health Complaints. Negative Hydrogen is anti-dehydration. It rehydrates and rebalances our biological terrain.

### Symptoms of Imbalanced Biological Terrain

√	Easily tired, lethargic	
√	Feel tired despite 6-7 hours of sleeping	
√	Prone to colds, coughs & sore throat	
√	Poor attention span & yawn frequently	
√	Constipation, flatulence & bloating	
√	Body & mouth odor, odorous urine	
√	Lackluster hair, dry scalp & dry nail cuticles	
√	Neck & joint pains, sore muscles	
<h2 style="color: red;">Sore Numbness Pain</h2>		



### **When we are sick**

What the Four Experts may say:

**Chinese Physician:** acidic body & weak absorption

**Medical Doctor** : infection & weak immune system

**Nutritionist** : malnutrition

**Hydrologist** : quality of water we drink

**Our Body Heals by itself when we have a good  
biological terrain**



# Restoring Our Biological Terrain



## Cleansing: (acidic wastes, free radicals, virus infection, metabolite wastes)

- (1) Negative Hydrogen: Nature's given non-toxic active element. Its byproduct is water. Good for

blood cleansing, body fluids cleansing.

- (2) Silica : Chelate and remove heavy metal

<http://www.consumerhealth.org/articles/display.cfm?ID=20010224232617>

Consumer Health Organization of Canada, Volume 24 Issue 1, January 2001

## Rationing: (pH buffer, hormones balancing, electrolytes balancing, $\frac{2}{3}$ anion: $\frac{1}{3}$ cation)

- (1) Negative Hydrogen is natural blood pH buffer and body fluids pH buffer. It is alkaline in nature and once consume it not only cleanse the body but also doesn't acidify the body.
- (2) Mega H<sup>®</sup> when taken together with 'Over 30' is very good to rebalance our hormonal system.

Without Negative Hydrogen  
in the body  
is just like without the sun  
in the Solar System  
**We are dead**

## Supplementing: (H, water, silica, electrons, minerals, increase nutrients absorption)

- (1) **H** : Eating H means rehydrating, energizing and detoxifying our body. The electron it carries is used to supercharge our cell and increase the bioelectric potential of cellular membrane. Hydrogen in Latin means water former. When burns in the body, it becomes water and energy. The energy is use to power the cell to work mechanically, chemically and transport.
- (2) **Water**: Cell dehydrates and we need water to counter cellular dehydration problem. Cell needs water to perform osmotic flow to carry out metabolism, detoxification and nutrient absorption. Osmotic flow is an important function of hydro therapy. Without hydro therapy, we are prone to get sick.
- (3) **Qi** : H works as a Pure Clean Fuel of *Life Force*. It is the only biological active element in the body that DIRECTLY donates electron for body use. The electron is use for anti-oxidation purposes and generates Qi. During cellular respiration, electron is taken up by oxygen to burn the hydrogen to make water and ATP. The whole process, Qi is generated as mentioned in the Art of Chinese.
- (4) **Silica**: Crystal Energy<sup>®</sup> contains more than 80 types of organic minerals. Minerals support our enzymatic action and metabolic rate. It contains organic silica as well. Silica is good for (a) nail & hair growth, (b) skin & muscle connective tissue, (c) artery walls strengthening (e) fair and resilient skin. Silica is important for bone formation and bone tissue collagen.



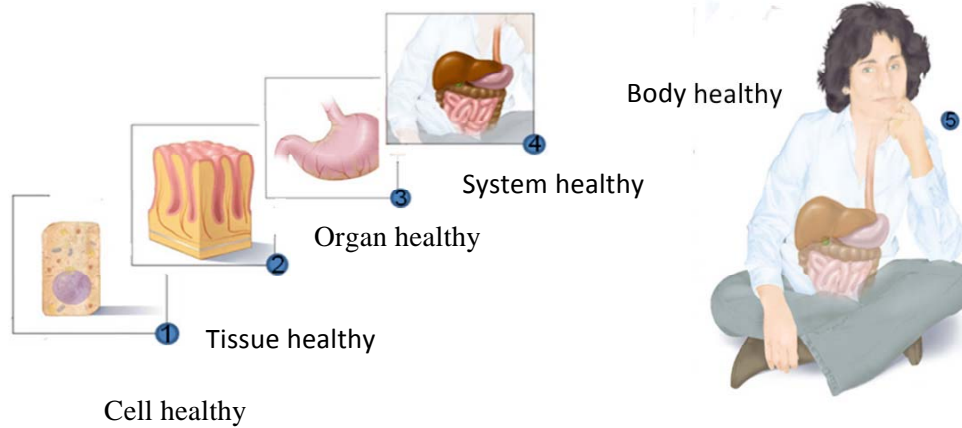
## Human body is made up of

- 63 trillion cells
- 70% is water
- 63% is hydrogen

[www foresight.org/Nanomedicine/Ch03\\_1.html#Sec31](http://www foresight.org/Nanomedicine/Ch03_1.html#Sec31)

FORESIGHT NANOTECH INSTITUTE by Robert A. Freitas Jr

## Only biological water can protect our body cell



1. To Clean the Cell (pH Buffer)
2. To give Energy to the Cell
3. Cellular Hydration
4. To give a lot of Antioxidants to the Cell
5. Increase Nutrients Absorption



Our body cell works like an electric bulb. The cell is alive just like the electric bulb lights up when it receives enough electrons. The bulb is easily fused when there is no constant supply of electricity. This implies that the life span of a cell is extended when it gets enough electrons from the Negative Hydrogen. Mega H<sup>®</sup> supplies billion of electrons via Negative Hydrogen to our body. It hydrates and improves our bioelectricity.

## Body Cell Needs Four Therapies

←   ←   ←   ←  
**Detoxification   Hydration   Absorption   Rejuvenation**

The water we drink is different form our body water which is called biological water. Add Crystal Energy<sup>®</sup>, it makes biological water. ONLY biological water possesses FIVE BENEFITS that bring FOUR THERAPIES to the body to restore a balanced biological terrain. A balanced biological terrain makes us stay younger, healthier, more vitality and longer lifespan.

# Faith versus Hesitation

**If Air, Fruits, Vegetables, Meat**

**CAN BE FRESH**

**Then Why Not Water?**

**Drink Fresh Water but NOT Clean Water**

**Clean Water is No Longer Enough**

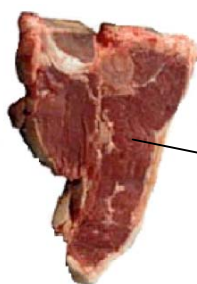
**FRESH is ALIVE Simply because it has Life Force**

**The Life Force is Negative Hydrogen**

# Natural Organic Food is a good source Of Negative Hydrogen

But the moment we cooked,  
Negative Hydrogen is lost from our food

Which do you prefer? Eat to live or live to eat? We want both unless we are healthy.



Raw & Fresh means  
contains  
Negative Hydrogen

Organic food is NOT easy to get & how organic it is organic?

1. If you are healthy, propose you to take
  - ❖ 2 Mega H<sup>®</sup> with two glasses of water every **morning**. Add 10 drops of Crystal Energy<sup>®</sup> into each glass of water every time you drink.
  - ❖ 2 Mega H<sup>®</sup> with two glasses of water every **evening**. Add 10 drops of Crystal Energy<sup>®</sup> into each glass of water every time you drink.
2. If you have health problem, then start only
  - ❖ 1 Mega H<sup>®</sup> with two glasses of water every **morning**. Add 10 drops of Crystal Energy<sup>®</sup> into each glass of water every time you drink. Increase to 2 Mega H<sup>®</sup> after 2 weeks.
  - ❖ 1 Mega H<sup>®</sup> with two glasses of water every **evening**. Add 10 drops of Crystal Energy<sup>®</sup> into each glass of water every time you drink. Increase to 2 Mega H<sup>®</sup> after one month.
3. Everyday you should drink minimum 8 glasses of water treated with Crystal Energy<sup>®</sup>.

Recommended Consumption		Crystal Energy®	Mega H®
Jump Start for first 7 days ( <b>ONLY</b> for healthy people)		10 drops in every 200 ml water (one glass of water = 237 ml) ( <b>minimum 8 glasses everyday</b> )	2 capsules twice daily for therapeutic effect
Everyday (normal consumption)		10 drops in every 200 ml water ( <b>minimum 8 glasses everyday</b> )	1 capsule twice daily <b>OR</b> 2 capsules twice daily for therapeutic effect
Those with symptoms of dehydration ( <b>health problem</b> ) <b>Take 2 capsules for therapeutic</b>		10 drops in every 200 ml water ( <b>minimum 8 glasses everyday</b> )	1 capsules twice daily and gradually increase to 2 capsules twice daily
Those on Medication Take Mega H® After 2 hrs of medication	First 14 days	10 drops in every 200 ml water ( <b>minimum 8 glasses everyday</b> )	1 capsule twice daily. <b>If you encounter any discomfort, perhaps stop taking one or two days and then continue again</b>
	After 2 weeks	10 drops in every 200 ml water ( <b>minimum 8 glasses everyday</b> )	2 capsules twice daily (for therapeutic effect)
Those active in sport	½ an hour before exercise	10 drops in every 200 ml water ( <b>minimum 8 glasses everyday</b> )	2 capsules for longer and stronger performance
	After exercise	10 drops in every 200 ml water ( <b>minimum 8 glasses everyday</b> )	2 capsules for fast recovery
Baby to 2 years old		2 drops in each bottle feeding either milk or water to a maximum 6 drops in one day ( <b>take more when fever</b> )	Maximum only one-third capsule a day unless the baby is sick can increase to maximum One capsule a day
Children 4 to 7 years old		3 to 5 drops in 200 ml water to a maximum 15 drops per day ( <b>take more when fever</b> )	Half a capsule a day unless fever takes 1 capsule twice daily until recover.
Children 8 to 12 years old		5 drops in 200ml water to a maximum 15 drops per day ( <b>take more when fever</b> )	Half a capsule each time until twice daily unless fever takes 1 capsule twice daily until recovers.

**Note:** If you encounter any healing crisis, perhaps the toxins released are affecting your body pH. The body might need extra workloads to maintain the pH that result in healing crisis. As a result, you need to drink extra Crystal Energy® treated water.

- Fever, sore throat, febrile, diarrhea, stomach upset:** drink a lot of water added with more Crystal Energy® and every 4 hours take 2 Mega H® to a maximum 8 capsules a day, you will surprise the recovery is very fast.
- If you have history of gastric,** don't take Mega H® with empty stomach but takes after food. Take more Crystal Energy® when you have gastric attacked even empty stomach.

**For external use;**

- Mouth ulcer:** drip Crystal Energy® directly onto the ulcer few times a day until recover. You will surprise the healing is faster.
- For minor cuts or gangrene:** drip Crystal Energy® directly onto the wounds few times a day until recover. You will surprise the healing is faster.

## Benefits of Crystal Energy® and Mega H®





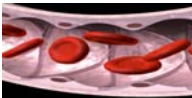

Trade Secret Protected Technology



1983



1997

 <b>Brain</b>	<ul style="list-style-type: none"> <li>• improve memory &amp; concentration</li> <li>• removal of heavy metals</li> <li>• electrolyte balance</li> <li>• prevent stroke from taking place</li> </ul>
 <b>Kidney</b>	<ul style="list-style-type: none"> <li>• prevent kidney from dehydration</li> <li>• electrolyte balance</li> <li>• regulate blood pressure</li> <li>• reduce uric acid and prevent kidneys stone</li> </ul>
 <b>Liver</b>	<ul style="list-style-type: none"> <li>• H- protect mitochondria</li> <li>• ATP production</li> <li>• for healthful blood glucose level</li> <li>• prevent liver from dehydration</li> <li>• convert bad cholesterol to good cholesterol</li> </ul> <p><a href="http://www.consumerhealth.org/articles/display.cfm?ID=20010224232617">http://www.consumerhealth.org/articles/display.cfm?ID=20010224232617</a>                      Consumer Health Organization of Canada, Volume 24 Issue 1, January 2001</p>
 <b>Heart</b>	<ul style="list-style-type: none"> <li>• colloids that carry H- to generate bioelectric to support heart beats</li> <li>• Improve stroke volume</li> </ul>
 <b>Blood vessel</b>	<ul style="list-style-type: none"> <li>• Strengthen blood vessel wall</li> <li>• Improve blood circulation and increase osmotic flow</li> <li>• Remove existing arterial plaques</li> </ul>
 <b>Intestine</b>	<ul style="list-style-type: none"> <li>• solve gastric problems</li> <li>• avoid constipation</li> <li>• colon detoxification and avoid colon fermentation</li> </ul>
<b>Other parts of body</b>	<ul style="list-style-type: none"> <li>• strengthen bones, nails, reduce hair drops, radiant skin</li> </ul>

# Part 2

## Product Knowledge

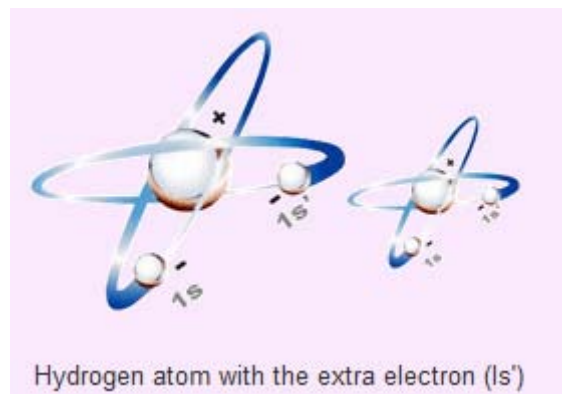
Dr. Patrick Flanagan is the Father of Negative Hydrogen, named by the Japanese Researchers.

Negative hydrogen was discovered by Professor Karl Langmuir since 1920. Since then the Japanese researchers are trying to synthesise silica hydride to add onto their health food supplement. But up-to-date, their efforts are in vain. Therefore Dr. Patrick Flanagan is named as the Father of Negative Hydrogen by the Japanese researchers.

# Nature's Given Life Force

## Negative Hydrogen

### The Pure Clean Fuel of Life Force

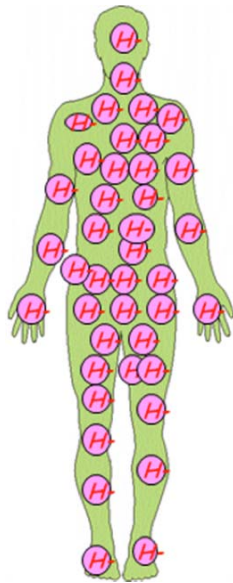


**Unlearn and Relearn**  
**Beyond Nutrition**

**Zero Your Knowledge** before you can understand hydrogen



# Our Biological Terrain



**70% is Water**

**63% is Hydrogen**

[www.foresight.org/Nanomedicine/Ch03\\_1.html#Sec31](http://www.foresight.org/Nanomedicine/Ch03_1.html#Sec31)

FORESIGHT NANOTECH INSTITUTE by Robert A. Freitas Jr

## WATER by Body's Mass

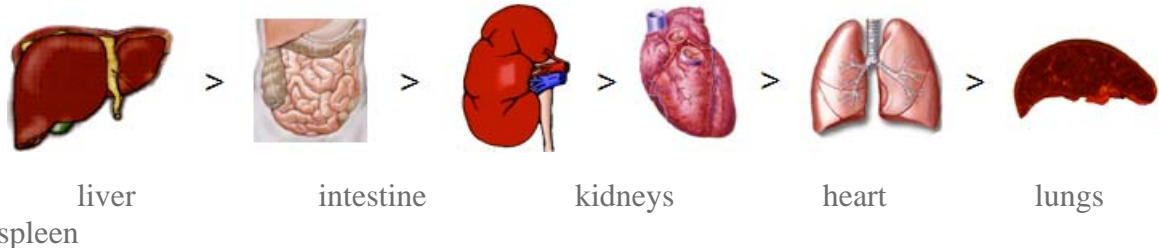
- 90% - Embryo
- 80% - 80% - Baby
- 70% - 70% - Adult
- 50% - 50% - Elderly

Get a CD on interactive interview with Dr. Patrick Flanagan: 'DNA and Aging'

## “Pool of Hydrogen”

Acclaimed by Albert Szent-Gyorgyi, Nobel Prize 1937, and discoverer of Vitamin C:

Hydrogen is stored in our healthy organs in descending order such as



**“Hydrogen is the pure clean fuel of life”**

**As we aged, we are depleted of Negative Hydrogen**

**I don't see any reason why we should stop taking Mega H<sup>®</sup>**

- ✓ **Natural Blood Cleanser, Body Fluid Cleanser and Natural pH Buffer**
- ✓ **Restoring the Hydroelectric Potential of cellular membrane to increase absorption and hydration**

## Description of Negative Hydrogen

Dare to take a challenge!

### Make a guess

Besides the Sun, what is the mystery behind us that sustains life in all living things on *Earth*?

Guess you cannot answer this question correctly. To answer this mysterious question, you have to imagine and truly ask yourself, whether we can survive without the Sun?

Is there an exceptional thing such as **LIFE FORCE** that can best match the power of the Sun and yet influences the life-span of every living thing on *Earth*?

Some of you might think the answer is oxygen. **The answer is neither oxygen nor water** because **oxygen is not a fuel** while water is the byproduct of oxygen and hydrogen. Oxygen only supports the combustion of fuel. Therefore, oxygen is NOT a source of life force to increase the lifespan of a cell.

**The answer is Negative Hydrogen (H-).**

All living things possess Negative Hydrogen and it is **NOT A PRIVILEGE OWN** of any single living thing. It belongs to NATURE. Fruits, meats, plants, veggies, fishes, prawns etc when they are RAW & FRESH all contain **Negative Hydrogen**. **Negative Hydrogen** is an invisible substance that belongs to Nature. Human body depends on nature for survival. I would rather describe it WITHOUT NEGATIVE HYDROGEN in our biological terrain is JUST LIKE WITHOUT THE SUN in our solar system. Without either one of them we are dead. Nothing can survive if there is no **H-** found in a living body or sunlight falling onto *Earth*. This is evidenced when we refer to the Krebs's Cycle of energy production showing that there is "**Hydrogen Cycle**" (also called Citric Acid Cycle) exists in our body.

Is there an exceptional thing such as **Life Force** that can best match the power of the Sun and yet influences the lifespan of every living thing on *Earth*?

**A Biological Terrain** without **Negative Hydrogen** is just like without the Sun in the Solar System.

We are **dead**.

**Negative Hydrogen** serves as the **Life Force** that brings **CHANGES** to our **biological terrain**.

## Biological Terrain depends on

- **Our body fluids**
- **Negative Hydrogen**
- **ATP to be in balance**

## Role of Negative Hydrogen in the body

“Electron never transports in a living organism unless it is coupled by hydrogen,” Albert Szent-Gyorgyi.

### What is Negative Hydrogen?

It is a **PURE CLEAN FUEL** of *Life Force*. This **LIFE FORCE** generates *electricity and hence Energy* (or *Qi* in Chinese) when it transfers its electron to oxygen during respiration in the mitochondria and finally synthesis into water for *Rehydration* purposes.

- **Pure** means 100%
- **Clean** means no carbon residue
- **Fuel** means energy supplier

### Characteristics of H<sup>-</sup>

1. Smallest, lightest, richest, invisible and fastest moving atom meaning virtually it bonded with anything wherever it goes.
2. Can DIRECTLY TRANSFER its electron making it to work as the **BEST**
  - **Biological Antioxidant**
  - **Biological Reducing Agent**
  - **Biological Free Radical Scavenger**

To my understanding, there is NOTHING on *Earth* that can replace **Negative Hydrogen** as far as to support all biological functions in our body. Oxygen is only involved in the function of food metabolism through cellular respiration. We possess other biological functions other than just metabolism. All these functions depend on the presence of **Negative Hydrogen** and adequate hydration. One thing is for sure while oxygen brings about oxidation, hydrogen is the only matching element that brings about REDUCTION. Reduction, an equivalent force that is opposite to oxidation, is an important biological process to rejuvenate you. We are constantly depleted of **Negative Hydrogen** due to dehydration and oxidation keep taking place in our body. When **H<sup>-</sup>** depleted, we are easily susceptible to dehydrate, tired, sick, age, and eventually death.

### **PURE CLEAN FUEL:**

It is a pure clean fuel of *life force* because it does not contain carbon. It is the best Natural pH buffer, body fluid Cleanser.

**An advantage that other health foods DON'T POSSESS.**

It is a 100% carbon-free clean energy source for ATP (cellular energy)

production. The foods we eat such as carbohydrate, protein, fat, health food supplements, antioxidants, enzymes all are containing

carbon in their element composition. They pollute our body with carbon dioxide and lower our blood zeta potential. Because Negative Hydrogen does not contain carbon, therefore it is a Natural Body Fluids Cleanser, Blood Cleanser and Natural pH Buffer. It increases NOT

**The Food we eat contains carbon. It acidified our blood with carbon dioxide.**

**Negative Hydrogen is just like the sun; it provides energy and does not pollute our body with any carbon dioxide.**

**Carbon dioxide makes our body tired, weak and acidic.**

**Carbon dioxide lowers our blood zeta potential.**

ONLY glucose metabolism to effectively weight control but also stand at an advantage of NOT increasing metabolic free radicals such as Reactive Oxygen Species (ROS) as well.

## Where is **Negative Hydrogen** found naturally?



We are living in a Negative Hydrogen depleted environment



Chinese proverb: “Before thirty, men seek disease; after thirty, disease seeks men.”

Air, water and soil are polluted. Agriculture uses fortified growth hormone, fertilizers, antibiotics and pesticide to foster better produce. The foods we eat are mostly **process food**. They contain too much sodium or Monosodium Glutamate (MSG). We should be consuming 5 times more Potassium than Sodium. Our present dietary patterns have reversed this ratio due primarily to increased sodium content in prepared foods. All these factors make our body dehydrate and couple with Negative Hydrogen deficiency; we are prone to poor blood circulation. Nearly all adult diseases are originated from poor blood circulation. Kidneys dialysis is on the rising.



*Dr. Patrick Flanagan:*

*“Adding **Mega H®** to our daily natural foods and drinks with **Crystal Energy®**, we turn them into organic foods”*

*“If we eat pure raw organic food and drink lots of fresh organic juices, we won’t need a hydrogen supplement like **Mega H®**”.*

To me there is “*Life force*” in natural living food that we can’t get from process food. *Life force* means “the energy that is able to create life.” Our Biological Terrain is alive. We need to eat natural living food to sustain our biological terrain. A food that is cooked cannot create life and cannot maintain the life force energy in our bodies. When foods are heated above 105°F they begin to lose all of the following ingredients such as enzymes, oxygen, hormones, phytochemicals, bio-electrical energy and life-force. By 118°F, most food is dead. Yes, the vitamins, minerals, carbohydrates, fats and proteins are still there, but in a greatly altered state – not at all what nature provided.

What happen to food heated above 105°F?

Living food can sprout but cooked food cannot sprout.

Each cell of the body is like a tiny battery. Raw and living foods contain rich amount of Negative Hydrogen. Negative Hydrogen supplies the bio-electricity which charges these batteries.

Ingesting cooked food also causes the body to produce a surge of white blood cells. These cells normally defend against disease, infection and injury to the body, but their production is a routine effect of ingesting cooked foods (as if the body considers such food a threat or danger). Because leukocytes carry a variety of enzymes, there is another possible explanation for the increase in white blood cells. The leukocytes may be delivering the missing enzymes so that digestion can proceed unhindered. Leukocytosis does not occur when raw, unheated foods are eaten. According to **Viktoras Kulvinskas**<sup>26</sup>, “in any pathological condition, including the intoxicification of the digestive system with cooked food or other toxic materials, these white cells increase from 5 or 6 thousand per cubic millimeter to 7, 8 or 9 thousand per cu.mm.” Leukocytosis also occurs when additives, pesticides and chemically based supplements are ingested. And, of course, producing these cells creates an additional stress upon the body.

<http://www.rawfoodplanet.com/bio.html> & [http://en.wikipedia.org/wiki/Viktoras\\_Kulvinskas](http://en.wikipedia.org/wiki/Viktoras_Kulvinskas)

Although we are well-informed to practice eating raw or cook the organic veggies below 105°F in order to preserve their enzymes and vitamins but this is NOT applying to the **Negative Hydrogen**.

You have no choice; **Negative Hydrogen** is an **ACTIVE ELEMENT**. It therefore is easily oxidised even when the organic food is cooked below 48°C.

What cells need is **Energy** and not just food. After all, it is not the amount of food we eat, but how much we can convert them into cellular energy.

Our body takes in an average of five and a half pounds of food and drink each day, which amounts to one ton of solid and liquid nourishment annually. So in seventy years a man or woman eats and drinks 1000 times his or her weight. We can imagine how much acidic wastes we created in a life time.

About half of all the acid formed or introduced into the body is neutralised by the ingestion of alkaline foods. The remaining acid is neutralised by three major systems of the body, namely chemical buffers, the respiratory system and the kidneys.

Chemical buffers have an instantaneous effect on pH changes. They are very effective in minimising pH changes but do not entirely eliminate the change. **Within cells chemical buffer generally take about 2 to 4 hours to minimise changes in pH.** The respiratory system also helps to minimise pH changes; the effects occur within minutes. Renal regulation of pH is able to completely return the pH to normal and requires from hours to several days.

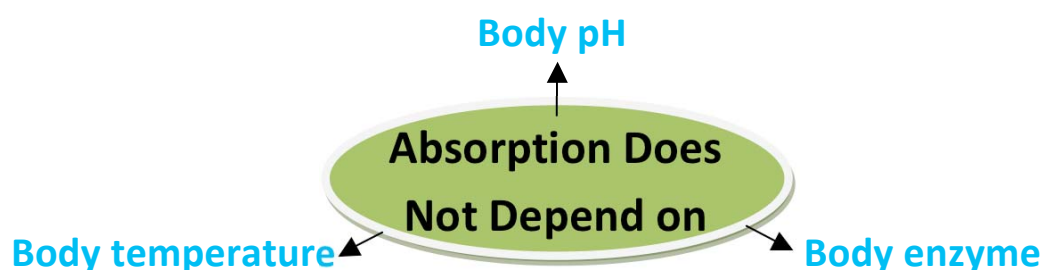
## Are You Too Acidic?

Everyday we need at least one-half pound of pure hydrogen for the production of ATP or else we will be acidic and dehydrated.

**Modern Lifestyle Diseases are getting younger simply because...**

**we don't understand the importance of Negative Hydrogen on our health.**

## Uniqueness of Negative Hydrogen

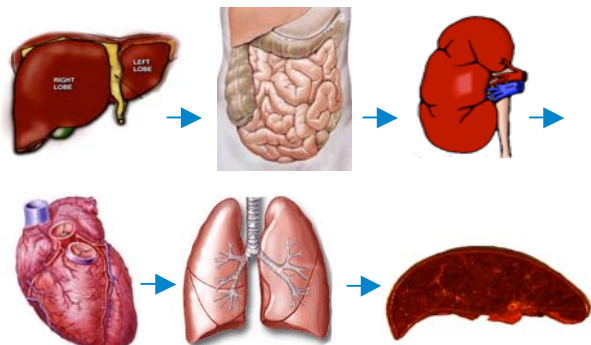


Most food we eat needs to be digested by relevant enzymes. Their absorptions are enzymatic dependence. Enzymes are affected by our body temperature and pH. Negative Hydrogen is an invisible active element. It is also the smallest, lightest, richest, fastest moving atom. It therefore is easily absorbed by our body without depending on our body pH, enzymes and temperature. The electron it carries is easily bonded with anything wherever it goes. Negative Hydrogen is richly used to reduce oxidised  $\text{NAD}^+$  to NADH. NADH is the prerequisite condition to allow glucose glycolysis to take place.

## Where is H- found in our body?



Albert Szent-Gyorgyi:  
"Pool of Hydrogen in our healthy  
organs in descending order."



Medically, **Negative Hydrogen** is called the **Hydride Ion**. Hydride ion is richly found in the liver. Hydride ion is carried by  $\text{NAD}^+$ , a co-enzyme richly found in mitochondria, existed in the form of  $\text{NADH}$ .

### Excerpted

Page 97: "*Molecular Basis of Medical Cell Biology*", First Edition by Gerald M. Fuller, PhD and Dennis Shields, PhD.

"NAD plays a pivotal role in metabolism; the reduced molecule (i.e.  $\text{NADH}$ ) is formed when a hydride ion (a hydrogen nucleus plus two electrons) are taken up by NAD."

Plants use the sunlight energy to breakdown water molecules into ions and photo-chemically react with carbon dioxide to make carbohydrate. Some of these ions are **hydride ions**, which are stored in plants, fruits and vegetables. When cooked, they are lost through heating. That is why we have to change our eating habits, by consuming **FRESHER, RAW and NATURAL PURE ORGANIC** foods everyday, or else we will be greatly depleted of **Negative Hydrogen**.

Although our modern diets are flooded with so many kinds of nutrients yet we are still depleted of **Negative Hydrogen**.

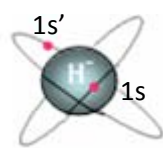
Only Pure Raw Fresh Natural Organic foods (meats, veggies & fruits) contain large amount of **H-**.

The produces we eat are grown with fertilizers, antibiotic and growth hormone.

They are **NOT NATURALLY GROWN**. They are depleted with **Negative Hydrogen**.



