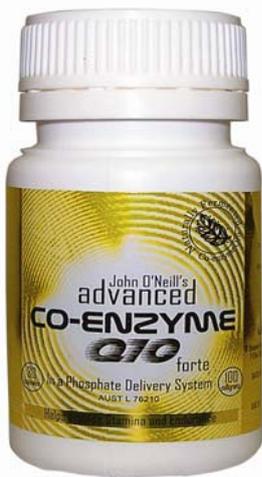


# PASCAS CARE

## Co-enzyme Q10 = CoQ 10



‘Peace And Spirit Creating Alternate Solutions’

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Pascas provides these notes and observations to assist us all in the development and growth of our own pathways and consciousness. Pascas does not hold these contents as dogma. Pascas is about looking within oneself. Much of what we are observing is new to us readers and thus, we consider that you will take on board that which resonates with you, investigate further those items of interest, and discard that which does not feel appropriate to you.



Kinesiological muscle testing, as developed by Dr David R Hawkins and quantified by his Map of Consciousness (MOC) table, has been used to ascertain the possible level of truth of documents. Such tested calibration levels appear within the document. We ask that you consider testing same for yourself. The technique and process is outlined within Pascas documents, such as Pascas Care – Energy Level of Food. From each person's perspective, results may vary somewhat. The calibration is offered as a guide only and just another tool to assist in considering the possibilities. As a contrast, consider using this technique to test the level of truth of your local daily newspaper.

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The sources of contents are noted throughout the document. In doing so, we acknowledge the importance of these sources and encourage our readers to consider further these sources. Should we have infringed upon a copyright pertaining to content, graphics and or pictures, we apologise. In such cases, we will endeavour to make the appropriate notations within the documents that we have assembled as a service via our not for profit arm, to our interested community.

We offer all contents in love and with the fullness of grace, which is intended to flow to readers who join us upon this fascinating journey throughout this incredible changing era we are all experiencing.

Living Feelings First, *John.*



## **BREAKING the SOUND BARRIER of HUMAN ENERGY PRODUCTION**

### **Introduction**

From a lifetime of experience with and around many professional athletes, John has gained a rather privileged knowledge within the area of human performance.

This value of this knowledge is further compounded by the efforts and experience of several of Johns close colleagues providing some ninety years of sports performance experience with parallel data reference from the best scientific research institutes of the world in the fields of respiration, human energy systems and integration. The testing performed by Advanced Life on friends(victims) involve nothing more than a simple methodology and application to measure an individuals fitness, performance and heart efficacy or lack there of. It has to be emphasised results are only ever in relation to the individual concerned, this is never a contest. To that end, only two protocols are employed as a control for accurate reproducible results. When conducted periodically we have a tool to evaluate improvements in an individual's wellness strategy.

The first step, is the volume oxygen test (VO2 MAX) meaning the efficiency with which we are using oxygen. (The difference of 5 millilitres in lung capacity as a ratio to a specific age represents a significant variable in terms of health potential). The measurements taken are only valid in terms of a personal gain in basic fitness, hopefully translating to the broader condition of the individual.

The second involves quantifying heart rate recovery during a specific timed stress trial. An ergometer or similar machine and a set of algorithms are all that is normally necessary for this.

The objective and focus of course is to quantify real gains in health, while managing the repair of and improvement to the hearts efficiency.

I am not talking here of becoming an athlete, inducing stress or overloading through training, as this involves an unreasonable amount of tension and damage, which is of no use to us. In terms of exercise we talk only of conditioning, therefore light training to condition the cells metabolism and maintain and improve their foundation. The objective of exercise is to remove and transform lactates and other solutes into meaningful energy, keeping our cells clean and alkaline. Hydration also a major factor is therefore maintained naturally, without our present paranoia surrounding water saturation during strenuous exertion. Water consumption alone can cause imbalances, mineral loss, and lead to numerous health problems. Ideally we can reduce the quantity of water we require, due to the body's production, during the creation of efficient energy. Therefore real importance lies then in only improving quality, alkalinity and wetness of the main source of water we do use daily.

Advanced Life strategies would not imply that these few criteria are the be all and end all on debate around well-ness, we do however perceive a vital link between our individual mitochondrial health to that of disease states humanity suffer. The results then obtained over many years, when combined with the anecdotal evidence and subsequent case histories, provide the kind of real life hard evidence, that is overwhelming and a base we can work from to state with confidence, that with motivation and a little patience, an individual can improve dramatically they're cellular systems and so become more efficient

with age, well into the 50's, 60's and 70's, while serious consequences of modern living, signs of aging and deterioration are side-stepped along the way.

With this approach an individual may well indeed reach for the kind of threshold of performance for which athletes aspire. These consequences are not the goal of course, our primary purpose is always to stick to improving the efficiency of the organs, inter and extra cellular systems and metabolism.

## **WHO is JOHN O'NEILL?**

John O'Neill is an Australian born, award winning world champion with an impressive record in track and field athletics. He has broken endurance, exercise, and weightlifting world records dating back to the 1960's. He is the founder of a wonder nutrition company **Advanced-Life Products**. John is the walking book on athletic skill and knowledge that is been the inspiration behind the growth of his nutrition company. Celebrating his 71st birthday in 2009, this ex-decathlete is able to easily outrun many athletes, half his age.

## **MORE ABOUT JOHN O'NEILL**

John O'Neill is the author of the book "Breaking the Sound Barrier of Human Energy Production."

Meeting a world champion of any sort is normally a thrill for anyone, but even more so when that champion is a born and bred Ozzie.

John O'Neill was born in Melbourne, Australia and grew up in a tough neighbourhood called Footscray under the care of foster parents. So poor was his early nutritional intake that his diet consisted of sodas, lollypops, chocolates and fatty foods. This was a tough time for John and at the age of fifteen he lost almost all his teeth from constantly having bleeding gums. John saw an opportunity to break away from the poverty of his life and find some solace in physical achievement when another championship runner Les Perry (Australian 3 mile and 6 mile Champion), took an interest in his welfare and encouraged him to run. Misfortune however still loomed in the young mans life when one night while running for approximately sixteen kilometres, he experienced a searing pain in his chest.

John was but a mere 40 metres away from his front door when the pain struck. After a painstaking crawl, that lasted over 2 hours, John finally got home telling no one of the previous night's events.

A year later during a routine medical examination it was revealed that John had suffered heart damage. However this revelation did not stop the young O'Neill from pushing his body to new physical limits. John spent most of his early athletic training at Melbourne University under Franz Stampfl, who had previously coached Roger Banister of England who accomplished the first four-minute mile.

Things began to heat up again when in his early thirties he began to show signs of burnout and test figures produced a less than adequate display of fitness. It was at this time John decided to take matters into his own hands, and assume responsibility for his own health.

This prompted an obsession with training and diet. Despite being a championship athlete he found his health slipping. "I felt in my own heart I would not make 40" he said. Thus began a new chapter in the life of this outstanding achiever. "Sadly many outstanding athletes of my era from various sports have passed away or are sick and incapacitated," said John. "But I had resolved to stop my health fading and get back the strength and endurance that I had in my early twenties." His determination paid off and John spent most of the next five years constantly moderating his lifestyle. These included changes to his diet and exercise routines, and fine-tuning his fitness regimen to incorporate the essential elements for gaining a healthy body, mind, and soul. John's ergometer tests over the past twenty years continue to show signs of a person with more stamina and endurance. This is mainly due to his heart and body operating at capacities that have far exceeded his own expectations. Having suffered earlier setbacks in life, the euphoric feeling of having his health unexpectedly return and keep improving led to the champ wanting to share his good fortune with others. "If it was possible for me to succeed with all my setbacks, so could others and I wanted to share my findings with as many people as possible," said O'Neill.

O'Neill has been Australian Residential Decathlon Champion. Winning in 1962/63 and then again in 1965/66. The Decathlon is an Olympic composite contest consisting of a 100-meter run, a broad jump, putting the shot, a running high-jump, a 400-metre run, throwing the discus, a 100-metre hurdle race, pole vaulting, throwing the javelin, and a 1500-metre run.

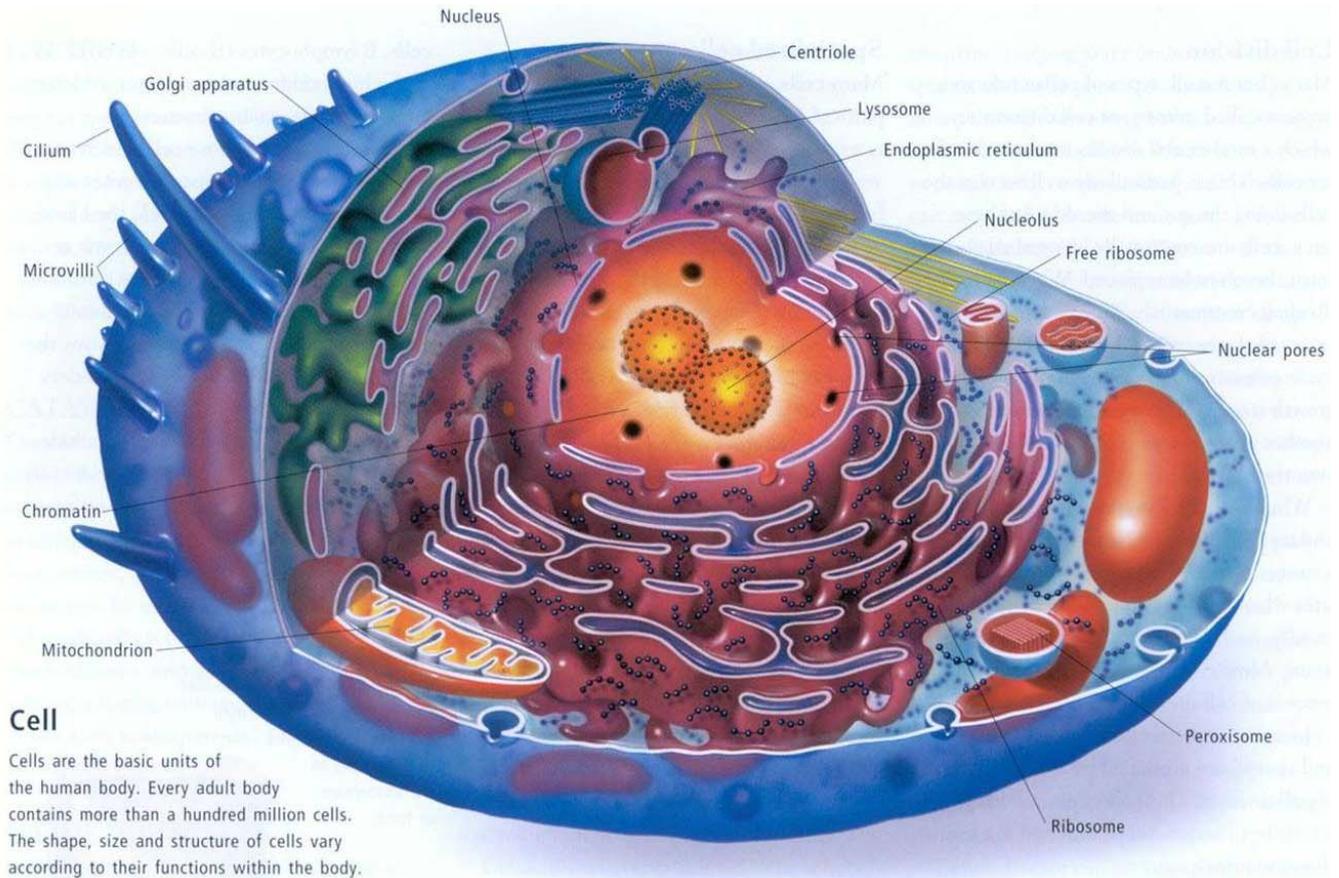
Along with other sporting achievements, John's accomplishments include the "World Endurance Dead Lift Weight Lifting Record" event listed with the Guinness Book of World Records in June 1981. At the time John was 42 years old and accomplished the feat with his young protégé, Ron Naylor aged only 23 years. They completed a lift of 2.5 million pounds within a 24 hour period. The record stands today, and broke previous records set by teams of 10 power lifters.

John's philosophies have been simple. If you are healthy you will not have the time to waste suffering boredom. Good health breeds confidence, independence and the pursuance of increased knowledge in all areas of life.

With that in mind John O'Neill has set the wheels in motion to create an organization that shares his vision to empower people and athletes from all over the globe with the knowledge he has gained from years of experience in determining his own healthy condition.

The organization's aim would be to enhance the life of others and generate well being among people of all ages with their products and services.

In 1986 John founded a nutrition company called Advanced Nutrition. Using the experience he had built up over the years, John put to work the knowledge he had on nutrition, herbs and physiology to produce a range of products that would ensure his vision was realized. Every product and exercise routine that the company recommends has been developed by O'Neill himself. In 2003 a decision was made to change the company name to **Advanced-Life Products** thus reflecting the type of business and products that the company provides. John is still responsible for the formulation and testing of every product under the **Advanced-Life Products** range.



### **Breaking the sound barrier**

An understanding of human energy production requires dimensional thinking to illustrate how oxygen, hydrogen, mitochondria and Q10 work together in our bodies to provide tremendous efficiency.

Our body is really split up into two distinct different cellular systems. We have an aerobic (oxygen mitochondrial) and an anaerobic (sugar fermentation) process in cells that allow us to produce energy in order to survive.

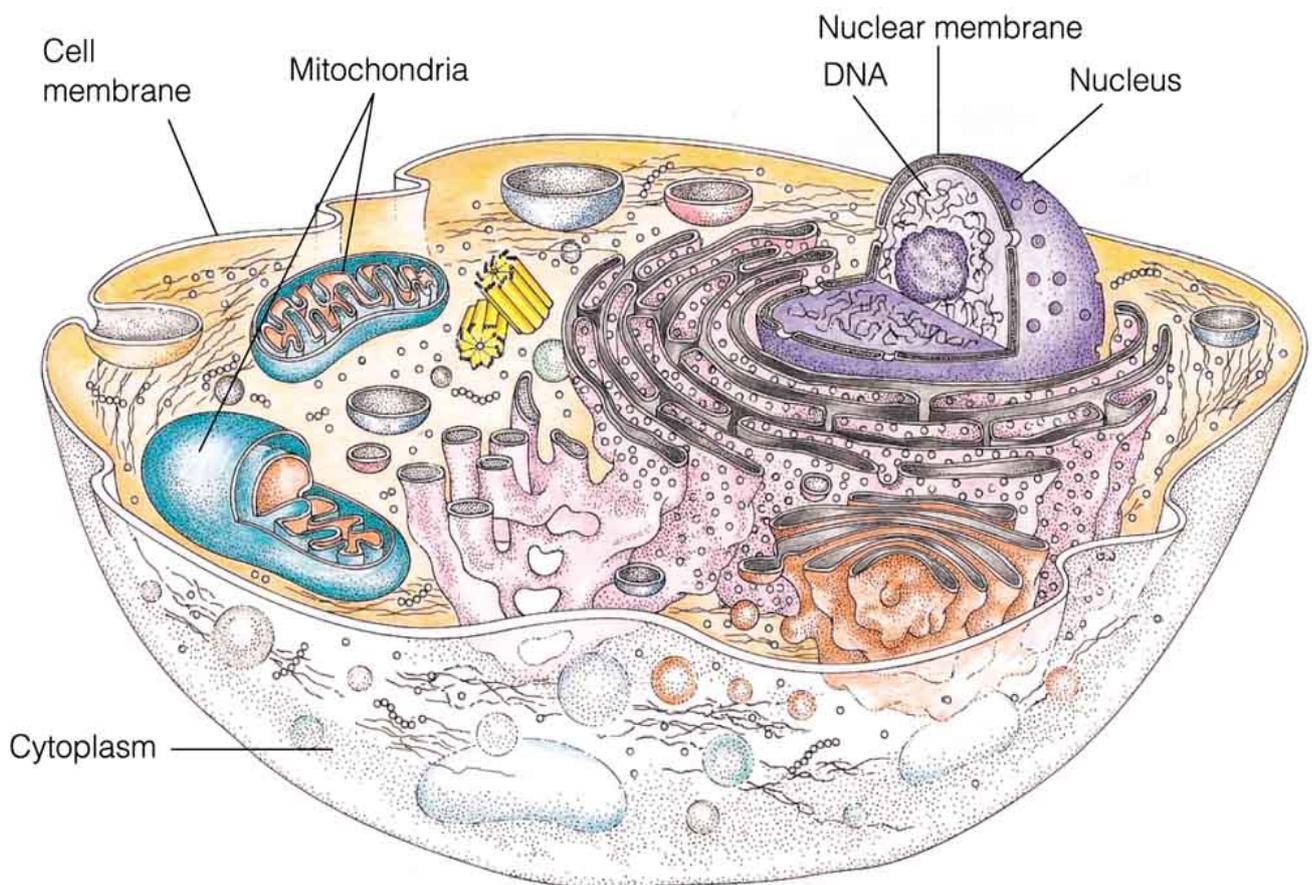
The aerobic process is totally controlled by the health and numbers of mitochondria (a bacteria – virus) that lives within all our body cells symbiotically. We supply oxygen and fuel to mitochondria and they supply us energy. Mitochondria can live about 100 years in our cells if they receive the required nutritional assistance and understanding as opposed to the anaerobic cellular system which has a yeast-like lifespan of about 5 minutes.

