

HYPOXIA #5: WHY TECHNOLOGY CAUSES B VITAMIN ISSUES

Dr. Jack Kruse

Due to the increased bandwidth demands and the scarcity of microwave frequency allocations, the wireless communications industry is beginning to focus on higher, previously unallocated portions of the spectrum in the millimeter wave frequencies from 40GHz to 300GHz. This is the range of 5 and 6 G communications in the world today.

Due to the high levels of atmospheric RF energy absorption, the millimeter wave region of the RF spectrum is not usable in the long haul, wireless communications segments. However, for short haul, "last mile" segments, the expanded RF data bandwidth available in the millimeter wave region makes it ideal for interference-free, fiber speed connectivity.

At the millimeter wave frequency of **60GHz**, the absorption is very high, with 98 percent of the transmitted energy absorbed by atmospheric oxygen. This is the oxygen plants make and mitochondria need for respiration. Oxygen is brought to the mitochondria by our blood which has hemoglobin. 60GHz RF signaling is capable of causing an inability to hemoglobin and oxygen reacting properly all the time. This implies that **hypoxia¹ or a pseudohypoxia²** could exist in people around these frequencies. This also implies that 40-80GHZ is where thiamine deficiency will be at its maximum for causing mitochondrial heteroplasmy. This is why I believe 5G is an extinction possible event. Much like an asteroid, the damage is hidden from most experts perspectives now. But today we are seeing massive changes in people in 5G cities. Most of them have varying degrees of thiamine deficiency and resultant mitochondrial damage.

¹ **Hypoxia** is a condition in which the body or a region of the body is deprived of adequate [oxygen supply](#) at the [tissue](#) level. Hypoxia may be classified as either *generalized*, affecting the whole body, or *local*, affecting a region of the body. Although hypoxia is often a [pathological](#) condition, variations in arterial oxygen concentrations can be part of the normal physiology, for example, during [hypoventilation training](#) or strenuous physical exercise. (*Wikipedia*)

² **Pseudohypoxia** refers to the increased [cytosolic](#) ratio of free [NAD](#) to [NADH](#) in cells, caused by [hyperglycemia](#). Research has shown that declining levels of NAD⁺ during aging cause pseudohypoxia, and that raising nuclear NAD⁺ in old mice reverses pseudohypoxia and metabolic dysfunction, thus reversing the aging process. It is expected that human NAD trials will begin in 2014. (*Wikipedia*)



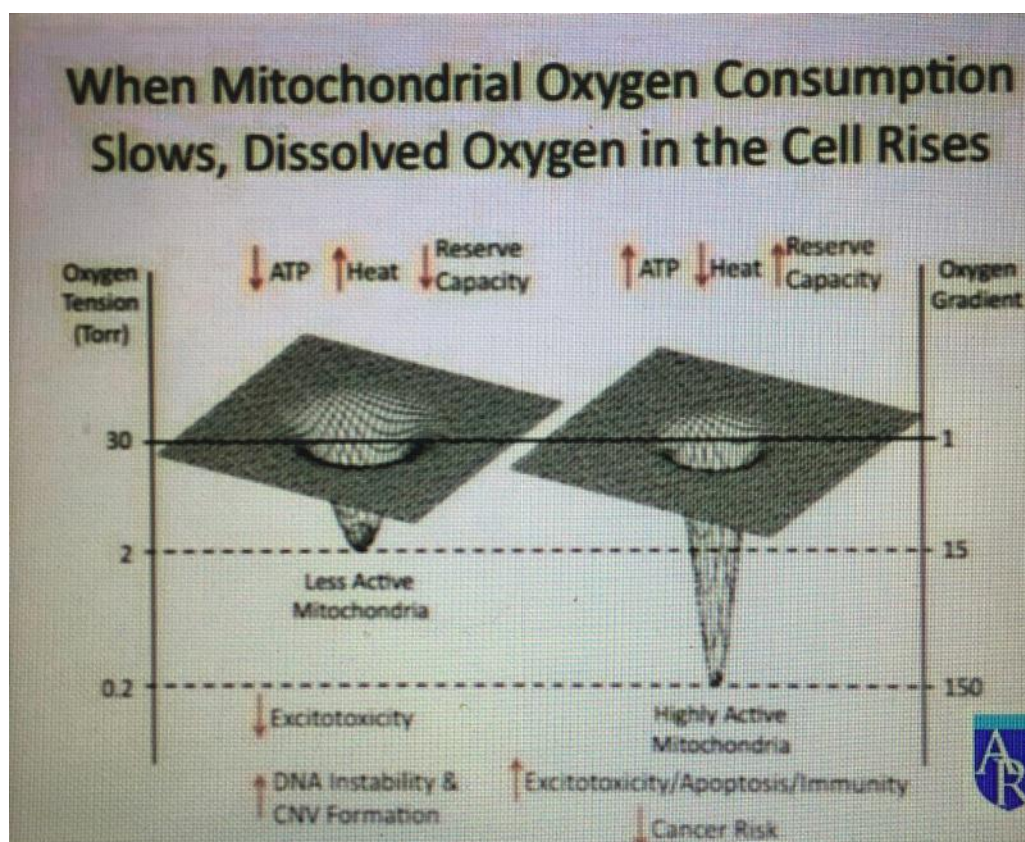
Please remember what oxygen does in your mitochondria. It accepts the electrons from food that have had all of their light removed from them and that stolen light is added to the respiratory proteins electrons and the electrons of free radicals so that the light may be shared all over your body to ionize other proteins to action. This is how life works at the most fundamental levels.