## Negative Hydrogen is an **Active Invisible Element**



The ingredients of food including any antioxidant are mostly molecule or compound. Because of this, they depend on enzyme or mineral for metabolism and absorption. But, when comes to Negative Hydrogen, we are actually dealing on an elemental food or **elemental antioxidant**. Absorption of element depends only on its size and physical state. Because Negative Hydrogen is an active elemental atomic antioxidant, therefore it is easily absorbed by any tissue without depending on enzyme interaction. <sup>25</sup>Shirahata once before had conducted BOTH studies on (i) hydride ion and porphyrin response (ii) theory of reduce water, he describes this hydride transfer and provides evidence that the physics is not that of a proton and electron, but rather a **direct transfer<sup>25</sup>** of a hydrogen anion, known as a **hydride ion**. Reactions ranging from electrolysis to the reduction of nicotinamide adenine dinucleotide ( $\text{NAD}^+$ ) to reactive oxygen species neutralization involve the hydride ion. **It is hypothesized that the redox control and trigger for these reactions may not be entirely enzymatic, but rather redox controlled through electron rich ions.** Previously, the biological transfer of an electron was described as that of a proton plus an electron that are simultaneously carried to the oxidized species. It was discovered later, electron is carried by hydride ion to reduce  $\text{NAD}^+$  to NADH.



The ORP reading shows an abrupt change after silica hydride was added to water. It tells silica hydride breaks up into crystalloid silica and hydride ions in water even though there is no electricity supply. Sodium chloride also breaks up into sodium ion and chloride ion in water although there is no electricity supply. We can easily show their difference by an ORP meter. Silica hydride in water shows an **abrupt change** of ORP reading while **the change is NOT OBVIOUS** in sodium chloride solution. This shows that Silica hydride is **NOT** an ordinary ionic compound like sodium chloride. In actual, the hydride ion is embedded in the compound as reported by Dr. Patrick. Adding a few mg of silica hydride to water will reduce the ORP reading to **-750mV for a period of at least several weeks<sup>24</sup>**.

### What does it mean when there is abrupt change in ORP reading?

It tells negative hydrogen can **DIRECTLY RELEASED** its electron to a glass of water without depending on enzymes interaction. Normally, most chemical reactions in the human body are performed at molecular basis. These molecular reactions are the results of enzyme participation. But Redox reaction that takes place in the body does not depend on enzyme participation. Redox reaction involves only electrons transfer among 'active element' (called ionic mineral) that generates bioelectricity. Negative Hydrogen is an active element, it initiates Redox reaction.

*Article excerpted from page 17 "Active hydrogen and the non-enzymatic effect on the porphyrin derivatives oxyhemoglobin and cytochrome c in normal human erythrocytes":*

*The active hydrogen's electron structure is not that of a traditional  $1s^2$  orbital system, but rather that of a  $1s1s'$  orbital structure where the  $1s'$  orbital shell is orthogonal to the  $1s$  shell and is more loosely held. In this activated state, the hydrogen atom is kinetically and energetically favoured to donate its excess electron, reducing its symbiotic constituent, while becoming neutral atomic hydrogen itself<sup>32</sup>.*

## ORP reading doesn't tell reducing potential

ORP reading alone will not indicate a true reducing potential of a compound. As an example, I have done a simple test in my school laboratory. A little bit of bamboo salt even shows negative ORP, but when added to copper sulfate solution; it doesn't reduce the copper sulfate to copper and sulfuric acid. Instead, a little bit of Mega H<sup>®</sup> reduces copper sulfate to copper and sulfuric acid. This shows that silica hydride in Mega H<sup>®</sup> has great reducing potential.

To account for a true reducing potential, a combination of variable factors such as ORP and pH must take into consideration. These two variables are then applied to Nerst Equation to calculate its absolute reducing potential in unit of rH. Table below shows the redox characteristics of active hydrogen in 250 ml of distilled water.

Amt. Added (mg)	ORP (mV)	pH	rH	Environment
0	+146.3	7.46	26.46	Highly oxidized
5	+68.6	7.89	22.10	Highly oxidized
10	-101.2	7.95	19.47	Slightly oxidized
15	-143.7	8.15	17.82	Slightly oxidized
20	-189.3	8.45	16.13	Slightly oxidized
25	-198.7	8.64	15.67	Light oxidized
50	-240.9	8.81	14.43	Light oxidized
75	-600.1	8.90	4.49	Reduced
125	-775.5	9.12	-0.63	Highly reduced
225	-846.1	9.51	-2.41	Highly reduced

<sup>31</sup>Source: "Magnesium Activated Hydrogen Ions and Biological Activity: Empirical Analyses and Clinical Significance" by Cory J. Stephanson, Ph.D. & G. Patrick Flanagan, M.D.Ph.D.

Table Legends: "An overview of the active hydrogen redox characterization"

Oxidation reduction potential (ORP), pH and rH are used to characterize the hydrogen ions in solution. The data represent 5 minute readings for the compound in 250ml of distilled water. This non-buffered environment allowed the more accurate characterization of the pH and rH factors.

Discussion: From recorded data in the above table, Mega H<sup>®</sup> is a proven reducing agent. In an in vitro test, it reduces NAD<sup>+</sup> to become NADH and reduces cytochrome c Fe (III) to cytochrome c Fe (II). NAD<sup>+</sup> ⇌ NADH is actively involved in glucose glycolysis. Because it has biologic effect on NAD<sup>+</sup> and cytochrome c Fe (III), therefore it is **THE ONLY** biological antioxidant that has positive effect on glucose metabolism and weight control.



Photograph shows Mega H Enhances Mitochondrial Membrane Potential in Intact Liver Cells using Confocal Fluorescence Microscopy

After 20 minutes, the fluorescence is increased by 20% showing NAD<sup>+</sup> readily picks up hydride ion to become NADH.

Source: Microcluster<sup>®</sup> Mineral Technology by Kimberley Purdy-Lloyd, M.S. & Bio-electronics of Microhydrin<sup>®</sup> by Dr. Patrick Flanagan.

In an in vivo test using 4 capsules plus extra 2 capsules in water consumed by six male cyclists who participate in a 40K (24.8 miles) bicycling exercise, Mega H<sup>®</sup> reduces blood lactate by approximately 50%<sup>22</sup>.

## We Need Reduction because Oxidation occurs naturally

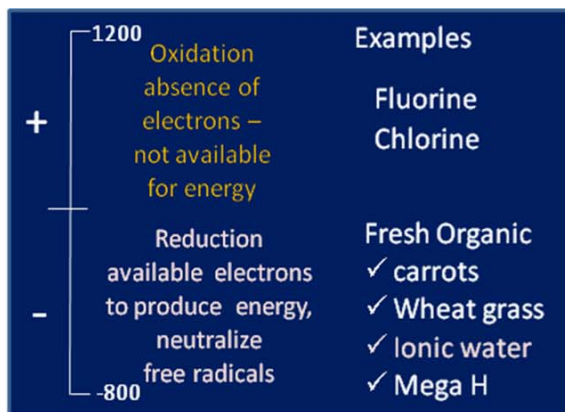


Figure 1

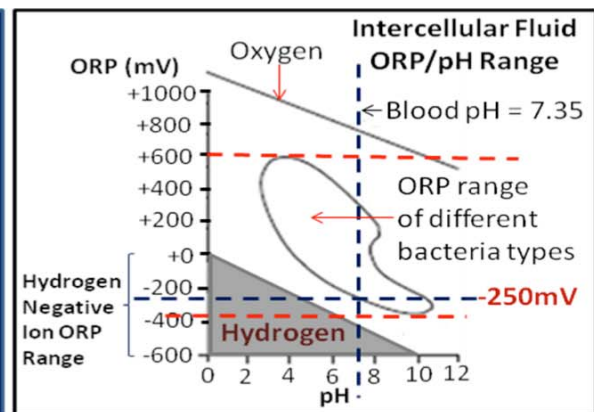


Figure 2

Source: "Hydrogen Anions in Nutrition An Overview" by CLINTON H. HOWARD

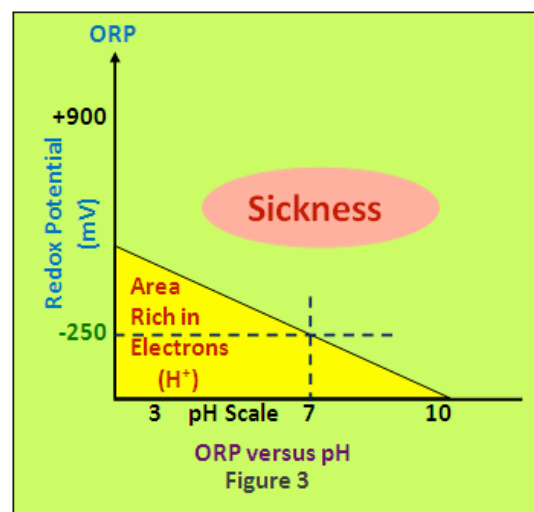
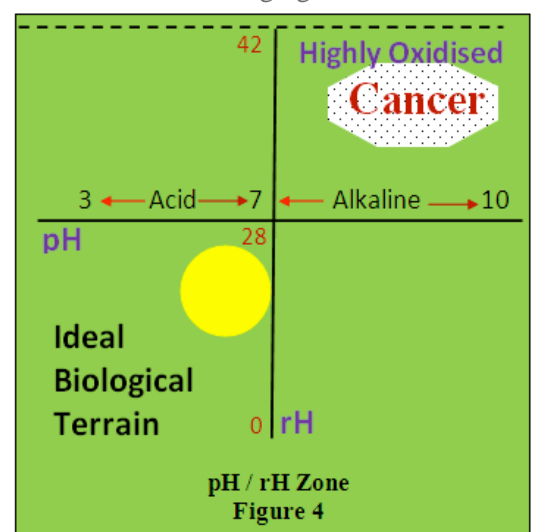


Figure 1 shows electrons are available **ONLY** in **FRESH ORGANIC** produce. Electron is transferred during oxidation and reduction which is called the redox reaction. Figure 2 shows the *electrons transferred* in the oxidation-reduction are *directly related to oxygen and hydrogen*. ORP is used to quantify the number of electrons. ORP alone is not an indicative of the true reducing power of a compound, owing to proton interactions resulting from changes in pH<sup>16</sup>. Therefore scientists use rH value to compare the reducing potential of different antioxidants.

rH value tells the stability and efficacy of an antioxidant that works as a reducing agent. Our liver needs electrons to carry out reduction of  $\text{NAD}^+$  to  $\text{NADH}$  which is important in ATP production. Liver also needs reduction to destroy toxins. Figure 2 & 3 shows the relationship between ORP and pH which is use to depict the right environment for human cell to survive. As an example, at blood pH = 7.35 (blue dotted line), the minimum ORP for human cell to survive is -250 mV and below.

Graph in Figure 3 shows ORP becomes 'very negative' when the pH is higher. Do you realize seldom products in the market while showing **STRONG negative ORP** but still have an alkaline pH? **Perhaps it belongs only to Mega H®**. Most marketed antioxidants actually create an acidic or neutral buffered environment. An alkaline solution at about 8.5 has been shown to overtly increase the antioxidant effect by up to 60%<sup>2</sup>, compared with the same compound tested in a near-biological pH of 7.4.<sup>2</sup>



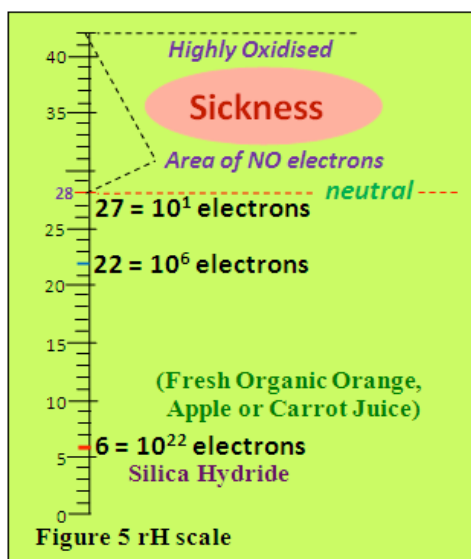


Figure 5 shows rH scale, an *absolute means of quantifying electrons without the interaction of proton*,  $H^+$  ion. rH is calculated by applying Nerst Equation. rH is the acronym for “Relative Hydrogen Pressure” while pH is the acronym for “Potential Hydrogen”. *Silica Hydride* has a reducing potential 10rH unit<sup>4</sup> and at the same time can raise the pH of an alkaline solution to about 8.7<sup>3</sup>. This combination of reduction potential and pH makes the *Silica Hydride* qualifies as a very strong reducing agent. *Silica Hydride* is a powerful antioxidant and free radical scavenger because it is a biological reducing agent. <sup>4</sup>*Silica Hydride* has rH = 10 which is greater than that of vitamin C (rH23)<sup>4</sup>, ubiquinone (rH19)<sup>4</sup> and beta-carotene (rH26)<sup>4</sup>.

**ORAC** is **O**xygen **R**adical **A**bsorbance **C**apacity. It is a method of measuring antioxidant capacities of different foods. Scientist is detecting the **intensity of fluorescence** (fluorescence probe) to quantify the strength of an antioxidant to fight against free radical. Scientist uses azo-initiators to produce peroxyl free radical<sup>6</sup> by heating, which damages the fluorescent molecule, resulting in the loss of fluorescence. Antioxidant is able to protect the fluorescent molecule from the oxidative degeneration. Refer to the source of the *Journal of Medicinal Food, J Med Food* 6 (3) 2003, 249-253, scientific test shows that Mega H<sup>®</sup> is a free radical scavenger. It not only destroys hydroxyl radical<sup>7</sup> and converts it to water, but also destroy peroxyl free radical<sup>22</sup>. Hydroxyl is a free radical which is more dangerous than peroxyl free radical.

What ORAC doesn't tell?

1. Not all antioxidants under ORAC test are reducing agent.
2. Not all antioxidants under ORAC test have negative ORP. Therefore they are not involved in redox reaction that can improve our body bioelectricity.

Antioxidant Test		Mega H <sup>®</sup>	Other antioxidant
ORAC	Scavenge hydroxyl radical	Very specific	Perhaps peroxyl only
	Identification of hydroxyl free radical	Using $Fe^{2+}$ -EDTA fluorometric analysis to quantify and identify the radical is <u>hydroxyl radical</u> <sup>5</sup>	Unknown radical unless the method of fluorometric analysis is specified.
<b>rH</b>		Is a reducing agent	Not reducing agent
<b>pH</b>		Buffer slightly <u>alkaline</u> <sup>3</sup>	<u>Mostly buffer acidic</u> <sup>1</sup>
<b>ORP</b>		Minimum -500 mV	No test report

- **ORAC** shows the capability of an antioxidant to destroy oxygen free radicals.
- **rH** shows the absolute reducing power of a substance without the interference of hydrogen proton.
- **pH** shows the acidity of an aqueous solution due to the presence of hydrogen proton.
- **ORP** shows the number of electrons available in a solution.

# Duality & Relativity

Do you believe things always co-exist in opposite pairs?

**High versus Low**

**Big versus Small**

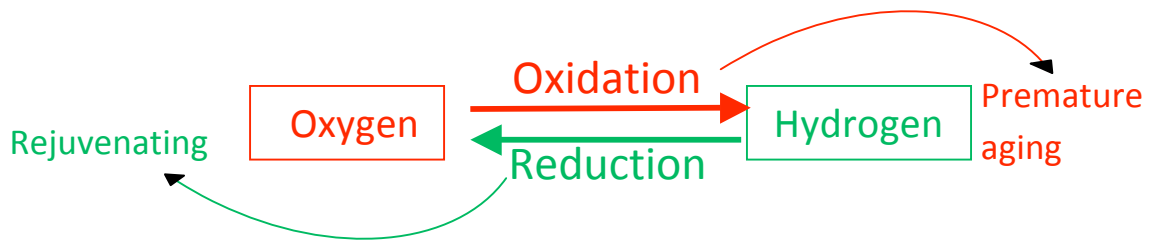
**Dark versus Bright**


*Tai Chi Martial Arts:*

**Slow versus Speed**

**Then What versus Oxygen? ... Hydrogen**

As long as you breathe in oxygen, you need to consume hydrogen

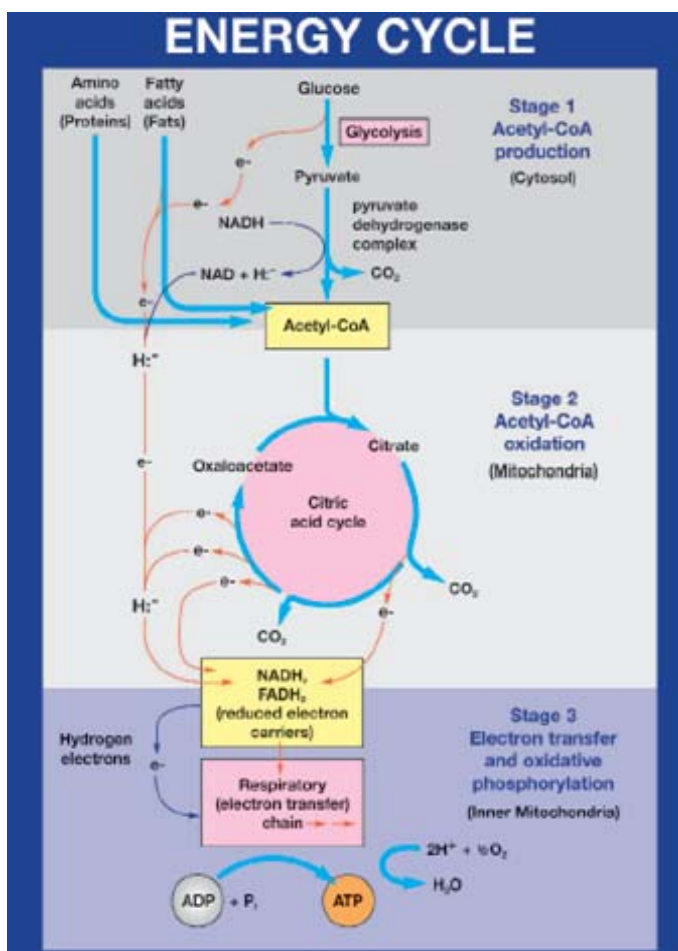


Reduction		Oxidation
Stay young		Getting old
Healthy and vitality		Sick and tired
Radiant		Wrinkle
Fair and tender skin		Freckle on skin
Detoxification		Toxemia
Increase Cellular Lifespan		Reduction
		Premature Aging

Do not forget the opposite meaning of oxidation is reduction. While Oxygen brings oxidative damage to age you, **Negative Hydrogen (H<sup>-</sup>)** carries an extra electron brings reduction to rejuvenate you. Long-term supplementing **Mega H<sup>®</sup>** together with **Crystal Energy<sup>®</sup>** treated-water, one can re-establish his Biological Terrain to a youthful, healthier level. As a result, you can enjoy a BETTER SLEEP when you have a Healthy Biological Terrain. **Negative Hydrogen** has a profound effect to increase the lifespan of a cell. It is the **LIFE FORCE** for Anti-Aging.



## Life is energy



**Life is Energy.** Energy is generated in the mitochondria of our cell. Other than spiritual and moral, the value of life is to live with endless energy. Our body's most basic system is the energy system. The energy system is also the most important system, the one that runs the body. Without it, hearts would not beat, brains would not think, legs would not move.

When the energy system is damaged, it affects all aspects of life, jeopardizing health, bringing on disease and speeding up aging. The human energy production is a complicated process. The food we eat is broken down into smaller components in the digestive tract. These smaller components are then use by the cells to produce energy.

For the cells to acquire energy, it needs ATP to convert the food we eat to energy. What cell needs is ATP. ATP is called Adenosine

TriPhosphate. ATP is the energy currency to support any cell to function its three basic biological works:

- Works chemically
- Works mechanically
- Transport (to turn on ion pump)

What is in the food that helps a cell to make its own ATP? It is hydrogen that stores in the food. How a cell makes ATP from the food we ate? Of course the priority is Negative Hydrogen. It also requires vitamin B<sub>1</sub>, B<sub>2</sub>, B<sub>3</sub>, B<sub>5</sub>, C, lipoic acid, Coenzyme Q10 (CoQ10) and minerals like zinc, magnesium, manganese, iron, potassium, phosphorus and sulfur as well.

Without adequate supplies of negative hydrogen, minerals and vitamins, our body will not be able to conserve energy in the form of ATP and without energy, there is no life. To make ATP, absorption is more important than what we ate. With negative hydrogen, it has direct influenced on our body redox reaction that initiates energy to be transferred. When we are young, our cells are loaded with abundance of energy source, negative hydrogen, to run our body efficiently.

But as we grow older, our bodies produce less and less negative hydrogen, which result in decline in energy production. **Negative Hydrogen (H<sup>-</sup>)** increases our cellular **ATP by 5 times**<sup>8</sup> (refer to Peer Reviewed Published Papers). With **H<sup>-</sup>**, it speeds up glucose metabolism by **2.5 times**<sup>8</sup> faster and helps the cell to make ATP **5 times** higher.

## Life Starts With Hydrogen

Without the sun there is no life on earth. 90% of the sun is hydrogen. The journey of our life starts with hydrogen. Hydrogen is the basis source to supply electron for oxidation-reduction to take place. This is called a redox reaction. Hydrogen makes hydrogen bond that attracts atoms together to become molecules such as carbohydrate, protein, fat or vitamin. Hydrogen burns with oxygen that makes energy and water for the body.

### THE pH EQUATION & HEALTH

It all begins with pH. Are you aware of hydrochloric acid (positive hydrogen) exists in our stomach? It determines our stomach's pH. Upon entering the duodenum to the small intestine, the game is on to control the pH of our body. Our body pH is very important because *pH controls the speed of our body's biochemical reactions*. It does this by *controlling the speed of enzyme activity as well as the speed that electricity moves through the body*. Even our digestive enzymes are regulated by the pH that measures the concentration of positive hydrogen. *The bacteria are also under control by slight pH change*. How about sugar? Sugar, when metabolised, also fills up our mitochondria with large quantities of positive hydrogen. As a result, *pH is under the direct control of what we put into our mouth*. To control pH, our body needs a lot of electrons and oxygen to convert  $H^+$  to water. The electron is supplied from Negative Hydrogen during the conversion of NADH to  $NAD^+$ . Since Negative Hydrogen increases NADH, therefore  $H^-$  is involved to counter-balance the positive hydrogen.

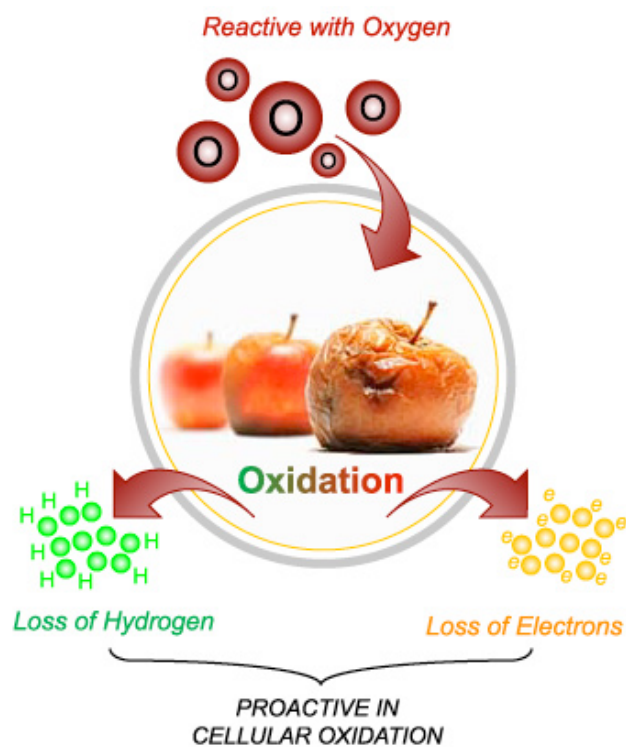
**Hippocrates said, "Let food be your medicine,  
Let medicine be your food."**

The pH balance of the body also affects potassium levels. In acidosis potassium excretion is decreased which may lead to hyperkalaemia ( $>6$  mEq/L). Go for ECG, the graph may manifest hyperkalaemia. A low pH level shifts  $K^+$  out of the cell, whereas alkalosis drives  $K^+$  into the cell. Therefore, acidosis increases the potassium concentration in the blood or serum, whereas alkalosis lowers the potassium concentration. Causes of hyperkalaemia include potassium release from damaged neuronal cells and breakdown of RBCs following intraventricular hemorrhage (IVH), trauma, and intravenous hemolysis. Hyperkalaemia may be one the earliest manifestations of congenital adrenal hyperplasia.

## Are you really made of hydrogen?

At home, you might experience any cut pieces of vegetables or fruit skins that when thrown in the soil for days and expose to sunlight, they turn rancid and sour. What is that? It is positive hydrogen ion ( $H^+$ ) that makes it sour. With this incident, it tells all living cells contain a lot of  $H^+$  ions. To control  $H^+$  ions, our body needs a lot of electrons, oxygen, sodium, potassium, calcium, magnesium, zinc, copper, manganese, bicarbonate, phosphate, chloride and water. Even when cell divides, it reverts to fermentative conditions of energy production, utilizing the H (hydrogen) pool, because oxygen is less available. In rapidly growing tissue there is no time to replenish the H pool so we can expect to find it depleted (Szent-Gyorgyi, 1972). When tested using thiourea, its colour change shows that there are reduction process taking place. This reduction process indicates the H pool contains rich amount of reducing agent. This reducing agent is negative hydrogen. Negative Hydrogen, a Pure Clean Fuel of Life Force, being ergogenic in energy production which does not contribute a single carbon, therefore it is a natural pH buffer and fluid cleanser. It extends cellular lifespan.





**Negative Hydrogen**, an element to make water. It is NOT ONLY anti: Dehydration and Oxidation, it also REVERSES OXIDATION to rejuvenate our cells in prolonging their lifespans. **Negative Hydrogen** is the **PURE CLEAN FUEL** and **Life Force** for our energy, health, and longevity!

## Aging Starts with Negative Hydrogen Depletion

We can define our age in three aspects. They are our biological age, registered official age and gene age. Ordinary people use their date of birth to know their exact registered official age. Gene age is descended from our ancestor. Therefore it can be thousand years to million years old. God only knows it. What I am more concerned here is our biological age. Biological aging is due to **dehydration** and **oxidation**. Scientists believe if we can avoid dehydration and slow down the oxidation process, then we will not age biologically.

Most people always think that **oxidation** is due to the **\*reaction with Oxygen**. Nevertheless, this is **only one-third true**. There are another **two-third neglected causes** that may result in oxidation to take place as well. They are **\*Hydrogen and Electrons Depletion**<sup>10</sup>. These neglected causes are **PRO-ACTIVE** to aging our

cells. That is because they are mainly used up to destroy **Reactive Oxygen Species (ROS)**. These **ROS free radicals** are produced through cellular metabolism. Our **Basic Life Process** is to breathe in Oxygen and to consume **Hydrogen** from the foods we eat for electrons. We need to *eat Hydrogen* for electrons to reduce Oxygen into **water** during cellular respiration. **Qi (氣)** is generated when an electron is transferred from **Hydrogen** to Oxygen during this biological process. **Energy** and **water** are the two by-products when **Hydrogen** burns with Oxygen. **Hydrogen** is a **PURE CLEAN FUEL** of **Life** while **Negative Hydrogen (H-)** serves as the **Life Force** that brings **CHANGES** to our Biological Terrain.

## Dehydration

Dehydration declines our body physiological function. Physiological functions such as digestion, circulation, immune system etc all needs adequate hydration. Modern **Lifestyle Diseases** are getting younger simply because we don't understand the important role of **Negative Hydrogen** on our health. Seldom people realize that modern lifestyle diseases originate from dehydration. Without adequate Negative Hydrogen we are prone to dehydration.

## First Aid: Hydration

Your body is just like a paddy field. Paddy grows is because of fertilizer or having proper irrigation? Obviously, the body cell is just like the paddy that it needs proper irrigation. Do you know how many glasses of water you need to drink everyday? It's simple, just divide your weight says 72kg by 8; it tells that you should drink minimum 9 glasses (249ml) of water per day. We can afford not to eat for two three weeks but can't survive without water for more than three days. This is simply because cell needs hydration every second. Brain, Heart and Kidneys are three major organs, non compromise to water. They are active and work constantly. Normally, about 20% of the total blood pumped by the heart each minute

will enter the kidneys to undergo filtration. Brain receives approximately 20% of blood circulation. These organs initially have their blood supply protected by autoregulation at the expense of decreased blood supply to non-vital organs such as the skin and muscle. Ischaemia (lack of blood supply to certain tissue) can be better tolerated in organs such as the skin or muscle as they have a low metabolic rate. This explains why we have freckle and wrinkle before aged.

Brain is active even when we sleep. Therefore it needs constant supply of energy fuel. Do you know what gives energy to the brain cell? Is it just sugar and oxygen? This is what we learned from medical team. If this is the only answer, then what is coordinating our brain? Brain receive message, read and interpret, then translates it into action through coordinating with local organ. All these sequences, from: sensual stimuli → organ → brain → organ in action, are just results of neurotransmission. Besides the use of amino acids, glucose and fat, Dr. Batmanghelidj says that the body uses water for the generation of hydroelectric energy for neurotransmission<sup>11</sup>.

### Paradigm Shift in medical science

Nutrition never teaches us that body uses water to generate hydroelectric energy for neurotransmission. According to Dr. Batmanghelidj, the energy derived from food is less than that produced by the hydroelectric energy inside cells, especially in neurotransmission. The bulk of the energy used by the human body comes from hydroelectric energy produced at the cell level.

*Excerpted page 101, "Your Body's Many Cries for Water" by Dr. Batmanghelidj, "Recently it has been discovered that the human body has the ability to generate hydroelectric energy when water, by itself, goes through the cell membrane and turns some very special energy generating pumps; very much like the hydroelectric power generation when a dam is built on a large river"*<sup>11</sup>.

### Why we are unaware of dehydration?

Please understand thirst mechanism is different from thirst sensual. Thirst mechanism is a process at an early stage but thirst sensual is the final stage. We need to understand mechanism is hard to detect unless it is developed into symptom. Most of us think that dry mouth is an accurate sign of dehydration. This is the last stage of response from thirst sensual and is a wrong assumption. Look at your urine colour, it tells exactly are you dehydrated? Armstrong et al devised a standardized colour reference chart for urine colour for use by athletes in determining whether they were well hydrated, euhydrated or hypohydrated<sup>11</sup>. They recommend that individuals should seek to produce urine that is "very pale yellow", "pale yellow" or "straw coloured" to indicate that they are well hydrated<sup>11</sup>.