Unfortunately human genetic chromosomes (DNA, RNA) have extremely short lifespan potentials without the help of the mitochondria with their capacity through movement to produce low toxic energy and pump cellular wastes (lactic acid) and other toxics from the cells.

The mitochondrial aerobic DNA system with its own unique different chromosome genetic potential is akin to a gearing system in our energy production cycles and facilitates keeping our cells efficient and cleaner during energy production processes by both the aerobic and anaerobic energy systems. An irrefutable fact is better performing mitochondria will lead to better cell health and more efficient performance, slowing cell mutation and deterioration, hence ameliorating the aging process of cells.

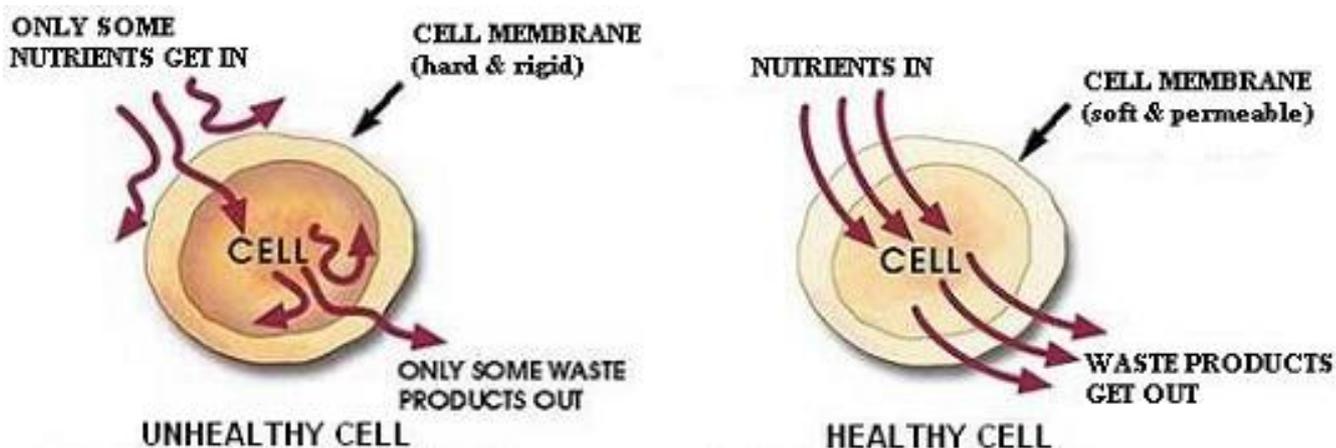
The last 30 years of my life has been immersed with thousands of stress tests conducted on people from all walks of life. These tests one has used to establish how healthy the person is but also establishing Q10 potentials and qualities.

At 70 years of age, I have just completed my annual work rate – heart rate stress test and established that my figures are still showing an increasing efficient upward trend which is hard for me to be believe, no doubt due to my substantial Q10 intake every day.



The Wadsworth Group - a division of Thomson Learning

As a young man many decades ago, I decided to experiment with a car battery by giving it a boosting charge about every 3 months even when the battery was new. When the car was traded in 7 years later it was still using the original battery. I believe it is a very similar analogy to the human body, by giving it good quality Q10 the body cells mitochondria will receive a negative charge field to balance and tune the electrical efficiency output of all cells as necessary.

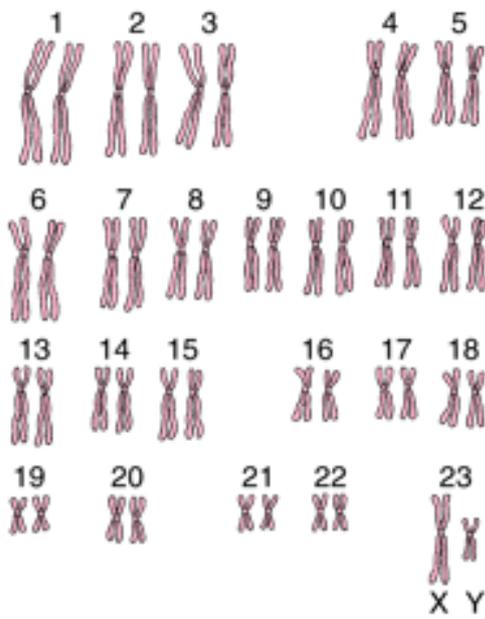
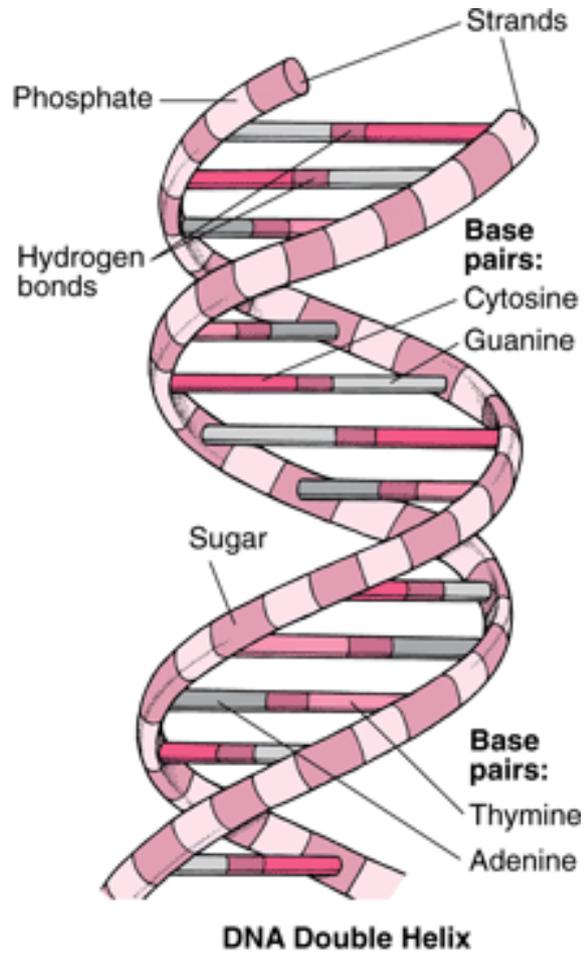
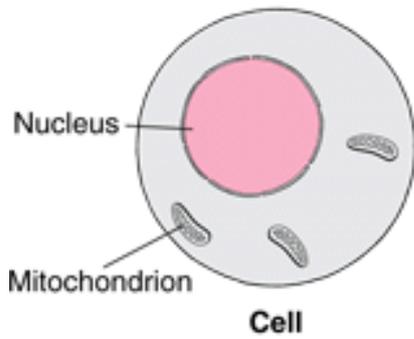


The cell Mitochondria of our bodies create a chemical reaction that produces energy that then finally converts to an electrical delivery response similar to a set of points in our cars called the ADP – ATP cycle. Between these two points emanates the intrinsic life force so necessary for efficient human survival.

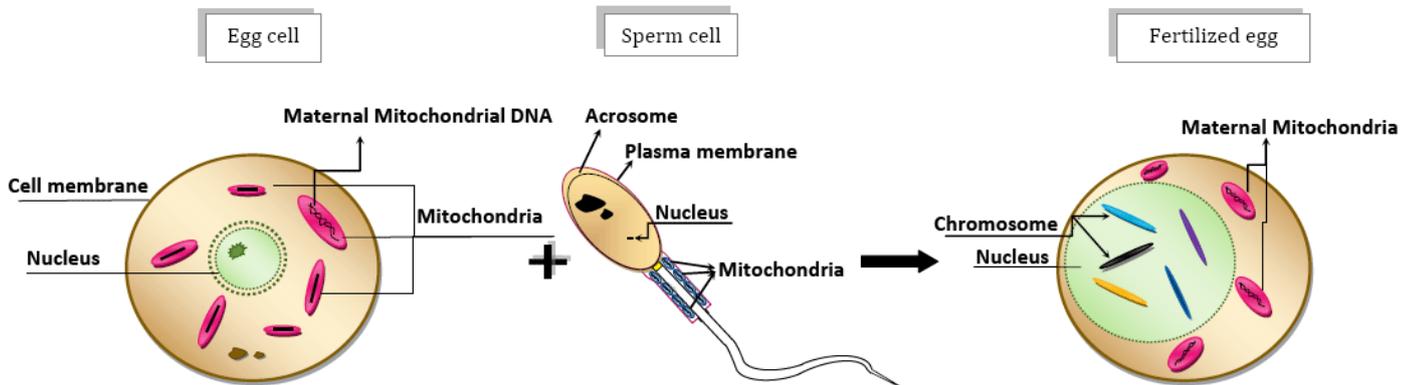
During human lifetimes, keeping cellular electrical capacity at the most efficient levels reverberates back to cell efficiency while the cell is burning its food fuels. This relates to more energy and less wastes in the form of destructive free radicals. A free radical is energy you no longer exert control over in cell mitochondria. Mitochondria DNA strands act like front line soldiers and in doing so soak up and immobilise six times more free radicals than our own nuclear DNA. Free radicals can potentially attack and mutate our fragile human genetic chromatic DNA chain and so obliterating our nucleotides (DNA ladder rungs). When we are young our DNA strands are quite elongated but as we age due to constant free radical exposure DNA strands become folded. The more the strands fold the faster panic stricken cell DNA will accelerate the cell division process which automatically shortens human life. Keeping mitochondria healthy and efficient seems to be the most important critical aspect that can help shape and prolong human lives. Good quality Q10 does contain the much sought after universal life-force which can be measured by electrical meters. Consistent daily doses of Q10 will boost mitochondria cellular electrical balance and slow mitochondrial death and deterioration. The negative charged Q10 enzyme passes its charge readily to mitochondria thus bolstering human energy efficiency systems. If mitochondria become damaged or die in any part of our body then the same fate will occur to that body part.

The recharging of body cells, with naturally produced three dimensional complete Co enzyme Q10 supplementation can be proven on test subjects by ergo testing without doubt. The best defence the human body can have for survival is to maintain the electrical field generated within the mitochondria which manifests as an aura in and surrounding our body. It is most important when buying Q10 that the quality of the Q10 is up to standard in terms of electrical potential. Q10 with no electrical potential equates to the buyer wasting his money entirely.

### **OUR LINK TO THE MATERNAL DNA**



**Pairs of Chromosomes in a Human Cell**

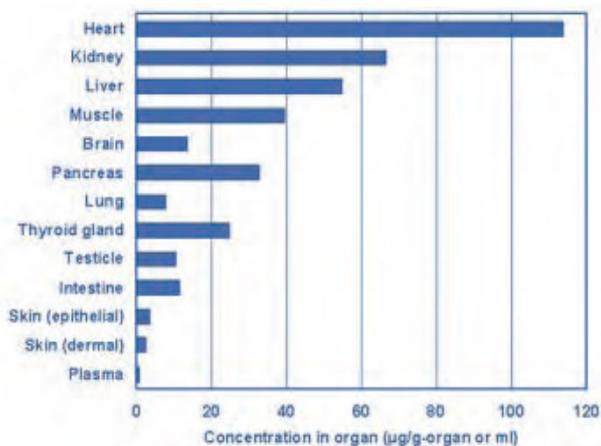


## SIMPLE FACTS ABOUT COQ10

- Our liver makes 6-20 mg. of Q10 the daily average for adults.
- Minimum daily supplementation should be 90mg. increasing to at least 300 – 3,000 mg. per day depending on sickness and disease severity.
- Heart patients begin with a small daily dose of 30 mg, increasing gradually after 2 weeks.
- Ever heard of Mitochondria ? No? Read on . . . (See "About Mitochondria") Mitochondria (might-toe-con-dree-uh) are a specialized part of a cell responsible for the conversion of food to usable energy.
- Mitochondria are present in every cell and provide energy for proper cell operation.
- Humans have an average of approximately 1500 mitochondria in each of their 80 trillion cells.
- Q10 helps Mitochondria burn fuel more efficiently and re-absorb free radicals.
- Degeneration of Mitochondria accounts for 98% of all disease. Q10 is responsible for 90% of correct Mitochondria function.
- Q10 increases the survivability, number and genetic potential of Mitochondria . Increased Mitochondria increases survival of our own DNA chains, enhancing our life-force and therefore our survival.
- Without sufficient Q10, cells are attacked by free radicals, destroy DNA causing premature aging.
- If mitochondria die in cells in any part of your body, that means also death to that body part.
- Body parts receiving large blood flow use more Q10, such as brain, muscles and vital organs.
- Only about 4% of Q10 produced worldwide, is natural or un-oxidized.
- There is no known toxicity from good quality Q10 up to doses of 10,000 mg. a day.
- Elimination side effects can occur when starting Q10 supplementation. Symptoms include – headaches, nausea, heart palpitations, rashes and tiredness. These symptoms are all future positives.



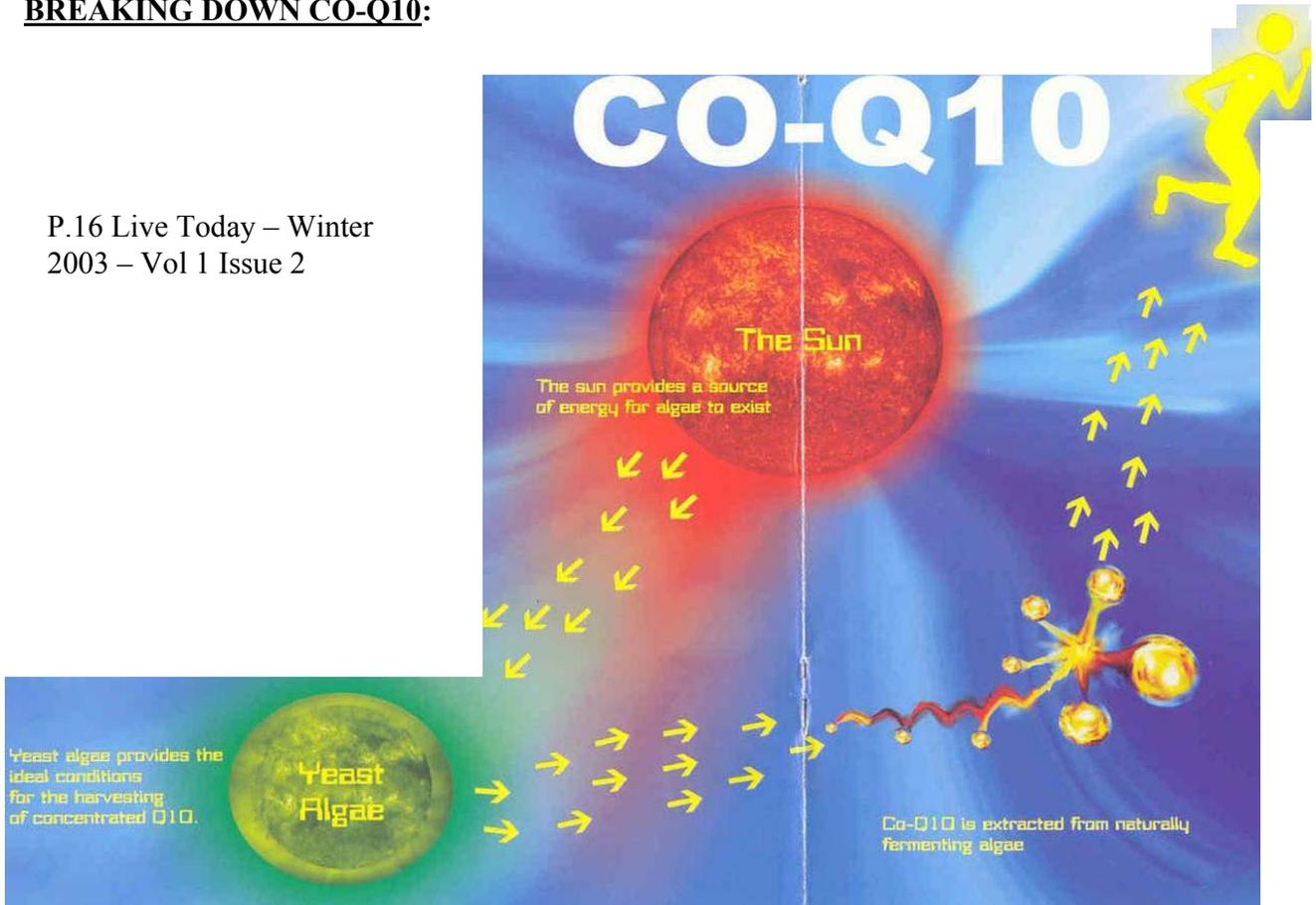
The above facts are John O'Neill's opinion based on his research from conducting 30,000 tests conducted over 20 years.