What is life really?

Life is built around the complexity of how light powers electrons. Life is all about ionization. Ionization is the process by which an atom or a molecule in a cell acquires a negative or positive charge by gaining or losing electrons. This often in conjunction with other chemical changes from the action of electron movements and alterations in their charge. Light excites or powers electrons to do some unusual things that cells depend upon. This is how the physiology or the work of living gets done.

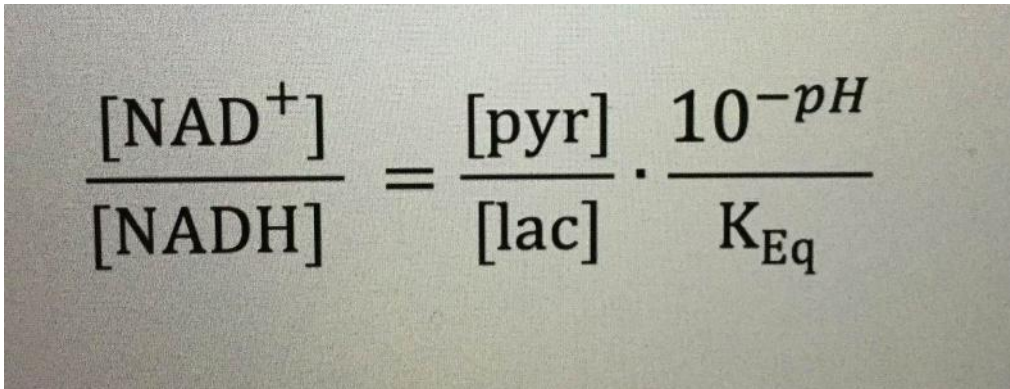
While oxygen absorption at 60GHz severely limits range, it also eliminates interference between same frequency terminals. 5G spans 3 GHz -90 GHz in the electromagnetic spectrum. A 60GHz communications system must overcome the effects of oxygen absorption because of the effects it will have on the living. When someone asks you why 5G is different than any other edition of network power I want you to remember this blog and I want you to tell them why nature never used this part of the spectrum naturally. It is because this part of the spectrum makes life incompatible with her recipes.

So let us make this real simple in picture format so you get what it means when the cornerstone reactions are altered by 60GHz millimeter waves.

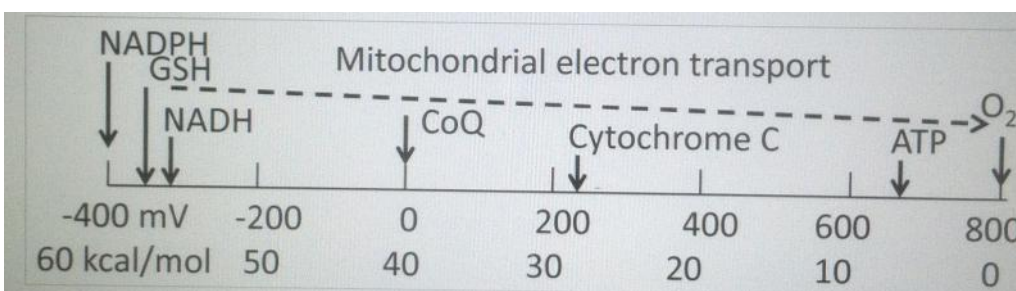


When more oxygen in cells is present and not able to be used all hell breaks loose. This is why I predicted all the diseases we are seeing in ER's now. Sadly, few doctors understand cell biology at this levels so the diseases like POTS/EHS/CFS/LYME/AUTOIMMUNITY/CANCER go treated incorrectly. This why these diseases are exploding. The more we use technology the worse this will get.