The 'dry mouth' is the very last sign of dehydration. The body can suffer from dehydration even when the mouth may be fairly moist. Still worse, in the elderly, the mouth can be seen to be obviously dry and yet thirst may not be sense.

People mistakenly think that drinking fluid to replace water is the same. In actual, they are different.

Often, medical only deals with vasopressin, the antidiuretic hormone and the renin-angiotensin system to regulate our body water. In actual, the initiation of the thirst mechanisms is not triggered by vasopressin and the renin-angiotensin systems -- these systems are only involved in water conservation and forced hydration of the cells. Thirst mechanism is initiated when the cation pump is inadequately hydrated<sup>12</sup>. It is water that generates voltage gradient by adequately hydrating the pump proteins in the neurotransmission systems of the body<sup>13</sup>.

## Dehydration affects our health

### 1. Osteoporosis: Paradigm shift in medical science

Human brain uses two mechanisms for its energy requirements<sup>12</sup>: One, from metabolism of food and formation of sugar; two, from its water supply and conversion of hydroelectric energy<sup>12</sup>. When water flows through cellular membrane, it generates hydroelectric energy. Hydroelectric energy is needed for neurotransmission<sup>12</sup>. When hydroelectric energy is under-supplied, histamine is activated to release energy from other sources, such as from bondage of calcium that is in the cells<sup>12</sup>. Osteoporosis occurs when bondage of calcium breakup in exchange of energy supply to make the cation pump runs<sup>12</sup>. To avoid dehydration, we need ATP to run the cation pump. Hydration of cation pump is important to make the ion pump to generate hydroelectric energy for neurotransmission to take place<sup>13</sup>. Brain is able to coordinate with various organs is because of perfect neurotransmission. You will be dehydrated unless you increase your ATP via supplementing Negative Hydrogen, or else your health will be jeopardized.

### 2. Inadequate hydrolysis affects liver function:

No other substance in the body possess hydrolytic role except only water. Because of this, water is regarded as an essential nutrient for hydrolytic role in all aspects of body physiology i.e. water-dependent chemical reactions (hydrolysis). One of the chief chemical reactions in liver is hydrolysis. Only water performs hydrolysis. Dehydration impairs hydrolysis to take place. Water need to be in free-state to allow hydrolysis to take place.

### 3. Pain is thirst signal:

Histamine is a neurotransmitter. It has two functions: (a) energy management, (b) water deficit management or thirst management. Inflammation of joints, muscle constriction, asthma and allergies are symptoms of dehydration. When there is dehydration the body releases histamine to initiate vasopressin, anti-diuretic hormone, and renin-angiotensin to regulate water intake and ration water throughout the body. However instead of quenching that drought with water we give it antihistamines. This is the beginning of sorrow to manage our health problem.

### 4. Blood Pressure:

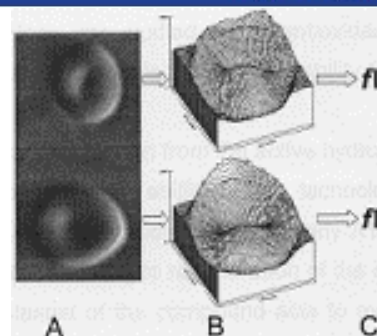
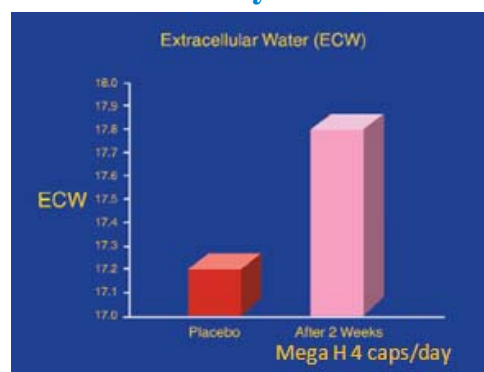
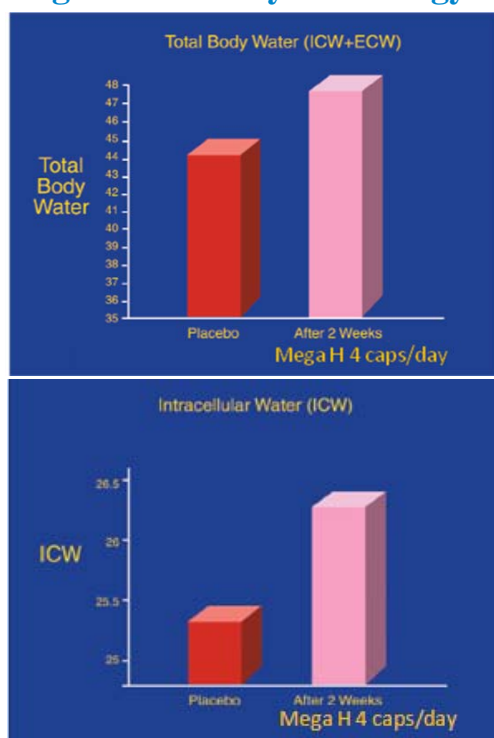
Blood pressure is maintained when there is enough water in the blood to exert hydrostatic pressure. Blood becomes concentrated when it has not enough water. The first impact of this concentrated, acidic blood is on the membranes of the arteries of the heart themselves<sup>12</sup>. Endothelial cells lining the artery wall are the nearest region next to blood. Therefore the endothelium cell might lose its water to the blood in order to maintain the blood pressure. Batmanghelidj says arteries become damaged because their water is extracted by this concentrated blood and consequently cholesterol is laid down as a bandaging system. He points out that *hypertension is one of the major indicators of dehydration* in the human body. Treatment by diuretic drug (hydrochlorothiazide) will further aggravate the damage on artery wall. This may lead to heart attacks and small or massive strokes. Hypertension will eventually cause kidney disease, brain damage and neurological disorders, such as Alzheimer's disease.

### 5. Tryptophan and Diabetes: Dehydration causes a severe depletion of brain tryptophan, a most essential amino acid in the human body. Tryptophan is the natural brain regulator for salt absorption in the body<sup>12</sup>. Salt improves glucose absorption in the intestine. Walking can improve tryptophan reserves.

## Why do we dehydrate?

Water is always self motivated. But when it is in the body, it doesn't just work like that. To hydrate a body, we need to look at three aspects that is (1) osmosis (passive transport means doesn't need ATP), (2) active transport (means need ATP) and (3) surface tension of water. Under normal circumstances, water molecules can move across membrane by means of osmosis (passive transport or does not depend on ATP). Osmosis is net movement of water molecules through a semipermeable membrane from an area of higher water potential to an area of lower water potential. This is not so when water molecules move from outside the cell to inside the cell. It requires ATP-dependent cation pump to work (called Active Transport). To move water into the cell, the ATP-dependent cation pump<sup>12</sup> have to work. To make the cation-pump to work, it needs to be hydrated first. With regard to this, one can imagine how important is the ATP-dependent cation pump that actively involved in anti-cellular dehydration. When the cation pump on the cellular membrane is not working, you are then dehydrated. To run the cation pump, ATP is needed to get the cation pump to work. ATP is manufactured in the mitochondria. Therefore some scientists believe that cellular aging is due to mitochondria suffers dehydration. With Mega H<sup>®</sup>, ATP production is increased by 5 times which will improve the cellular hydration by active transport. At another aspect, hydration also depends on the surface tension of water. Crystal Energy<sup>®</sup> helps to reduce the surface tension of water from 73 dynes/cm to 45 dynes/cm. Hence, it improves hydration.

## Mega H<sup>®</sup> and Crystal Energy<sup>®</sup>: The solution for dehydration



**Source:** Microcluster<sup>®</sup> Mineral Technology by Kimberley Purdy-Lloyd, M.S. & Bio-electronics of Microhydrin<sup>®</sup> by Dr. Patrick Flanagan

**Source:** "Wetter Water Report" by Dr. Patrick Flanagan says that Crystal Energy<sup>®</sup> increases hydration by 6 times higher.

**Source:** *Medical Applications of Active Hydrogen*

An **in vivo study** on porphyrin shows that the erythrocyte at the bottom is hydrated with an increase volume of 10.26%. The volumetric changes of erythrocytes indicate no spontaneous swelling, bulging, apoptosis or necrosis as a result of the increase volume. The capture images (A) are processed and analyzed as shown in B for volume calculation (C) in femtoliter (fL).

## What manifest dehydration?

You don't know you are dehydrated unless you always **feel tired**, **aching** and **discomfort**. When cells are dehydrated, they cannot maintain its pH balance and it becomes too acidic. Once the acidity reaches a certain level pain producing kinins are released, in order to immobilize the area so that the process of repair can begin. Thus dehydration is a major cause of pain.

*"Your Body's Many Cries for Water" by Dr. Batmanghelidj page excerpted 72:*

*"In water shortage and body drought, 66 percent is taken from the water volume normally held inside the cells; 26% is taken from the volume held outside the cells; and 8% is taken from blood volume."*

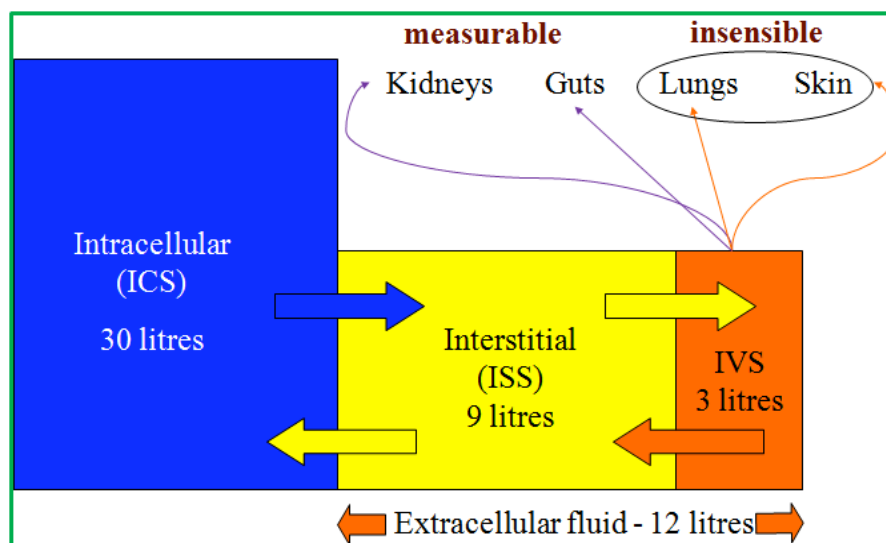
## Water rationing in the body

In a normal healthy human being, **WATER INPUT = WATER OUTPUT**. Maintaining the **CORRECT** fluid balance is an important part of treating our biological terrain.

Fluid regulation is essential to homeostasis. If water or electrolyte levels rise or fall beyond normal limits, many bodily functions fail to proceed at their normal rates. Maintaining normal pH levels is also important for normal body functioning because small changes in pH can produce major changes in metabolism.

## The Body's Fluid Spaces

Two-thirds (> 60%) of our total body mass is water. To be exact, men are 60% water, while women are slightly less at 55%. A 70 kg man will therefore contain about 42l (60% × 70 kg), and a 70 kg woman nearer 38l. The reason for this difference between the sexes is that women contain an extra 5% adipose tissue; the difference is only occasionally of clinical



significance.

Source: Dr. Paddy Gibson, Renal Unit of the Royal Infirmary of Edinburgh (RIE)

The distribution of water throughout the body is dictated partly by the size of the compartment available, but mainly by tonicity. The IVS contains approximately **5 liters** (5.3 quarts) of blood. It makes up 7 to 8 percent of a person's body weight. Blood is a mixture of two components: **cells** and **plasma**: red cells (45%) and plasma (55%). Therefore the plasma in the blood is approximately (55% × 5 liters) 2.75 to 3 liters. Since 95% of plasma is water, therefore water in the plasma or IVS is around 3l × 95% = 2.85l. The plasma is a slightly alkaline fluid, with a typical yellowish colour. The ISS contains about 9l of water. The ICS is the largest space (approximately 30l) and has potassium (K+) as its major cation.



Therefore, sodium containing fluids will not be distributed to the ICS. Water moves freely between these compartments, each with a distinct function and set of physiological principles governing its volume - the intravenous space (IVS); the interstitial space (ISS); and the intracellular space (ICS). There are about 42 pints ( $0.576 \times 42 = 24$  liters or US  $0.474 \times 24 = 20$  liters) of fluid seeps out of the blood circulation into the tissues within a day. Of the fluid that leaves the capillary, about 90 percent is returned to the blood at the capillary bed. The 10 percent that does not return becomes part of the interstitial fluid that surrounds the tissue cells. The lymphatic system has three primary functions. **First** of all, it **returns excess interstitial fluid to the blood**. The **second** function of the lymphatic system is the **absorption of fats and fat-soluble** vitamins from the digestive system and the subsequent transport of these substances to the venous circulation. The **third** and probably most well known function of the lymphatic system is **defense against invading microorganisms and disease**. On its way to the heart, it passes through lymph nodes, where infecting germs (including some cancers) are attacked by the body's defense mechanisms. It is good to have blood test to measure the amount of ASO (antistreptolysin-O) in the blood. ASO is an antibody produced to fight *streptolysin-O*, an enzyme produced by a specific type of bacteria called *Group A streptococci* ("strep"). ASO test is generally used to determine whether a person has a condition such as endocarditis, rheumatic fever, glomerulonephritis or scarlet fever related to a serious strep infection. One has to understand rheumatic fever is different from rheumatic arthritis. Even though both show the symptom of pain due to joint inflammation, but ASO test in rheumatic arthritis never rise because it is not an infectious disease. Rheumatic arthritis has higher level of C - reactive protein (CRP) in blood test. Normal levels of ASO in the blood are 120 Todd units per milliliter for adults and preschoolers, and 170 Todd units per milliliter for school-aged children. Human intravenous fluids contain crystalloids, colloids, and blood products. Crystalloid is smaller than colloid and blood products. Therefore crystalloid can easily pass through the pores on the capillary wall and penetrate our lymphatic system. A drop of Crystal Energy<sup>®</sup> contains 20 million of crystalloid silica. Therefore Crystal Energy<sup>®</sup> makes water wetter to hydrate our lymphatic system. Mega H<sup>®</sup> supplies Negative Hydrogen to clean our lymph. Hence both products improve our immune system.

## Water is the most important nutrient

# How body gains its biological water?



Approximately 90% of the body's water intake comes via the gastro-intestinal tract. The remaining 10% is called metabolic water and is produced as the result of various chemical reactions in the cells of the body's tissues.



## How body loses its biological water?

GASTRO-INTESTINAL TRACT	FAECES	6%	Measurable
LUNGS	WATER VAPOUR	13%	Insensible
SKIN	DIFFUSION & SWEAT	19%	Insensible
KIDNEYS	URINE	62%	Measurable

A newborn is closer to 80% water but in the very old, it is approximately 40% water. In other words, the young require higher maintenance fluid and as you age, you contain less water. From this data, we become water-intolerant as we age that leads to dehydration. The amount of water lost via the kidneys is under hormonal control. The average amount of water lost and consumed per day is around 2.5 liters (approx. 4<sup>1</sup>/<sub>4</sub> pints) in a healthy adult. We should urinate minimum 8 times a day. The water we lost through gastro-intestinal tract and kidneys are measurable. But water lost through lung's respiration and through skin's sweating is insensible (difficult to measure). Therefore we are prone to dehydrate if we don't drink the right kind of water.

Presently, medical team only treats water-deficit management. It's sad to say even nutritional supplement never really solve our true health problem – dehydration. Water can only be given into, or taken from the vascular space to solve our day to day dehydration. Fluid losses occur mainly from the vascular compartment. We lose water through our renal and gastrointestinal tracts, and this can be seen and measured. The water we lose from our skin and respiratory tract cannot be measured with ease, and makes up our insensible losses. These amount to 500 ml a day in health (on average), and increase in sickness, particularly when febrile. Organs such as brain, heart and kidneys never compromise when there is inadequate supply of blood (ischaemia) because their cells always function at high metabolic rate. Oxygen is needed to support metabolism. These organs initially have their blood supply protected by autoregulation at the expense of decreased blood supply to non-vital organs such as the skin and muscle. Ischaemia can be better tolerated in organs such as the skin or muscle as they have a low metabolic rate.

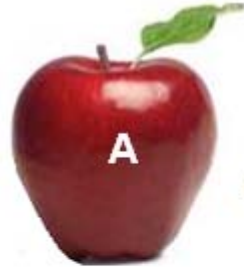


## FRESH or CLEAN!

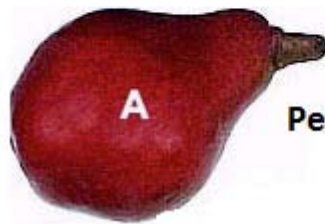
Fresh is important to avoid dehydration

Which Apple and Pears do you buy, A or B?

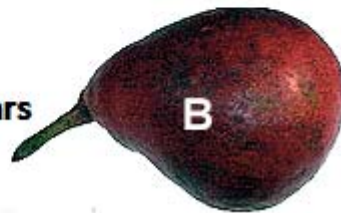
Why?



Apple



Pears



milk



strawberry



tomato



grapes



peaches



sweet bell peppers



beef



celery



lettuce

### Do You Prefer: Clean Water or Fresh Water?

There are many health food supplements over the retail counter, claiming that they have anti-aging effect properties. Would you believe that?

This is a very interesting topic because everyone of us wants to know how to stop aging. Since the reign of Emperor Shih Huang-Ti (始皇帝) during the Qing Dynasty (July 247 BCE –221 BCE) until today, many people even the scientists are still looking for ways or any food supplement that can provide us the *Elixir of Life*? Everyone of us is afraid of aging because we mutually think that diseases lead to aging. Do you believe in science? Yes, science has discovered aging is a process. While we can't stop aging but we can definitely do something to slow down the aging process.

Nowadays, most people believe that they have to exercise and consume **FRESH, RAW, and PURELY ORGANIC** foods everyday in order to stay young and healthy. They know that they have to exercise regularly as to make the body's fluids circulate throughout the day. When fluids increasingly flow through the body, this improves blood circulation, oxygen delivery, nutrients uptake, and detoxification. All of these bio-activities will help keep us young and healthy. But they forget what is more important after the exercise is the recovery. They lose water through excessive sweating. Since our

body comprises of 70% water, we need to replenish it with the *right* kind of *water*. Besides losing water during exercises, we also lose minerals through sweating, which may lead to



**Exercise is important but recovery from exercise is even more important.**

**Do you know you are dehydrated after exercising?**

**Add **Crystal Energy**<sup>®</sup> and **Mega H**<sup>®</sup> to your drinking water after exercise is **good decision** to recover your cellular energy and avoid dehydration.**

dehydration. **Dehydration** is an aging process. Sad to speak, most people drink the wrong kind of water especially soft drinks after exercises, instead of the right kind of water. People are sometimes irrational in the way they act and think. When exercising, they want **FRESH** air. When eating, they want **FRESH** veggies, **FRESH** fruits, **FRESH** meats, **FRESH** fish, etc. But when comes to drinking, they want CLEAN water only instead of **FRESH** water. They know they have to eat **FRESH, RAW,** and **PURELY ORGANIC** foods and avoid overcooked or leftover foods. But when it comes to drinking, they prefer to drink boiled water. Boiled water is oxidised water. It is dead, denatured water, and contains no bio-electrical charge.

These are quite contradictory to our belief and practices. They think of one thing but then they do another. Since our body is made out of 70% water, it is wiser to look after this valuable asset by drinking the *right* kind of *water*. We all need **FRESH** foods, **FRESH** water, and **FRESH** air every now and then to heal the body from oxidation. The main difference between a dead body and a live body is that a dead body has no bio-electrical charge. Only by consuming large quantities of **FRESH** foods, **FRESH** water, and breathing in lots of **FRESH** air, we can supply our body with plentiful of bio-electrical charges. According to Dr. Patrick Flanagan, M.D., PhD in biophysics, as far as **FRESH** is concerned, it

contains **Negative Hydrogen**. We need **Negative Hydrogen** to clean our blood and restore our biological systems to its healthy state.

### **Meter Reading & rH Calculation Cannot Be Wrong**

If you drink only ONE GLASS of Fresh Organic Orange Juice a day, you need to take 27 years to get the same amount of Negative Hydrogen in ONE CAPSULE of Mega H<sup>®</sup>. How about if I take 4 capsules a day, then how long you have to live? You have to live up to 108 years old.

### **Fresh Simply Means.....**

*Contains substantial amount of  
Negative Hydrogen*



*It is measurable by  
an ORP meter. The  
reading is negative*



*One capsule contains the **H**  
equivalent in 10 000 glasses  
of fresh orange juices*

*This simple test proves that Negative  
Hydrogen is an ACTIVE Biological  
ELEMENT. It **DIRECTLY** donates its  
electron for rejuvenating purposes.*

## How Negative Hydrogen improve our Blood Terrain?

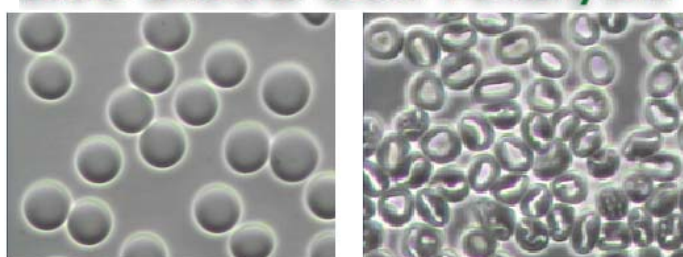
Blood Plasma! The Most Contaminated Tissue in the body, hence using a drop of blood for education purposes is very useful to understand your own health.

Looking at live blood, **we see cause and effect**. Make the blood look better, you'll feel better. Clean the blood, improve your health.

### Live Blood Analysis (LBA)

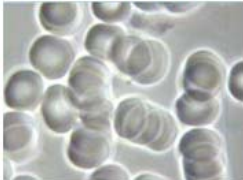
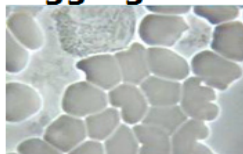
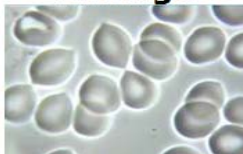
Mega H® and Crystal Energy® are two hydrating products. The two products can effectively change our osmotic flow rate. They **improve our blood zeta potential** to allow more spaces for the red blood cells to move freely so that they can carry nutrients and oxygen to every part of the body. Just taking two plus two capsules of Mega H® with two glasses of water added Crystal Energy®, then go for LBA test; you can see its wonderful effect.

## Live Blood Cell Analysis



**Healthy**

**Unhealthy**

<b>Rouleau</b>	<b>RBC Aggregation</b>	<b>Protein Linkage</b>
 <p>Poor protein metabolism and altered pH or acid imbalance, may vary the electrical negative charge of the cell membrane causing them to stick together.</p>	 <p>The loss of the negative surface charge; this is a more disorganizing symptom where plasma acids act as molecular glue, causing RBCs to stick together.</p>	 <p>Over acidity and blood pH imbalance. The diet is high in strong acids from proteins and carbohydrates.</p>

### Do you have enough negative electrical charges in the blood plasma?

If you keep feeling tired, fatigue and exhausted, perhaps you are not having either enough negative electrical charges or crystalloid in your blood plasma. Negative electrical charges affect our blood flow. Red Blood Cells (RBC) will cluster when there is not enough negative electrical charges on the membrane of RBC. Poor blood circulation due to clustering of red blood cells may lead to heart disease in the long run. Usually when a person is born in good health and homeostasis, each liter (1,000 cc or slightly more than a quart) of blood contains approximately 2/3 anions (negative charge) and 1/3 cations. However, due to the pollution of our water, the polluted air we breathe, the chemicals and preservatives in the food we eat, the excessive amounts of prescription and nonprescription drugs and medications most

people ingest, this ratio has reversed in most people to the point that most of us have about 2/3 cations and 1/3 anions in our blood. When a person is eating electron-rich food, they are building healthy red blood cells and healthy body cells. The body stays energetic and at a healthy weight. When the bowels become congested or damaged from proton-rich acidic food, red blood cell production is impaired and body cells are reverse transformed into red blood cells. It must be understood that red blood cells not only deliver oxygen and remove cellular wastes, but they are the primary foundational stem cell for creating new bone, muscle, and nerve cells, etc.

**Our blood should have two-third anion (negative charges) to one-third cations (positive charges).**

Ratio of anions to cations is 2:1. When LDL (low density lipoprotein) is oxidized, it brings cationic action that may narrow the artery wall. To avoid the oxidized LDL from plaguing the artery wall, the best way is to reduce the cationic action with the help of negative charges through intake of Mega H<sup>®</sup>. At the same time increase intake of Crystal Energy<sup>®</sup> that works like chylomicron to transport the LDL to the liver for disposal by bile acid. If your LDL is high, then check your HDL. For healthy ratio, HDL should be at least 20% of LDL. Even though how healthy is the ratio, it just indicates the amount of cholesterol in the blood. What seldom people realize normal blood test cannot tell the oxidized LDL that plagues the artery's wall. Your heart's condition is affected by that cholesterol that plagues the coronary artery wall. Perhaps a better way to know the heart's condition is:

- (a) Divide the Total Cholesterol by HDL. The cardiac risk ratio shouldn't be more than 7.
- (b) Check the reading of <sup>3</sup>apolipoprotein (apo) A-1 and apolipoprotein (apo) B in the blood. Apolipoprotein A-1 must be high while apolipoprotein B should be low. Apolipoprotein A-1 is a cholesterol scavenger while apolipoprotein B is a cholesterol donor. Individual with high apo B, low apo A1 and high D-dimer has higher risk of plaque rupture that may lead to heart attack. D-dimer is a breakdown product of blood clot. Elevated D-dimer indicates excess clotting or coagulation activity in the blood.
- (c) The C - reactive protein (CRP) shouldn't be high. Vitamin E, vitamin K together with Crystal Energy<sup>®</sup> and Mega H<sup>®</sup> can reduce CRP. CRP is produced by the liver and adipocytes. It is elevated in people with rheumatoid arthritis and chronic inflammation.
- (d) Check level of ASO (antistreptolysin-O) to reflect any *Group A streptococci* in your blood.
- (e) Check homocysteine level. Take B2, B6, folate and betaine. All these supplements can be found in product Over 30. Mega H<sup>®</sup> plus Over 30 is effective to reduce homocysteine.

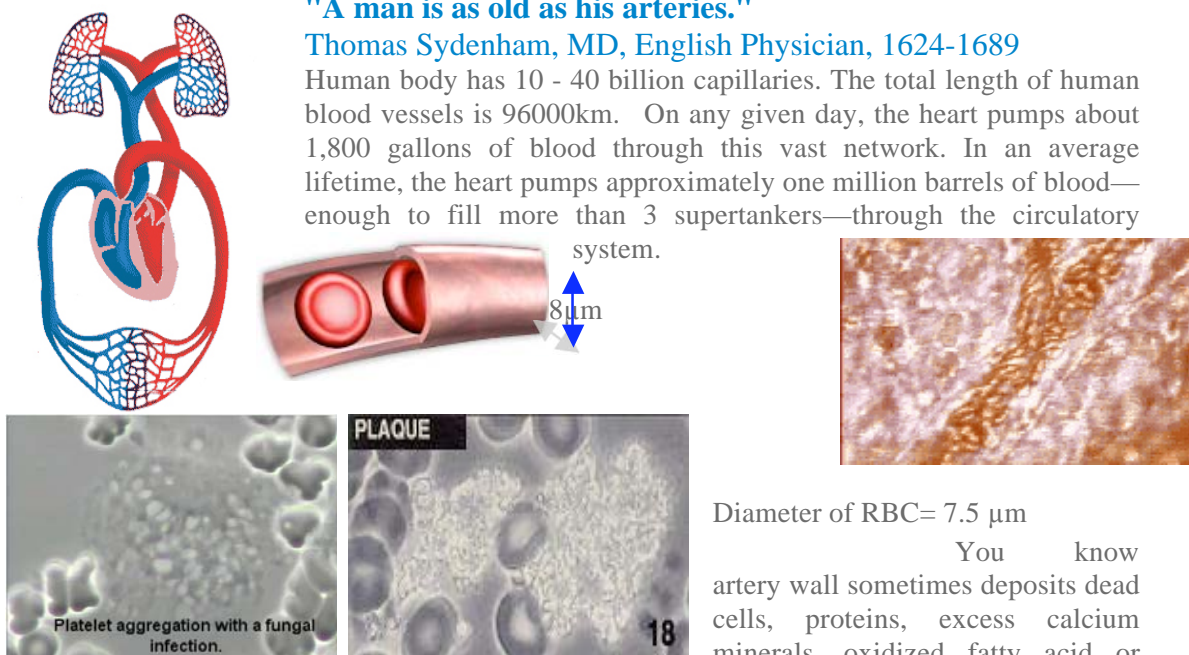


## Microcluster<sup>®</sup> silica Reduce Plaguing of Artery Wall due to Cationic Action (positive charge or lack of negative charge)

**"A man is as old as his arteries."**

**Thomas Sydenham, MD, English Physician, 1624-1689**

Human body has 10 - 40 billion capillaries. The total length of human blood vessels is 96000km. On any given day, the heart pumps about 1,800 gallons of blood through this vast network. In an average lifetime, the heart pumps approximately one million barrels of blood—enough to fill more than 3 supertankers—through the circulatory system.