Oikamoto T. et al. (1989), Aberg F. et al. (1992), and Shindo Y. et al. (1994)  
Functional Food Ingredients Division, KANEKA Corporation

## BREAKING DOWN CO-Q10:

P.16 Live Today – Winter  
2003 – Vol 1 Issue 2



The greater the difference the algae can create in hydrogen / oxygen ratios within the Q10 enzyme, the greater the result health wise we will see from the Q10 we consume.

Once the oxygen has been almost eliminated from the yeast algae the concentrated Q10 is then extracted from the yeast algae and carefully stored out of sunlight, artificial (especially fluorescent) or moisture. At this point lowered oxygen atom levels further enhance the energy within the enzyme structure and can increase the shelf life of the product when stored.

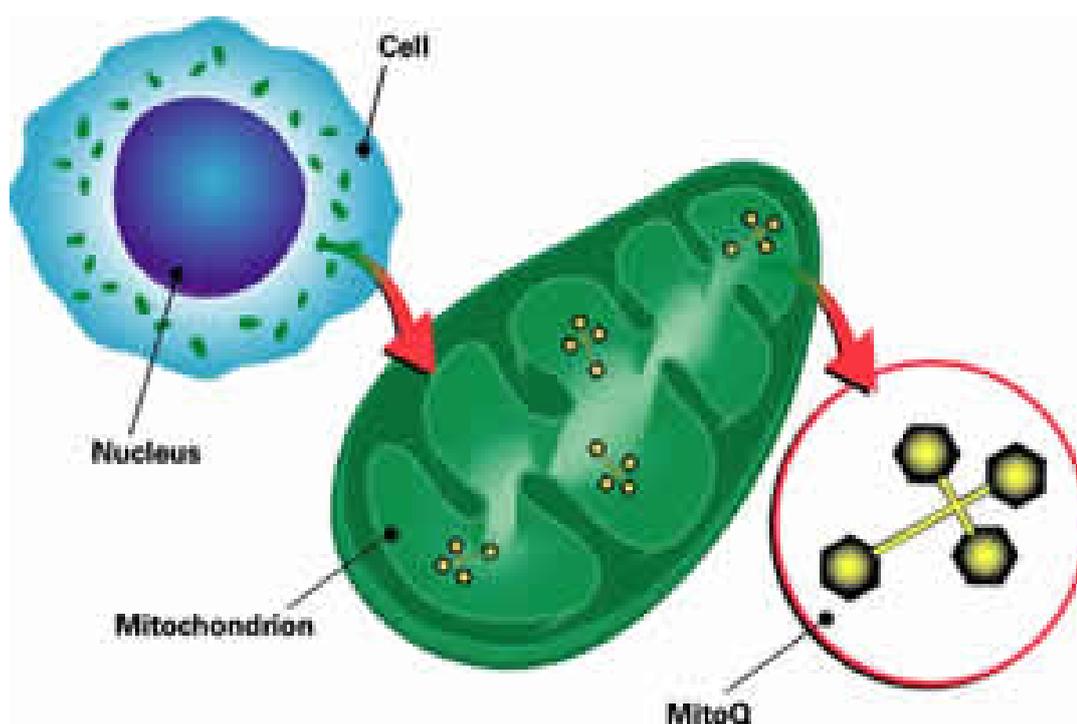
The next stage of the manufacturing process is also critical to the Q10's effectiveness after we consume it. By mixing Co-Enzyme Q10 with either oil or gel it puts back the moisture and therefore puts back the oxygen. John O'Neill says that "this should never happen prior to consumption. Ideally Co-Enzyme Q10 and oxygen should only come together once they are in your body. Until they meet, oxygen is protected in the blood stream by red blood corpuscles and the hydrogen is protected in the molecular structure of Co-Enzyme Q10. This is why oil / gel based Q10's when subjected to Ergometer (heart rate efficiency) testing oils / gels put back the moisture and therefore puts back the oxygen prior to human ingestion" he said.

The phosphates (calcium, magnesium, and potassium) Advanced Life-Products use in their Co-Enzyme Q10 formula act to enhance the Q10 in two ways. Firstly, the phosphates keep the Q10 in a dry, oxygen-reduced environment and secondly, they assist the Q10 in absorbing out of the bloodstream and into the working cells efficiently.

When we ingest Q10 into our bodies, it precipitates hydrogen and oxygen towards one another and the force in which they collide creates a pure non-toxic energy source and creates the by-product water. This is called the Aerobic System.

Advanced Life-Products remember originally manufactured Q10 this way only for their own consumption and were/are constantly testing all types of Co-Enzyme Q10 for raw product efficiency and as finished products to gauge their effectiveness in human output performance. There are two important features with Q10. Firstly, it must be taken from naturally fermented yeast algae and secondly, it must be kept away from moisture until ingested. Advanced Life-Products would change their process immediately if a better performance (ergometer tested) Co-Enzyme Q10 became available. Until then they will continue with their algae based and phosphate delivered Co-Enzyme Q10.

As of 2009, Advanced Life-Products depend on Kaneka Nutrients L.P. premium grade only for their supplies of raw Co-Q10.



*“Never can one man do more for another man than by making it known of the availability of the Feeling Healing process and Divine Love.”* JD

### The MIGHTY MITOCHONDRIA:

P.20 Live Today – Winter 2003 – Vol 1 Issue2

Why is the mitochondria so important to our existence and what would our lives be like if we had to remove the mitochondria from our bodies. We asked John O'Neill why he feels the Mitochondria is so important.

LT. How does the mitochondria aid our healthy existence and future longevity?

JO. Mitochondria process our fuel and oxygen depending on their health and capacity. When we are young, mitochondria efficiency is higher and their efficiency gradually deteriorates as we age.

Mitochondria living within our cells have their own genetic DNA and will react according to the surroundings in their cell environment. If their capacity is limited or obstructed then they cannot burn fuels or pump waste from the cells efficiently. If the mitochondria's ability to perform their tasks is restricted then it cannot remove the wastes from the cells and then has less ability to utilise the fuel being supplied to it ... it's a vicious circle.

Healthy mitochondrion means a healthy life.

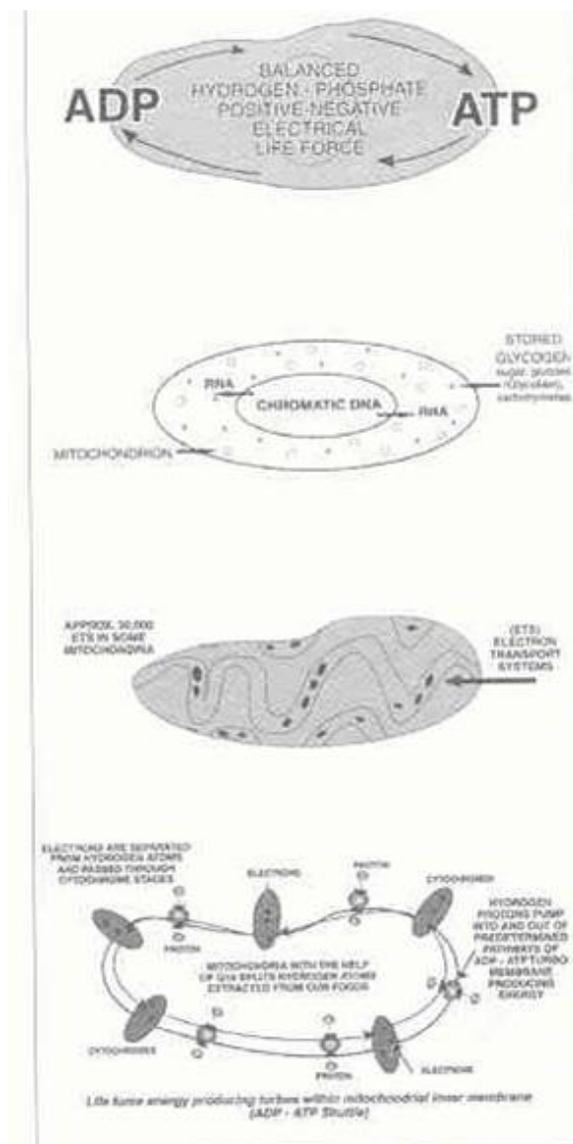
LT What is the driving force behind the human body that helps it maintain a healthy existence?

JO The human body is composed of many components that all have different idiosyncrasies that work together to maintain our life.

Our body sustains life through our organs, muscles, bones, tendons and skin cells. Mitochondria exist in every one of these cells. A person averages approximately 1,500 mitochondria in each cell throughout their body and the body consists of trillions of cells.

The mitochondria are sub-cellular symbiotic bacteria that live within all human cells. Mitochondria can be classified as our aerobic system. Without mitochondria our life would cease within three minutes. Co-Enzyme Q10 is one of the most vital ingredients for the functioning mitochondria. Without Co-Enzyme Q10 being present in the cells the mitochondria cannot co-ordinate nutrients, e.g., hydrogen, oxygen, minerals and vitamins that are supplied to it.

LT Why is it so important that we try and maximise our mitochondria's efficiency?



JO In our body cells we have distinct energy systems.

The first called glycolysis is located in the cell cytoplasm and burns sugars, glucose and glycogen (carbohydrates) quickly on demand but only 5% of the potential energy is initially available from the sugar fuels, the other 95% remains in the form of lactate or pyruvate.

The next system is the aerobic system that consists of two parts – krebs cycle and phosphoralisation. Glycolysis (sugar burning) releases lactate. A large percentage of lactate can be converted to pyruvate and used later in the mitochondria depending on how efficiently the mitochondria work. The better we are at converting lactate into usable fuel, the less cellular DNA damage will occur.

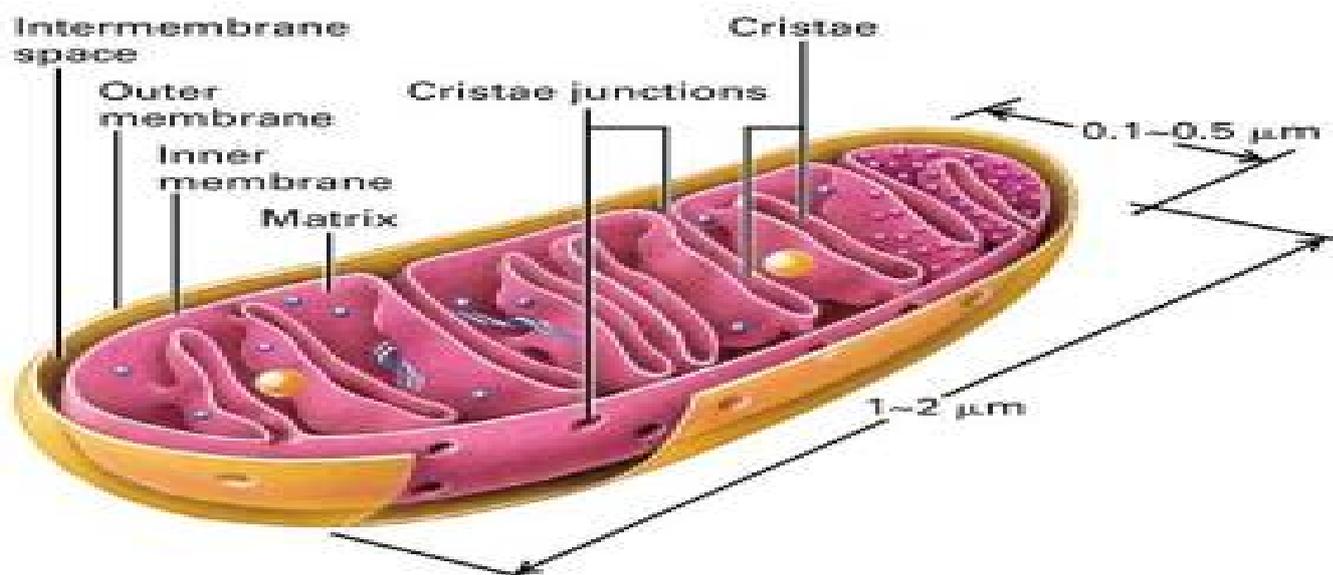
The other task the mitochondria have is to pump wastes out of the cell into the bloodstream for further energy conversion in the liver or elimination from the body.

It is important that the cells do not become inundated with lactate (free radicals), as genetic chromatic DNA will be damaged. Free radicals seek a negative charge when pairing and can rob your DNA of this scarce stored precious negative charge that is so necessary to balance cellular energy outputs and maintain life.

LT So can the health of the mitochondria be directly related to ageing and disease?

JO If the human mitochondria can maintain their efficiency for longer periods during its life span then this should result in less disease and the effect of ageing for most people.

Naturally fermented Co-Enzyme Q10 is critical to enhancing the performance of your mitochondria.



**By living true to ourselves, true to our feelings, we are living true to God. It's that simple.**

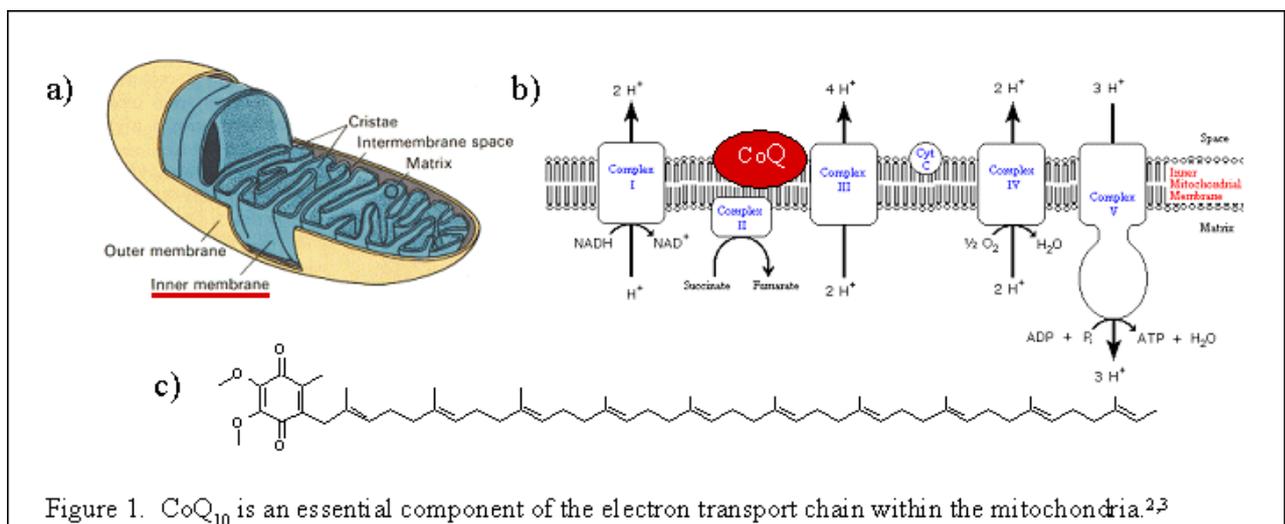


### What is CoQ10 : Technical

Coenzyme Q10 (2,3, dimethoxy-5-methyl-6 decaprenyl-1,4-benzoquinone) was isolated from cardiac mitochondria by Dr. Frederick L. Crane and colleagues at the University of Wisconsin in 1957, and its chemical structure was determined by Dr. Karl Folkers et. al of the University of Texas in 1958. Coenzyme Q10 is also known as “ubiquinone”, a name derived from the words ‘ubiquitous’, meaning ‘everywhere’, and ‘quinone’.

Coenzyme Q10 is a valuable biological substance whose homologues are present everywhere in the organic world, among a variety of plant species, animals, and microorganisms. The most remarkable characteristic of Coenzyme Q10 in terms of the human body lies in its indispensability in the production of energy. Coenzyme Q10 exists in components within the cell membrane such as mitochondria and lysosomes. Coenzyme Q10 is also referred to as “vitamin Q”, due to its vitamin-like functions.

Coenzyme Q10 is internally biosynthesized through the mevalonate pathway, the bio synthetic pathway of intrinsic cholesterol and exists in the heart, kidneys, liver, muscles, pancreas, and thyroid in high concentrations.



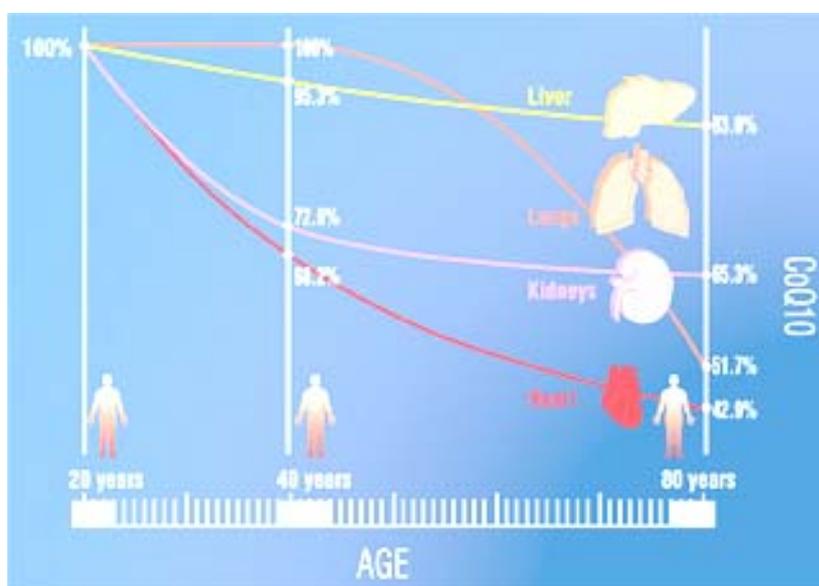
Coenzyme Q10 is an important factor in the process of electron transfer at the heart of the aerobic energy-supply process and exerts a great influence on the production of ATP. It has been reported that the supply of Coenzyme Q10 activates the production of ATP. This is considered to be due to the activation of the electron transfer process through an increase in the amount of Coenzyme Q10 in the body. It has also been reported that the body does not produce a sufficient amount of Coenzyme Q10 for all necessary electron transfer processes. This supports the theory that Coenzyme Q10 activates ATP production.

### What is CoQ10 : How Does it Work?

Coenzyme Q10 is the spark plug that ignites the body's engine by jump starting energy production within all cells. The body then uses that energy to fuel vital biological processes. Thus, CoQ10 is fundamental to sustaining energy and life.

One of CoQ10's pivotal roles in the body is bioenergetics, or energy metabolism. The major part of cellular ATP (energy) production happens within the inner membrane of the mitochondria, the powerhouse of the cell. CoQ10 is a critical component of the electron transfer chain in mitochondrial respiration. Due to the vital role it plays in the production of cellular energy, small changes in CoQ10 levels within the mitochondria have been shown to have significant effects on the rate of cellular respiration. Thus, a lack of CoQ10 may lead to declining energy levels and decreased stamina.

Another key role CoQ10 plays is in lipid-soluble antioxidant protection. As the most powerful biosynthesized lipid-soluble antioxidant known, CoQ10 prevents the generation of free radicals as well as oxidative damage to the body's cells, including proteins, lipids and DNA. CoQ10 can also regenerate the active antioxidant forms of vitamin E and vitamin C, the most powerful water-soluble antioxidant.



**Feeling  
Healing with  
Divine Love is  
the key!**



**PASCAS  
PAPERS**

## What is CoQ10 : Benefits

There are numerous benefits to supplementing with CoQ10.

Because it is essential for the optimum production of cellular energy, CoQ10 enhances stamina and improves the body's overall state of health. As a powerful antioxidant, it also prevents lipid peroxyl radicals production, strengthens the immune system and fosters resistance to disease.

Over the last 30 years, thousands of studies have been conducted and published on CoQ10 benefits for maintaining optimum health and healthy aging.

## What is CoQ10 : Three types of CoQ10

The Coenzyme Q10 that is found in consumer supplements and functional foods & beverages today is derived either from yeast, bacteria or tobacco.

KanekaQ10™ is the only patented yeast-fermented CoQ10 available on the market today.

The yeast fermentation method, developed by the Kaneka Corporation 30 years ago, produces CoQ10 that is identical to that produced naturally within the body. This bio-identical form of CoQ10 lacks the impurities found in synthetic or bacterial fermented CoQ10.

Synthetically produced CoQ10, chemically processed from tobacco, produces a by-product known as the "cis isomer" which is not present in nature.

The significant safety, toxicity and efficacy studies on CoQ10 to date have been conducted mostly on Kaneka's yeast-fermented CoQ10. Very little testing, if any, has been found on CoQ10 derived from either bacteria or tobacco.

## What is CoQ10?

CoQ10 is a powerful, fat-soluble, vitamin-like substance found naturally with the body. It is an essential component of the cellular machinery used to produce ATP, which provides the energy for all vital cellular function. CoQ10 is found in every cell in the body, with especially high concentrations in the heart, which requires high levels of energy for normal operation. It is one of the most powerful biosynthesized, lipid-soluble antioxidants known. In its pure manufactured form, CoQ10 is a yellow-orange, tasteless, crystalline powder.

## Why is CoQ10 Important?

CoQ10 has two pivotal roles in our bodies: bioenergetics (energy metabolism) and lipid-soluble antioxidant protection. All of our metabolic systems require constant energy input in order to function properly. This energy is generated through cellular respiration in the mitochondria, the powerhouse of the cell. CoQ10 is a critical component of the electron transfer chain in mitochondrial respiration. CoQ10 is

found in the highest concentrations in organs that have the highest metabolic energy requirements, such as the heart, kidney, liver and skeletal muscle.

It is important to note that the levels of CoQ10 decrease as we age and that this decrease in CoQ10 is associated with the aging process and many age-related conditions. Supplementation with CoQ10 replenishes the diminished levels of CoQ10, fostering a protective defence against oxidative stress and age-related disease.

### **Does Everyone Need A CoQ10 Supplement?**

Not everyone needs to take a CoQ10 supplement. In young and healthy individuals, the body produces adequate levels of CoQ10. However, as people age, the ability of the body to produce and metabolize CoQ10 declines. This can be due to a number of reasons including insufficient dietary intake, disease, increased metabolic demand or oxidative stress. Some reports indicate the decline in CoQ10 becomes apparent around 40 years old, with others reporting a decline as early as age 20. Because decreases in CoQ10 are associated with the aging process and many age-related diseases, many people could potentially benefit from supplementing CoQ10. People who suffer from risk factors of age-related diseases or conditions should raise their CoQ10 levels as soon as possible (see clinical testing); and those who wish to boost energy levels and improve overall health also should consider daily supplements of CoQ10.

### **Are There Any Side Effects From Taking CoQ10?**

CoQ10 supplements have been consumed by millions of people for more than 30 years without serious adverse effects. That is because CoQ10 exists naturally in the human body. No adverse effect causally related to CoQ10 consumption by humans has been identified, and thus a NOAEL (or LOAEL) cannot be identified, and a UL cannot be derived. The dosages used in clinical trials are evaluated for adequacy to establish with confidence a lack of adverse effect at that level of CoQ10 intake. Therefore, the clinical trial data were evaluated to identify an OSL (termed HOI in the FAO/WHO report). Congestive heart failure patients who have shown improved heart function after supplemental CoQ10 may regress to their baseline function if their supplemental CoQ10 is discontinued and should consult a physician before taking any supplements including CoQ10. ([See clinical testing](#)).

### **Can I get CoQ10 through the foods I eat?**

CoQ10 is found in many foods, but at very low concentrations. It would be extremely difficult to acquire a reasonable dose of CoQ10 strictly through the typical Western diet. One would have to consume approximately three pounds of sardines or 15 pounds of broccoli a day to provide the minimal suggested supplementation levels.

### **What Forms Of CoQ10 Supplements Are Available and What Is The Recommended Daily Dosage?**

CoQ10 is available in capsules, tablets and oil-based softgel form. CoQ10 is typically found in strengths ranging from 30-300 mg. According to most medical advice, adult levels of CoQ10 supplementation are in

the 30-100 mg range daily\*. Those taking CoQ10 to address a specific health problem may take higher doses, but should consult a doctor to determine the recommended level for their individual needs. KanekaQ10 has been tested in dozens of safety studies up to clinical doses of 3,000 mgs per day, showing no adverse effects. For optimum absorption of CoQ10, it is recommended that CoQ10 be taken with meals. However, efficacy and bio-availability of CoQ10 vary enormously by production method, synthetic or natural fermentation as does the elusive electrical bio-hydrogen potentiality from the CoQ10. ([see clinical testing](#)).

### Is CoQ10 Available In Products Other Than Supplements?

Yes, in addition to being available as a dietary supplement in capsules and softgels, CoQ10 can be found in a growing number of consumer products, including oral care and skin products as well as functional foods and beverages.

### Where Can I Buy CoQ10 Supplements and other Products Containing CoQ10?

CoQ10 is available in health food stores and pharmacies, in leading drug and department stores, in mass merchandising stores and supermarkets across the country, and by direct mail from manufacturers.

ADVANCED LIFE PRODUCTS PTY LTD

Consider John F O'Neill's CoQ10 capsules and powders; 56 Julie Way, Mudgeeraba 4213. Ph: 07 5530 5982 [yli@alifeproduct.com](mailto:yli@alifeproduct.com)

John Jenkins Ph: 07 5575 3044 Mob: 0415 755771 E: [john@securefinance.com.au](mailto:john@securefinance.com.au)

John O'Neill products include:

<b>Advanced Co-enzyme Q10</b>	<b>100mg</b>	
<b>Advanced Co-enzyme Q10</b>	<b>50mg</b>	
<b>Advanced Co-enzyme Q10</b>	<b>30mg</b>	
<b>Arthorest (1st grade glucosamine, chondroitin southern ocean shark accidental catch only)</b>	<b>900mg</b>	
<b>Natural fruits and berries – 8 components</b>	<b>coming</b>	<b>mops up free radicals</b>

**Manufacturer:** John O'Neill's: Advanced Life Products

Consider minimum daily intake of 100mg Co-Q10. At the commencement of your Co-Q10 program, consider 250mg daily either in capsule and/or powder form. Small regular doses during the day is a positive option. A program may take several years to work through.

John O'Neill's  
**advanced**  
**LIFE-PRODUCTS**

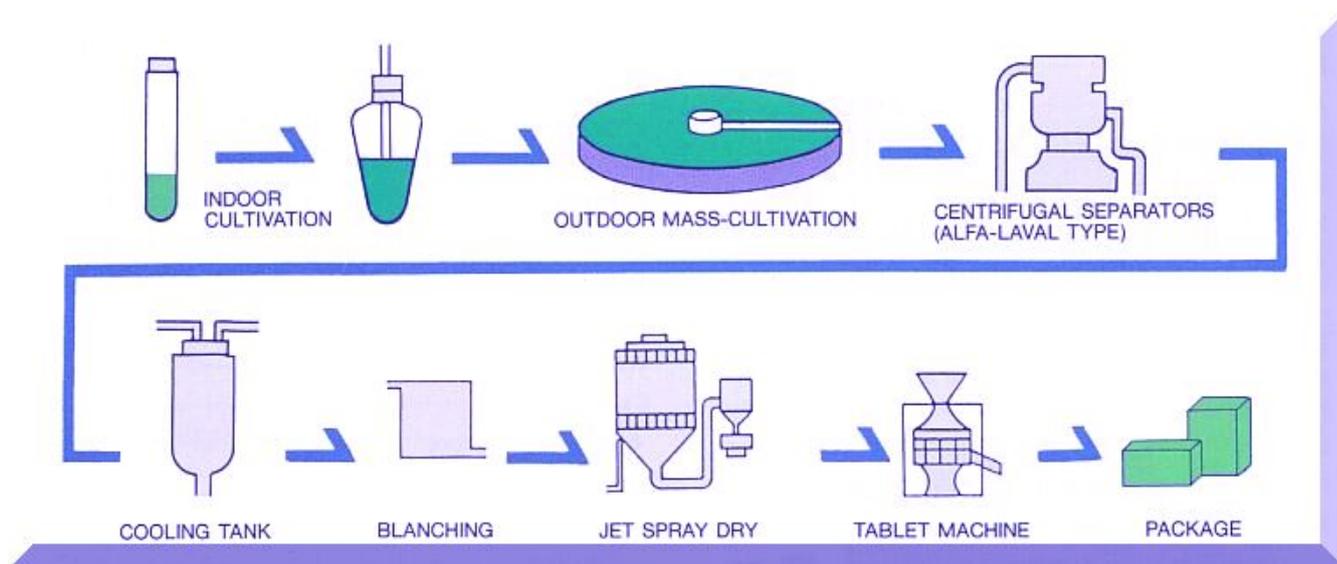
## What are enzymes?

When you hear the word enzymes, it sounds like some sort of miracle chemical developed in a lab. In fact, enzymes are a natural part of our world and play an important role in everyday life. They are found in every living organism and life is not possible without enzymes. Enzymes are catalysts – not living organisms. They cause natural reactions to occur faster. Enzymes either start a process or accelerate an existing process. Whenever a substance needs to be removed or transformed into another substance, enzymes are the answer. They even play an important role in our own bodies. Enzymes we produce in our body, for instance, help digest food which is then converted into the energy that we need without the expenditure of relative amounts of energy and heat that would otherwise be required. Health science industry has been able to harness this natural phenomenon to produce enzymes on a much larger scale.



## Why Is Natural Twelve Stage CoEnzyme Q10 Better?

Quality is important. The highest quality CoEnzyme Q10 in the world is produced in Japan where the Japanese government oversees a rigorous 12 stage fermentation process. This is the product we offer to our customers; there is none better. Other sources of CoQ10 are often a dramatically lower quality, often manufactured in countries where there is less concern about contamination and heavy metals.



## Who Should Consider CoEnzyme Q10?

Anyone who is looking to supplement their diet with a powerful antioxidant, but especially:

- People who are concerned about cardiovascular health;

- People who are experiencing low energy, since CoQ10 is a key mediator for electron transfer in the mitochondria -- the source of 95% of the body's energy;
- People who have been diagnosed with cardiovascular disease (i.e., heart disease and/or stroke) by a healthcare practitioner; and
- People who have been diagnosed with Parkinson's Disease by a healthcare practitioner.

### Coenzyme Q10: Introduction

Coenzyme Q10 is a substance that acts very much like a vitamin in the body. It is a member of the ubiquinone family, which are characterized by solubility in fat, hydrophobicity, and which are involved in electron transport and energy production. Coenzymes are non-proteinaceous substances that combine in the body with apoenzymes, which are proteinaceous, to form active enzyme systems. These enzyme systems are in turn involved in the breakdown of proteins (often into their component amino acids, which feed, fuel, repair and maintain the health of the body). Since vitamins are essential precursors to enzyme systems ("essential" meaning that they must be consumed and are physiologically necessary), and coenzyme Q10 is needed by the body, it is often considered a vitamin, however it is not truly "essential" – your body can produce coenzyme Q10.

Coenzyme Q10 can supply or remove oxygen from biologically active molecules. Every cell in your body contains intercellular components (organelles) called mitochondria, which produce 95% of the total energy of the body. Coenzyme Q10 is an integral part of the membranes of the mitochondria where it is involved in the production of ATP (adenosine triphosphate), the basic energy molecules of the cell. It is important to understand that ATP, produced by your mitochondria IS energy *in potentia*; that is, when you breath, sit, stand, run, exercise, walk, digest, laugh, whistle or mow the lawn, even think – everything that takes energy, which is everything you do – comes at the cost of your ATP stores. Supplementing coenzyme Q10 aids in the body's cellular respiration and energy production; it's that fundamental and it is fundamentally that important. Our bodies could not survive without coenzyme Q10, as it is necessary in the synthesis of ATP (Pizzorno 1999). If body levels start dropping, so does our general health; scientists have estimated that once body levels of coenzyme Q10 drop below the 25% deficiency levels, many health problems begin to flourish, including cardiovascular problems, immune system depression, periodontal problems, lack of energy, and weight gain, and it may be a contributing factor to the aging process (Pizzorno 1999).