Diameter of RBC= 7.5  $\mu\text{m}$

You know artery wall sometimes deposits dead cells, proteins, excess calcium minerals, oxidized fatty acid or

**oxidized** cholesterol (LDL) which plaque the artery wall that results in poor blood circulation. All these are due to one simple reason, caused by cationic action that is lack of negative charges flow in the blood. Negative charges are richly found on the surface of red blood cell. **It is the negative charges on the cell membrane pull the positive charges and hence expel the red blood cells from clustering.** In colloidal systems, all activity is a result of surface electrical charge. Negative charges reduce cationic action to take place on the artery wall. This is important to prevent narrowing of blood vessels.

Plaguing may be due to another reason that is Advanced Glycation End Products (AGE<sub>s</sub>). AGE<sub>s</sub> are substances formed in the human body by biochemical interaction between carbohydrates and proteins in a process known as the Maillard reaction. This reaction may equally or worse than free radicals damaging effect. AGE<sub>s</sub> have been implicated in many of the diseases associated with aging, including Alzheimer's, cancer and heart disease. To prevent the formation of AGE, we are advised to eat a powerful nutrient called **CARNOSINE**. Research shows that carnosine helps defend the body's proteins against the crippling effects of glycation. To my opinion, a person can spend lots of money on eating carnosine but without improving the sugar metabolism, the effort is in vain. Since proteins are present everywhere in the human body and body needs ATP, therefore is better to take Mega H<sup>®</sup> to improve sugar metabolism.

Overall, Microcluster<sup>®</sup> silica is crystalloid that carries negative charges which help to separate red blood cells. The negative charges on Microcluster<sup>®</sup> silica exert crystalloid interactions to improve osmotic flow. Microcluster<sup>®</sup> silica, the only 'Osmotic Product' in the market, has a profound effect in mediating the body fluids to flow through the lymphatic system and blood circulation system mutually at a constant exchange rate. Microcluster<sup>®</sup> silica helps maintain the body fluid at a constant ratio: intracellular fluid 60% to extracellular fluid 40%.

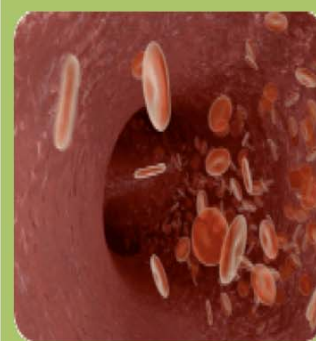
We have two flow systems in our body, namely lymphatic system and blood circulation system. If either one system has osmotic blockage, the person may face edema that leads to swollen at certain part of body (e.g. eye swollen, legs swollen etc.). The edema may lead to inflammation that manifest as pain. Taking **Crystal Energy<sup>®</sup>** and **Mega H<sup>®</sup>** may reveal whether we had any hidden obstructive fluid flow in our circulatory system. Do not panic if you experience pain after taking either product, it will subside after a few days.

### Do you have plaques on your arteries wall?

Another evident that can prove how Negative Hydrogen can rejuvenate our aging arteries is to conduct Live Blood Test. Doing **LIVE BLOOD TEST on your own** is **THE BEST TESTIMONY** to validate **YOURSELF** how Negative Hydrogen benefits you. *Letting a DROP of YOUR BLOOD talk to you is better than listening to other's testimony.* You can always make an appointment with a **TRAINED** and **QUALIFIED LIVE BLOOD OPERATOR** to carry out the test for you.

Whether you have hidden plaques or not narrowing your arterial walls, **Negative Hydrogen (H-)** always has **THE POWER** of **PRE-TELLING** your hidden-health problem. While **prevention is better than cure**, **Negative Hydrogen (H-)** is **Proactive in Prevention**. **Negative Hydrogen (H-)**, the smallest, richest, natural-reducing, active biological element, alkaline, biological antioxidant; can emulsify fatty oxidized acidic plaques thus pulling them off the artery walls. It is so effective that they electrolyze the plaques so as to reduce their size, and increase osmotic flow to clean the arterial walls. **H-** has a direct effect to reduce oxidized cholesterol to good cholesterol. Hence, people with high blood pressure are advised to take plentiful of **H-**

However, at an early stage, people with high blood pressure need to monitor their blood pressure carefully when they start consuming **Mega H<sup>®</sup>**. As a precaution, some may experience either a sudden but temporary increase or decrease in their blood pressure. On the one hand, if you find that your blood pressure is going up after taking **Mega H<sup>®</sup>**, please drink more **Crystal Energy<sup>®</sup>** treated water to help reduce your blood pressure. Perhaps you can temporary stop taking **Mega H<sup>®</sup>** for a day to two until the blood pressure is normalized and then resume. On the other hand, if you find your blood pressure is going down below the normal level, please consult your medical doctor. Under this circumstance, your doctor may advise you to reduce the dosage of the medication you are prescribing. Alternatively, taking CoQ10 together with **Mega H<sup>®</sup>** will enhance and synergise the effect of removing the plaque more effectively.



*Let Your Blood  
Talk To You!  
Doing Nutritional  
Live Blood  
Analysis  
Is the  
Best Testimony  
Of Your Own  
Rather Than Just  
Listening To  
Other's  
Testimony.  
While  
prevention is  
better than  
cure, H- is  
Proactive in  
Prevention*

## Shouldn't have any controversy over its efficacy and safety

For five years since mid 2003, without receiving any pay from Flantech Asia, I have been giving free services to conduct product training for the company staffs and members, design product demonstration, write articles on Negative Hydrogen and Microclusters<sup>®</sup> silica, answering product Q & A as well as give health talk on Negative Hydrogen and water. Lately, I have hesitated whether to make a comment on some issues raised in the internet about the silica hydride by a chemist. I doubt his sincerity. I view it as more on personal attacked, conflict of profit and not professional at all. Due to my conscience, as a long-term consumer of Dr. Patrick Flanagan's product and my whole family members are benefiting so much out of it as well, I decided to make a rebuke on his irrational comment as well.

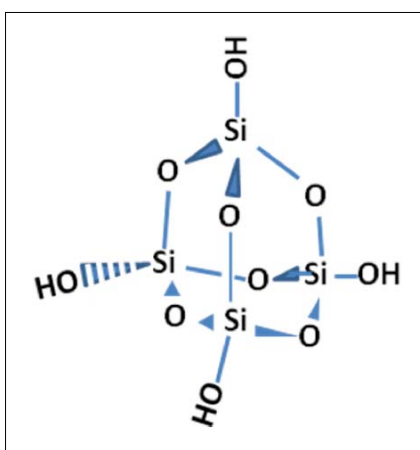
*First comment by the chemist:* I was shocked when he claimed, "A solution of *sodium cyanide* would be an even more **BIOLOGICALLY** active' water!"

The word he claimed sodium cyanide can make 'biologically', if this is so, then he should try drinking sodium cyanide added drinking water. I wish him good luck. It's ridiculous to compare sodium cyanide with silica hydride. How about if you put sodium cyanide and silica hydride into two different aquariums, which aquarium of fish will survive? Sodium cyanide will kill the fish very soon but not silica hydride. It's stupid to cite a poisonous substance to compare with an edible food, silica hydride. As a chemist, he shouldn't compare cyanide to hydride, they are different chemical entity, just like can you compare sodium chloride to sodium cyanide. We eat sodium chloride but we don't eat sodium cyanide. We cannot compare two things just because they are chemicals. To compare two substances, at least there must be a basis; they are of the same category.

*Second comment by the chemist,* "If you want a still lower surface tension, you can always *add a detergent!*"

Again, how can he code such an example when we are dealing with drinking water? If this is so, then he should lead by example using detergent to lower the surface tension of water and drink it. I wish him good luck again.

*Third comment by the chemist,* "These are called hydride ions  $H^-$ . Any release of such ions would decompose water into hydrogen gas ( $H_2$ ) and hydroxide ions ( $OH^-$ ); it would be equivalent to introducing lye into your body. Do you really want this?"



To my understanding, his comments never mention about Microclusters<sup>®</sup> Technology, he only focuses on hydride ions. How to comment a product when its gist, Microclusters<sup>®</sup> Technology, is not mention? To me the comment is partial and very bias; perhaps he should look it as a whole. In chemical reaction, there is always a competition of reactivity among substance or element with water molecule. Microclusters<sup>®</sup> silica exhibits **five distinctive properties**. **First**, Microclusters<sup>®</sup> silica has higher surface/volume area (please refer to philosophy of Microclusters<sup>®</sup> Technology for better understanding), therefore allowing more charges to locate on its surface.

**Second**, each Microcluster<sup>®</sup> (50Å) is attracted together by hydrogen bond to form a macrocluster (2µm). Negative Hydrogen was embedded in the macrocluster that was formed by many Microclusters<sup>®</sup>. Negative Hydrogen was slowly released when macrocluster is put into the water. Of course, we still see hydrogen gas evolves when 250mg of silica hydride is added in 237ml of water. This is because even neutral water

(pH = 7) also contains equal amount of  $H^+$  and  $OH^-$  ions. These  $H^+$  will recombine with  $H^-$  to form hydrogen gas. The balance of  $OH^-$  or leftover will make the water becomes a weak reversible alkaline water. When you blow carbon dioxide into the alkaline water, it turns acidic again. Through this simple test, we can show that the alkaline is weak alkaline because it is reversible. Lye is strong alkaline and called potassium hydroxide. When you add potassium into water, the reaction is violent and potassium hydroxide is formed. But, when you add silica hydride, the reaction is not violent. This shows the alkaline formed is not from potassium. Therefore it is not lye water. **Third**, Microclusters<sup>®</sup> silica has 6 times higher electronegativity (due to it has six oxygen poles presence in one monomer of silica) than a water molecule; therefore it has higher affinity to pull Negative Hydrogen towards it. **Fourth**, Microclusters<sup>®</sup> silica also has four exposed 'OH' that exhibit as water-loving-terminal group making it has the ability to pull and restructure the water molecules into three layers known as liquid crystal. **Fifth**, Microclusters<sup>®</sup> silica having both advantages: (i) molecular mass is heavier than water molecule and Negative Hydrogen (ii) water-loving or oil-loving crystalloid (amphipathic); it therefore has higher attracting electromagnetic force to pull both water molecule and Negative Hydrogen moving towards it making them very stable in its structure.

**Conclusion:** Therefore, with the above **FIVE DISTINCTIVE** properties, **ONLY** in the presence of Microclusters<sup>®</sup> silica, MOST Negative Hydrogen is deprived or delayed of its opportunity to decompose water molecule into hydrogen gas and hydroxide ion.

His comments show a reflection of how he reacts with emotion by simply coding some irrelevant examples. That's not professional to run down a scientist who had sincerely consistent in his research work for thirty years about the secret properties of Hunza Water.

*Fourth comment by the chemist, "If anyone doubts that this ultimate antioxidant is present in this product, try drinking some of it; if your esophagus dissolves, then the  $H^-$  ions are likely there, all right!"*

Simple enough,  $H^-$  is not acid radical. Only  $H^+$  is acid radical, corrosive and dissolves our esophagus. To test its present, just use copper sulfate, only  $H^-$  reduces the copper sulfate solution to copper but  $H^+$  won't. The resultant mixture, copper is seen and sulfuric acid forms when silica hydride is added. When tested by pH indicator the mixture turns red showing its byproduct is acid.

### **My own testimony**

Since 2003, my whole families are taking this product until now. Sometimes I even take 6 and occasionally take 8 capsules a day. Although I don't see my esophagus dissolves yet, but I can still see my health has improved so much. My mother, who is 82 years old now, before taking Mega  $H^-$  and Crystal Energy<sup>®</sup> always complaints fever, nearly have to take panadol everyday and couldn't sleep at night because of itchininess. Since taking Mega  $H^-$  and Crystal Energy<sup>®</sup> until today, the problem is gone. My sister who is having a serious asthma since small and has to rely on drug (ephedrine) everyday for survival, the problem also less occurs until today. For more than five years, I had seen a few thousand people benefited from this silica hydride. Some of them even recover from type 2 diabetes. Don't tell me all these are nonsense.

**Crystal Energy**<sup>®</sup> and **Mega H**<sup>®</sup> are two products for you to start your **SMART DEAL** program. They are produced by **Flanagan's Microcluster**<sup>®</sup> **Technology**. Flanagan's **Microcluster**<sup>®</sup> **Technology** is a **Trade Secret Protected Technology**. Both products have been made available in the market since 1983 and 1997 respectively. They are truly revolutionary yet high-tech products, and are not that easily replaceable. These are evident as there are no other similar or imitated products sold in the market, period.

We need **Crystal Energy**<sup>®</sup> because it hydrates, releases, and delivers the electrons that are carried by **Negative Hydrogen**, which is supplied from **Mega H**<sup>®</sup>, to the mitochondria. Long term supplementation on these two products has a tremendous effect to improve our cellular energy.

By adding two glasses of water (237 ml) each with 10 drops of **Crystal Energy**<sup>®</sup> and consuming them together with 2 capsules of **Mega H**<sup>®</sup>, they will replenish your body with plentiful of **Negative Hydrogen**. According to the ORP<sup>1</sup> measurement and conversion by the Nernst Equation<sup>2</sup>, the amount of electrons contained in 1 capsule of **Mega H**<sup>®</sup> is equivalent to **10,000** glasses of **FRESH, RAW, and PURELY ORGANIC** orange juice. You may need to consume another 2 capsules on the same day to make your body feel **FRESH, FULL OF ENERGY and VITALITY** to maintain **HIGHLY PRODUCTIVE** all day.

Do you have the habit of drinking 2.5 ~ 3.0 litres of the *right water* everyday? If not, then try adding **Crystal Energy**<sup>®</sup> to your drinking water. **Crystal Energy**<sup>®</sup> makes your drinking water very **SUPPLE** to **HYDRATE**.

<sup>1</sup>Oxidation Reduction Potential (ORP, or Redox) is a measure of a fluid system's capacity to either release or gain electrons in chemical reactions. The process of oxidation involves losing electrons while reduction involves gaining electrons.

<sup>2</sup>The Nernst equation is named after the German physical chemist Dr. Walther Hermann Nernst (1864-1941) who was the first to formulate it. He is known for his theories behind the calculation of chemical affinity as embodied in the third law of thermodynamics, for which he won the 1920 Nobel Prize in Chemistry.

### SMART DEAL TO BETTER HEALTH

Do you want health & wealth?

Do you have any Smart **DEAL** to get both?

Do you know Smart **DEAL**?

It's definitely a smart decision.

**Drink Smart**

**Eat Smart**

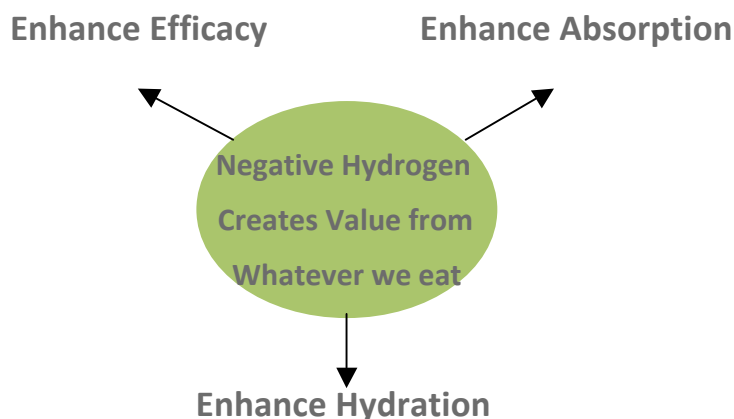
**Absorb Smart**

**Live Smart (No stress)**

Let **Microcluster**<sup>®</sup> silica be the solution for **SMART DEAL**



## Absorption is important:



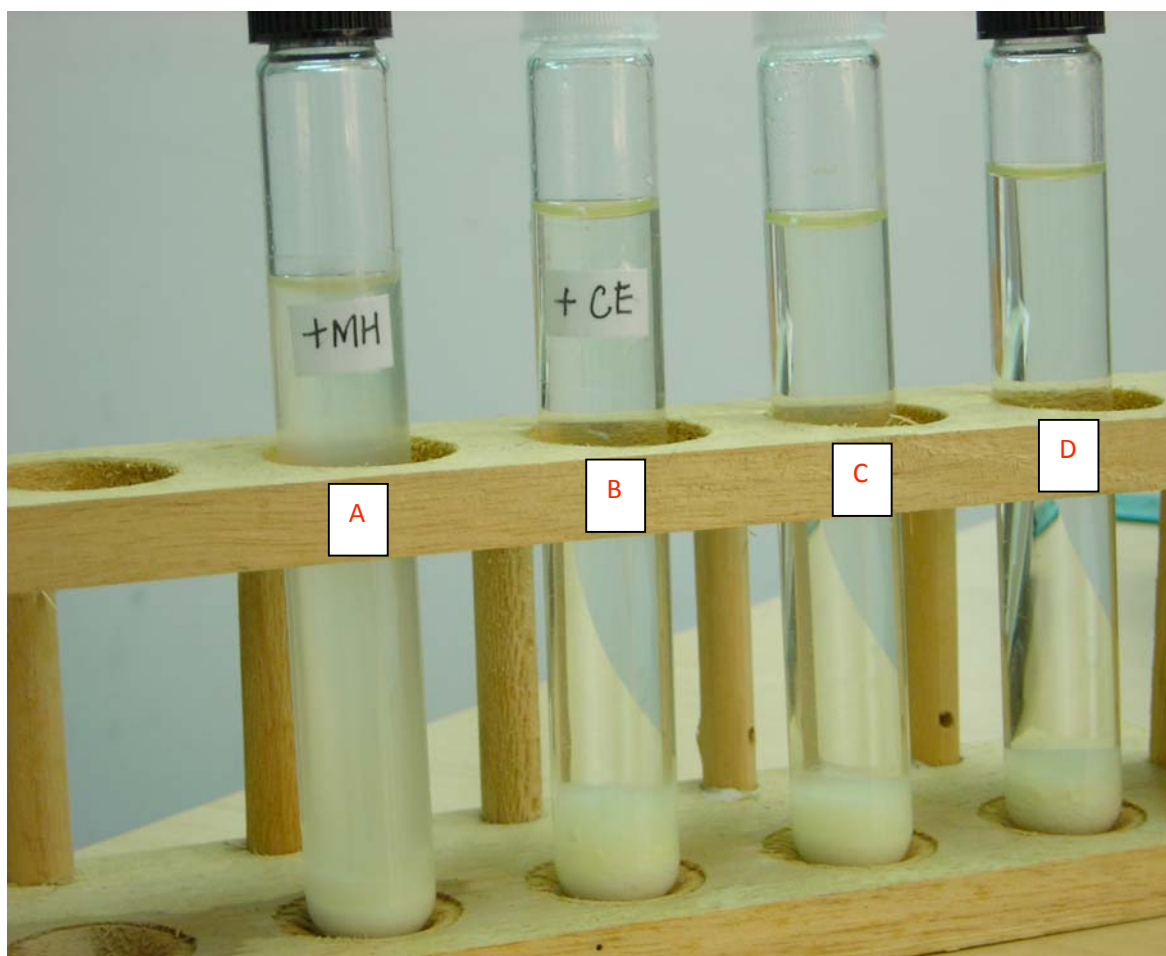
RM 0 0 0 0 0 0 → **NOT A MILLION** is just like eating a lot without absorption.  
 RM 0 0 0 0 0 1 0 → we can't absorb much when we are weak.  
 RM 0 0 0 0 1 0 0 → Normal people only absorb 30% of what they eat.  
 RM 0 0 0 1 0 0 0 → Healthier people can absorb better than normal people.  
 RM 0 0 1 0 0 0 0 → Because of good digestive system, we absorb better.  
 RM 0 1 0 0 0 0 0 → Balanced biological terrain enable us to absorb faster.  
 RM 1 0 0 0 0 0 0 → **Negative Hydrogen** is just like **1** that turns all the 'zero' to appreciate to a million, representing 100% absorption of what you eat.

Is your healthcare effort **ONLY ONE-THIRD** done?

Health Food Supplements cater we are what we eat	<b>Mega H</b> <sup>®</sup> enhances we are what we absorb	<b>Crystal Energy</b> <sup>®</sup> transports what we eat and drink
The food we eat depends on our digestive system to metabolise them before they can be assimilated. They depend on enzymes to break them down for absorption.	Negative Hydrogen is an element just like the oxygen we breathe in is an element. It is easily taken up to supply electron to generate Qi to support our biological systems.	<ul style="list-style-type: none"> <li>- delivering Negative Hydrogen to all parts of body</li> <li>- convert any drinking water to biological water as medium of nutrient transporter</li> </ul>
Cannot help to improve other health food absorption	Help to improve other health food absorption	Increase the metabolism rate and absorption rate
Cannot hydrate & rehydrate	Hydrate and rehydrate	Make water very supple to hydrate
Cannot increase oxygen uptake	Increase oxygen uptake and speed up glucose metabolism	pH buffer for better oxygen uptake
Waste product contains carbon residue	Pure clean fuel without carbon	Chelate heavy metal & detoxification
Certain nutrient only works for certain function	Restoring our biological terrain to a healthy level	Support all the body systems to function properly

**Mega H<sup>®</sup> creates value from whatever we eat. It helps to increase nutrient absorption.**

Date: 10-Apr-08 to 14-Apr-08



*Test done by Miss Ng Hooi Hooi, Business Planning Manager of Flantech Asia.*

Simple Test At Home: Proven **Mega H<sup>®</sup>** is minimizing and ionizing the calcium tablet into ionic form which helps the body to absorb at a faster rate. **Mega H<sup>®</sup>** creates value from whatever we eat.

A → One Calcium tablet + filtered water + 1/3 capsule of Mega H<sup>®</sup> powder (removed rice bran):  
The calcium is dissolved and turns to milky crystalloid. The milky remains even after 5 days showing that it is crystalloid. From this simple test, we deduce that Mega H<sup>®</sup> is able to minimize,  
supercharge and then suspend the crystalloid calcium for absorption.

B → One Calcium tablet + filtered water + 10 drops of Crystal Energy<sup>®</sup>:  
Slight milky 'cloud' is seen which is better than C.

C → One Calcium tablet + Ionic water (level 3): Very mild milky 'cloud' is seen.

D → One Calcium tablet + filtered water:  
Water remains clear showing calcium tablet is not dissolve and hard to be absorbed by the body tissue.

# Biochemistry of Mega H<sup>®</sup> & Crystal Energy<sup>®</sup> on the physiology of body fluids

1. pH buffer
2. better osmotic flow
3. lowering surface tension
4. increase oxyhemoglobin
5. lower blood sugar to healthy level
6. increase cellular energy (ATP) by 5 times
7. reduce Reactive Oxygen Species (Free Radical)
8. improve cellular membrane electric potential

## Ultimate Nutrient Transport Vehicle (UNTV)



**Crystal Energy®**: Trade Secret Protected Technology Invented in 1983.

1. **Improve osmotic flow**<sup>33</sup>
2. **Lower the surface tension of water by 35%**<sup>33</sup>
3. **Increase in nutrient absorption 2.5 times faster**<sup>33</sup>
4. **A mean increase in Total Dissolved Solids of 40%**<sup>33</sup>
5. **A mean increase in conductivity of 45%**<sup>33</sup>

- Best use for gastric emptying.
- **Crystal Energy®** is the only product in the market that when added to any drinking water, it neither changes the taste nor colour of the water. It can still maintain the entity of water that *feels* like the water we drink. This is preferable for anyone and everyone who enjoys drinking water adequately yet drinking the *right water*. Also, **Crystal Energy®** complements with whatever commercial supplements you consume.
- Of course there are many other products sold in the market, which can be added to our drinking water. However, such products can alter the water thus making it less natural to drinking water. The water also loses its natural goodness, which may stop us from using the products as hydrating products. As a result, we might need to double our daily drinking water.  
Because of the uniqueness and benefits of **Crystal Energy®**, this amazing product has a very huge market potential around the world.

The Water You Drink All Needs <b>Crystal Energy®</b>			
Ionic Water → RO Water → Purified Water → Any Drinking Water ↓ <b>Crystal Energy®</b> makes the water wetter ↓			
Transport Nutrients	pH buffer	Hydrating the body	Contains silica good for:
Increases absorption by 300% • Spirulina, • Vitamins • Minerals • Omega Oil • Bee pollen • Antioxidants • Any food	1. Gastric emptying 2. Reduce uric acid pain 3. Reduce gout attack 4. Cleansing 5. Minerals rationing 6. Acidic body needs pH buffer	1. Increase hydration by 6 times. 2. Microcluster® silica acts as crystalloid that may help to regulate our blood pressure. 3. Improve osmotic flow 4. Avoid constipation	1. Skin complexion 2. Bone formation 3. Hair growth 4. Nail growth 5. Good digestion 6. Strengthen artery 7. Heavy metal removal

## Mega H<sup>®</sup>: Distinctive Product:



- **Pure Clean Fuel of *Life-Force* to generate *Qi***
- **Natural blood cleanser, body fluid cleanser and pH buffer**
- **Improve bioelectricity for better cellular communication**
- **Powerful Biological Antioxidant, Free Radical Scavenger**
- **Rehydration, Detoxification and Improve Absorption**
- **Rejuvenating to stay young & healthy naturally**

**Silica Hydride** is the main ingredient of **Mega H<sup>®</sup>**. A sole proprietary blend developed by **Flanagan's Microcluster<sup>®</sup> Technology**. **Mega H<sup>®</sup>** is the only food supplement sold in the market, to supply us plentiful of **Negative Hydrogen**.

- > The only osmotic product in the market that can reduce our biological aging process. Taking at least 4 capsules (1 g/day) of **Mega H<sup>®</sup>** everyday with 2.5 liters of **biological water** can increase our cellular lifespan.
- > **Hydrogen** is the safest form of elemental food supplement. Its by-product is water when it reacts with oxygen. It synthesises into water, which is use for **rehydration** purpose.
- > It is the only elemental antioxidant that does not become another weaker free radical when donating an electron to a free radical. Because it is an elemental antioxidant, it has a direct impact on all types of free radicals making it the most powerful and fastest antioxidant to scavenge free radicals throughout our body. Most antioxidants are compound-based antioxidants.
- > It is ever-ready to be used without depending on our body's temperature, pH, and enzymes.
- > Nonprescription<sup>3</sup> product with minimum 1.0 g/day<sup>3</sup> (4 capsules) that has therapeutic for human consumption.
- > Buffer slightly alkaline environment<sup>3</sup> to our biological terrain.
- > Clinical studies showed silica hydride is nontoxic<sup>3</sup> and safe for consumption<sup>3,14-16</sup>.

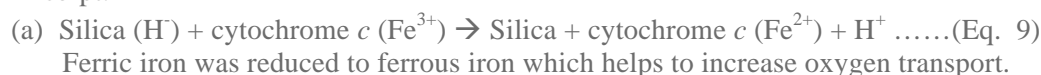
### ***Clinical report on Mega H<sup>®</sup> is a biological reducing agent***

**Free Radical Biology & Medicine, Volume 35, Number 9, 2003** (Peer Reviewed Published Papers)

**Paper Titled** – Antioxidant capacity of silica hydride: a combinational photosensitization and fluorescence detection assay

**Excerpted Content:** Silica Hydride was shown specifically to reduce Fe (III) cytochrome c to Fe (II) cytochrome c and NAD<sup>+</sup> to NADH as well as the superoxide radical. p. 1135

Excerpt:



**Discussion:** **Mega H<sup>®</sup>** reduces oxidised iron (Fe<sup>3+</sup>) to reduce form, Fe<sup>2+</sup>. It also reduces oxidised NAD<sup>+</sup> to reduce form, NADH. We conclude that **Mega H<sup>®</sup>** is a biological reducing agent. It is the ONLY biological antioxidant that has positive effect on glucose metabolism and contributes towards weight control.

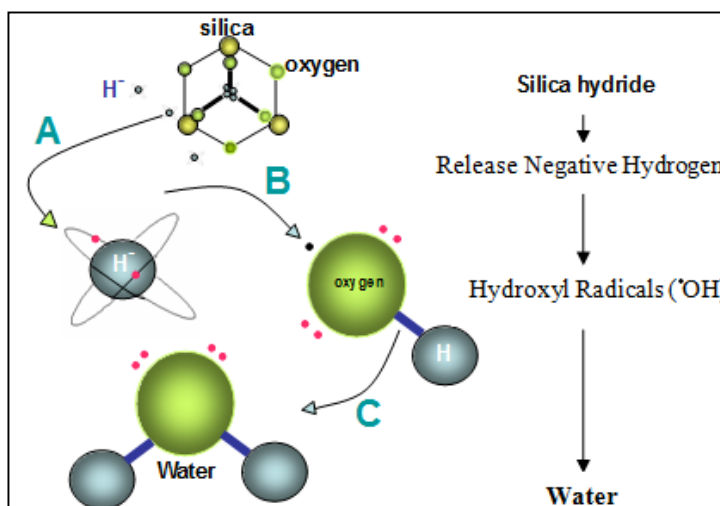
### ***Clinical report on Mega H<sup>®</sup> is a free radical scavenger***





**OH** is a free radical which was directly converted to water by Silica Hydride.

*Source:*  
 “Free Radical Biology & Medicine,  
 Vol.35, No.9, pp.1129-1137, 2003”

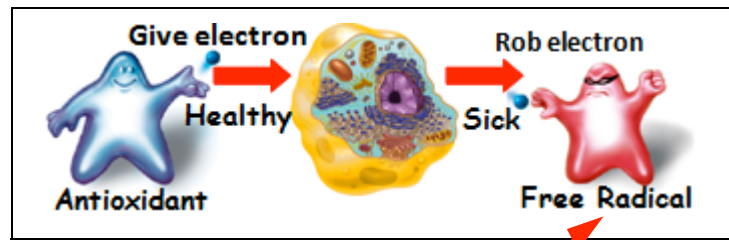


### Mega H<sup>®</sup> increases oxygen uptake and lower blood glucose level

- The reduction of lactic acid by 50% even after exercise in an *in vivo* test is an evidence to reflect there is an increase in oxygen intake by the blood and oxygen uptake by the body cell.
- Refer to Peer Reviewed Published Paper. Journal of Medicinal Food, Volume 7, Number 1, 2004
  - Paper Titled – Differential Metabolic Effects on Mitochondria by Silica Hydride Using Capillary Electrophoresis
  - Silica Hydride when added to cell culture, contribute to an increased metabolic pattern, ATP production and cellular energy. In the mitochondrial samples, the ratio of [NADH] / [NAD<sup>+</sup>] increased twofold, the **[ATP] increased fivefold**, and **glucose levels decreased by twofold**. p. 82
  - The decrease in glucose with Silica Hydride indicates cytosolic glycolysis as a presumable pathway for the increased NADH product and subsequent ATP synthesis. p. 83

Mega H <sup>®</sup>	Antioxidant
Does not depend on body pH to function	Depends on body pH to function
Does not depend on body enzyme to function	Depends on body enzyme to function
Does not depend on body temperature to function	Depends on body temperature to function
Non-carbon based antioxidant	Carbon based antioxidant
Buffer slightly alkaline	Acidify the body
<b>A Natural-reducing active element</b>	<b>Mostly compound &amp; not a reducing</b>
Free Radical Scavenger	Not a free radical scavenger
Recycle vitamin C / oxidised iron / bad cholesterol	Not compatible
<b>Remove heavy metal</b>	<b>Not compatible</b>
<b>Increase cellular lifespan</b>	<b>Impossible</b>
Transport electron	Cannot transport electron
Hydrate and rehydrate the body tissue	Not relevant
By-product is water, not becoming free radical	Becomes a weaker free radical
<b>Increase oxygen uptake</b>	<b>Cannot increase oxygen uptake</b>

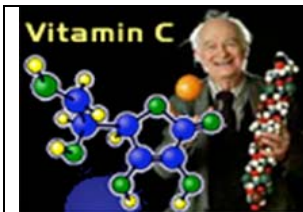
## Antioxidant means donates electron



Free Radical Scavenger destroys

What is electron?