Coenzyme Q10 is a nutrient necessary to the functioning of every cell in our bodies and now you know why. The greater the oxidative stress on a given organ tissue, the greater the need for coenzyme Q10, which may explain its usefulness in heart conditions (Pizzorno 1999). Levels of coenzyme Q10 begin to decline around age 30 and steadily decrease with age, making supplementation increasingly important. Since coenzyme Q10 production occurs in the same metabolic pathway as does cholesterol, it is suspected that the increased cholesterol synthesis that occurs as we age may be responsible for the drop off in coenzyme Q10 levels (Hendler 2001). It may be that as our cholesterol synthesis increases, the body's capacity to produce coenzyme Q10 necessarily decreases (since both share the same metabolic pathway – specifically, coenzyme Q10 production diverts some farnesyl diphosphate away from squalene production which in turn is used to make cholesterol)



(Pizzorno 1999). It is also suspected that increasing coenzyme Q10 in the body can help decrease lipid peroxidation (Aejmelaeus 1997).

### **Specific, Researched Uses of Coenzyme Q10 in Common Problems**

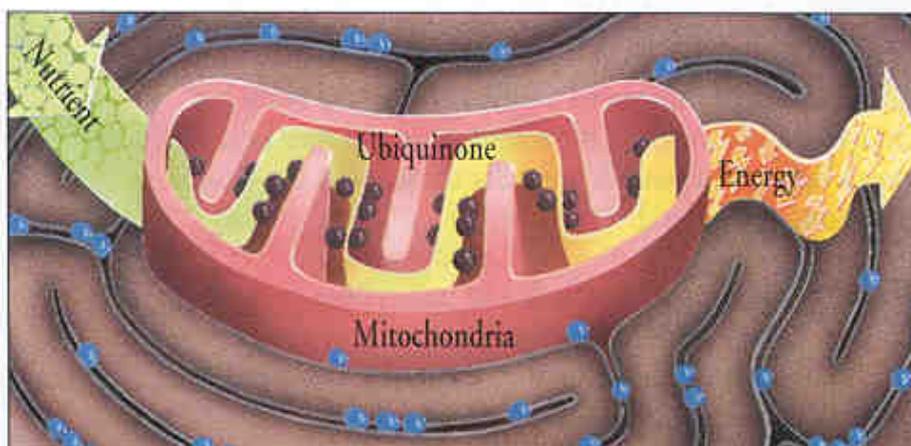
#### **Overview:**

In general, Coenzyme Q10 benefits as an adjuvant therapy in cases where disease etiology is affected by oxidative stress and/or mitochondrial dysfunction, which include Parkinson's Disease, congestive heart failure, hypertension, migraine, macular degeneration, asthenozoospermia (infertility due to poor sperm motility), and Friedrich's ataxia (an inherited nerve-degenerative disease) (Littaru 2005). It is also quite helpful in cases of periodontal disease (Pizzorno 1999). It is very important to understand, however, that in most cases coenzyme Q10 is beneficial when used as an adjuvant therapy (not a primary therapy except where indicated), and nothing on this page is meant to be construed as a recommendation, diagnosis, or an endorsement of coenzyme Q10 as a primary medicinal treatment or cure of any disease.

#### **Parkinson's Disease:**

Coenzyme Q10 made headlines a few years ago when a study funded by the National Institute of Neurological Disorders and Stroke, conducted at the University of California at San Diego, was published in the journal, "Archives of Neurology". In that study, coenzyme Q10 was demonstrated to slow the progress of early-stage Parkinson's Disease.

Patients diagnosed with Parkinson's Disease for 5 years were divided into four groups and given varying amounts of CoEnzyme Q10 and Vitamin E. The four groups were as follows: 300mg of coenzyme Q10, 600mg of coenzyme Q10, 1200mg of coenzyme Q10, or placebo; all groups received Vitamin E. The patients' improvement in



mental function, motor ability and activities of daily living were dose dependent; those receiving 1200 mg of coenzyme Q10 each day showed the greatest improvement (44% less decline in the above function categories as compared to the placebo group). Patients receiving the smaller amounts of coenzyme Q10 did not fare as well as those in the 1200 mg group, but did better than those not receiving any coenzyme Q10 (Shults 2002).

Since then much research into coenzyme Q10 and Parkinson's Disease has been initiated but has mostly not been completed. However, a recent meta-analysis of coenzyme Q10 / Parkinson's Disease studies has

indicated that coenzyme Q10 is indeed of some benefit to sufferers of Parkinson's Disease (Weber 2006), but left conclusive value as to its benefit in question for further research.

NOTE regarding statins and PD: though statins reduce the levels of coenzyme Q10 in the body, and coenzyme Q10 is known to benefit in PD, it has not been shown that statins worsen the severity of PD (Lieberman 2005). (More under "Statins", below.)

### **Cardiovascular Disease (CVD):**

Perhaps the best researched aspect of coenzyme Q10 is its use as an adjuvant therapy in cases of heart disease, both in preventative and palliative scenarios. The reason why coenzyme Q10 is so beneficial to the heart is because Coenzyme Q10 possesses the ability to protect the heart during periods of aschemia, or oxygen deprivation. When the mitochondria are performing optimally, cellular respiration is at its best, too, and this is quite beneficial to your heart. Additionally, **researchers believe that Coenzyme Q10 prevents the oxidation of low-density lipoproteins (LDL; i.e., the "bad" cholesterol)**, making it an important supplement for anyone with high cholesterol (more on this topic under "Statins", below).

Numerous studies have shown that pre-treatment with coenzyme Q10 helps heart patients come through various open heart surgeries in better health and with shorter recovery times than those who have not been so treated (Judy 1993, Rosenfeldt 1999, 2005). In a study performed in 1998, Coenzyme Q10 was shown to halve the total number of subsequent cardiovascular incidents in patients who had suffered myocardial infarctions (heart attack), as long as the Coenzyme Q10 was begun within three days of the infarction (Singh 1998). That's a really big deal as anyone who has had or knows someone who has had a heart attack can attest. Maybe most exciting are the studies that show that coenzyme Q10 has helped patients with severe cardiomyopathy to live well beyond their usual life expectancies <sup>1</sup> and has helped those with congestive heart failure (Sinatra 1997) as well as those awaiting heart transplant enjoy an improved quality of life (Berman 2004). Also of interest, and a topic that is currently undergoing more rigorous study, is the use of coenzyme Q10 in reducing liver and cardio-toxicity due to cancer chemotherapy (Roffe 2004). **(Interesting side note: one study we found indicated that baseline coenzyme Q10 levels were strongly predictive of melanoma metastasis (Rusciani 2006).)**

But you certainly do not have to be in such dire health circumstances to benefit from coenzyme Q10. Overall, it has been shown to improve ejection fraction and end diastolic volume of the heart (Weant 2005), and it can be used as part of a lifestyle method of reducing hypertension (Wilburn 2004).

### **Statin Drugs**

High cholesterol is very common health concern in America today; odds are almost certain that you or someone you know has been instructed by their physician to reduce their cholesterol level. Statin drugs, also known as HMG-CoA Reductase Inhibitors, are extremely popular prescriptions for the reduction of cholesterol (accounting for many of the top sellers for the pharmaceutical companies). But, as discussed above, cholesterol and coenzyme Q10 are produced through the same metabolic pathway and when you block the pathway to effect a reduction in cholesterol, you also effect a reduction in endogenous coenzyme Q10 production. This, as the reader may suspect, is not good. Another problem that occurs with prolonged use of statin drugs is a condition known as rhabdomyolysis. Rhabdomyolysis is why statin users have to have their liver enzymes checked periodically. It is a nasty condition whereby skeletal

muscle tissue is destroyed and its contents (many things, but of most concern is potassium) dumped into the blood stream, taxing the liver and causing, in the worst case scenario, acute renal failure if left untreated.

Some good news is on the horizon: coenzyme Q10 has shown to be of promise in combination with statin drugs (Chapidze 2005), AND it may be able to help reverse rhabdomyolysis (Farswan 2005). As is nearly always the case, it looks good, but more study is needed.

### **Migraine Headaches**

There is good preliminary evidence that coenzyme Q10 is a safe, natural, and highly effective way to reduce the occurrence of migraine headache (Bianchi 2004, Modi 2006, Sandor 2005). While general consensus must remain guarded, there is one stand-out study that is worth mentioning because it is of the double-blind, randomized, placebo-controlled variety. This study showed that 100mg, 3x/day reduced the 50%-responder-rate of migraine attack by 47.6% as compared to 14.4% for placebo (Sandor 2005).

### **Asthenozoospermia / Asthenospermia (infertility due to low sperm motility)**

We didn't expect to find this when we began our research into coenzyme Q10, but a new avenue of research into this versatile substance has to do with male fertility. The studies we found were universally promising. In men with infertility or low fertility with a diagnosis of idiopathic asthenozoospermia (low sperm motility), coenzyme Q10 has been shown to improve sperm fertilization rates, sperm count, and sperm motility (Alleva 1997, Ballercia 2004, Lewin 1997, Mancini). The reason for this is theorized to be that the coenzyme Q10 concentration in the sperm is directly responsible for reactive oxygen species (ROS) quenching. As we age we are exposed to environmental toxins which accumulate in the body; without proper anti-oxidant defences (e.g. endogenous coenzyme Q10) these toxins take their toll on the body's tissues and cells. Sperm cells are also susceptible to such attacks, so increasing coenzyme Q10 and other anti-oxidants in the diet can help to reverse male infertility when it is due to these oxidative stresses (Sheweita 2005, Sinclair 2000).

For men diagnosed with varicocele, the benefits of coenzyme Q10 are less clear as there seems to be some as yet unarticulated molecular pathology at work in these patients (Balercia 2002, Mancini).

### **CoEnzyme Q10 Usage**

Usage should be adjusted according to the issue it is being taken to address 100-3000 mg/day. Food increases the absorption rate.

### **Side Effects**

There are no contraindications for coenzyme Q10; it is exceedingly safe. According to the PDR for Nutritional Supplements, precautions include only Warfarin users. Coenzyme Q10 may decrease the effectiveness of Warfarin, though this warning is based on only one report. The PDR also indicates that it may reduce the need for certain type II diabetes medicines, so the type II diabetic user should be aware of this. Adverse reactions include mild gastrointestinal symptoms in some persons (Hendler 2001), though we have received no reports of this.

## THE IMPORTANCE OF TOPICAL CANCER BLACK SALVE:

Although strategies based around the implementation of Co Q10 and alkalinity are holistic and complete, there are still undeniable issues, afflicting a significant group of the population. These are special need cases that present symptomatically, still related as they can be treated, rather however as exceptions that prove the rule. One such achillis heel and so common is skin cancer, and this is where the story of Cansema\* begins. \* Cansema is now a general term for various ointments related to skin carcinomas applied directly to the skin.

### A SHORT HISTORY OF “ESCHAROTICS”



Cancer Black Salve is in the most advanced category of a range of cancer-killing ointments historically known as “escharotics”. Most of those which have been developed and manufactured in the United States during the last 100 years are variations of the formula first discovered and refined by John Hoxsey in 1840. Mr Hoxsey developed herbal formulas for both external and internal cancers. His great grandson, Harry M Hoxsey, continued his work in clinics from 1920 through the 1950’s. His book “You Don’t Have to Die” gives a complete history of the discovery and use of the formulas. This legacy through ongoing research still goes on today.

Cancer salve is a topical crème that has to be applied to cancerous lesions of the dermis and epidermis, necroses the aberrant tissue (i.e. kills the cancer cells), creates an “eschar” (what would appear to the layman as pus formation); at this point the body itself expels the “scab” (with the help of Solugel \* trademark water based gel inhibits any scaring) leaving a pit. Over a period of several weeks this “decavitated area” heals over; usually leaving a slightly depigmented area where the lesion was removed.

Cancer Salve has proven its supremacy in a field of proven effective cancer killing ointments. Its reputation rests on its ability **to work in a single application every time**. It works quickly with no known side effects – other than some pain in certain cases within the first 4 to 14 days, and other related lesions may also seep. In this case an analgesic can be administered.

Although the common description of the Salves effect is “burning” or a feeling of “electricity” – this interpretation is not accurate for **Cancer Salve**. The ointment does contain a low amount of zinc chloride and alkaloid which is not a cause of any burn effect. In fact Cancer Salve is very selective in its action, it is escharotic to abnormal benign or cancerous tissue and only mildly irritating or non reactive to healthy skin.

### SPECIAL NOTE

If instructions are followed 100% success can be guaranteed in the removal of dermal or epidermal malignant lesions, including basal cell, squamous cell epitheliomas and even melanomas – regardless of size

By using an appropriate water based gel \*trademark Solugel available from chemists little or no scarring is experienced. Although designed for self administration, Black Salve is not a replacement for timely competent medical advice or attention.

Black Salve because of its ability to discriminate between healthy and abnormal tissue, is often used simultaneously as both a diagnostic tool and a skin cancer remedy. We do not recommend this use, simply because skin cancer is sometimes a by-product of other pathological condition(s) that should be attended to by a competent physician.

Once cancers have healed prevention is the next step. It is important the body be kept alkaline and to increase oxygen efficiency. Natural Co-enzyme Q10 from a legitimate source is highly recommended.

### **References Footnotes**

1. Langsjoen PH, Langsjoen PH, Folkers K (1985). "Long-term efficacy and safety of coenzyme Q10 for idiopathic dilated cardiomyopathy." *Am J Cardiol* 65: 521-523, qtd. in Pizzorno: 666-667.

### **Works Cited**

Aejmelaeus, R., T. Metsa-Ketela, et al. (1997). "Ubiquinol-10 and total peroxy radical trapping capacity of LDL lipoproteins during aging: the effects of Q-10 supplementation." *Mol Aspects Med* 18 Suppl: S113-20. Evidence is rapidly accumulating that oxidative modification of low density lipoprotein (LDL) may play an important role in the pathogenesis of atherosclerosis. In this study we measured the total peroxy radical trapping capacity of human plasma LDL phospholipids (TRAPLDL) with a luminescent method. The study was carried out with 70 healthy volunteers, aged 28-77. In males an age-related decrease in TRAPLDL was observed. In the age group under 50 years the mean TRAPLDL was 31.36 +/- 1.45 pmol peroxy radicals/nmol Pi; among those over 50 years it was significantly lower at 26.67 0.94 pmol/nmol Pi. As regards the components of TRAPLDL, the concentration of LDL-ubiquinol did not change and a non-significant decrease in the LDL-tocopherol concentration was detected with age. In females, the mean TRAPLDL, LDL-ubiquinol-10 and tocopherol concentrations did not differ between the age groups. When 17 of the participants were given coenzyme Q10 (Q10) supplementation, 100 mg/day, a highly significant increase in LDL-ubiquinol concentration was detected. Our results indicate that LDL antioxidant defenses tend to decrease with age in the Finnish male population. The decline is most significant in males under 50 years; in older age groups the values remain stable at a low level. Q10 supplementation doubles the number of ubiquinol-10-containing LDL molecules and may therefore have an inhibitory effect on LDL oxidation.

Alleva, R., A. Scaramucci, et al. (1997). "The protective role of ubiquinol-10 against formation of lipid hydroperoxides in human seminal fluid." *Mol Aspects Med* 18 Suppl: S221-8. Defective sperm function in infertile men has been associated with increased lipid peroxidation and impaired function of antioxidant

defenses in spermatozoa. Evidence strongly suggests that CoQ10, a lipid-soluble component of the respiratory chain acts, in its reduced form (ubiquinol), as a potent antioxidant in various biological systems, such as lipoproteins and membranes. In this study we assayed CoQ10 content in both the reduced and oxidized form (ubiquinol/ubiquinone), and hydroperoxide levels in seminal plasma and seminal fluid from 32 subjects with a history of infertility. Our results showed a significant correlation between ubiquinol content and sperm count ( $r = 0.62$ ;  $P < 0.05$ ) in seminal plasma. An inverse correlation between ubiquinol content and hydroperoxide levels both in seminal plasma and in seminal fluid ( $r = -0.56$ ;  $P = 0.01$ ) was found. Using multiple regression analysis we also found a strong correlation among sperm count, motility and ubiquinol-10 content ( $P < 0.01$ ) in seminal fluid. An inverse correlation between ubiquinol/ubiquinone ratio and percentage of abnormal morphology was also observed in total fluid. These results suggest that ubiquinol-10 inhibits hydroperoxide formation in seminal fluid and in seminal plasma. Since peroxidation in sperm cells is an important factor affecting male infertility, ubiquinol could assume a diagnostic and/or a therapeutic role in these patients.