Electron is the Reducing Potential of an Antioxidant.



Dr. Patrick Flanagan: "When vitamin C loses its electron via hydrogen, it becomes a dehydro-ascorbic acid. Dehydro-ascorbic is a weaker free radical."

# Free Radicals

## Fighting Free Radicals with Anti-Oxidants

People normally take  
Vitamin A, C, E  
as anti-oxidants to  
remove free radicals

The diagram shows a sequence of reactions. A 'Free Radical' (represented by a cluster of orange spheres) loses an electron (-electron) to become 'Vitamin A' (blue spheres). Vitamin A then loses an electron to become 'Vitamin C' (blue spheres). Vitamin C loses an electron to become 'Vitamin E' (blue spheres). Finally, Vitamin E loses an electron to become a 'New Radical created' (grey spheres). To the right, 'Mega H<sup>®</sup>' is shown with a glass of yellow liquid and a pill, with a 'x 10,000' multiplier.

### WARNING!

These antioxidants will donate their electron to the free radical and become a WEAKER FREE RADICAL itself!

## Mega H<sup>®</sup> is a Biological Reducing Agent

It is the safest antioxidant while donating an electron to a free radical that itself does not become a new free radical<sup>31</sup>. Its byproduct is hydrogen gas<sup>32</sup> and water OR become NADH.

## EFFICACY OF AN ANTIOXIDANT:

Depend on ENZYME to release its electron.

**Enzyme** is affected by our BIOLOGICAL TERRAIN. Our body temperature, pH, rH<sub>2</sub> & electrical resistivity are physiological factors of body fluids that make up our Biological Terrain. Drinking water filled with **Negative Hydrogen** and treated with **Crystal Energy**<sup>®</sup> can effectively taking care of our BIOLOGICAL TERRAIN.

## Mega H<sup>®</sup> is a Biological Antioxidant

It does not depend on enzyme to release its electron. It does not buffer acidic environment to our biological terrain making it the most effective antioxidant.

## Mega H<sup>®</sup> is a Free Radical Scavenger

## Mega H<sup>®</sup> is a reducing agent, Not All Antioxidants or Free Radical Scavenger is a reducing agent

1. Mega H<sup>®</sup> is a biological reducing agent. It **recycles the oxidised iron** (Fe III cytochrome c) to **good iron** (Fe II cytochrome c) so that it can carry more oxygen to the cell.

{Peer Reviewed Published Papers: Mega H is able to recycle the Fe (III) cytochrome c to Fe (II) cytochrome c}.

2. It reduces copper sulfate to copper and sulfuric acid. This shows that it is a reducing agent.
3. It reduces oxidized NAD<sup>+</sup> to NADH by two twofold. This reduction shows that it has tremendous effect on glucose metabolism.

## Not all antioxidants are free radical scavenger

Most antioxidants fail to release their electrons on time to a free radical. They are enzymatic dependant. That's why they are not free radical scavenger.

Mega H<sup>®</sup>, when added to water, has a **DIRECT TRANSFER** of electron from **Negative Hydrogen** (refer ORP reading) making the water to work as the most powerful free radical scavenger.

## Scientific Method to validate Mega H<sup>®</sup> is a reducing agent, a biological antioxidant and free radical scavenger.

Using combinational techniques to quantify the specificity of silica hydride to function as a true biological antioxidant cum reducing agent to destroy free radical:

1. Use Photosensitizer such as
  - (a) RBDA to produce singlet oxygen (<sup>1</sup>O<sub>2</sub>).
  - (b) Malachite Green (MG) to produce hydroxyl radical (•OH) or superoxide radicals (O<sub>2</sub>•).
2. Fluorescence probe base on
  - (a) Ethidium Homodimer-1 bound to nucleic acid that produces fluorescence at 645nm and follow by calcein (530nm) to detect esterase activity. When there is esterase activity, it shows the cell lines are still alive.
3. Photosensitizer allows to quantifying & qualifying a reducing agent such as Silica Hydride to function as an effective and efficient free radical scavenger cum biological antioxidant.

# Our Immune System Offensive and Defensive Are Equally Important

**Mega H<sup>®</sup>** is the most powerful  
Biological Antioxidant



Electrons released from 1 capsule  
EQUAL Electrons in 10,000 glasses of  
raw, fresh organic orange juice  
Ageless Living (CD) – Dr. Flanagan’s Radio Interview  
hosted by John Llyod



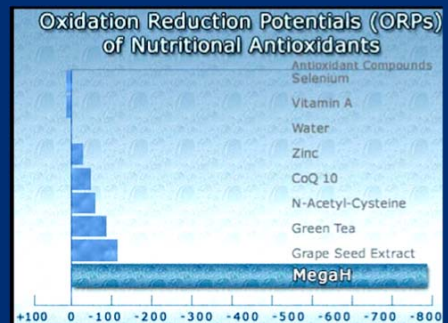
**ORP meter is use  
to measure the  
number of  
electrons in an  
aqueous solution**

### ORP Conversion Chart<sup>®</sup>

ORP	Calculation	Electrons
+400	0	1
+341	1	10
+282	2	100
+223	3	1,000
+164	4	10,000
+105	5	100,000
+46	6	1,000,000 million
-13	7	10,000,000
-72	8	100,000,000
-131	9	1,000,000,000 billion
-190	10	10,000,000,000
-249	11	100,000,000,000
-308	12	1,000,000,000,000 trillion
-367	13	10,000,000,000,000
-426	14	100,000,000,000,000
-485	15	1,000,000,000,000,000 quadrillion
-544	16	10,000,000,000,000,000
-603	17	100,000,000,000,000,000
-662	18	1,000,000,000,000,000,000 quintillion
-721	19	10,000,000,000,000,000,000

To win a football game, every player must learn to offense when he has an opportunity to attack and learn to defense when he is under attacked.

Just like a football game, **Mega H<sup>®</sup>** always ensures our immune system to work offensively before we are being attacked and defensively when we are under attacked.



## Free Radicals and Reactive Oxygen

A radical is an atom or molecule that has one or more unpaired electrons. They are formed in a variety of normal biochemical reactions. When generated in excess or not appropriately controlled, they can damage our cells.

### Oxygen Radical

Oxygen radicals are formed during ATP production in the mitochondria. There are various types of oxygen radicals which are collectively known as **Reactive Oxygen Species (ROS)**. Examples of ROS are superoxide ( $O_2^{\cdot-}$ ), peroxide ( $O_2^{\cdot-2}$ ), hydroxyl radical ( $\cdot OH$ ), hydroxyl ion ( $OH^-$ ) and singlet oxygen ( $^1O_2$ ). Of all the ROS, hydroxyl radical ( $\cdot OH$ ) is the most dangerous radical. In fact fluoride radical is worse than hydroxyl radical. ROS also produced by other means, example:

- White blood cells such as neutrophils
- Cells exposed to abnormal environments such as hypoxia or hyperoxia which can generate ROS
- Ionizing radiation

### Natural Free Radical Scavenger in our body

- a. Superoxide Dismutase (SOD) – converts two superoxides into hydrogen peroxide and oxygen
- b. Glutathione Peroxidase – contains selenium, degrades hydrogen peroxide and reduces organic peroxides to alcohols.
- c. Glutathione-S-Transferase (GST)
- d. Catalase – 1<sup>st</sup> discovered enzyme found in peroxisome. It degrades hydrogen peroxide to water and oxygen.
- e. Lactoferrin
- f. Ceruloplasmin
- g. Albumin
- h. Hemoxygenase
- i. Iron
- j. Bilirubin

## Mitochondria

All human cells have mitochondria except red blood cells which don't have a nucleus either. Mitochondrion is also known as Power House of the Cell. It is one of the most vital organelle of a cell. Do you know how many mitochondria are found inside a cell? Liver cell has 7500 mitochondria. Cardiac cell has 5000 mitochondria. On average each cell has nearly 2500 mitochondria.

How about to draw a cell?

You are actually just drawing mitochondria.

Without mitochondria, we have no energy. Many diseases are related to mitochondria defection.



## Are you a female?

I bet you if you realize how genetic disease is inherited to your next-of-kin, you won't hesitate to stop taking Mega H<sup>®</sup>? If you are female, you are advised to start eating Negative Hydrogen as soon as possible.

### Negative Hydrogen is the ever-ready life-saver of mitochondria

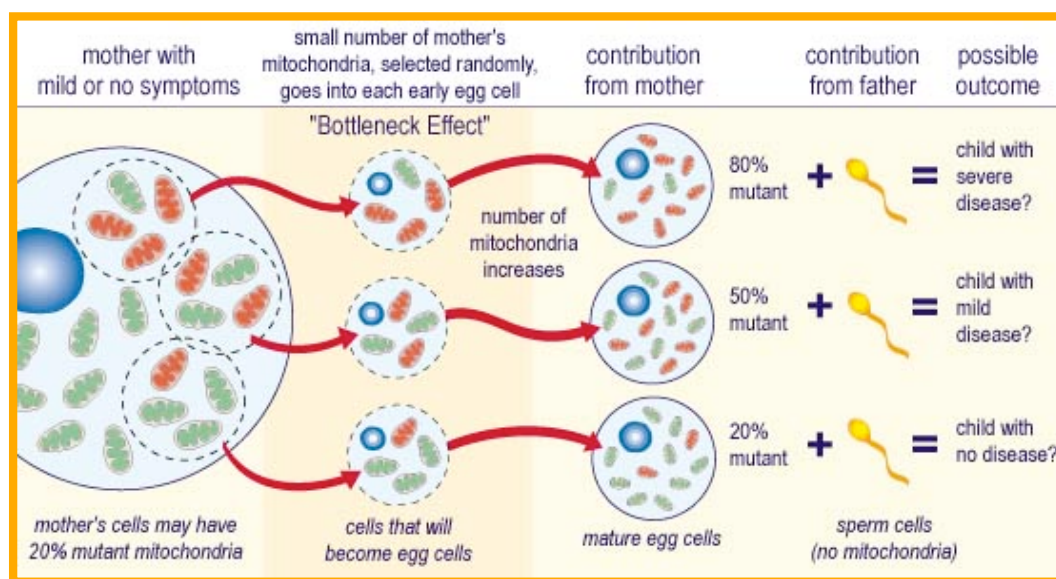
We have two types of DNA. They are nucleus DNA and mitochondrial DNA.

#### Nucleus DNA has its own ability to self repair

Our nucleus DNA is inherited from our parents. The nucleus DNA is passed down 50% from our mother and 50% from our father. The nucleus DNA has its own ability to self repair when damaged by free radical.

#### Mitochondrial DNA has no ability to self repair

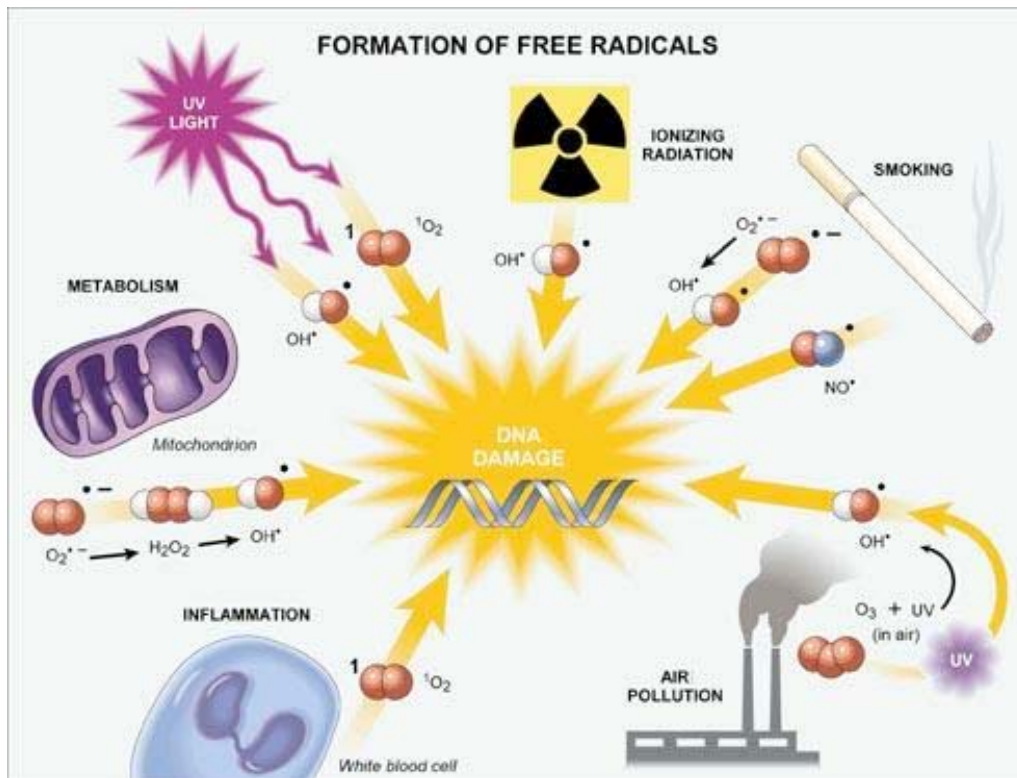
Mitochondria are normally inherited exclusively from our mother. Mitochondrial DNA is inherited 100% from our mother. This is because mitochondrial DNA in sperm is destroyed during fertilization. Mitochondrial DNA has no ability to self repair. Once damaged, it is permanently damaged. These mutated mitochondria will be inherited to the next-of-kin. Hence, if you are a female, the priority is to protect your mitochondrial DNA when you are young. Your children's health is at your hand. Picture shows mitochondria in red colour represent mutated DNA while blue is healthy DNA. During fertilization, if red is more than blue, the child is born with disease.



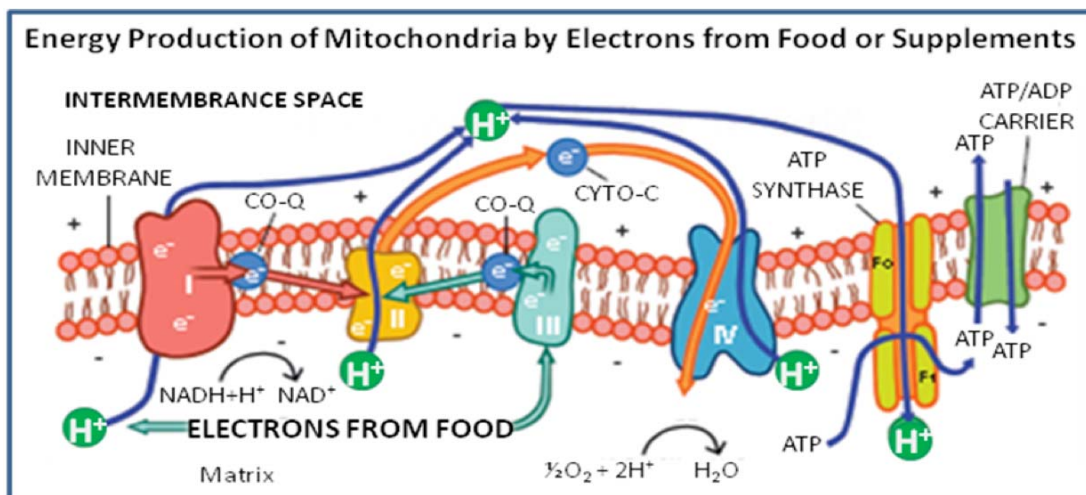
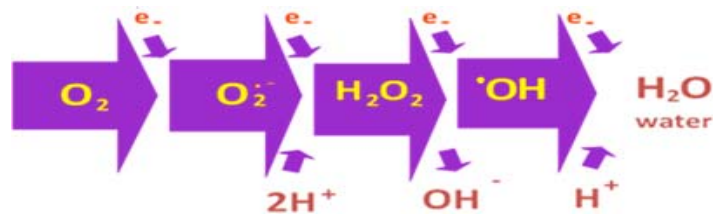
## Mega H<sup>®</sup> protects mitochondria from oxidative damage

85% of the oxygen we intake from breathing is uptake in the mitochondria. 2% ~ 3% of this oxygen may leak from the Electron Transport Chain and turn into **Reactive Oxygen Species** (ROS are oxygen free radicals). ROS can destroy the mitochondria's DNA. Therefore **we need to protect the mitochondria because we need them to metabolise all the glucose we consumed**. Without healthy and enough mitochondria, glucose find no place to metabolise properly. Mega H<sup>®</sup> is a biological free radical scavenger. Mega H<sup>®</sup> contains magnesium protects the mitochondria effectively.


## Mitochondria are damaged by endogenous hydroxyl radical.







Picture shows how 2% ~ 3% of oxygen in the mitochondria runs wild and becomes highly dangerous reactive oxygen radical, hydroxyl ( $\bullet OH$ ). This reactive oxygen species such as  $\bullet OH$  may mutate our mitochondrial DNA.



## Understanding the Label written on the Bottle of Crystal Energy®

<b>CRYSTAL ENERGY® IS CLINICALLY TESTED AND PHYSICIAN APPROVED</b>		
<b>The Secret of Longevity</b>		
<p><u>Recommended Dosage:</u> 10 drops per 8 fl oz/237 ml → written on the label</p>	<ul style="list-style-type: none"> <li>• Meaning add 10 drops to a glass of water (237ml)</li> <li>• Or add 40 drops to 1 litre of water</li> <li>• Or add 60 drops to 1.5 litre of water</li> </ul>	<p>Contains:</p> <ol style="list-style-type: none"> <li>1. Flanagan Proprietary Silica, an analog of Hunza colloidal silica.</li> <li>2. More than 80 types of minerals.</li> <li>3. Minerals and silica are from natural sources and then processed by the 33 steps of Flanagan Microcluster® Technology to synthesise it as Microcluster® silica.</li> </ol>
<p><u>Supplement Facts</u></p> <p>1) Serving Size 10 drops → (0.01 fl oz/0.3ml) written on the label</p> <p>2) 1 oz (ounce) creates 240000 square feet of surface. → (refer R&amp;D Published Studies)</p> <p>3) <b>Healing Crisis</b> → why feeling thirsty?</p> <p>4) Crystal Energy® contains 4 fl oz/120ml.</p> <p style="background-color: yellow;">*fl oz* means fluid ounce</p>	<ol style="list-style-type: none"> <li>1. Meaning each time use 10 drops is equal to 0.01 fl oz or 0.3 ml.</li> <li>2. Therefore 0.01 oz equals to 2400 sq ft of surface.</li> <li>3. Since drinking a glass of water can create an enormous surface of 2400 sq ft in the body fluids, moreover, with 8 total glasses a day, one can imagine we need a lot of water, or else we will feel thirsty.                     <ul style="list-style-type: none"> <li>➢ Therefore 4 × 240 000 sq ft surface can be created.</li> <li>➢ Microclusters® are so small, 5 nm, that 2.4 million of them can be placed side by side on the head of a pin or 1600 of them can be placed on a red blood cell.</li> </ul> </li> <li>5. can use 406 times with each time 10 drops only.</li> <li>6. Contains 20 million Microcluster® Silica that has colloidal action on body fluid.</li> <li>7. 200 million Microcluster® Silica                     <ol style="list-style-type: none"> <li>a. Improve osmotic flow which may temporary regularise your blood pressure.</li> <li>b. pH buffer</li> <li>c. Increase Hydration 6 times higher</li> <li>d. Suspending nutrients for transport</li> </ol> </li> <li>9. can use 406 times. If one day use 8 times, then <math>406 \div 8</math> equals 51 times or one month 20 days.</li> </ol>	<div style="text-align: center;">  <p>Makes Wetter Water 4 fl oz/120 ml</p> </div> <ol style="list-style-type: none"> <li>i. Improve Hydration</li> <li>ii. Heavy Metal Detoxification</li> <li>iii. pH Adjustment (pH buffer)</li> <li>iv. Increase nutrient absorption</li> </ol> <p style="text-align: center;">Microcluster® Technology is a Trade Secret Protected Technology</p>
<p>5) Serving per container 406 →</p> <p>6) One drop of Crystal Energy®</p> <p>7) 10 drops in a glass of water</p> <p>8) Effects from 200 million Microcluster® silica on body fluids →</p> <p>9) Serving per container 406 →</p>	<p style="text-align: center;"><b>The Philosophy of Microcluster® Technology is based on</b></p> <p style="text-align: center;"><i>Speed ♣ Size ♣ Number</i></p> <p style="text-align: center;"><i>♣ Osmotic Flow ♣ lower Surface Tension as Functional Approach utilizing Negative Hydrogen &amp; Microcluster® Silica to complement absorption of whatever you eat or drink through</i></p> <ol style="list-style-type: none"> <li>1. Transporting the nutrients.</li> <li>2. Suspending the nutrients.</li> <li>3. Use Negative Hydrogen to improve metabolism</li> <li>4. Increase Body Fluid Zeta Potential</li> </ol>	

**History of Dr. Patrick Flanagan:** please refer to the CD on “What If”

At Age of 11	At Age of 14	At Age of 17	Achievement
 <p data-bbox="236 613 466 853">At the age of 11 invented a missile detector which could track &amp; record missile launches worldwide</p>	 <p data-bbox="491 613 719 712">At the age of 14 invented a Neurophone</p>	 <p data-bbox="743 562 1058 958">At the age of 17, work as a 'Think Tank' for U.S. Defense &amp; NASA Department. He was recognized by the Life Magazine as one of the one hundred most important men and women in the United States</p>	 <ul style="list-style-type: none"> <li data-bbox="1078 562 1326 667">- Discover &amp; Owner of of of of thethe Flanagan</li> <li data-bbox="1078 678 1246 752">Microcluster® Technology</li> <li data-bbox="1078 763 1305 837">- A NNobel PPPrize Nominee</li> <li data-bbox="1078 848 1334 922">-1997 Scientist of the Year</li> <li data-bbox="1078 934 1294 999">- A Contemporary Scientist</li> </ul>

Microcluster® Technology was forwarded to the **Nobel Prize Committee in 1994** (*United Nation Resolution Number 35/55/5/XII/80*)

**Are there any side effects or interactions?**

As for safety and efficacy, we can discuss it in five aspects:

1. Since silica hydride dissolute into silica and hydride ions in water, therefore we deal only silica and hydride ions separately about its safety and efficacy.
2. Does not react violently with water
3. History of consumption
4. Five toxicity test run by independent laboratory.
5. Byproduct of silica hydride.

1. According to Peer Reviewed Published Papers, silica hydride breaks up into silica and hydride ions in water; therefore we deal only the pharmacologic effect of each particle that participates in body’s biochemical process. *According to the book titled, “Molecular Basis of Medical Cell Biology” by Gerald M. Fuller and Dennis Shields on page 97, EXCERPTED: “NAD<sup>+</sup> plays a pivotal role in metabolism; the reduced molecule (i.e. NADH) is formed when a hydride ion (a hydrogen nucleus plus two electrons) are taken up by NAD”.* In view of this, it is clear that we need a lot of hydride ions for energy production. Negative Hydrogen is actively use up by the mitochondria to produce energy. On average each cell contains about 2500 mitochondria, which means that over one quadrillion mitochondria exist in the adult human body – more than three times the number of adult human cells and twice the number of microorganisms found in the gut. With regard to this, everyone needs a lot of Negative Hydrogen.



As for silica, it is beneficial to the body as in table below.

<p><b>Microcluster<sup>®</sup> silica</b></p> <ol style="list-style-type: none"> <li>1. Strengthening artery wall. 90% of artery wall are made of silica.</li> <li>2. Prevent Coronary Artery/Vein Thrombosis.</li> <li>3. As connective tissue to strengthen and support joint, ligaments and muscle</li> <li>4. Promotes healthier hair and nail growth.</li> <li>5. Chelates heavy metals</li> <li>6. Improves digestion</li> <li>7. Beneficial for people suffering gastric problem.</li> <li>8. Avoid constipation</li> </ol>	<div style="text-align: center;"> <p><b>Uses of silica</b></p> </div>
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**References: Silica Research: [Link to scientific research on silica mineral](#)**

- <http://eidon.com/science.htm>
- Lemmo, E.Q. 1998 Silica. Keats Publishing
- Kaufmann, I 1992 *Silica: The Amazing Gel*. Canada: Alive Books
- Carlisle, E.M. 1986.** *Silicon as an essential element in Animal Nutrition*. John Wiley and Sons, Inc.
- The Chemistry of Silica.** by Ralph K. Iler. John Wiley and Sons, Inc., June 1979
- Bergna, H.E. 1994. *The Colloidal Chemistry of Silica*. American Chemical Society
- <http://eidon.com/silicaresearch.htm>
- Osteoporosis and Bone Health:**
- Carlisle EM.** Silicon as a trace nutrient. *Sci Total Environ.* 1988 Jul 1;73(1-2):95-106.
- Carlisle EM.** Silicon as an essential trace element in animal nutrition. *Ciba Found Symp.* 1986;121:123-39.
- Silica's protective role in Aluminum toxicity and Alzheimer's disease**
- Carlisle EM, Curran MJ.** Effect of dietary silicon and aluminum on silicon and aluminum levels in rat brain. *Alzheimer Dis Assoc Disord.* 1987;1(2):83-9.



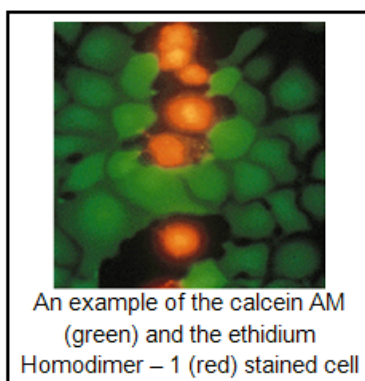
## 2. Does not react violently with water

When silica hydride is put into a glass of water, it doesn't react violently with water showing that it is safe to be eaten. The compound readily breaks up into silica and hydride ions when water is added. Even though silica hydride is a compound but it doesn't behave like a compound simply because [it doesn't need electricity to break it up](#). Sodium chloride also breaks up into ions in water without electricity supply because it is an ionic compound. Silica hydride breaks up in water is not because it is an ionic compound like sodium chloride. The hydride easily release from silica hydride because it is embedded in the compound. In actual, the compound dissociates into two particles that is colloidal silica and hydride anion. That's why Dr. Patrick described the hydride was 'embedded' in the silica bucky ball and because of this it is name colloidal mineral compound. Even though sodium chloride and silica hydride break up in water, but there is a vast difference between ionic compound and colloidal mineral compound. One can evidence it by ORP reading. Silica hydride in water shows there is an [abrupt change](#) of ORP reading while [the change](#) in sodium chloride solution is [NOT obvious](#) at all.

## 3. History of consumption

Do not forget Crystal Energy has been on sales since 1983. The sales have been more than 25 years and so far there is not a single report of its adverse side effect. As for the Negative Hydrogen, it has been scientifically accepted by the medical world. Mega H, supplying Negative Hydrogen, also has been on sales since 1997. Its function as nutritional antioxidant is also more than 10 years of history. Based on all these factors, one shouldn't have any doubt about its efficacy and safety.

## 4. Five Different Toxicity Test run by independent laboratory on Mega H®



Test # 1: Time-dependant cellular viability

Test # 2: Spontaneous Apoptosis or Necrosis (Concentration- dependant cellular viability)

Test # 3: Oral LD<sub>50</sub>

Test# 4: Laser induced fluorescence electrophoretic analysis of cellular organelles

Test# 5: Enzymatic molecular probe Cytotoxicity analysis

[Please refer to the Journal: “The Science Behind Mega H®”](#)

## 5. Byproduct of silica hydride.

According to the research paper, running title: “Active Hydrogen Supplementation and Hydration”, on page 23: When Negative Hydrogen loses its electron, it becomes either a neutral hydrogen or it is used to neutralize ROS to become water or the Negative Hydrogen is readily picked up by NAD<sup>+</sup> to become NADH. That means the byproducts of Negative Hydrogen in the body is either hydrogen gas<sup>32</sup>, H<sub>2</sub>O or NADH, and they are non-toxic to the body as well.

## **SILICA HYDRIDE IS TESTED BY ADVANCED & SCIENTIFIC TECHNOLOGIES**

1. H -NMR (Hydrogen Nuclear Magnetic Resonance) indicates repeating structure of Si-O groups.
2. Si-NMR confirms the general structure of silsesquioxane.
3. TEM (Transmission Electron Microscopy) shows the 50 Å (5nm) spherical unit as colloidal silica.
4. SEM (Scanning Electron Microscopy) shows aggregate clusters of H-bond (2µm to 50 Å)
5. Both TEM and SEM support the hypothesis of a cage system that means trap nutrients and ionic minerals as nutrient vehicle.
6. Ion Beam Analysis (IBA) together with Rutherford Backscattering Spectroscopy (RBS) and Forward Recoil Spectrometry (FReS), using Helium Beam, to shows the powder Microcluster<sup>®</sup> silica contains Si & O while FReS shows the contents of H (78.1%), O (15.6%) and Si (6.2%).
7. FTIR (Fourier Transform Infra Red) DRIFTS shows silsesquioxane monomer terminating with hydroxyl functional group.
8. ESR, Electron Spin Resonance is use to measure free radical and identify hydroxyl radical.

# **The Philosophy of Flanagan Microcluster® Technology**

# The Philosophy of Flanagan Microcluster® Technology

“TO DELIVER & ENHANCE NUTRIENT ABSORPTION”

BASE ON

*Speed ♣ Size ♣ Number ♣ Osmotic Flow ♣ Lower Surface Tension*

Using Negative Hydrogen & Microcluster® Silica

*As Functional Approach to improve body bioelectricity & hydration, increase body fluid zeta potential to complement absorption of whatever we eat and drink through*

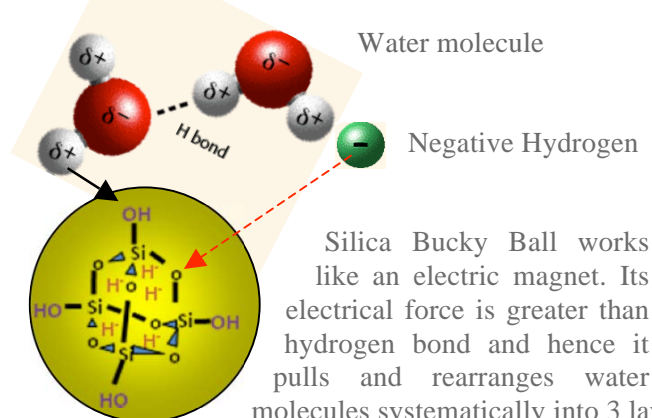
1. Transporting the nutrients.
2. Suspending the nutrients.
3. Use Negative Hydrogen to improve metabolism.
4. Increase Body Fluid Zeta Potential

When a drop of Crystal Energy® is added to any drinking water; there is 20 million of Microcluster® Silica added as well. Many water molecules around the organic silica are rearranged, restructured into 3 layers to encompass the organic silica. The electrical charges on the surface of Microcluster® Silica change the energy state of water and hence lower the surface tension of water. When water has low surface tension, it is easier to wet the nutrient to facilitate for easier absorption.

Once Crystal Energy® was consumed, many Microcluster® silica travel along body fluid which bring about crystalloid interactions that result in better osmotic flow. The silica spheres are extremely fine and form a "bucky ball" that expands and contracts<sup>18</sup> based on the pH of the surrounding fluid. The spheres act like little breathing clusters of silica that trap heavy metals and pull

them out of the body safely. It expands and contracts in size base on pH of surrounding fluids which results in balancing our body pH.

Biochemistry of Crystal Energy® in a glass of water



These three layers trap nutrients which are then transported for use. Picture above shows three layers of water being structured around Microcluster® silica that finally works as an Ultimate Nutrient Transport Vehicle (UNTV).



Water molecule is a bipolar molecule. Due to its polarity, it forms hydrogen bond that ended up many water molecules gather together to form into big cluster (macrocluster) of water molecules. That's the present market are hotly debated about changing big cluster to small cluster of water molecules. But I bet you there is nothing to do with small cluster of water; it is the lower surface tension of water that matters to hydrate us. There are [SEVEN vast differences](#) between small clusters of water molecules when compare to **Crystal Energy<sup>®</sup>** treated water (refer Table 1). Microcluster<sup>®</sup> silica works like an electric magnet and its molecular weight is heavier than water molecule and Negative Hydrogen, therefore it attracts water and Negative Hydrogen moving towards it. **But when Crystal Energy<sup>®</sup> is added**, the macrocluster water was restructured and its surface tension was lowered from 73 dynes/cm to 45 dynes/cm<sup>17</sup> in the presence of spherical silica colloid.

Small cluster of water molecule	Crystal Energy <sup>®</sup> treated water
1. Surface tension not lowered	Surface tension is lowered from 73 dynes/cm to 45 dynes/cm
2. Water molecules not well organised	Water molecules are well organised into 3 layers around the silica in spherical shape
3. Small cluster is not stable	The structured water molecule is stable
4. Not a catalyst	A catalyst
5. Limited minerals	Rich in minerals
6. No Microcluster <sup>®</sup> silica colloid	Contains Microcluster <sup>®</sup> silica crystalloid that improves osmotic flow
7. Not nutrient transporter	Nutrient Transporter

Table 1

### How **Crystal Energy<sup>®</sup>** lowers the surface tension of water?

Electrical charges found on the surface of silica are stronger than the charge on the hydrogen bond. Because of this, it attracts the water molecules and then restructures them into three layers. The water molecules in the 3 lattices are well-organised making them to look more concentrated to be delivered to the body cell. Spaces were created in the silica-water interface. Millions and millions of ionic minerals, Negative Hydrogen and activated nutrient were trapped in these spaces. The resultant whole structure **we term it as silica 'bucky ball'**, a vehicle to transport nutrient. What interest me is this bucky ball is very stable, smooth and slippery until it doesn't scratch our artery wall while it is travelling. The nutrients trapped inside are well protected to be **delivered straight into our lymphatic system**<sup>22</sup>. One of the functions of the lymphatic system is to **defense against invading microorganisms and disease**. That's why silica bucky ball works well to improve our immune system.

### The 21<sup>st</sup> Century in Nutritional Breakthrough

The way we think based on our past knowledge about nutrition may **NOT** be **RIGHT** when comes to Microcluster<sup>®</sup> Technology. In the nutritional world, we are being taught at 'You Are What You Eat'. In food industry, we are taught of the special technology being engaged in food processing. The two applied concepts are so impressive to supersede the way we think until their products are sellable. We are taught to learn the importance of food supplements but never taught to learn why absorption is equivalent important. Much effort on marketing and advertisement only promote the **negative concept on nutrient deficiency** related to health problem with little knowledge to educate us about absorption is equivalent important. That's why conventional Chinese 'Sin Se' always advocates **we can't absorb when we are weak**. Never treat yourself to **YOU ARE WHAT YOU THINK** when comes to Microcluster<sup>®</sup> Technology. With Microcluster<sup>®</sup> Technology, besides getting Negative Hydrogen, organic silica and other minerals, Microcluster<sup>®</sup> silica also guarantees the money you spend on other health food supplement for 100% absorption. Through Crystal Energy<sup>®</sup>, you are actually spending to employ the Microcluster<sup>®</sup> silica as nutrient transporter to increase absorption from whatever you eat.



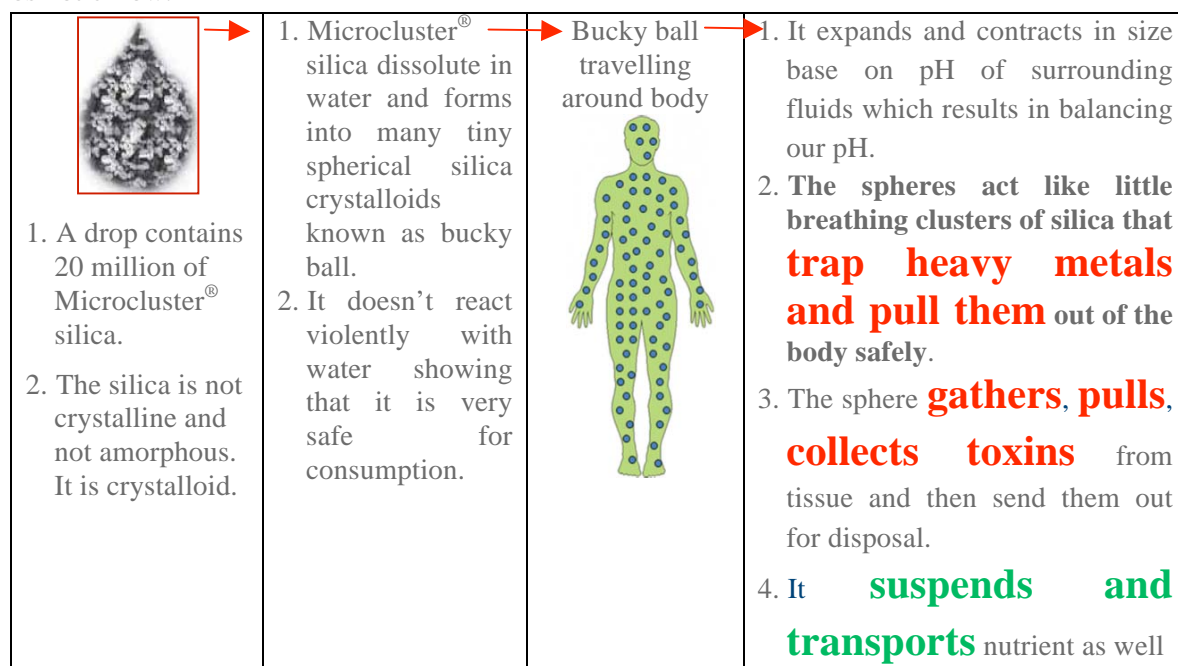
### Employing the Flanagan Microcluster® Silica to manage our nutrient absorption

When we use Crystal Energy® and Mega H® to **supercharge, minimize and activate the nutrients** (<http://phisciences.com/hydration.html>) in any nutritious drink, the bucky ball **pulls, attracts, collects, gathers and traps** the activated nutrients in the clathrates of silica-water interfaces.

This bucky ball virtually energizes the nutrients and suspends them for transport. It acts as crystalloid to increase osmotic flow and at the same time delivers the nutrients to the right tissue for immediate absorption.

#### How Microcluster® silica works to improve nutrient absorption?

Microcluster® silica, based on surface / volume area ratio, is using its enormous surface as background to move negative charges around the body and hence **improve osmotic flow**. **The negative charges help to suspend nutrients and at the same time prevent red blood cells from clustering**. Silica Microcluster®, an <sup>18</sup>**amphipathic** crystalloid (crystalloid is a type of colloid), works like chylomicron, consist of elements that maintain the smallest possible size range of **colloid** while still remaining molecules (referred to The Wetter Water Report by Dr. Patrick Flanagan), is the best vehicle to transport nutrient throughout the body through increase osmotic flow.



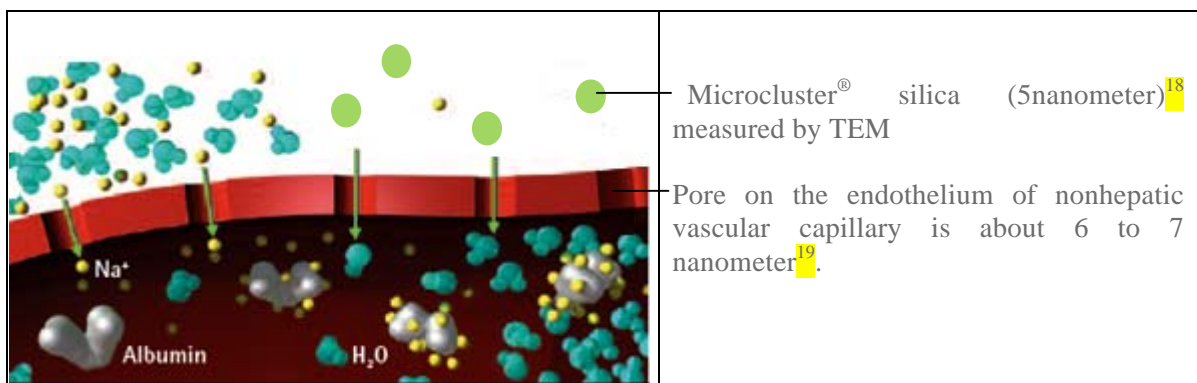
#### How Microcluster® Silica is absorbed into our body?

There are two aspects to look into.

##### First: In the liver

The size of Silica Hydride is smaller than the hepatic vascular capillary pore and nonhepatic vascular capillary pore. <sup>19</sup>Hepatic vascular capillaries have a bigger pore size than other vascular structures, rendering them more permeable to large molecules (e.g., albumin). The vascular endothelium of nonhepatic vascular capillaries has a capillary pore size of approximately <sup>19</sup>**6 to 7 nanometers** in width. This width is slightly bigger than the size of Microcluster® Silica (5nm)<sup>18</sup>.

Microcluster<sup>®</sup> Silica, act as crystalloid which is smaller than the large pores or fenestrations in sinusoidal endothelial cells, will be absorbed by the liver cell (hepatocyte) and hence deliver Negative Hydrogen to the liver cell. In liver, Negative Hydrogen converts  $\text{NAD}^+$  to  $\text{NADH}$ . In the liver, Negative Hydrogen as a reducing agent, able to reduce oxidized cholesterol to good cholesterol. It also reduces cytochrome *c* ( $\text{Fe}^{3+}$ ) to cytochrome *c* ( $\text{Fe}^{2+}$ ). Therefore, Negative Hydrogen improves oxygenation of liver cell. As a result, glucose metabolism is increased two times faster and ATP production increases by five times higher. Usually, when glucose metabolism increases, Reactive Oxygen Radical also increases correspondingly. Contradict to this normal process, Negative Hydrogen not only able to increase glucose metabolism, but do not increase Reactive Oxygen Radical in the body. Besides not increasing Reactive Oxygen Radical, Negative Hydrogen is a free radical scavenger. It destroys Reactive Oxygen Radical as well. The byproducts of Negative Hydrogen and Reactive Oxygen Radical are water. This double action stands an advantage to protect our body cell from becoming cancer cell.



### Second: In the small intestine

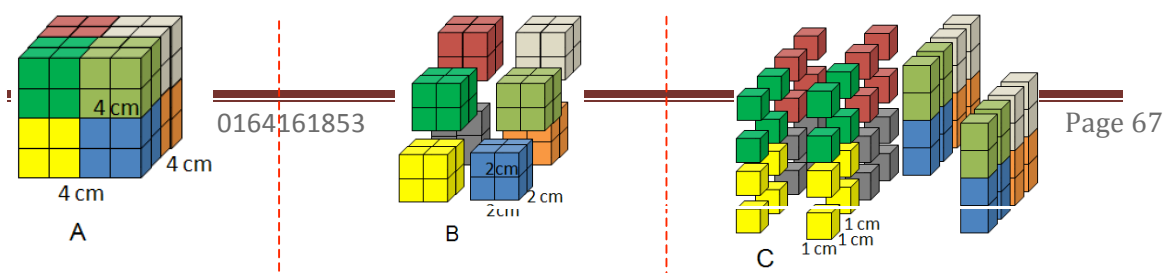
Microcluster<sup>®</sup> silica is a water-loving and oil loving crystalloid<sup>18</sup> (amphipathic). It carries Negative Hydrogen entering our lymphatic system and hence cleanses our lymph. Because of this, it improves our immune system.

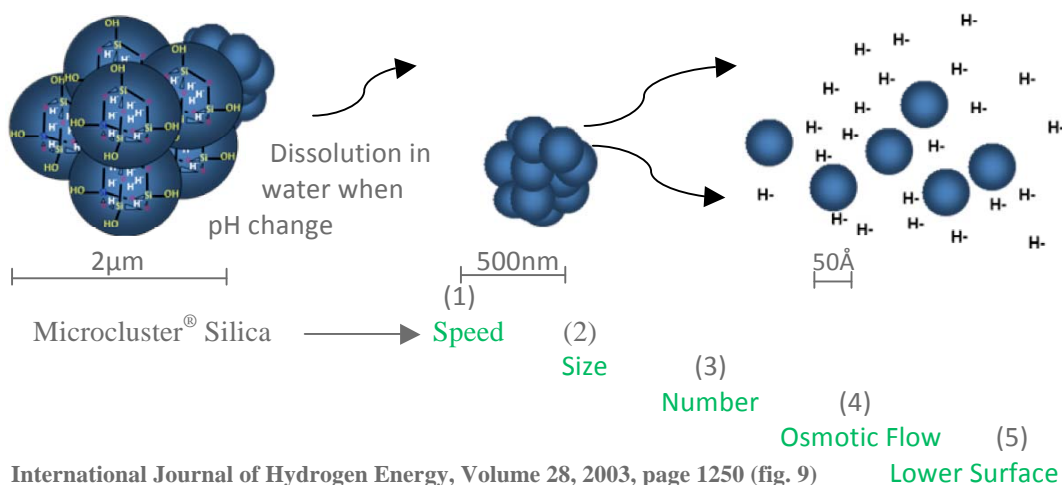
### References:

<sup>19</sup>Mazzaferro EM, Rudloff E, Kirby R: The role of albumin replacement in the critically ill veterinary patient. *J Vet Emerg Crit Care* 12(2):113–124, 2002.

- Carlisle, E.M. 1986.** *Silicon as an essential element in Animal Nutrition*. John Wiley and Sons, Inc.  
 “Dr. E.M. Carlisle of the University of California reported in Trace Elements in Human Nutrition that silica is absorbed through the intact intestinal mucosa, pass through lymphatic and circulatory systems, and reach other tissues supplied by arterial blood via the alveolar region of the lung”.
- The Chemistry of Silica.** by Ralph K. Iler. John Wiley and Sons, Inc., June 1979
- Carlisle EM.** Silicon as a trace nutrient. *Sci Total Environ.* 1988 Jul 1;73(1-2):95-106.
- Carlisle EM.** Silicon as an essential trace element in animal nutrition. *Ciba Found Symp.*1986; 121:123-39.

### Absorption Factor Depends on Surface / Volume Area Ratio<sup>22</sup>





International Journal of Hydrogen Energy, Volume 28, 2003, page 1250 (fig. 9)

Tension

Shape	Total Volume	Total surface Area	Surface / Volume Area (A : B : C)
A	64 cm <sup>3</sup>	96 cm <sup>2</sup>	96 : 192 : 384 = <b>1 : 2 : 4</b>
B	64 cm <sup>3</sup>	192 cm <sup>2</sup>	
C	64 cm <sup>3</sup>	384 cm <sup>2</sup>	

From mathematical calculation shown in the table above, we find that the ratio surface / volume

area<sup>23</sup> is 4 times higher when the object gets smaller. If this mathematical workout were too applied to Flanagan monomeric silica with ONLY 5nm, its unimaginable one can predict the total surface created by such silica. In actual, 10 drops of **Crystal Energy®** (0.01 fl oz) will create 2400 square feet of surfaces since 1 oz of silica hydride as reported by Dr. Flanagan can create 240000 square feet of surfaces. Some of you may think it is impossible, to explain it, you can use a roll of string to fly a kite. How far can the kite fly in the sky with just a roll of string? Even though the roll of string looks small, but it flies very far, right.

Under Flanagan Microcluster® Technology, the size of silica is only 5 nanometers<sup>18</sup> (TEM test). It is so small until 1600 of them can be fitted side by side on a red blood cell or 2.4 million of them can be placed side by side on the head of a pin. Incredibly, they have an enormous surface area of about 240,000 square feet per ounce<sup>20</sup>. Microclusters® help to suspend nutrient particles so that they can be easily absorbed into the cells. With just one Ringgit Malaysia to two (40 drops) you invested on **Crystal Energy®** every day, you are as though employing the Microcluster® Technology via Microcluster® silica at home to administer your diet intake. Every day we eat, we drink but we don't know the amount of food we can absorb. With Microcluster® silica, the money you spend on other health food is guarantee absorbed by 300% higher<sup>17,20</sup>. Microcluster® silica creates value for whatever we eat and drink. <http://phisciences.com/hydration.html>

References:

- Excerpted from Hydrogen Anions in Nutrition by Clinton H. Howard  
 “Microcluster® colloids have a very special property; they are hydrophilic and lipophilic<sup>18</sup> in nature (amphipathic). We have created an artificial “chylomicron<sup>22</sup>” which is very similar to chylomicron that is produced by the body when it digests oil. Like the Microcluster® sphere, chylomicron has a negative surface charge or zeta potential. It is this negative electrical charge that causes the chylomicron or Microcluster® sphere to be absorbed by the lymphatic system<sup>22</sup> in the intestines. These particles will essentially by-

pass the liver on their first entrance into the body. **Dr. E.M. Carlisle** of the University of California reported in Trace Elements in Human Nutrition that silica is absorbed through the intact intestinal mucosa, pass through lymphatic and circulatory systems, and reach other tissues supplied by arterial blood via the alveolar region of the lung”.

2. Excerpted from Microcluster<sup>®</sup> Mineral Technology by Kimberley Purdy-Lloyd, M.S. page 37

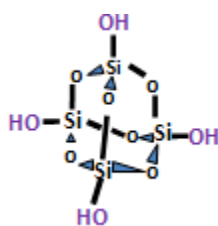
Particles are stable, have a large surface/volume area and a potential that creates a cloud of electrons, enabling bonding properties of other ions and compounds. In most colloids, 99% of the atoms that make up the particles are on the inside. Less than 1% of the atoms in colloids exist on the surface of the particles. [In Microcluster<sup>®</sup> silica, 99% of the atoms making up the particles are on the surface](#)<sup>22</sup>. The surface atoms exist in a flowing liquid energy state. These particles have a chemistry energy profile that is very different from ordinary silica. After examining Microcluster<sup>®</sup> silica, Dr. Bruce J. Marlow of the University of Massachusetts at Amherst said

*“Using electrophoretic and differential electrophoretic fingerprinting combined with photon correlation spectroscopy, it is shown that the silica particles in the Flanagan Microcluster colloids do not show the properties of other silica surfaces and are unique.”* (Marlow, 1989)

3. **Silica Research:** <http://eidon.com/science.htm>

Silica is the combination of the 2 most common elements on the planet – Oxygen and Silicon. Some scientists hypothesize that we could just as easily have been a Silicon based organism as a Carbon based organism. **Two functions** have been identified for Silicon. It is the **primary Calcium management element** and is responsible for making sure calcium is not stored in any locations other than bone. Without Silica, the body will store calcium (of which most of us get too much of) in areas like, artery walls, joints, organs and soft tissue. **The second** Silicon role is in **collagen formation**. The physical manifestation of aging is the inability of the body to reproduce collagen the way we could in our 20’s and 30’s. This leads to wrinkles, loss of flexibility, porosity of bones, digestive problems, arthritis and many other issues associated with aging. We feel Silica is the most natural and effective supplement on the market today to reverse or eliminate, arthritis, GI tract disorders, and osteoporosis. Silica is also known to enhance appearance of hair, skin and nails.

### Microcluster<sup>®</sup> silica



This is the basic structural molecule of Flanagan’s silica. This silica is totally different from common silica, as study in school. Its form is neither crystalline nor amorphous. In general we relate silica as silicon dioxide, chemical formula <sup>22</sup> $\text{SiO}_2$ . But Flanagan’s silica is an organic monomer. The monomer is ‘oxane (...Si-O-Si...)’ by <sup>24</sup>**FOUR SiOH** into a structural organosilsesquioxane. It has varying degree of symmetrical dimension. It is the 241<sup>st</sup> type of monomer silica that was

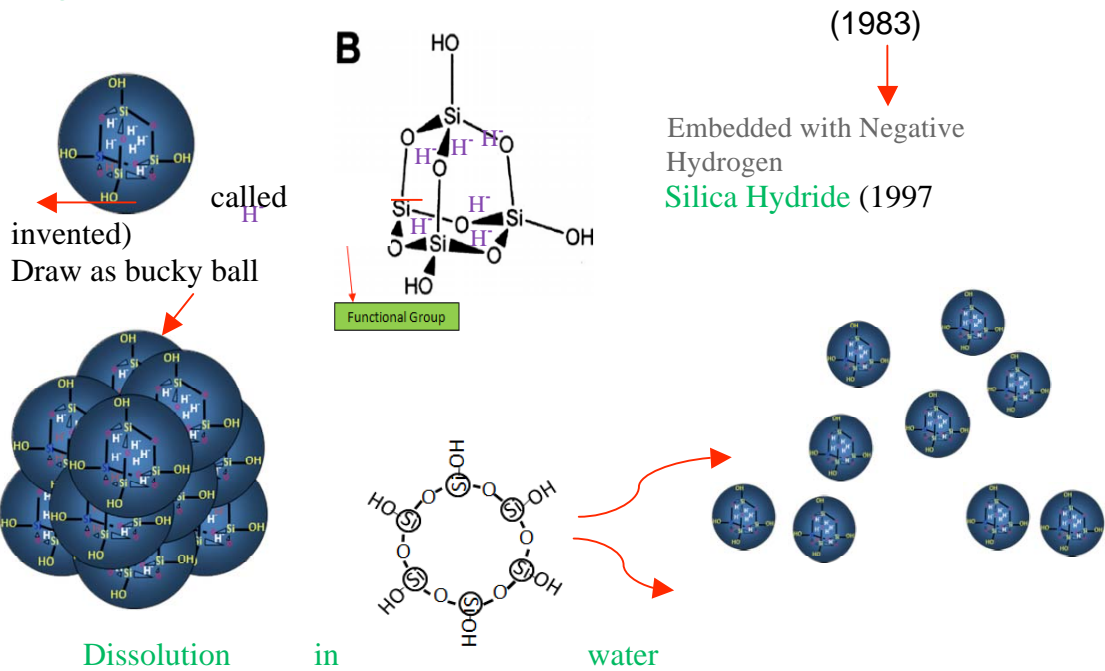
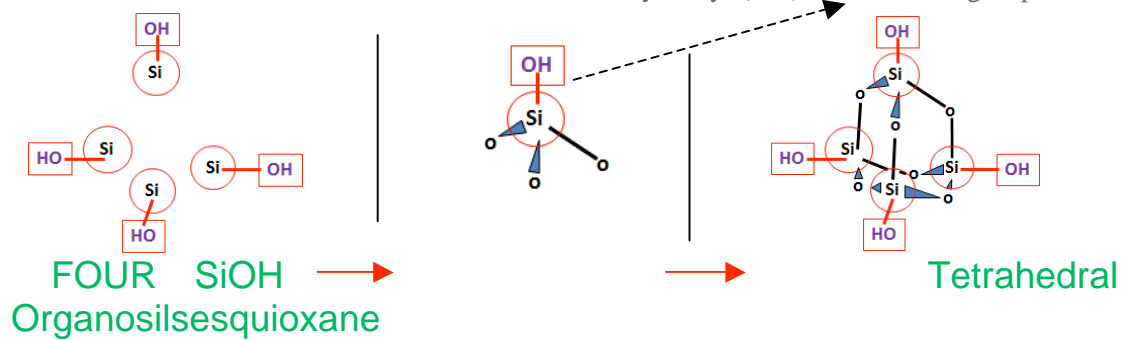
**ONLY** found in Hunza Water discovered by Dr. Patrick Flanagan. After more than 20 years of intensive research, Dr. Patrick Flanagan finally developed Microcluster<sup>®</sup> Technology to synthesise this organic silica. The silica is exactly the same as the silica found in Hunza Water. The diameter of the monomer is 5 nanometer and 1600 times smaller than a red blood cell<sup>18</sup>. The monomer is then clustered into Microcluster<sup>®</sup> (composed of about 10 to 1000 atoms) and was trademarked as Microcluster<sup>®</sup> Silica. When added with water, it is **NON-VIOLENT**<sup>21</sup> and dissolute into many monomers showing that it is very safe for consumption. [http://phisciences.com/IJHE\\_28\\_11\\_2003.pdf](http://phisciences.com/IJHE_28_11_2003.pdf)

What interest me is this nano-size silica is spherical in shape making it is very safe to travel through our circulatory system without scratching the arteries wall. It is a **ucky ball** coated

with oleic acid that makes it resembling a chylomicron<sup>22</sup>. Because of this it is absorbed in the intestine via lymphatic system.

Microcluster<sup>®</sup> Technology was forwarded to the **Nobel Prize Committee in 1994** (*UN Resolution Number 35/55/5/XII/80*).

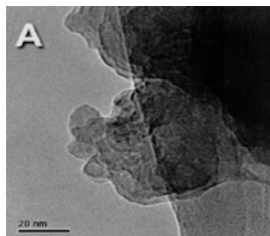
The tetrahedral is terminated with a hydroxyl (OH) as functional group.



**Bucky Balls Pack Together**

**Microcluster<sup>®</sup> silica is a Bucky ball**

Do you know why it is called a ball? Ball is empty except air. This shows that all the atoms of Microcluster<sup>®</sup> silica are on the surface making it to have enormous surface/volume area.



A scanning transmission electron micrograph (STEM) image of the silica hydride compound (A), as taken by a Phillips CM30 STEM illustrates the small organosiliceous spheres that **act as crystalloid carriers** for the hydride anions of silica hydride. The simple drawing of silica hydride (B) illustrates the silsesquioxane caged-structure that the hydride anions are interstitially embedded into through a plasma-generated reaction.



## Normal silica is different from Microcluster<sup>®</sup> Silica:

Silicon, chemical symbol is Si:

- Silicon is the second richest element found on earth's crust.

Silica, general chemical formula is SiO<sub>2</sub>:

- Silica is Silicon Dioxide, SiO<sub>2</sub>
- SiO<sub>2</sub> is not organic silica. It forms crystalline such as sand or stone.