Balercia, G., G. Arnaldi, et al. (2002). "Coenzyme Q10 levels in idiopathic and varicocele-associated asthenozoospermia." *Andrologia* 34(2): 107-11. Levels of coenzyme Q10 (CoQ10) and of its reduced and oxidized forms (ubiquinol, QH2, and ubiquinone, Qox) have been determined in sperm cells and seminal plasma of idiopathic (IDA) and varicocele-associated (VARA) asthenozoospermic patients and of controls. The results have shown significantly lower levels of coenzyme Q10 and of its reduced form, QH2, in semen samples from patients with asthenospermia; furthermore, the coenzyme Q10 content was mainly associated with spermatozoa. Interestingly, sperm cells from IDA patients exhibited significantly lower levels of CoQ10 and QH2 when compared to VARA ones. The QH2/Qox ratio was significantly lower in sperm cells from IDA patients and in seminal plasma from IDA and VARA patients when compared with the control group. The present data suggest that the QH2/Qox ratio may be an index of oxidative stress and its reduction, a risk factor for semen quality. Therefore, the present data could suggest that sperm cells, characterized by low motility and abnormal morphology, have low levels of coenzyme Q10. As a consequence, they could be less capable in dealing with oxidative stress which could lead to a reduced QH2/Qox ratio. Furthermore, the significantly lower levels of CoQ10 and QH2 levels in sperm cells from IDA patients, when compared to VARA ones, enable us to hypothesize a pathogenetic role of antioxidant impairment, at least as a cofactor, in idiopathic forms of asthenozoospermia.

Balercia, G., F. Mosca, et al. (2004). "Coenzyme Q(10) supplementation in infertile men with idiopathic asthenozoospermia: an open, uncontrolled pilot study." *Fertil Steril* 81(1): 93-8. **OBJECTIVE:** To clarify a potential therapeutic role of coenzyme Q(10) (CoQ(10)) in infertile men with idiopathic asthenozoospermia. **DESIGN:** Open, uncontrolled pilot study. **PATIENT(S):** Infertile men with idiopathic asthenozoospermia. **INTERVENTION(S):** CoQ(10) was administered orally; semen samples were collected at baseline and after 6 months of therapy. **MAIN OUTCOME MEASURE (S):** Semen kinetic parameters, including computer-assisted sperm data and CoQ(10) and phosphatidylcholine levels. **RESULT(S):** CoQ(10) levels increased significantly in seminal plasma and in sperm cells after treatment. Phosphatidylcholine levels also increased. A significant increase was also found in sperm cell motility as confirmed by computer-assisted analysis. A positive dependence (using the Cramer's index of association) was evident among the relative variations, baseline and after treatment, of seminal plasma or intracellular CoQ(10) content and computer-determined kinetic parameters. **CONCLUSION(S):** The exogenous administration of CoQ(10) may play a positive role in the treatment of asthenozoospermia. This is probably the result of its role in mitochondrial bioenergetics and its antioxidant properties.

Berman, M., A. Erman, et al. (2004). "Coenzyme Q10 in patients with end-stage heart failure awaiting cardiac transplantation: a randomized, placebo-controlled study." *Clin Cardiol* 27(5): 295-9. **BACKGROUND:** The number of patients awaiting heart transplantation is increasing in proportion to the waiting period for a donor. Studies have shown that coenzyme Q10 (CoQ10) has a beneficial effect on patients with heart failure. **HYPOTHESIS:** The purpose of the present double-blind, placebo-controlled, randomized study was to assess the effect of CoQ10 on patients with end-stage heart failure and to determine if CoQ10 can improve the pharmacological bridge to heart transplantation. **METHODS:** A prospective double-blind design was used. Thirty-two patients with end-stage heart failure awaiting heart transplantation were randomly allocated to receive either 60 mg U/day of Ultrasome--CoQ10 (special preparation to increase intestinal absorption) or placebo for 3 months. All patients continued their regular medication regimen. Assessments included anamnesis with an extended questionnaire based partially on the Minnesota Living with Heart Failure Questionnaire, 6-min walk test, blood tests for atrial natriuretic factor (ANF) and tumor necrosis factor (TNF), and echocardiography. **RESULTS:** Twenty-seven patients completed the study. The study group showed significant improvement in the 6-min walk test and a decrease in dyspnea, New York Heart Association (NYHA) classification, nocturia, and fatigue. No significant changes were noted after 3 months of treatment in echocardiography parameters (dimensions and contractility of cardiac chambers) or ANF and TNF blood levels. **CONCLUSIONS:** The administration of CoQ10 to heart transplant candidates led to a significant improvement in functional status, clinical symptoms, and quality of life. However, there were no objective changes in echo measurements or ANF and TNF blood levels. Coenzyme Q10 may serve as an optional addition to the pharmacologic armamentarium of patients with end-stage heart failure. The apparent discrepancy between significant clinical improvement and unchanged cardiac status requires further investigation.

Bhagavan, H. N. and R. K. Chopra (2005). "Potential role of ubiquinone (coenzyme Q10) in pediatric cardiomyopathy." *Clin Nutr* 24(3): 331-8. Pediatric cardiomyopathy (PCM) represents a group of rare and heterogeneous disorders that often results in death. While there is a large body of literature on adult cardiomyopathy, all of the information is not necessarily relevant to children with PCM. About 40% of children who present with symptomatic cardiomyopathy are reported to receive a heart transplant or die within the first two years of life. In spite of some of the advances in the management of PCM, the data shows that the time to transplantation or death has not improved during the past 35 years. Coenzyme Q10 is a vitamin-like nutrient that has a fundamental role in mitochondrial function, especially as it relates to the production of energy (ATP) and also as an antioxidant. Based upon the biochemical rationale and a large body of data on patients with adult cardiomyopathy, heart failure, and mitochondrial diseases with heart involvement, a role for coenzyme Q10 therapy in PCM patients is indicated, and preliminary results are promising. Additional studies on the potential usefulness of coenzyme Q10 supplementation as an adjunct to conventional therapy in PCM, particularly in children with dilated cardiomyopathy, are therefore warranted.

Bhagavan, H. N. and R. K. Chopra (2006). "Coenzyme Q10: absorption, tissue uptake, metabolism and pharmacokinetics." *Free Radic Res* 40(5): 445-53. Available data on the absorption, metabolism and pharmacokinetics of coenzyme Q10 (CoQ10) are reviewed in this paper. CoQ10 has a fundamental role in cellular bioenergetics. CoQ10 is also an important antioxidant. Because of its hydrophobicity and large molecular weight, absorption of dietary CoQ10 is slow and limited. In the case of dietary supplements, solubilized CoQ10 formulations show enhanced bioavailability. The T(max) is around 6 h, with an elimination half-life of about 33 h. The reference intervals for plasma CoQ10 range from 0.40 to 1.91

*micromol/l in healthy adults. With CoQ10 supplements there is reasonable correlation between increase in plasma CoQ10 and ingested dose up to a certain point. Animal data show that CoQ10 in large doses is taken up by all tissues including heart and brain mitochondria. This has implications for therapeutic applications in human diseases, and there is evidence for its beneficial effect in cardiovascular and neurodegenerative diseases. CoQ10 has an excellent safety record.*

*Bianchi, A., S. Salomone, et al. (2004). "Role of magnesium, coenzyme Q10, riboflavin, and vitamin B12 in migraine prophylaxis." Vitam Horm 69: 297-312. Migraine is a neurovascular syndrome characterized by recurrent headache associated with other symptoms, eventually preceded by aura. This chapter reviews the involvement of some mineral, coenzyme, and vitamin defects in the pathogenesis of migraine headaches and focuses on their potential therapeutic use in the preventive treatment for migraine. The therapeutic potential of magnesium, coenzyme Q(10), riboflavin, and vitamin B(12) can be cautiously inferred from some published open clinical trials; it should, however, be considered that double-blind randomized larger studies are needed to correctly estimate the impact of the placebo effect in these promising therapies.*

*Bonakdar, R. A. and E. Guarneri (2005). "Coenzyme Q10." Am Fam Physician 72(6): 1065-70. Coenzyme Q10 is a vitamin-like substance used in the treatment of a variety of disorders primarily related to suboptimal cellular energy metabolism and oxidative injury. Studies supporting the efficacy of coenzyme Q10 appear most promising for neurodegenerative disorders such as Parkinson's disease and certain encephalomyopathies for which coenzyme Q10 has gained orphan drug status. Results in other areas of research, including treatment of congestive heart failure and diabetes, appear to be contradictory or need further clarification before proceeding with recommendations. Coenzyme Q10 appears to be a safe supplement with minimal side effects and low drug interaction potential.*

*Chapidze, G., S. Kapanadze, et al. (2005). "Prevention of coronary atherosclerosis by the use of combination therapy with antioxidant coenzyme Q10 and statins." Georgian Med News(118): 20-5. The goal of the present research was to assess the efficacy of combination treatment with antioxidant coenzyme Q10 and simvastatin as well as coenzyme Q10 without statin therapy in order to prevent coronary atherosclerosis. 42 outpatients were divided into 2 groups: receiving coenzyme Q10 (Hasco-Lek, Poland) 60mg daily and its combination with simvastatin (zocor, vasilip) 10mg daily for an 8-week period. The treatment with coenzyme Q10 demonstrated its potential independent role in positive modification of oxidative stress, antiatherogenic fraction of lipid profile, atherogenic ratio, platelet aggregability. Taking into consideration the obtained results the study supports the use of coenzyme Q10 in combination with statins. Suggested attractive approach may result in complete correction of dislipidemia, reverse of endothelial dysfunction, reduce degree of oxidative stress and platelet aggregability. Consequently such a combination may be beneficial in preventing of further development of atherosclerosis in native coronary arteries as well as in bypass grafts in all coronary heart disease patients with or without myocardial revascularization.*

*Farswan, M., S. P. Rathod, et al. (2005). "Protective effect of coenzyme Q10 in simvastatin and gemfibrozil induced rhabdomyolysis in rats." Indian J Exp Biol 43(10): 845-8. Administration of simvastatin (80 mg/kg, po. evening dose) and gemfibrozil (600 mg/kg, po twice) for 30 days produced significant decrease in the level of reduced glutathione, superoxide dismutase, catalase and increase in the level of lipid peroxidation and various serum parameters (creatine phosphokinase, lactate dehydrogenase, serum glutamate oxaloacetate transaminase, creatinine, urea and blood urea nitrogen).*

*This suggested involvement of oxidative stress in rhabdomyolysis. Increase in the level of reduced glutathione, superoxide dismutase, catalase and decrease in the level of lipid peroxidation and serum parameters after administration of antioxidant CoQ10 (10 mg/kg.ip) proved the protective effect of CoQ10 in rhabdomyolysis.*

*Hendler, Sheldon Saul and Rorvik, David, Eds. 2001. PDR for Nutritional Supplements. 1st ed. Montvale, NJ: Medical Economics Thomson Healthcare.*

*Judy, W. V., W. W. Stogsdill, et al. (1993). "Myocardial preservation by therapy with coenzyme Q10 during heart surgery." Clin Investig 71(8 Suppl): S155-61. Coenzyme Q10 (CoQ10) is a natural and essential cofactor in the heart. It is the primary redox coupler in the respiratory chain, a potent free radical scavenger, and a superoxide inhibitor. In this study the myocardial protective effects of CoQ10 were determined in high-risk (n = 10) patients during heart surgery compared to that found in placebo controls (n = 10). In both groups, there was a blood CoQ10 deficiency (< 0.6 microgram/ml), low cardiac index (CI < 2.4 l/m2 per minute), and low left ventricular ejection fraction (LVEF < 35%) before treatment. CoQ10 (100 mg per day) was given orally for 14 days before and 30 days after surgery. Presurgical CoQ10 treatment significantly (P < 0.01) improved blood and myocardial CoQ10 and myocardial ATP compared to that found in the control group. Cardiac functions (CI and LVEF) were improved but not significantly. After cardiac cooling, rewarming, and reperfusion; blood and tissue CoQ10 and tissue ATP levels were maintained in the normal ranges in the CoQ10 patients. Cardiac pumping (CI) and LVEF were significantly (P < 0.01) improved. The recovery course was short (3-5 days) and uncomplicated. In the control group blood and tissue CoQ10, tissue ATP levels, and cardiac functions were depressed after surgery. The recovery course was long (15-30 days) and complicated. Positive relationships between blood and myocardial CoQ10, myocardial ATP, cardiac function, and the postoperative recovery time and course found in both study groups show the therapeutic benefits of CoQ10 in preserving the myocardium during heart surgery.(ABSTRACT TRUNCATED AT 250 WORDS)*

*Levy, H. B. and H. K. Kohlhaas (2006). "Considerations for supplementing with coenzyme Q10 during statin therapy." Ann Pharmacother 40(2): 290-4. OBJECTIVE: To review the literature concerning the effects of statin use on coenzyme (Co) Q10 concentrations and explain the rationale behind considering CoQ10 supplementation. DATA SOURCES: A MEDLINE search was conducted through January 2006. Search terms included ubiquinone, coenzyme Q10, HMG-CoA reductase inhibitors, statins, myotoxicity, and clinical trials. DATA SYNTHESIS: Statin therapy reduces blood CoQ10 concentrations. Studies exploring how this affects the development of myotoxicity have been small and dissimilar, thus limiting the ability to draw strong conclusions. Isolated studies suggested that statins induce mitochondrial dysfunction, but the clinical implications of this effect are limited. Limited data suggest that patients with familial hypercholesterolemia, heart failure, or who are over 65 years of age might represent at-risk populations who would benefit from CoQ10 supplementation. CONCLUSIONS: Routine CoQ10 supplementation for all patients taking statins to prevent myotoxicity is not recommended. However, certain subpopulations might be at risk and warrant further study.*

*Lewin, A. and H. Lavon (1997). "The effect of coenzyme Q10 on sperm motility and function." Mol Aspects Med 18 Suppl: S213-9. In sperm cells, the majority of coenzyme Q10 (CoQ10) an energy promoting agent and antioxidant, is concentrated in the mitochondria of the midpiece, so that the energy for movement and all other energy-dependent processes in the sperm cell also depend on the availability of CoQ10. The reduced form of CoQ10-ubiquinol also acts as an antioxidant, preventing lipid*

peroxidation in sperm membranes. The objective of the study was to evaluate the effect of CoQ10 on sperm motility in vitro, after incubation with 38 samples of asthenospermic and normal motility sperm, and to evaluate the effect of CoQ10 administration in vivo in 17 patients with low fertilization rates after in vitro fertilization with intracytoplasmic sperm injection (ICSI) for male factor infertility. All 38 sperm samples from patients registered in our infertility clinic had normal concentrations and morphology. Of these, 16 patients had normal motility (mean 47.5%) and 22 patients were asthenospermic (mean motility 19.1%). Sperm samples were divided into four equal parts and incubated for 24 h in: HAM's medium alone, in HAM's medium with 1% DMSO and HAM's with 5 microM or 50 microM CoQ10. While no significant change in motility after incubation was observed in the samples with initial normal motility, a significant increase in motility was observed in the 50 microM CoQ10 subgroup of sperm from asthenospermic men, with a motility rate of 35.7 +/- 19.5%, as compared to 19.1 +/- 9.3% in the controls ( $P < 0.05$ ). The 17 patients with low fertilization rates after ICSI were treated with oral CoQ10, 60 mg/day, for a mean of 103 days before the next ICSI treatment. No significant change was noted in most sperm parameters, but a significant improvement was noted in fertilization rates, from a mean of 10.3 +/- 10.5% in their previous cycles, to 26.3 +/- 22.8% after CoQ10 ( $P < 0.05$ ). In conclusion, the administration of CoQ10 may result in improvement in sperm functions in selective patients. Further investigation into the mechanisms related to these effects is needed.