Microcluster<sup>®</sup> Silica, SiO<sub>6</sub>(OH)<sub>4</sub>(H<sub>2</sub>O)<sub>20</sub>, the 241<sup>st</sup> type of SAFEST monomeric silica bucky ball:

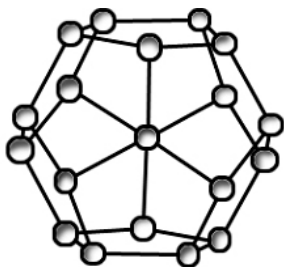
- Microcluster<sup>®</sup> Silica is not amorphous or crystalline silica and is not SiO<sub>2</sub> but it is ...Si-O-Si... with silicon having a terminal functional group '-OH'. We can see each Si-OH forms as a tetrahedral.
- Four tetrahedral are then joined with 6 oxygen atom (oxane) to form as a monomer called 'Bucky Ball'. Because the 6 oxygen make 6 electronegativity poles, they pull Negative Hydrogen.
- The monomeric Bucky Ball is also called organosilsesquioxane.
- The '-OH' group makes the silica bucky ball becomes hydrophilic organic, alkaline and water soluble and is therefore very good for liver detoxification.

We need to understand silicon is totally different from silica. Silicon (Si, chemical symbol) is an element while silica is a compound. Just like chlorine and chloride are two different things. Chlorine is a toxic element while chloride is an active negative ion that makes ionic bond with metallic positive ion to become a compound such as sodium chloride etc. Mega H<sup>®</sup> and Crystal Energy<sup>®</sup> **only contain Microcluster<sup>®</sup> silica but not silicon.** In chemistry, silica is normally name silicon dioxide (SiO<sub>2</sub>). But Dr. Patrick's silica is not silicon dioxide (SiO<sub>2</sub>), its chemical formula is ...Si-O-Si...with silicon is terminated with functional group '-OH'. In short, the silicon becomes Si-OH and then forms as a tetrahedral. Four tetrahedral are then joined by 6 oxygen atom ('oxane') to form as a monomer organic silica name 'bucky ball' or called \*organosilsesquioxane silica. \*[www.phiscienc.es.com/IJHE\\_28\\_11\\_2003.pdf](http://www.phiscienc.es.com/IJHE_28_11_2003.pdf)

Microcluster<sup>®</sup> silica is having ~OH polar that makes it alkaline in nature and becomes hydrophilic (water loving organic silica). Each monomer of silica is coated with oleic acid making it resembles like chylomicron or phospholipids on cellular membrane. Therefore Dr. Patrick's silica is hydrophilic and hydrophobic (amphipathic) that can be used to transport water soluble nutrients or oil soluble nutrients. The alkaline ~OH is the **FUNCTIONAL COMPONENT** of the organic silica which helps the liver to perform hydrolysis and at the same time to chelate heavy metal or toxin removal. The alkalinity is also good to reduce acidosis of body due to toxic wastes are mostly acidic that favour cancer cell growth. It buffers body pH.

Organic monomer, silica, has four polar of ~OH. The polarity of ~OH is effective to attract many water molecules around the silica and rearranges the water molecules into three layers, namely the omega layer (Ω), beta layer (β) and delta layer (δ). These 3 layers of water together with silica forms as silica-water interface. In actual this silica-water interface contains many water clathrates that use to trap many ions or charges. With the help of Microcluster<sup>®</sup> Technology, Dr. Patrick Flanagan converts the three-layer-structured-water in the presence of silica into 'liquid crystal' which Dr. Henri Coanda names it as snowflake. Hydride ions are embedded in the Ω layers of this 'anhydrous' liquid crystal together with other metallic ions, mainly magnesium and potassium in the other two layers. The synthesised

[liquid crystal](#) which is in anhydrous state is then protected by coating with oleic acid. Because silica hydride is in '[anhydrous](#)' state, therefore it must be kept in a dried place or shouldn't let it expose to air vapour. Since Microcluster<sup>®</sup> is coated with oleic acid in order to protect its [liquid crystal](#)<sup>23</sup>; therefore it shouldn't be kept under hot temperature. Temperature above 37°C may damage the oleic acid. The general formula for silsesquioxane is  $(\text{RSiO}_{1.5})_a(\text{H}_2\text{O})_{0.5b}$  but Microcluster<sup>®</sup> is  $\text{Si}_4\text{O}_6(\text{OH})_4(\text{H}_2\text{O})_{20}$ . *Note: R is an organic group, 'a' is an even number and b is 0, 1, 2, 3....* The molecular formula of Microcluster<sup>®</sup> is  $\text{Si}_4\text{O}_6(\text{OH})_4(\text{H}_2\text{O})_{20}$  when a = 4, b = 40 and R is OH group.



*Source* : "[Hydrogen Anions in Nutrition An Overview](#)" by CLINTON H. HOWARD

*Excerpted:*

"Example of a molecular cage made up of 20 water molecules. This structure is formed by a phenomenon known as "hydrophobic hydration." It is a '[liquid crystal](#)'<sup>23</sup> structure that may transport hydrogen protons and mineral clusters."

Microcluster<sup>®</sup> is a biological monomer. Because Microcluster<sup>®</sup> is a monomer making it unique in its feature to 'hold' the hydride ion and hence able to release the hydride ion in time release in water. In short, hydride ion is [bio-encapsulate by a biological monomer](#)<sup>24</sup> and this characteristic is verified by FTIR DRIFTS spectrum<sup>24</sup>. Current technologies in bio-encapsulation mostly use [biological polymer composites](#)<sup>24</sup>. As an example, SOD is bio-encapsulate as an integral part of a biological polymer,  $\text{SiO}_2/\text{Cu-Zn}$ <sup>24</sup>. This type of biological polymer has low solubility, slow dissociation rate, non-specificity to tissue and making it difficult to be absorbed by the body.

Dr. Patrick named the Microcluster<sup>®</sup> as [Catalytic Wetter Water<sup>®</sup> Concentrate](#) because it contains many '[liquid crystal](#)'<sup>23</sup>. When consumed, Microcluster<sup>®</sup> carries Negative Hydrogen and [liquid crystal](#) travels at least one round the body<sup>22</sup>. Since Microcluster<sup>®</sup> silica is hydrophobic and hydrophilic; it therefore works like chylomicron. This special chylomicron can collect, gather and transport water soluble nutrient or oily soluble nutrients to any tissue via our lymphatic system.

### **Microcluster<sup>®</sup> silica is a breathing cluster**

The three layers of [Catalytic Wetter Water<sup>®</sup> Concentrate](#) **expands or contracts**<sup>18</sup> in response to body pH changes. Because of this, Dr. Patrick name this liquid crystal is a breathing cluster of silica or Dr. Henri Coanda said it is a snowflake (living thing within the crystal). When liquid crystal expands or contracts, it releases the hydride ions (Negative Hydrogen) to the tissue. Negative Hydrogen is an active element. It has two pharmacological effects on tissue either directly donates electron to mitochondria for speeding up oxygen uptake or directly converts  $\text{NAD}^+$  to become NADH which is actively involved in the production of ATP during cytosol glucose glycolysis. Since [negative hydrogen can DIRECTLY donate](#)<sup>8, 22</sup> (shown by ORP reading) its electron to mitochondria without depending on any enzyme, coenzyme, minerals or cofactor, it initiates Redox Reaction (Shirahata)<sup>25</sup>. **Redox reaction** involves in electron transfer among ionic minerals that generates bioelectricity for nerves impulses or cellular communication.

The electron released by Negative Hydrogen helps the body tissue to uptake more oxygen and hence to prevent cancer cell growth. We had cases of cancer patients taking Crystal Energy<sup>®</sup> together with 6 to 12 veggie caps of Mega H<sup>®</sup> per day and the results are marvelous. They are recovering from cancer now. Please see attached testimony on cancer patients.

# Biochemistry of Mega H<sup>®</sup> on Type II Diabetes

An Attribute of Negative Hydrogen  
is it gives energy but without  
producing carbon dioxide as  
byproduct.

This has an advantage to  
weight control and pH buffer

Label approved by the Health Ministry of Malaysia:

“Diabetics on insulin should closely monitor blood sugar levels as some may need to reduce insulin injections while consuming Mega H<sup>®</sup> (MAL04091701XC).”

### Diabetes and **Negative Hydrogen**

Please refer to the label written on the bottle of Mega H<sup>®</sup> that approved by the Health Ministry of Malaysia: “**Diabetics on insulin should closely monitor blood sugar levels as some may need to reduce insulin injections while consuming Mega H<sup>®</sup> (MAL04091701XC).**”

Mega H<sup>®</sup> is the most powerful biological antioxidant. It protects the alpha cell and beta cell from oxidative damage by free radicals. Alpha cell and beta cell is pancreas cell. Beta cell secretes insulin while alpha cell secretes glucagon. They need to be protected by Mega H<sup>®</sup>.

Besides insulin, to metabolize glucose, cell also needs oxygen. Mega H<sup>®</sup> can help our body cells to uptake oxygen effectively at a faster rate. Once consumed, Mega H<sup>®</sup> and Crystal Energy<sup>®</sup> improve our blood circulation. This will help to deliver the oxygen to the body immediately. Anyway, **please DON'T use Mega H<sup>®</sup> to replace diabetic drug** because cell needs insulin which brings glucose to the cell. Patient should take diabetic drug two hours before taking Mega H<sup>®</sup>. Combination of these two, that is medication plus Mega H<sup>®</sup> together with Crystal Energy<sup>®</sup> at different interval (two

hours after drug) has a tremendous effect of lowering our blood glucose to a healthful level. My advice is to take two Mega H<sup>®</sup> two hours after drug in the morning and two Mega H<sup>®</sup> in the evening. **Every week needs a blood glucose test to avoid hypoglycemia (dizziness).** Consult doctor for advice once the blood glucose is lowered to avoid hypoglycemia.

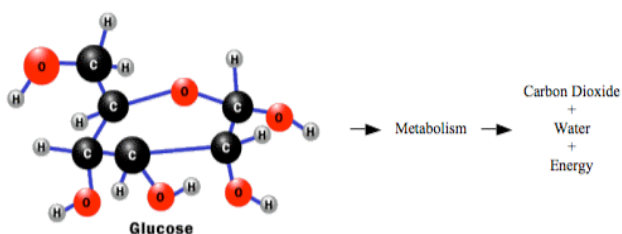
### **Crystal Energy<sup>®</sup> & Mega H<sup>®</sup> complement in whatever you eat**

At an early stage, some may experience blood glucose level surging up while consuming Mega H<sup>®</sup>. Having abnormal high glucose level, it is advisable to take the following supplements as well:

1. MH – 2 capsules twice daily
2. Glucosential from Live Well: 2 - 4 capsules
  - To enhance insulin production
  - Co-enzyme for pancreas
3. Calcium-Magnesium, Zinc: 2 capsules
4. Vitamin C (1000mg)
5. Avoid rice, potatoes – burn faster than sugar

Besides insulin, to metabolize glucose, cell also needs oxygen.

It is the body cell and not insulin that burns the glucose with the help of enough oxygen.



Mega H<sup>®</sup> has **double action** over glucose to weight control:

**First Action** - natural pH buffer

**Second Action** - donates electrons to increase oxygen uptake

How **Mega H<sup>®</sup>** works to reduce blood glucose to a healthful level?

**Mega H<sup>®</sup>** has **DOUBLE ACTION** over glucose metabolism to **WEIGHT CONTROL**.

(Refer to Journal of Medicinal Food, Volume 7, Number 1, 2004, Peer Reviewed Published Papers).

#### **First Action – NATURAL BIOLOGICAL pH BUFFER**

Do you know where is our energy comes from?

The energy comes from the caloric food we eat. Most caloric food contains carbon. They contribute carbon dioxide during cellular respiration. 23% of carbon dioxide is bound to hemoglobin, 7% as dissolved carbon dioxide and 70% is formed as carbonic acid. Carbonic acid dissociates into bicarbonate anion and **H<sup>+</sup>** which acidifies our Red Blood Cell (RBC).

RBC is a natural pH buffer. They are separated when the membrane of RBC have high negative charge (high zeta potential). **Mega H<sup>®</sup>** with *silica hydride* can **DIRECTLY** release a lot of negative charges to separate the RBC. When RBCs are separated, they remove carbon dioxide from the body. Carbon dioxide enters our blood in the capillary and can only release 95% through our lungs. Obviously the rate of carbon dioxide exhale is slower than the carbon dioxide produced. Under Bohr Effect, RBC uses carbonic anhydrase to convert excess carbon dioxide to react with water at a rate 5000 times faster to become carbonic acid. Carbonic acid dissociates into bicarbonate anion and **H<sup>+</sup>** in order to check the level of carbonic acid to maintain at 70%.

Carbonic Anhydrase

Carbon Dioxide + Water  $\rightleftharpoons$  Carbonic Acid  $\rightleftharpoons$  Bicarbonate ion + Hydrogen ion

$\text{CO}_2(\text{aq}) + \text{H}_2\text{O}(\text{l}) \rightleftharpoons \text{H}_2\text{CO}_3(\text{aq}) \rightleftharpoons \text{HCO}_3^-(\text{aq}) + \text{H}^+(\text{aq})$

**H<sup>+</sup>** ion is picked up by the hemoglobin while the bicarbonate ion will leave the RBC and moves into the blood plasma. As a result, RBC is slightly acidic than blood. Oxygen is then released to its surrounding tissue when the hemoglobin picks up the **H<sup>+</sup>** ion.

**Mega H<sup>®</sup>** is a Natural pH buffer because the negative charges it carries help to separate RBC. Besides, it does not contain carbon. It is a *pure clean fuel of life force*. It gives us energy without polluting our body with any carbon. *This is definitely an advantage over other health food supplement while increasing our metabolic rate without polluting our body with carbon dioxide*. Because of this, it is a *Natural pH Buffer* and *Body Fluid Cleanser*. On account of this, *I don't see any reason why a person should stop taking Mega H<sup>®</sup> if he says life is energy*. Do you realise it is worth a thousand dollar if it keeps cleansing our body every now and then? Seldom people realize this advantage of *pure clean fuel* has tremendous effect on glucose metabolism to weight control.



### Second Action – Donate Electrons to Speed up Oxygen Uptake

**H<sup>-</sup>** does not depend on body temperature, body enzyme, and body pH to release its electron. The **direct transfer** of electron from H<sup>-</sup> has helped every cell to increase oxygen uptake. **Cell needs oxygen to metabolise glucose.** **Mega H<sup>-</sup>** helps the cell to metabolise glucose 2.5 times faster. When more sugar burns, our weight is under control. If you are tired after taking Mega H<sup>-</sup>, probably you are not having enough oxygen. Please go for light exercise to solve the crisis.

These double actions of **Mega H<sup>-</sup>** on glucose metabolism, in actual effect, have lowered the blood glucose level by two-fold. Therefore it is very useful for obese people with high glucose levels. It has anti-diabetic and better weight control effect.

### References:

[http://phisciences.com/JMF\\_6\\_3\\_2003.pdf](http://phisciences.com/JMF_6_3_2003.pdf)

1. Silica (H<sup>-</sup>) + cytochrome *c* (Fe<sup>3+</sup>) → Silica + cytochrome *c* (Fe<sup>2+</sup>) + H<sup>+</sup> .....(Eq. 9)  
Ferric iron was reduced to ferrous iron which means it helps to increase oxygen delivery by iron.
2. Silica (H<sup>-</sup>) + NAD<sup>+</sup> → Silica + NADH .....(Eq. 10)  
The production of NADH increase by twofold indicates that glucose breakdowns is increased during glycolysis.
3. Meaning of Bohr Effect: <physiology> Decrease in oxygen affinity of haemoglobin when pH decreases or concentration of carbon dioxide increases.  
[http://en.wikipedia.org/wiki/Bohr\\_effect](http://en.wikipedia.org/wiki/Bohr_effect)  
[http://www.cancertutor.com/Diabetes/Diabetes\\_Type\\_II.htm](http://www.cancertutor.com/Diabetes/Diabetes_Type_II.htm)

### General Discussion about Diabetes

1. Most of us don't realize type II diabetic is a metabolic disorder. We need to improve our metabolism besides medical treatment by insulin either by oral or injection.
2. Factors affecting our metabolism are:
  - Insulin resistance or insufficient insulin production (syndrome X = triglyceride ÷ LDL).
  - Poor blood circulation due to poor osmotic flow
  - Tissue lack of oxygen uptake (hypoxia)
  - Red Blood Cells clustering (poor hemorheology or rouleau)
  - Acidic body
  - Malnutrition such as lack of Magnesium, Calcium, Zinc, Vitamin C, Chromium and Vanadium
  - Dehydration
3. Mega H<sup>-</sup> and Crystal Energy<sup>®</sup> are very safe products and have been sold in the market more than 10 to 20 years.
4. How Mega H<sup>-</sup> and Crystal Energy<sup>®</sup> help to improve our blood sugar levels?
  - ✓ Mega H<sup>-</sup> supplies a lot of Negative Hydrogen to our body. The Negative Hydrogen is then transported by Crystal Energy<sup>®</sup> throughout the body tissue immediately (Effect of Microcluster<sup>®</sup> Technology).
  - ✓ Both products work together to prevent Red Blood Cells from clustering, improve osmotic flow or better hemorheology.
5. Crystal Energy<sup>®</sup> improves our blood circulation as a result of Microcluster<sup>®</sup> Technology. It hydrates our cells and therefore anti-dehydration. It also removes acidic wastes through increase osmotic flow (better hemorheology)

to prevent kidney failure, blindness etc and reverses acidic body to slightly alkaline body.

6. Mega H<sup>®</sup> improves our body tissues to uptake oxygen. Oxygen is very important in speeding up metabolism. The Negative Hydrogen releases a lot of electrons for the following functions:
  - Improve oxygen uptake. It helps the iron in red blood cell to carry oxygen efficiently.
  - As antioxidant to protect pancreas cell from further deteriorating
  - Negative Hydrogen as energy source or fuel for liver cell to metabolise sugar
7. As for Malnutrition, I propose go to any pharmacy to buy GlucoSential (Live Well), OsteoCal-Plus (Live Well) and vitamin C 1000mg.

Recommendation:

1. Mega H<sup>®</sup>: Morning 2 capsules (if got history of gastric, don't take at empty stomach) and then afternoon or evening 2 capsules.
2. Crystal Energy<sup>®</sup>: Minimum 8 glasses (more) of water every day with each glass added 10 drops of Crystal Energy<sup>®</sup>.

**Disclaimer:** *Mega H<sup>®</sup> does not tend to treat or give any guarantee cure for any form of degenerative diseases such as diabetes or hypertension.. It is use as a food supplement for prevention is better than cure. It has proactive role in prevention.*

## **After Effect of Diabetes is Dehydration.**

- a. A lot of herbs or medical drugs even though can effectively help to reduce blood sugar but they rather don't solve the actual dehydration conditions. Mega H<sup>®</sup> and Crystal Energy<sup>®</sup> work as a TEAM to solve, After Effect of Diabetes that is "DEHYDRATION".
- b. Diabetics have a decreased ability to change carotene into retinol. Therefore, take food that contains vitamin A.
- c. Take [Glucophage](#) before meal. It prevents blood sugar levels from rising too high and sticking to cells. Once sugar stuck on a cell membrane, it can never detach itself. It is converted to a poison called [sorbitol](#) that damages the cell to cause all the side effects of diabetes.
- d. Check your [HbA1c](#) (which measures blood sugar control over the past two months) and [fructosamine](#) (which measures control over two weeks) every month.

## **Avoid Glycosylation if you have abnormal sugar level**

Check the blood level of [HbA1c](#) in order to avoid glycosylation (also called glycation). (Glucose or fructose cross-linking with protein). [Glycation](#) is a non-enzymatic reaction between sugar and protein that alters the configuration of protein. During normal, everyday metabolism, sugar aldehydes may react with the amino acids on the protein molecule. The result is the formation of AGEs (Advance Glycosylation End-products). It is the hardening process of blood vessel and is not reversible. It is now well established that the process of glycosylation is one of the most important causes of aging, perhaps equally or more than the process of free radical damage. Taking [carnosine](#) is good to prevent glycosylation. Meat is the usual dietary source of carnosine so vegetarians, especially, should consider taking carnosine supplement.

**Avoid Trans Fat** such as taking margarine, French Fries, Crackers etc. [Trans Fat](#) is not a natural molecule. It is a synthetic molecule that our body cannot metabolise it.

## Low Oxygen (hypoxia) increases blood glucose level

If there is 5% deficiency of oxygen uptake, what will happen to the blood glucose level?



From the above equation, we need 6 oxygen to burn with 1 glucose to produce 38 ATP. The reactions involved are anaerobic (reaction without oxygen) and aerobic respiration.



Total  $\rightarrow$  **38 ATP**

At an instant, says a cell needs to make 380 ATP with only 57 oxygen available (5% deficiency), lets calculate to see what will happen to the body?

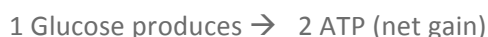



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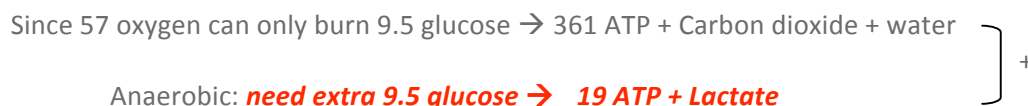
ATP Shortage  $\rightarrow$  **19 ATP**

The body has to revert to anaerobic reaction to get the **inadequacy of 19 ATP**.

From anaerobic reaction:



$\therefore$  **An extra of 9.5 Glucose are needed** to supply  $\rightarrow$  **19 ATP**



**Net increase of 9 glucose** and **excess of Lactate not properly metabolise**

Because of 5% oxygen deficiency, the percentage of glucose rises is

$$\begin{aligned} \% \text{ glucose rise} &= \frac{9}{10} \times 100\% \\ &= 90\% \end{aligned}$$

The excess **Lactate produced** may trigger more glucagon production. Glucagon is a hormone that can stimulate the conversion of glycogen to glucose. This process is called glycogenolysis.

Conclusion:

From the above calculation, you notice oxygen uptake is very important for people with high sugar level. Please go for regular exercise, taking 4 **Mega H®** and drink 8 glasses of **Crystal Energy®** treated water will help to increase your oxygen uptake and the consequence can reduce blood glucose level.

Peer Reviewed Published Papers have made three scientific reports on Mega H®. These three scientific reports explained why Mega H® is a good supplement for people with type II diabetes.

1. Journal of Medicinal Food, Volume 7, Number 1, 2004  
Paper Titled – Differential Metabolic Effects on Mitochondria by Silica Hydride Using Capillary Electrophoresis

Excerpted:

- (a) Silica Hydride when added to cell culture, contribute to an increased metabolic pattern, ATP production and cellular energy. In the mitochondrial samples, the ratio of [NADH] / [NAD<sup>+</sup>] increased twofold, the [ATP] increased fivefold, and glucose levels decreased twofold. p. 82
- (b) The decrease in glucose with Silica Hydride indicates cytosolic glycolysis as a presumable pathway for the increased NADH product and subsequent ATP synthesis. p. 83

2. International Journal of Hydrogen Energy, Volume 28, 2003  
Paper Titled – Synthesis of a novel anionic hydride organosiloxane presenting biochemical properties

Excerpted:

A recent publication of clinical study has illustrated the capability of Silica Hydride to significantly reduce lactic acid after exercise by 50%. p. 1249

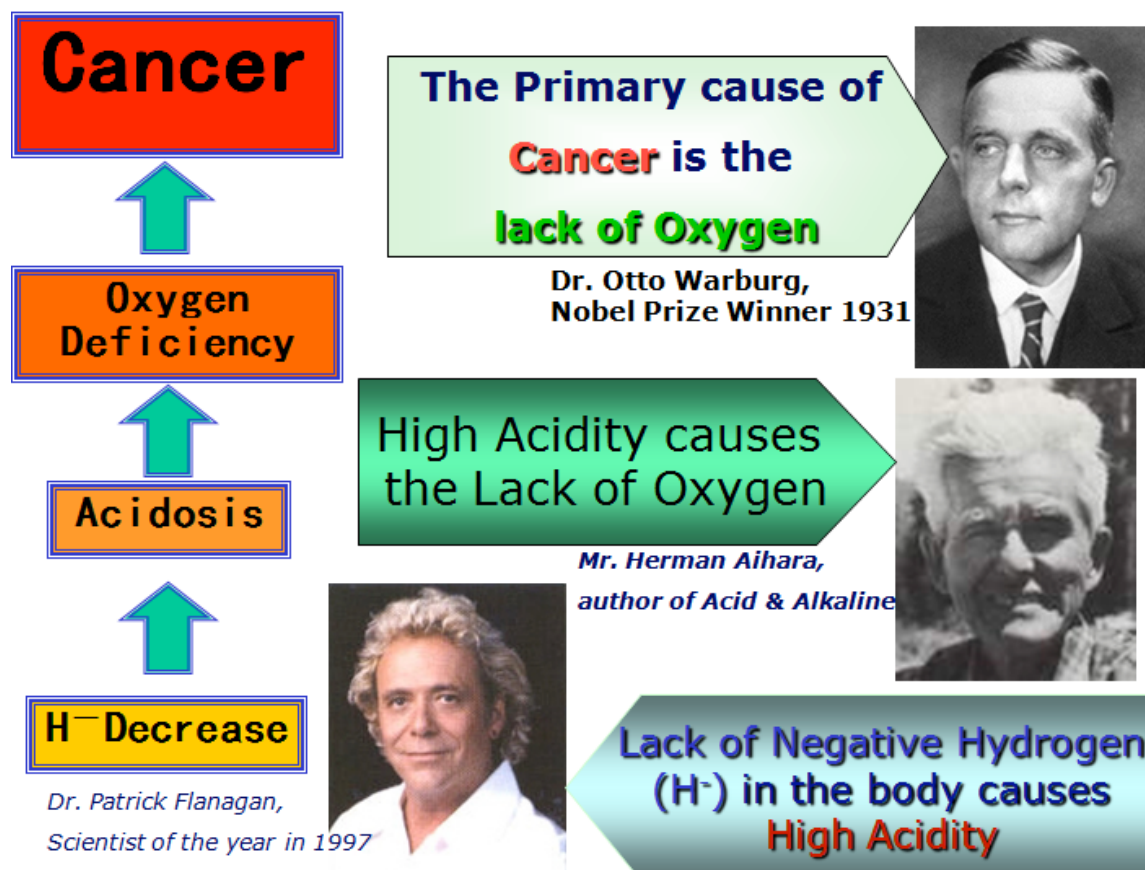
3. Free Radical Biology & Medicine, Volume 35, Number 9, 2003  
Paper Titled – Antioxidant capacity of silica hydride: a combinational photosensitization and fluorescence detection assay

Excerpted:

Silica Hydride was shown specifically to reduce Fe (III) cytochrome c to Fe (II) cytochrome c and NAD<sup>+</sup> to NADH as well as the superoxide radical. p. 1135

### Cancer and Negative Hydrogen with Crystal Energy<sup>®</sup>

In 1932 Otto Warburg won the Nobel Prize in Medicine for his discovery that cancer was anaerobic: cancer occurs in the absence of free oxygen. What it basically means is that cancer is caused by a lack of free oxygen in the body and therefore, whatever causes this to occur is the cause of all cancers.



### **Negative Hydrogen is a Natural Blood Cleanser, Body Fluid Cleanser and Natural pH Buffer**

Body tissue produces many forms of acid radicals which may lower the store of our Negative Hydrogen Pool. Negative Hydrogen is an electron donor. Electron is important to clear away acid radicals. Accumulation of acid radicals may lower our blood pH which result in acidosis. Acid radicals may deposite on artery wall or lymph nodes. Long term deposition may block fluid circulation, lymph circulation and blood circulation. As a result, poor oxygenation of tissue may lead to stroke or even cancer growth.

### **CANCER**

At present, medical treatment on cancer patient involves only surgical operation, chemotherapy and radiation. Less effort is being done to improve (if not at least to maintain) the external and internal terrain of a cell at healthy level. Biological terrain means to look after the internal environment of a cell. L.C. Vincent, "Parameter of biological terrain is to measure the value of rH, pH and electrical resistivity of our body." Electrical resistivity tells the hydration state of a cell. rH refers to the POOL OF NEGATIVE HYDROGEN (H<sup>-</sup> ions) in our body. pH refers to the acidity state (H<sup>+</sup> ions) of our body. If the ratio of rH and pH is not taken into consideration, then the cell will live in a very stressful, acidic and tired environment. The cell will either die prematurely or mutate into cancer cell. In simple



language, rH shows the ability of a cell to rejuvenate, to repair DNA, to make ATP (energy production) which leads to Qi generation. rH also shows the ability of a cell to attract oxygen from its surrounding environment. Of course how a cell can uptake the oxygen also depends on its surrounding oxygen tension. Oxygen in cells is very important for glucose metabolism. Blood carries and transports oxygen but to uptake the oxygen is much depending on the availability of H<sup>-</sup> ions in a cell. Before glucose is completely burned to become carbon dioxide, energy and water in the cell, a lot of H<sup>+</sup> cations are formed in its intermediate path. This sudden flux of H<sup>+</sup> cations will make the internal environment of a cell turns very acidic. That's why one feels sleepy after a meal. Free oxygen is needed to convert this H<sup>+</sup> to water. Oxygen is always the opposite pole to hydrogen. On the whole, rH value shows enough Negative Hydrogen to reduce oxygen in combustion with H<sup>+</sup> to become water in a cell, hence rejuvenation. The whole process is **REHYDRATION** and is in anabolic state. We breathe in oxygen for oxidation but we eat negative hydrogen for reduction. When H<sup>+</sup> ions are high in a cell, what it actually tells is the cell is very hungry of oxygen. That is why the cell must quickly look for more free oxygen in nascent state (O<sup>-</sup>) in order to convert the excess H<sup>+</sup> ions to water. Then **WHAT ELSE CAN SPEED UP THE FORMATION OF NASCENT OXYGEN?** It is the Negative Hydrogen Pool in the tissue that accelerates the formation of nascent oxygen.