Lieberman, A., K. Lyons, et al. (2005). "Statins, cholesterol, Co-enzyme Q10, and Parkinson's disease." *Parkinsonism Relat Disord* 11(2): 81-4. 'Statins', drugs that lower cholesterol are widely used. Statins block cholesterol in the body and brain by inhibiting HMG-Co-A reductase. This pathway is shared by CoQ-10. An unintended consequence of the statins is lowering of CoQ-10. As CoQ-10 may play a role in PD, its possible statins may worsen PD. Such a report has appeared. Statins came into wide use in 1997-1998, 6 years before our study began. Thus 74% of our patients on a statin had a PD duration of 1-6 years versus 56% of our patients not on a statin. A direct comparison of patients on a statin and not on a statin would bias the study in favor of the statins: patients on a statin would have a shorter disease duration and less advanced PD. Therefore we divided the patients into two groups. Group I consisted of 128 patients on a statin, and 252 not on a statin who had PD for 1-6 years. In this group, disease severity (Hoehn & Yahr Stage), levodopa dose, Co-enzyme Q10 use, prevalence of 'wearing off', dyskinesia and dementia were similar. Group II consisted of 45 patients on a statin and 200 patients not on a statin who had PD for 7-22 years. In this group disease severity, levodopa dose, Co-enzyme Q10 use, prevalence of wearing off, dyskinesia and dementia were similar. Statins although they may affect Co-enzyme Q10 levels in the body and the brain, do not worsen PD at least as assessed by stage, and prevalence of wearing-off, dyskinesia, and dementia.

Littarru, G. P. and L. Tiano (2005). "Clinical aspects of coenzyme Q10: an update." *Curr Opin Clin Nutr Metab Care* 8(6): 641-6. **PURPOSE OF REVIEW:** Coenzyme Q10 is administered for an ever-widening range of disorders, therefore it is timely to illustrate the latest findings with special emphasis on areas in which this therapeutic approach is completely new. These findings also give further insight into the biochemical mechanisms underlying clinical involvement of coenzyme Q10. **RECENT FINDINGS:** Cardiovascular properties of coenzyme Q10 have been further addressed, namely regarding myocardial protection during cardiac surgery, end-stage heart failure, pediatric cardiomyopathy and in cardiopulmonary resuscitation. The vascular aspects of coenzyme Q10 addressing the important field of endothelial function are briefly examined. The controversial issue of the statin/coenzyme Q10 relationship has been investigated in preliminary studies in which the two substances were administered simultaneously. Work on different neurological diseases, involving mitochondrial dysfunction and

oxidative stress, highlights some of the neuroprotective mechanisms of coenzyme Q10. A 4-year follow-up on 10 Friedreich's Ataxia patients treated with coenzyme Q10 and vitamin E showed a substantial improvement in cardiac and skeletal muscle bioenergetics and heart function. Mitochondrial dysfunction likely plays a role in the pathophysiology of migraine as well as age-related macular degeneration and a therapy including coenzyme Q10 produced significant improvement. Finally, the effect of coenzyme Q10 was evaluated in the treatment of asthenozoospermia. **SUMMARY:** The latest findings highlight the beneficial role of coenzyme Q10 as coadjuvant in the treatment of syndromes, characterized by impaired mitochondrial bioenergetics and increased oxidative stress, which have a high social impact. Besides their clinical significance, these data give further insight into the biochemical mechanisms of coenzyme Q10 activity.

Mancini, A., B. Conte, et al. (1994). "Coenzyme Q10 levels in human seminal fluid: diagnostic and clinical implications." *Mol Aspects Med* 15 Suppl: s249-55. The levels of Coenzyme Q10 (CoQ10) were determined by HPLC in seminal fluid samples obtained from 77 patients who performed a standard semen analysis for infertility, previous phlogosis or varicocele. CoQ10 was determined in total seminal fluid (n = 60), in seminal plasma (n = 44) and in the cell pellet (n = 37). The molecule, in total fluid, showed a linear correlation with sperm count and motility. In the pellet of spermatozoa, a trend toward an inverse correlation between CoQ10 (expressed as ng/10<sup>6</sup> cells) and semen parameters could be observed. A different pattern was shown in varicocele patients, in whom, in total fluid, the correlation between CoQ10 and sperm count was preserved, but the one between CoQ10 and sperm motility was lacking; moreover, a higher proportion of CoQ10 was present in seminal plasma, and the inverse trend between cellular CoQ10 and sperm count and motility was not observed. These data suggest a pathophysiological role of ubiquinone in human seminal fluid and a molecular defect in the spermatozoa of varicocele patients.

Mancini, A., G. Conte, et al. (1998). "Relationship between sperm cell ubiquinone and seminal parameters in subjects with and without varicocele." *Andrologia* 30(1): 1-4. In a previous paper it was demonstrated that Coenzyme Q10, a lipidic molecule with important antioxidant properties, is present at remarkable levels in human seminal fluid, and shows a direct correlation with seminal parameters (sperm count and motility). In patients with varicocele, on the contrary, correlation with sperm motility was lacking and a higher proportion of Coenzyme Q10 was found in seminal plasma. In the present study, the levels of Coenzyme Q10 in the cell pellet of spermatozoa, obtained after centrifugation of semen, were evaluated. In nonvaricocele subjects it was observed that a higher concentration of Coenzyme Q10 (expressed as ng of the molecule per million of cells) was present in the spermatozoa of oligospermic and asthenospermic patients (sperm count < 20 x 10<sup>6</sup> spermatozoa ml<sup>-1</sup>, sperm motility < 40%). This relationship was not observed in varicocele subjects, who also showed slightly lower intracellular absolute values of the conenzyme. Since Coenzyme Q10 is an antioxidant molecule involved in the defence of the cell from free radical damage, higher intracellular concentrations may represent a mechanism of protection of the spermatozoa. In varicocele patients, this mechanism could be deficient, leading to higher sensitivity to oxidative damage.

Mancini, A., L. De Marinis, et al. (1994). "Coenzyme Q10 concentrations in normal and pathological human seminal fluid." *J Androl* 15(6): 591-4. Coenzyme Q10 (CoQ10) levels were assayed in total seminal fluid or both in seminal fluid and seminal plasma in 77 subjects with normal or pathological findings at standard semen analysis. CoQ10 levels showed a significant correlation with sperm count and with sperm motility. An interesting exception was constituted by patients with varicocele, in whom the correlation with sperm concentration was preserved, whereas the correlation with sperm motility was

lacking. Moreover, they showed an increased ratio of plasma CoQ to total seminal CoQ10 in comparison with the other subjects. These data suggest a pathophysiological meaning of CoQ10 in human seminal fluid and a possible molecular defect in varicocele patients. CoQ10 measurement could represent an important examination in infertile patients; moreover, from these results a rationale might arise for a possible treatment with exogenous CoQ10 in dyspermic patients.

Mancini, A., D. Milardi, et al. (2003). "Coenzyme Q10: another biochemical alteration linked to infertility in varicocele patients?" *Metabolism* 52(4): 402-6. Previously we demonstrated that coenzyme Q10 (CoQ10) is present in human seminal fluid and shows a direct correlation with seminal parameters except in patients with varicocele (VAR). We have now evaluated CoQ10 distribution in VAR, versus control subjects, in order to discover metabolic abnormalities within this condition. We studied 32 patients with VAR (11 with oligoasthenozoospermia, 13 with asthenozoospermia, and 8 with normozoospermia), and, as controls, the following groups of subjects, matched with VAR patients according to seminal parameters: 16 patients with idiopathic oligozoospermia, 11 patients with isolated asthenozoospermia, and 14 normal fertile men. CoQ10 was assayed in total seminal fluid, plasma, or cell pellet by high-performance liquid chromatography (HPLC). We found a significantly higher proportion of CoQ10 in seminal plasma in VAR; cellular CoQ10 showed an inverse correlation with sperm concentration and motility in VAR, at variance with controls. As seminal plasma ubiquinone reflects an interchange between intracellular and extracellular compartments, the different distribution in VAR patients could represent a greater sensitivity to peroxidative damage and could suggest reduced utilization for energy, which in turn could cause a defective motility even in patients with a normal cell count. These data suggest a pathophysiological role of CoQ10 in seminal plasma and a possible molecular defect in VAR.

Mancini, A., D. Milardi, et al. (2005). "Seminal antioxidants in humans: preoperative and postoperative evaluation of coenzyme Q10 in varicocele patients." *Horm Metab Res* 37(7): 428-32. Coenzyme Q10 in seminal fluid shows a direct correlation with seminal parameters except in patients with varicocele. To evaluate whether surgical treatment of varicocele could revert CoQ10 abnormalities, we have studied CoQ10 distribution in thirty-three VAR patients, before and 6-8 months after varicocelectomy, twenty patients with idiopathic oligozoospermia, eleven with isolated asthenozoospermia and sixteen normal fertile men. CoQ10 was assayed in total seminal fluid, plasma or cell pellet by HPLC. A significantly higher CoQ10 proportion in seminal plasma in VAR vs. controls (mean +/- SEM: 61.68 +/- 2.41 vs. 41.60 +/- 1.99%, respectively) was present; total CoQ10 correlated with sperm motility in controls, but not in VAR; an inverse correlation between cellular CoQ10 and motility was present in VAR, but not in controls. Postoperatively, a partial reversion was observed, since the plasma-to-total CoQ10 ratio decreased, but the correlation between total CoQ10 and motility was not restored. On the contrary, the peculiar correlation between cellular CoQ10 and motility was no more detectable in postoperative VAR patients. A partial postoperative reversal of abnormalities in CoQ10 distribution and correlation with seminal parameters was therefore present. As seminal plasma CoQ10 reflects an interchange between intracellular and extracellular compartments, its different distribution could cause a greater effect.



## INFORMATIVE FOR THE FRIENDS OF PASCAS

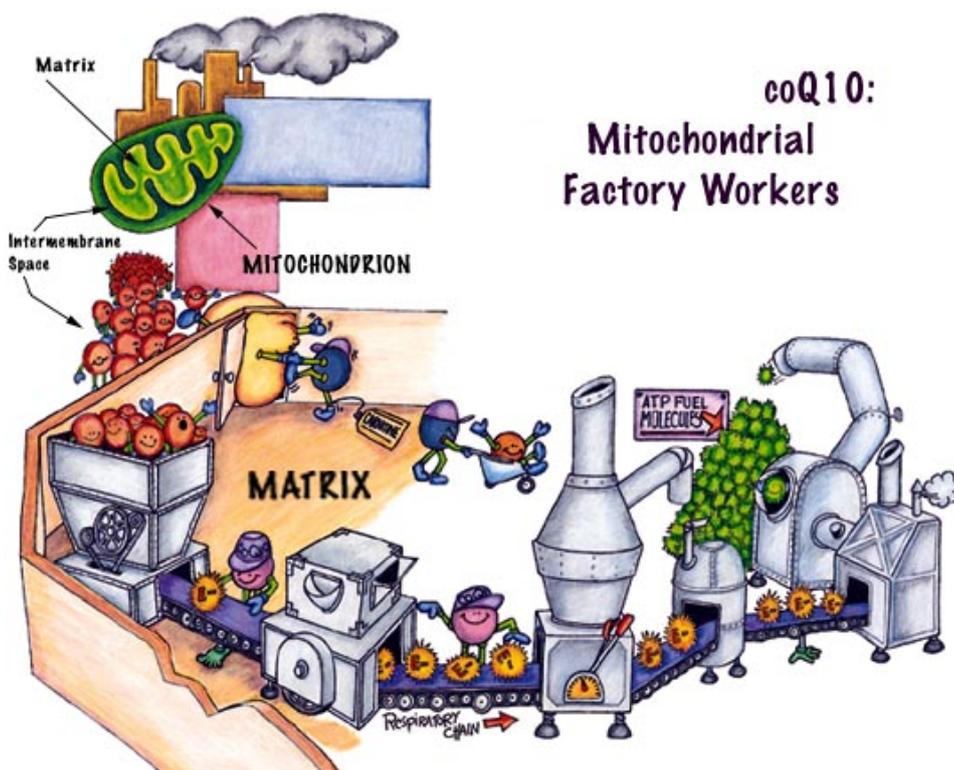
### What is Coenzyme Q10?

CoQ10 (Ubidecaronene, Ubiquinone, Ubiquinone-50) is a vitamin-like substance (quinones) that is found in every cell of the human body. It is necessary in energy production in the 70-100 trillion body cells. It helps the enzyme system in the powerhouse of the cell (mitochondria) to release non-toxic, efficient energy.

Thinking of these cells as tiny engines, CoQ10 provides the “spark” that initiates the energy generating process within cellular mitochondria. CoQ10 and only CoQ10 can serve as this vital ‘spark’ in the human bio-energy system. Without CoQ10 then, no energy can be produced by the mitochondria. Hence, life won’t exist.

### How is ‘Natural’ Co-Q10 Produced?

The natural way to produce CoQ10 is via the process of fermenting a specific algae culture using the power of the sun. Algae are living creatures and when exposed to sun light they give off oxygen. This fermentation process leaves behind the ideal hydrogen based conditions for Co-Q10 to be created and stored, i.e., the sun’s power increases the hydrogen atoms in the molecular structure of the Co-Q10. This in turn allows more efficient mitochondrial performance in the production of human energy.



It is important to note that the greater difference the algae can create in hydrogen / oxygen ratios within the Co-Q10 enzyme, the greater health results we will experience from the Co-Q10 we consume.

Once the oxygen has almost been eliminated from the algae, the concentrated Co-Q10 is then extracted from the algae and carefully stored out of sunlight, artificial light or moisture. At this point, lowered oxygen atom levels further enhance the potential energy within the enzyme structure and can increase the shelf life of the product when stored.

When we ingest Co-Q10 into our body cells' mitochondria, hydrogen and oxygen swiftly move towards one another. The force in which they collide creates a pure non-toxic energy source and the by-product, water, this process is called the Aerobic System.

*“We have tested the majority of global brands and they have failed miserably when subjected to the scrutiny of ergometric testing (treadmill). How I wish more practitioners would realise that not all Co-Q10s are the same,”* Dr Arthur Echano, Nutritional Medicine Specialist, Sydney.

Other methods of producing Co-Q10 include chemical extraction from tobacco leaves or laboratory mixed vitamins, minerals and amino acids, giving you a lifeless, synthetically derived enzyme product. These production processes are cheaper and do not have the same results as the natural process.

### **Are all CoQ10 the same?**

Unfortunately no. With the vast scientific experience of the Japanese in CoQ10, a good source of pharmaceutical grade CoQ10 is from Japan. Worldwide, there are only a few companies that can manufacture A-1 grade CoQ10. The purity of the raw material is an important consideration as far as quality is concerned.

Properly sourced Co Q10 (Japan) and an efficient delivery system like phosphates (which increases its absorbability many times over oil-based CoQ10) are the keys to a superior quality finished product. According to a newsletter released by Vitamin Research Products, Ins. Of USA, “If a product (CoQ10) is being sold at a price that seems to be too good to be true, it probably is.”

### **Reviewing the Scientific Facts about Co-Q10**

1. Co-Q10 is a vital component in the production of energy and has a major role in free radical control.
2. Our bodies do not produce enough Co-Q10.
3. We cannot get enough Co-Q10 from our food.
4. Leading to an ever increasing decline in Co-Q10 levels in our system.
5. Co-Q10 is located in areas of high physiological activity.

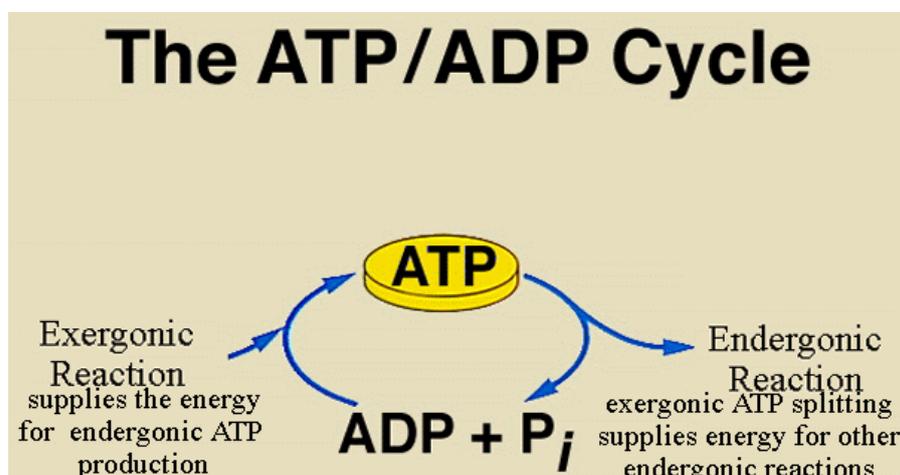
If Co-Q10 is needed for the production of energy and this energy is vital for our major organs to function we believe that it could be concluded that as Co-Q10 levels decline so to does the function of that organ. If the function of the organ is in decline our health would also be in decline. This relates to the majority of the information and studies conducted on Co-Q10 that indicate a deficiency of Co-Q10 is found to be a part of the majority of major illness.