### **Cancer cell likes high sugar content...why?**

1. Sugar makes the red blood cells cluster together. This gives rise to poor blood oxygenation.
2. Sugar produces carbon dioxide which favours cancer cell growth.
3. Sugar produces more H<sup>+</sup> cations which acidify our body tissues.

Chief Hydrologist of France, *L.C. Vincent said, "All cancer cells are acidic, oxidized and contain no Negative Hydrogen."* What is acid? In chemistry, acid is H<sup>+</sup> ion. It is indicated by pH. Cancer cell likes sugar because sugar contributes a lot of H<sup>+</sup> ions to a cell. That shows cancer cell has high content of H<sup>+</sup> ions. Another theory, Nobel Prize Laureate Otto Warburg also advocates that the primary cause of cancer is oxygen deficiency. This is because cell needs oxygen and electron to change its H<sup>+</sup> ions to water and ATP. In another word, when H<sup>+</sup> ions are too high, the cell is hungry of oxygen, needs a lot of electrons, mineral zinc, copper, manganese, magnesium and water. Cell also needs many mitochondria, a furnace to burn H<sup>+</sup> with oxygen to become ATP. Negative Hydrogen, is Mother Nature, able to donate electrons not only to protect the mitochondria from oxygen radical damage, but also improve oxygen uptake. While oxygen supports life, then Negative Hydrogen promotes healthy life. Cell loses its ability to uptake oxygen because it does not have Negative Hydrogen.

### **Crystal Energy<sup>®</sup> & Mega H<sup>®</sup> ...very good for cancer patient**

#### Crystal Energy<sup>®</sup>

Crystal Energy<sup>®</sup> is very good for cancer patient because it alkalises the body. Cancer cells are very acidic. Cancer patient needs to drink a lot of alkaline drink. Alkaline drink is always better than alkaline food in terms of absorption. During chemotherapy, a lot of good and bad cells die prematurely. After chemotherapy, the body accumulates extra dead cells that make body more acidic. Therefore it is good to drink a lot of Crystal Energy<sup>®</sup> because it helps to clean dead cell and acidic wastes from accumulating in the body. This is evidenced after

chemotherapy cancer patient doesn't suffer vomiting and lose appetite when they take [Crystal Energy<sup>®</sup>](#) & [Mega H<sup>®</sup>](#).

Chemotherapy kills cancer and normal cells indiscriminately, leading to a multitude of side-effects, including hair loss and the risk of severe life threatening infection when the immune system is severely compromised. If many normal cells die prematurely, they may cause more acidic body than before the chemo treatment. Acidic environment favour more **HIDDEN, UNDETECTED CANCER CELLS** to multiply faster. That's why it's not wise to undergo chemotherapy without taking enough alkaline drink after the treatment. I strongly recommend [Crystal Energy<sup>®</sup>](#) and [Mega H<sup>®</sup>](#) because they are acid-free alkaline. They create acid-free alkaline environment to suppress cancer cell from multiplying. Acid-free alkaline environment also strengthen our immune system. Chemotherapy drugs never create acid-free alkaline environment. These drugs bring more acid residues to the body. That's why we need to eat a lot of alkaline-based organic health food to clear any excess acid radicals.

#### [Mega H<sup>®</sup>](#)

Cancer patients are deprived of electrons in the body. Their bodies are always in an oxidative stress. [Mega H<sup>®</sup>](#) will supply the body to have enough electrons to eliminate acid radicals. What is more important, [Mega H<sup>®</sup>](#) helps red blood cells to increase oxygen uptake<sup>31</sup>. [Mega H<sup>®</sup>](#) also has **DIRECT ABILITY<sup>7, 31</sup> to destroy ROS free radical, 'OH**. According to Peer Reviewed Published Papers, **'OH was converted to water as byproduct<sup>7</sup>**. When both products are consumed together, they have tremendous effect to improve our blood circulation. All these make cancer cells find hard to survive in a healthy oxygen rich environment.

Quality of life is ONLY meaningful when we live:

1. Free of old aged diseases
2. Stay young and full of energy
3. Contribute what you have

Cancer cell strive on energy from fermentation. Go for LBA to witness yourself whether you have fungal or yeast in your blood stream. It is an indication of your immune system gives way allowing fermentation to take place.

#### **RECOMMENDATION:**

##### [Mega H<sup>®</sup>](#):

Cancer patient needs to take at least 6 capsules of [Mega H<sup>®</sup>](#) per day. Start with 2 capsules in the morning and 2 capsules in the evening. Slowly increase to 6 capsules per day after 10 days. Then increase to 8 capsules a day after a month. Finally back to normal after 6 months, take 2 capsules in the morning and 2 capsules in the afternoon or evening.

**Disclaimer:** *Mega H<sup>®</sup> does not tend to treat or give any guarantee cure for any form of degenerative diseases including cancer. It is use as a food supplement for prevention is better than cure. It has proactive role in prevention.*

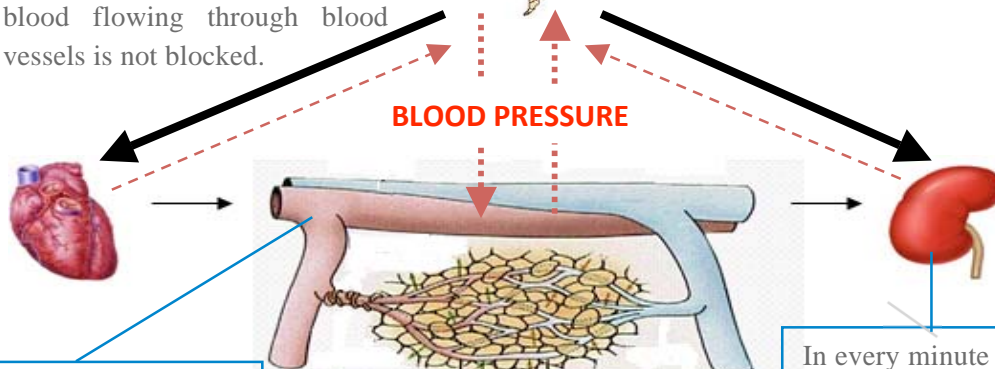
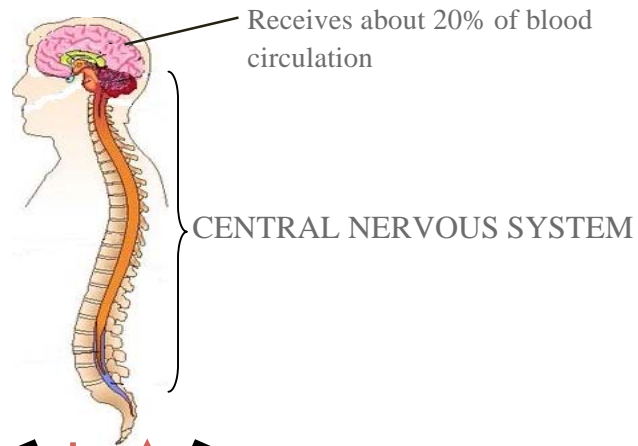
##### [Crystal Energy<sup>®</sup>](#):

Add 10 drops of [Crystal Energy<sup>®</sup>](#) to a glass of water (240ml). If your weight is 64kg, then divide it by 8, the answer is you should drink minimum 8 glasses of water. If your weight is 72kg, then divide it by 8, the answer is you should drink minimum 9 glasses of water.

## Problem with circulation

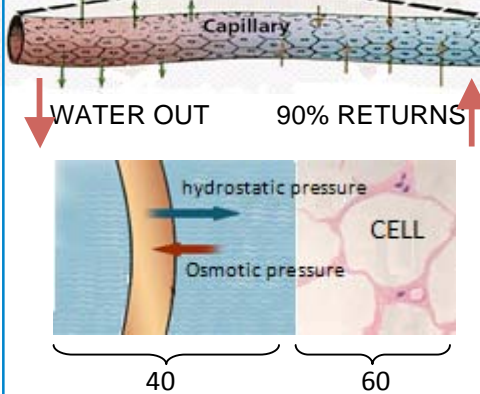
### Non-Compromise Organ

1. Brain, heart, kidney are organs active in metabolism. They normalise our blood pressure. Blood pressure is normal when volume of water in the blood is under controlled.
2. Blood pressure constant when blood flowing through blood vessels is not blocked.



#### An Analogy:

Blood vessel is just like the runway for an aeroplane to take off. A damaged runway is just like the blood cannot flow through the blood vessel. Brain, heart and kidneys will be affected when they cannot get enough blood to supply oxygen and glucose for them to function properly.



RATIO LOST BALANCE

Healing Crisis

In every minute the heart will pump about 20% of the total blood to the kidneys to undergo filtration.

1. Nephrons filter 125 ml of body fluid per minute
2. Filtering the entire body fluid component 16 times each day.
3. In a 24 hour period nephrons produce 180 liters of filtrate, of which 178.5 liters are reabsorbed (99% of 180 liters). The remaining 1.5 liters forms urine.

The filtration (water loss) at the arterial end of the capillary is **NOT** balanced by the re-absorption (water gained) at the venous end of the capillary. We have slightly more water being forced out at the arterial end of the capillary than being forced in at the venous end of the capillary. 90% of water is returned to blood in the capillary bed while 10% of water is being left in the interstitial space (ISS). We actually lose about 3 liters/day of water from the bloodstream into the interstitial space because of capillary filtration. Luckily our lymphatic system returns that water to the bloodstream near the heart region. When water in the interstitial fluid cannot return properly, edema or tachycardia happens. Edema may manifest as swollen legs, puffy eyelids, put on weight etc.

## **Healing Crisis: Power of Pre-telling our health history**

You may be eating multiples of supplements and never in life so far experience such a healing crisis unless you improve your osmotic flow through hydration. According to Dr. F. Batmanghelidj M.D., histamine is the primary hormone to regulate our body water content. Histamine triggers the release of vasopressin or anti-diuretic hormone. Normally our body only deals with water deficit management. **Healing crisis will occur when we shift our water deficit management to water surplus management.** The crisis may be due to

- i. Obstructive circulation happens in either blood circulation or lymphatic circulation.
- ii. Histamine release
- iii. Toxins in the body

### **i. Obstructive circulation that results in poor osmotic flow and blood pressure change**

Our body's internal environment (biological terrain) is made up of 70% of water. Water flows through our lymphatic system and blood circulation system at certain rate to maintain our blood pressure. Rationing the water distribution between these two systems is of utmost importance to control our blood pressure. To maintain a healthy ratio, the body uses a lot of colloids, crystalloids, albumin protein, sodium, potassium and chloride to establish the osmotic flow. The osmotic flow takes place in the capillary bed. There must be a constant flow of water in and out of the capillary bed. The exchange rate helps to regulate our blood pressure. The rate of osmotic flow in the capillary bed depends on the permeability of capillary wall and venous wall. Should there any obstruction on the capillary wall or venous wall, the pressure will change correspondingly. Any obstruction will affect the rate of water exchange. The net result is water retention in the tissue or edema that may gathers toxins around the tissue which we see it as inflammation and pain.

Mega H<sup>®</sup> and Crystal Energy<sup>®</sup> are two [hydrating products](#); they have a **DIRECT INFLUENCE** on osmotic flow. They are crystalloids carrying negative charges which may increase the hydroelectric potential of water once they are added to water. Drinking water with higher hydroelectric potential may result in higher osmotic flow.

Healing crisis will occur when excess interstitial fluid in any local tissue is obstructed to flow back to the blood circulation. This may cause any past-history of health problem such as gastric, migraine, arthritis, etc will manifest as pain crisis. Water cannot pass through the membrane because the ion pump on the membrane is not working well due to ATP deficiency. As a result, phenomena like pains, blood pressure change, gastric re-attacks or pile bleeding are symptoms to manifest the phenomenon of excess interstitial fluids around a local tissue. When water flows from blood capillary to interstitial fluids and then to a local tissue or an organ is obstructed, we may experience irregular heartbeat or higher blood pressure. When this happen, it indicates there is a blockage in the lymph vessel or blood vessel. Heart beats faster needs Magnesium. Heart palpitates need Calcium.

Brain is very sensitive to water intake. It works to maintain a constant bloodflow to a tissue or an organ with the help of the 'local control'. 'Local' means blood vessel, 'Control' means *Auto-regulation to Normalise Blood Pressure through changing the diameter of the blood vessel. A healthy blood vessel will change its diameter when there is any change in the blood pressure.* This is called auto-regulation. This is accomplished when our Autonomic Nervous System (ANS) works well with the local control.

Brain and kidneys work together to control our blood volume. Controlling blood volume is a long term solution to regularise our blood pressure. When blood pressure is higher, kidneys make urine and excrete it in order to reduce blood volume. The sodium ions in the blood are closely monitored by the kidneys with the help of hormone aldosterone. Sodium ions draw water in the interstitial compartment to the blood because it is attracted by the albumin in the blood. When this happens, the symptom is thirsty, tired and dehydrated. To resolve this problem, we need to increase intake of water treated with Crystal Energy<sup>®</sup>.

### Insomnia: could not sleep

Taking Crystal Energy<sup>®</sup> and Mega H<sup>®</sup> will not affect your sleep. Instead, both products should help you to sleep better. However, they have an ability to ration our body biochemical substances in proportion. Any deficiency of biochemical substances *when not in proportion may lead to symptoms* such as pain, insomnia, edema etc. The following are advised if you suffer insomnia<sup>27-30</sup> after taking Mega H<sup>®</sup> and Crystal Energy<sup>®</sup>.

- i. Soak your both legs in warm water added with sodium salt for 5 to 10 minutes before bed. Clean and dry your legs and then go to bed. It helps to sleep better.
- ii. Include avocados, bananas, tomatoes, plums, and walnuts in your diet because they contain small amounts of 5-HTP. 5-HTP improves our sleep. If a person can't sleep well, it is best to take 5-HTP 30 minutes before bed. In the body, the amino acid tryptophan is converted to 5-HTP (5-hydroxytryptophan or 5-hydroxytryptamine). 5-HTP is used to induce quality sleep, duration of sleep and fight depression. 5-HTP is a precursor to serotonin, the neurotransmitter that signals our brains to feel happy and content. Vitamin B6 (pyridoxine) is necessary to improve absorption of tryptophan.
- iii. High level of cortisol with low level of melatonin may affect your sleep.
- iv. A glass of warm milk with honey is one of the oldest and best remedies for insomnia. Milk contains tryptophan which, when converted to serotonin in the body, induces sleep and prevents waking.
- v. Some people cannot sleep well because they have low nighttime blood glucose level (nocturnal hypoglycemia). Low blood glucose level triggers the release of hormone that can stimulate our brain to signal you it's time to eat. Take oatmeal, whole grain cereal or whole grain bread two hours before bed to solve the insomnia problem.
- vi. Lettuce juice mixed with little lemon juice for flavour is an effective sleep-inducing drink highly preferable to the synthetic chemical agents in sleeping pills. **Lettuce should be an integral part of your evening diet if you are suffering from sleep disorders.**
- vii. Your meal should also include legumes, peanuts, nutritional yeast, fish or poultry. These foods contain vitamin B3 (niacin). Niacin is involved in serotonin synthesis and promotes healthy sleep.
- viii. Try drinking a glass of water and then putting a pinch of salt on your tongue. My personal experience, and observation in others, has shown that one begins falling asleep within a few minutes. In my estimation, this combination alters the rate of electrical discharge in the brain and induces sleep. Remember not to touch the palate with the salt. It may cause irritation<sup>12</sup>.
- ix. A cup of yogurt at night before going to sleep will also help. It works as if you have taken a sleeping pill<sup>12</sup>.
- x. Last resort, if you want to fall asleep more easily, eat a high-carbohydrate snack and avoid high-protein foods in an hour or two before bed time<sup>27-30</sup>.

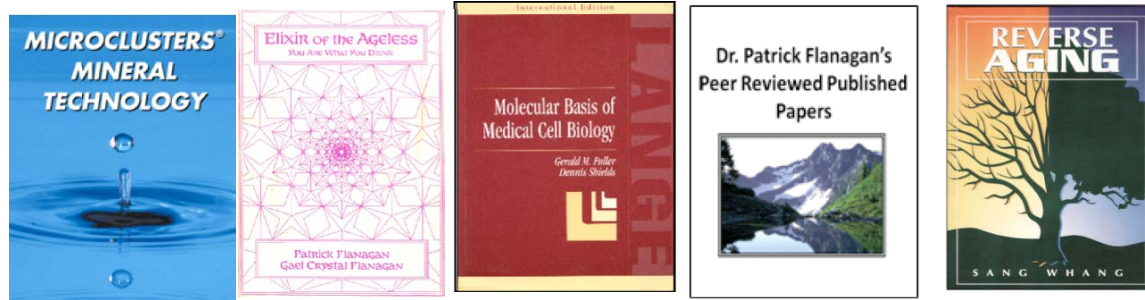


- xi. Gamma Aminobutyric Acid (GABA) is a non-essential amino acid. Glutamic Acid forms GABA using Vitamin B6 as a catalyst. Since GABA facilitates relaxation and sleep, a drop off in levels can result in insomnia, anxiety, and irritability.
- xii. Epsom salt also promotes better sleep.

**General Problem:**

Hidden cause	Symptoms	Solutions
<p>Edema may happen due to</p> <ul style="list-style-type: none"> <li>(a) Poor lymph circulation</li> <li>(b) Poor blood circulation</li> <li>(c) Increase capillary permeability</li> <li>(d) Reduced concentration of blood plasma protein due thyroid or liver disease</li> </ul> <p><u>Source:</u> Gale Encyclopedia of Medicine, Published December, 2002 by the Gale Group The Essay Author is Kathleen D. Wright, RN.</p>	<ul style="list-style-type: none"> <li>• Weight gain</li> <li>• Swelling of the legs</li> <li>• Puffy eyelids</li> <li>• Pulse rate elevated</li> <li>• Hand and neck veins may be observed as fuller</li> <li>• Cough</li> <li>• Chest pain</li> <li>• Dizziness</li> <li>• Piles bleeding again</li> <li>• Blood pressure up or down</li> <li>• Glucose up due to potassium lose</li> <li>• Rapid, shallow respiration, shortness of breath, cough, please refer doctor</li> </ul>	<ul style="list-style-type: none"> <li>• Priority: consult doctor</li> <li>• Reduce table salt intake</li> <li>• Drink more Crystal Energy® treated water</li> <li>• Only 1 Mega H® daily if situation worse</li> <li>• 1 Mega H® twice daily if situation better</li> <li>• 2 Mega H® twice daily if situation improve</li> <li>• Take ExCELLerate</li> <li>• Evening/morning walk</li> <li>• Practice deep breathing exercise</li> <li>• Lemon juice, cranberry juice, pink grapefruit juice</li> <li>• B6 &amp; B5 for mild edema</li> </ul>
<p>High in toxins and uric acid</p>	<p>Tired, fever, sleepy, diarrhea, pain in joints, inflammation, headache, migraine occurs, skin itchy, skin rashes</p>	<ul style="list-style-type: none"> <li>• Exercise / more walking</li> <li>• Drink more Crystal Energy® treated water</li> <li>• Vitamin C</li> <li>• Take two Mega H®</li> <li>• Take Super Hydrate</li> <li>• ExCELLerate</li> <li>• Sleep early/more rest</li> </ul>
<p>History of health problem</p> <ul style="list-style-type: none"> <li>(a) Gastric</li> <li>(b) Arthritis</li> <li>(c) Injury</li> </ul>	<p>Reoccurrence of pains may be due to uric acid discharge, histamine that triggers gastric pain and obstructive circulation due to past injury.</p>	<ul style="list-style-type: none"> <li>• Drink more Crystal Energy®</li> <li>• Super Hydrate to reduce inflammation.</li> <li>• If unbearable, consult doctor</li> </ul>

References:



1. Halliwell B, Gutteridge JMC: Oxidative stress: adaptation, damage, repair, and death. *In: Free Radicals in Biology and Medicine*. (Halliwell BG, Gutteridge JMC, eds.) Clarendon Press, Oxford, 1986, pp. 246-350.
2. Lee H, Cha M, Kim I: Activation of thiol-dependent antioxidant activity of human serum albumin by alkaline pH is due to the B-like conformational charge. *Arch Biochem Biophys* 2000; 380: 308-318
3. Journal of Medicinal Food Volume 5, Number 1, 2002 © Mary Ann Liebert, Inc  
Title: Antioxidant Capability and Efficacy of Mega H<sup>®</sup> Silica Hydride, an Antioxidant Dietary Supplement, by In Vitro Cellular Analysis Using Photosensitization and Fluorescence Detection by CORY J. STEPHANSON, B.A., and G. PATRICK FLANAGAN, M.D., Ph.D., pp 10,
4. Free Radical Biology & Medicine, Vol. 35, No 9, pp. 1129-1137, 2003  
Title: Antioxidant Capacity of Silica Hydride: A Combinational Photosensitization and Fluorescence Detection Assay by CORY J. STEPHANSON, B.A., and G. PATRICK FLANAGAN, M.D., Ph.D.
5. Yang XF, Guo XQ: Fe(II)-EDTA chelate-induced aromatic hydroxylation of terephthalate as a new method for the evaluation of hydroxyl radical-scavenging ability. *Analyst* 2001; 126:928-932.
6. [http://en.wikipedia.org/wiki/Oxygen\\_Radical\\_Absorbance\\_Capacity](http://en.wikipedia.org/wiki/Oxygen_Radical_Absorbance_Capacity)
7. Journal of Medicinal Food, *J Med Food* 6 (3) 2003, 249-253 © Mary Ann Liebert, Inc. and Korean Society of Food Science and Nutrition  
Title: Evaluation of Hydroxyl Radical-Scavenging Abilities of Silica Hydride, an Antioxidant Compound, by a Fe<sup>2+</sup>-EDTA-Induced 2-Hydroxyterephthalate Fluorometric Analysis, pp 252.
8. Journal of Medicinal Food, *J Med Food* 7 (1) 2004, 79-83 © Mary Ann Liebert, Inc. and Korean Society of Food Science and Nutrition  
Title: Differential Metabolic Effects on Mitochondria by Silica Hydride Using Capillary Electrophoresis, by CORY J. STEPHANSON, B.A., and G. PATRICK FLANAGAN, M.D., Ph.D., pp 79, 80, 82.
9. Clinical Nutrition: A Functional Approach, Institute Functional Medicine, Inc. The Institute for Functional Medicine, Gig Harbor, Washington, U.S.A. by Contributing Authors: Jeffrey S. Bland, Ph.D., Linda Costarella, N.D., Buck Levin, Ph.D., R.D., DeAnn Liska, Ph.D., Dan Lukaczer, N.D., Barbara Schiltz, M.S., R.N., C.N., Michael A. Schmidt, C.N.S., C.C.N., 1999, pp 228-229,45.
10. [www.chemguide.co.uk/inorganic/redox/definitions.html](http://www.chemguide.co.uk/inorganic/redox/definitions.html)
11. Armstrong LE, Maresh CM, Castellani JW, Bergeron MF, Kenefick RW, LaGrasse KE, Riebe D. Urinary indices of hydration status. *International Journal of Sport Nutrition* 1994;4:265-279
12. Your Body's Many Cries for Water; 2<sup>nd</sup> ed., Paperback, 1997, Global Health Solutions, Inc., pg 101,155, 125-128; *Batmanghelidj F. M.D.*
13. Wiggins PM; A Mechanism of ATP-Driven Cation Pumps; PP.266.269, Biophysics of Water, Eds. Felix Franks and Sheila F. Math is, Jehn Wiley and Sons, Ltd. 1982
14. Flanagan GP, Purdy-Lloyd K: A silicate mineral supplement, Microhydrin<sup>®</sup>, traps reduced hydrogen providing *in vitro* biological antioxidant properties. *Proceedings: National Hydrogen Association* 1999;10:595-610.
15. Jaqmin GH, Commenges D, Letenneur L, Dartiques JF: Silica and aluminum in drinking water and cognitive impairment in the elderly. *Epidemiology* 1996;7:281-285.
16. Keller WD, Feder GL: Chemical analysis of water used in Hunza, Pakistan; In: *Trace Substances in Environmental Health – XIII, Proceedings*. University of Missouri – Columbia, 1979, pp.130-137.
17. Wetter Water Report by G. PATRICK FLANAGAN, M.D., Ph.D.
18. Hydrogen Anions in Nutrition An Overview by CLINTON H. HOWARD

19. Mazzaferro EM, Rudloff E, Kirby R: The role of albumin replacement in the critically ill veterinary patient. *J Vet Emerg Crit Care* 12(2):113-124,2002
20. <http://phisciencences.com/hydration.html>
21. [http://phisciencences.com/IJHE\\_28\\_11\\_2003.pdf](http://phisciencences.com/IJHE_28_11_2003.pdf)
22. Microcluster<sup>®</sup> Mineral Technology by Kimberley Purdy-Lloyd, M.S. & Bio-Electronics of Microhydrin<sup>®</sup> by Dr. Patrick Flanagan, pp7, 14, 29-30,37,42.
23. Elixir of the Ageless by Dr. Patrick Flanagan
24. International Journal of Hydrogen Energy 28 (2003) 1243-1250  
Title: Synthesis of a novel anionic hydride organosiloxane presenting biochemical properties by Cory J. Stephanson, Department of Chemistry, University of Minnesota, Twin Cities, USA and G. Patrick Flanagan, Accepted 1 November 2002, pp1243.1244,1246.
25. Shirahata S, Kabyama S, Nakano M, Miura T, Kasumoto K, Gotoh M, Hayashi H, Otsubo K, Morisawa S, Katakura Y. Electrolyzed-reduced water scavenges active oxygen species and protects DNA from oxidative damage. *Biochemical and Biophysical Research Communications* 1997, 234:269-274.
26. "Viktoras Kulvinskas is the father of the modern day living-foods diet that is gaining scientific support in the medical community. We see in Viktoras one of the most eminent geniuses in the history of the wellness industry" by David Allen, Ph.D. (Author, wellness pioneer, researcher)  
<http://www.rawfoodplanet.com/bio.html>  
[http://en.wikipedia.org/wiki/Viktoras\\_Kulvinskas](http://en.wikipedia.org/wiki/Viktoras_Kulvinskas)  
<http://www.naturalusa.com/viktor/bio.html>
27. Birdsall, T.C., "5-Hydroxytryptophan: A Clinically-Effective Serotonin Precursor," *Altern Med Rev* 3.4 (1998): 271-80.
28. Byerley, W.F., et al., "5-Hydroxytryptophan: A Review of its Antidepressant Efficacy and Adverse Effects," *J Clin Psychopharmacol* 7.3 (1987) : 127-37.
29. Ceci, F., et al., "The Effects of Oral 5-Hydroxytryptophan Administration on Feeding Behavior in Obese Adult Female Subjects," *J Neural Transm* 76.2 (1989) : 109-17
30. Nicolodi, M., and Sicuteri, F., "L-5-Hydroxytryptophan Can Prevent Nociceptive Disorders in Man," *Adv Exp Med Biol* 467 (1999) : 177-82.
31. Magnesium Activated Hydrogen Ions and Biological Activity: Empirical Analyses and Clinical Significance by Cory J. Stephanson, Ph.D. and G. PATRICK FLANAGAN, M.D., Ph.D.
32. Gauyacq J: Dynamics of Negative Ions. World Scientific Lecture Notes in Physics. Vol. 15. World Scientific Press, New Jersey, 1987.  
Quantitative Analysis of Passive Transport Kinetics and Tensiometry Differentiation by a Colloidal Silicate Mineral, by CORY J. STEPHANSON, B.A., and G. PATRICK FLANAGAN, M.D., Ph.D.
33. The Heidelberg Test: Excerpted  
"Leonard Smith, MD, Medical Director for RBC, conducted the Heidelberg Test on himself at a clinic in order to determine the effect of Microhydrin<sup>®</sup> (now rename as Mega H<sup>®</sup>) on stomach acid. The Heidelberg Test utilizes a tiny radio transmitter in a capsule, which measures and transmits the pH of its environment. Dr. Smith swallowed the capsule and waited 10 minutes to establish the baseline pH. The radio transmitter indicated a pH of 1.0 typical of stomach acid. He then swallowed a Microhydrin<sup>®</sup> capsule with a small amount of water. According to the technician, a momentary blip in the pH was a normal indication of water reaching the stomach. The stomach normally empties in about 30 to 45 minutes. After 45 minutes the pH rose to 6 indicating, according to the technician, that the radio transmitter in the capsule had reached the small intestine. The conclusion from this test was that Microhydrin<sup>®</sup> in its vegetable capsule, when taken with water, does not release significantly while in the stomach, and does not alkalize stomach acid."

Leonard Smith, M.D. graduated from the University Of Florida College Of Medicine, where he now teaches as a part-time faculty member. He has practiced general and vascular surgery and nutritional medicine for 20 years. During that time, his avid interest in the expanding field of nutrition in preventative medicine has taken him to scientific conferences throughout the world. He has lectured to hundreds of professional and lay audiences and has served as an advisor to numerous companies and professional organizations in the healthcare field. As a former football player at the University of Florida, he endorses regular athletics as a vital part of health maintenance, and is an active wind surfer, participating with world champions.

34. Cory J. Stephanson

Cory is a scientist with an emphasis in chemistry. At an early age, he demonstrated talents in science and arts. He is formally educated in the fine arts, as well as chemistry and biochemistry, and has graduate degrees in chemistry, biology, and nanotechnology. Cory has received awards and accolades from numerous institutions, including congressmen, governors, universities, and the American Chemical Society, for his expertise and achievements in the development and advancement of analytical chemistry and bio-analytical techniques. Professionally, Cory has pioneered lab-on-a-chip methods, manufacturing and applications in micro-electromechanical devices (MEMs), and has worked with the science and development of laser-robotic systems for commercial uses. Cory works directly with Dr. Flanagan for the advancement of Patrick's inventions, directing research and innovating novel products and analytical techniques.