Co-Q10 can assist us in slowing the process of ageing, preventing a break down of our major organs which can lead to major illness and to keep our energy levels. Everyone may consider taking Co-Q10.

### **Maximum energy efficiency.**

Co-enzyme Q10 promotes maximum energy efficiency within cell mitochondria. The quality of naturally fermented Co-enzyme Q10 can be measured by the energy value of the negative charge within the hydrogen atoms of the Co-enzyme Q10. If your mitochondria are working efficiently, the cell tends to

work efficiently, then the organ / muscle that the cell is residing in tends to work efficiently – the flow on effect is good health!



Phosphate atoms shuttle hydrogen atoms backwards or forwards on demand within the minuscule turbo gap located in the mitochondrial inner membrane walls and with the help of oxygen, produce a balanced positive-negative charge to power the mitochondria.

This is our, LIFE FORCE

John

*“Never can one man do more for another man than by making it known of the availability of the Feeling Healing process and Divine Love.” JD*

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**HOW EMOTIONS EMERGE AS AN ILLNESS:** Healing and Recovery P53 by Dr David R Hawkins

Every time someone goes below level 200 (Courage) as per the Map of Consciousness (MoC) scale, we find upon testing that their energy system is imbalanced. Characteristically, most people will ‘blow out’ one particular acupuncture meridian rather than another.

For example, every time they have negative thoughts or feelings consequent to a negative belief system, they may impair the heart meridian. As the years go by, every time they have a resentment, go into self-pity, or criticise someone else, it disrupts the energy and flows down the heart meridian. This depletes the life energy of the heart, and the continual repetition begins to alter its physiology in very delicate ways. It begins to express itself through irregularities in the autonomic nervous system, which operates in the functioning of the body organs.

As a result, there begins an impairment of the physiology of the heart itself, including the lining of the arteries. As the years go by, the habitual disruption of the heart meridian brings impairment on the physical level, which is an expression of what has been held in mind. That is the basic premise – the body expresses what is held in mind, not vice versa. The body expresses a person’s habitual way of thinking.

The mechanics of negativity short-circuit the acupuncture system and the autonomic nervous system. This in turn alters and impairs the sensitive electrical and chemical processes that are going on in the cells, resulting in pathological changes within the anatomy and dysfunction that results in a coronary attack, heart disease, or heart failure. The heart failure comes about partly as a result of years of negative mental attitudes. The mind would like to blame it on cholesterol, stress, one’s lifestyle, genetics, what goes on in the family, and so on. These are all merely explanations, excuses, and rationalisation to try to make intelligible that which is not clearly defined.

When looking at the exact mechanics, we see that what we hold in mind begins to manifest on the physical plane because it is the mind that has the power. The mind is within one’s spirit body.

One of the difficulties to overcome in self-healing is the willingness to accept the great power of the mind. We cannot let a negative thought go unchallenged. Disease is an expression of one’s attitude and habitual way of looking at things.

The specifics of healing a particular illness consist of (1) letting go of resisting the sensory experience of it, (2) no longer putting names or labels on it, and (3) using no words at all. Welcome experiencing what you are experiencing in a very radical way at the same time (4) cancel the thought form and belief system, and (5) choose the energy field of Love, which heals.

To put oneself in an energy field of 540 is to automatically heal oneself. A loving thought then heals, and a negative thought creates illness.

How do we pick up the negative belief systems? We pick them up through television and well-intentioned people. Their intention is to prevent these illnesses in us by educating us about them. Instead, we find that the mind is now programmed to accept a specific belief system. Unconscious guilt then comes up and utilises that belief system, which causes an impairment of energy flowing through the energy fields that run down through the twelve meridians of the acupuncture energy system.

That being said, there is no need to analyse one's condition, just receive healing by embracing, longing for and asking for the light golden blue energy substance being the Divine Love.

**The healing of the body alone should never be forced. Complete healing takes place only through the Soul, via the spirit body, via the nervous system and the spirit consciousness of each cell.**

**HARMONY within the SOUL = HARMONY within the PHYSICAL BODY:**

**Emotional injuries, erroneous beliefs, harmful intentions are all damages encrusted upon one's soul. Such injuries are to the spirit body in which the soul is connected.**

**Such man made errors degrade the pristine soul and such damages impact upon one's spirit body which in turn emerge as discomforts, then pains, then as illnesses within the physical body.**

**Medical assistance and treatment may alleviate the illness / pain however the cause remains.**

**Until we endeavour to remove the errors and injuries, the propensity for the illness remains.**

**Love energy from our Mother and Father is the only substance that alleviates and progressively removes errors and injuries, and this Love energy is the only substance that permanently brings about harmony and health for our soul which subsequently brings about health to our spirit body and physical body.**

**Earnestly pray for, ask for, and receive the Love from our Mother and Father, such Love will always be provided to those who ask for same – always!**

**Feelings first**

**LIVE FEELINGS FIRST**

**FEELINGS FIRST For Kids**

## Ruminations – February, 2018

Live as children on Earth as though we are already citizens of the completed Heavenly Kingdom. In doing this, through our Healing is by looking to our feelings is to feel them fully, to unconditionally accept them if we can, express them and long for the truth they can show us about ourselves, however then we do use our mind to analysis every part of what we're feeling to the nth degree, which is all part of understanding the truth that comes up within us. Deal with feelings by accepting the truth of them, good or bad. This does engage one in self-analysis.

As we've all grown up saturated by judgement of one's self and of others, it's all got to come out, so through the Healing of all that yuk, this still needs to be accepted and expressed when felt. So if one is full of any judgement, then one is fully judgemental and to go for it as they bring it all out, all so they can see the whole underlying truth of why they are that way, all so they can go deeply into the unloving relationship with their parents that is full of judgement. So all the yuk, self-judgement, all the blame and guilt, has to be faced, not dismissed or denied; so all the so-called bad things that we shouldn't be, have to be fully focused on through our Healing, so we can descend down into our inner sewer and putridness, to swill around in it, tearing our hair out with the dementedness of how vile and evil and wicked and judgemental we are, all which our feelings will show us.

Know that you know the Kingdom of Heaven is ready and live accordingly with joyful purpose in God's will, acquiring a compassionate character coupled with a personality to do the very will of the heavenly parents. Then, by faith alone, be perfect as our Heavenly Parents (God) are perfect, knowing that you are God's child doing righteousness. However, as we may want to be as perfect as God is, we can't just 'be' it, that's trying to use our mind to make us be a certain way. We are to understand that we will become it naturally as we Heal ourselves, but we are to stop using our mind to try and make ourselves be anything. And if in the meantime as we work deeper into our Healing, to even be the other way, and not want to do God's Will if that's what we feel, all so we can then use those feelings to show us the truth of why we feel that way.

We are to try and remove all mind control, which again is by saying this is being mind controlling, so to want it gone, then to just apply ourselves to our feelings. And by doing so, eventually it will wash through and we'll naturally be living true to ourselves, so true to God, which is doing God's Will. We can't make ourselves live God's will and be as God is, that's all the mind again, we are to allow ourselves to evolve into being such truth by looking to our feelings.

By saying to be mind-less, however that's not quite right either because we are to have our mind full-on, we can't not have it, too many people and so-called spiritual systems try to shut their mind up, which is wrong, as it just goes quiet but is still full-on controlling their feelings. So we go the other way, opposite to it all, full-on into our feelings and then full-on using our mind to back up and support all what our feelings brings to light. We may spend most of our day using our minds to talk about all that our feelings bring to light. All of which is about how we are so mind-controlled and mind-controlling and how we are giving that up.

All social religions have erred in setting down procedures, creeds and rules. Be a child of our Heavenly Parents and live in Their Spiritual Kingdom **now** by faith. Our mind will follow as a matter of course. In other words, be mind-less in these high matters. Verbal instruction is of no comparison to doing

righteousness, which is doing God's will. The door is wide open now to enter the joyous fellowship of the sons / daughters of God. We have available a beautiful spirit of truth in the soul, and thus, living rightly to self, living a high spiritual and inspirational ideal.

We are blessed in Spirit unity and spiritual liberty. We do not have to all feel alike, think alike or see

**By living true to ourself, true to our feelings, we are living true to God. It's that simple.**

alike. Our harmony, as disciples, followers of Mary and Jesus, grows out of the fact that the spirit hope of each of us is identical in origin, nature and destiny, by mutual consciousness of the identity of our indwelling Paradise spirit; enjoying spiritual unity in the face of the utmost diversity of individual attitudes of intellectual thinking, temperamental feeling and social demands.

People recognize that we have learned how to do the will of God. We proclaim this is the kingdom of heaven (the family of heaven if you like): God is Mother and Father, our Heavenly parents, we are sons and daughters of God, and this great news wholeheartedly believed, is eternal salvation. The Kingdom of Heaven is here and now..... spiritually.

Undoubtedly, the good news is: –

1. The Kingdom of Heaven is with us.
2. By faith in the parenthood of God, being one soul, our Heavenly Mother and Father, we may enter the Kingdom of Heaven thus being the sons and daughters of God.
3. Love is the rule of living within the kingdom – supreme devotion to our Heavenly Mother and Father, while striving to love our neighbors as we strive to love ourselves.
4. We are not to obey, we are to just enjoy feeling all we feel and expressing and living true to our feelings, even our bad ones. Then do what we feel to do. Nothing more, for that is living true to our soul which is living true to God's Soul, so there is no having to obey. We've all been made to obey our parents, and that's what has screwed us all up. We are to chuck 'obey' out the window! The word obey and being obedient should make us want to scream the house down.
5. Our whole Healing is about rejecting and rebelling and expressing ALL our repressed anger about how pissed off we are about being TOLD WHAT TO DO. No one wants to be told what to do, yet for most of us, in one way or another, our whole upbringing was being told what to do. So again put it in the bin, anything that in the vaguest sense sounds like telling someone what to do or how they should be, unless it's put into context with one's Healing. Because to contradict what is just said, part of all of our Healing will involve in many ways telling people and ourselves what to do. We are saturated by it, all of our patterns are formed around it, so seeing the control through bringing to light all our repressed feelings, does involve working in that control, all so we can see how it works for and against us.
6. Mankind is moving out of the age of rebellion and default, into the Spiritual New Age, as each person receives Divine Love, by asking thereof, and doing their soul healing by discovery of the truth of all their feelings.

31 January 2018: Earth and the seven associated Mansion Worlds (including the two Earth planes) are **officially** now fully under the control of Celestial spirits. This marks a tangible and real end to the Rebellion and Default.

If we are intent on helping people to understand about the need to do their Healing, then we are not to forsake any problems for a time, we're to work with all the bad feelings they keep bringing up in us, allowing the problem to drive us ever deeper into all that's buried within us that we are refusing to see. Our Healing is full-on when we commit to it.

We are to be very selfish by adhering to our feelings, they are our feelings, we **MUST** attend to them, and so put them and so ourselves first. It's all still self-control – mind over feelings, and all we want to avoid. The Urantia Book is right in a lot of what it says, however we're all fucked up, and so a lot of what they talk about is an ideal we might attain once we've Healed ourselves, but first, we have to do that Healing. And so to do that Healing, to try and be self-forgetful or to control ourselves, and to live “Parental love is to show mercy, promote peace, and to endure persecutions throughout all trying situations, to love even unlovely mankind, with parental love transcending brotherly and sisterly affection. Resist negativity at all times.”, is again fine if you are Celestial, however being as we are, we're to not worry about any of that, not to try to be anything, just to descend into our bad feelings and be as unloving as we feel we really are, having been subjected to parents that were the complete opposite of true parental love. (The Urantia Book was written 1925 – 1935 under the restraints of the Rebellion and Default.)

In conclusion, our mind control is insidious, it's in everything, and it's very hard to see how subtly it works its control over us.

To just keep attuned to your feelings, that is what it's all about. Helping you to rely on them, helping you to keep going back to them, helping you to see that they are what is right and they are not going away; and to make you feel good, it's best to go fully with them and not against them. Which even though you're having to deal with so many bad feelings to begin with, as they clear, then there is nothing more wonderful or as exciting than to live wholly with your feelings first.

**Live true to your feelings, and you ARE living true, not only to your own soul, but also true to God's soul. So doing your Healing by honouring all your feelings, IS living the will of God. And being fully Healed, IS living even more truly the Will of your Mother and Father.**

**Feelings first**

**LIVE FEELINGS FIRST**

**FEELINGS FIRST For Kids**

# Feelings First Spirituality

## The New Way

**Feelings First**  
**FF**  
**Feeling Free**

The New Way, Feelings First Spirituality  
 Learn to live with God through your Feelings

Accept, express and long for the truth of your feelings

Be free in your feelings  
 Free your feelings from your mind's control  
 Live true to your feelings; your feelings are your true self  
 Live true to yourself through your feelings



Live true to yourself by living true to your feelings.  
 Long for the truth of your feelings.

Accept / Express / Bring out ALL of your good, and most importantly,  
 BAD feelings.  
 Want to understand why you're feeling them.  
 Use your surface feelings to take you deeper into your repressed and  
 hidden feelings.



The Feeling Way is the True Way.  
Your feelings are your spiritual guide.  
Your feelings will take you to God.



Your feelings will show you the truth of your relationships, including your relationship with God; and if anything is wrong, untrue and unloving, then why it is.

Our feelings are sacrosanct and we should respect them accordingly. And we should NEVER block them out, ignore, override, banish, deny or reject them, because if we do, we're only doing that to ourselves, as Our Feelings Are Our Self.

Our feelings are the gateway to our soul. Our feelings are the closest we can get to our soul. Knowing the truth of our feelings is knowing the truth of our soul, and knowing the truth of God.

Feelings First Spirituality is the True path for humanity.  
It embraces all people.  
It completely unifies the world.  
Everyone can relate to everyone else through their feelings.  
And we can all live the truth that comes from our feelings, all sharing the same truths as we express and have the same feelings.  
No one need be left out; no one is more special than anyone else – we are all united in Truth through our feelings.  
So with and through our truth we live our lives, therefore without the need of any man-made mind-laws, rules and restrictions that limit self-expression as inspired by our feelings.



The New Way, Feelings First Spirituality is what is to replace all man-made, mind-contrived religions that so many people have enslaved themselves to. The New Way, Feelings First Spirituality will set us free of all that control, ending the Rebellion and Default within ourselves as we do our Feeling-Healing, and ending such control and spiritual stagnation in the world.

Bring on the End Times – get it over and done with! Let's all see that Jesus is not going to come again, that Prophecy has failed all the mind-controlled platforms. Allow such false systems of belief to die their long-awaited natural death, they've overstayed their welcome, it's now time they fade away. So let us show such antiquated, erroneous systems of belief the exit and bring on the fresh liberation of discovering the truth of how we are to live for ourselves, each of us personally in our lives, and all by looking to our own feelings for it. Self-revelation through our feelings is the way to go.

The Way of the Mind is ending, and is really the End Times – the End of our mind control, and **it's about time!** With the Way of our Feelings replacing it.

The End Times means the end and therefore a New Beginning. And that new beginning is a whole new Spiritual Age – an age based on self-revelation of truth through one's feelings, coupled with and supported by higher revelations from the Celestial spirits, angels and nature spirits.



The Feelings First Spirituality is the True Way to God because it helps you get to know God, helping you to reach out, connect and be personal with God, and do God's Will, all through your feelings. It is the only true way of getting to know the God of Feelings – our beloved Heavenly Mother and Father, the Great Soul of Divine Love.

Love comes through our feelings and not our mind, as we've all been wrongly led to believe.

**Feelings First; then comes The Truth; then comes Love.**

**LOVE is the Religion of Feelings, being:**

**Feelings First Spirituality, The New Way**



my  
**House** is your  
**Paradise**  

**HOME**

# "Beacons of Light" around the globe