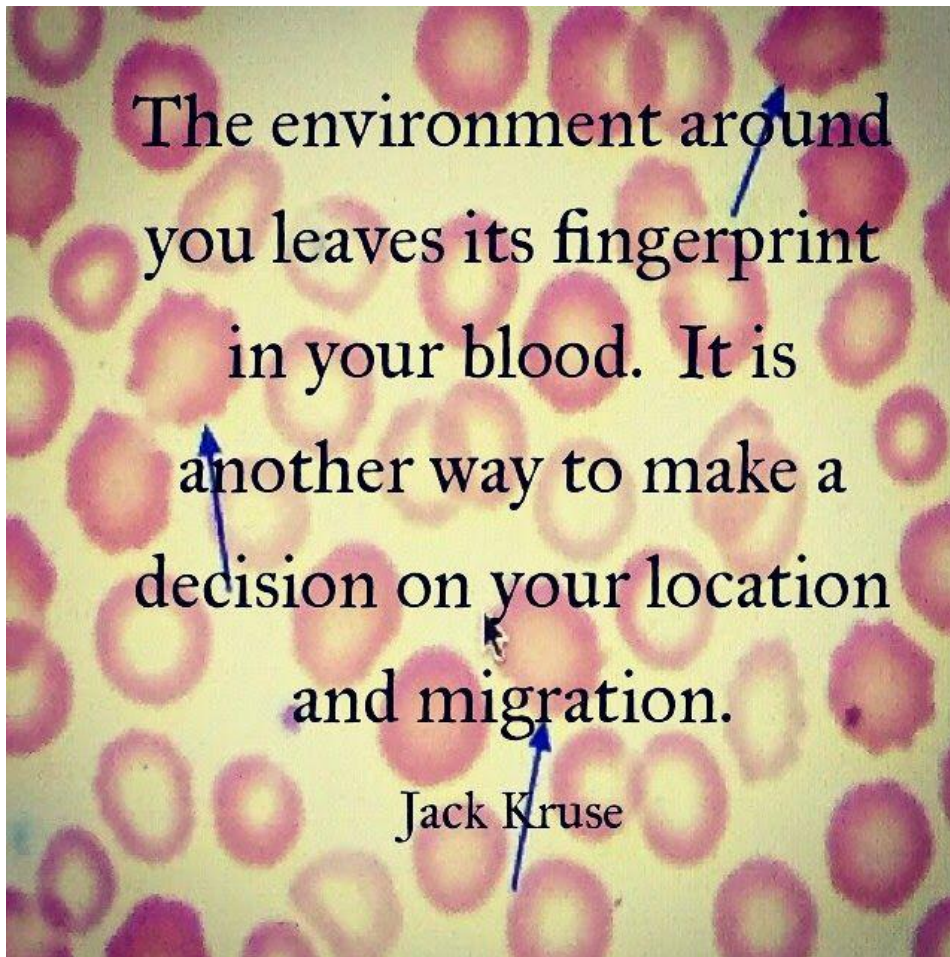
What else happens in the mitochondrion when more oxygen is not used? Thiamine gets depleted and then this equation becomes critical to understand.



Pyruvate cannot be used so it is turned into lactate. Lactate is not what you think either. Lactate rises because thiamine is absent. In particular, metabolites, like lactate are emerging in the literature as active players in driving immunosuppression. This is why cancer and autoimmunity are exploding in places where technology is used. Lactate is a potent signaling molecule that promotes stabilization of hypoxia inhibitory factor alpha (HIF- α) & this increases vascular EGF expression and angiogenesis. Lactate is massively taken up by damaged RBC's by nnEMF. When Pyruvate cannot be used because thiamine is absent lactate rises and at the same time NAD⁺ drops like a rock. What is the effect of redox potential when that happens? See below.



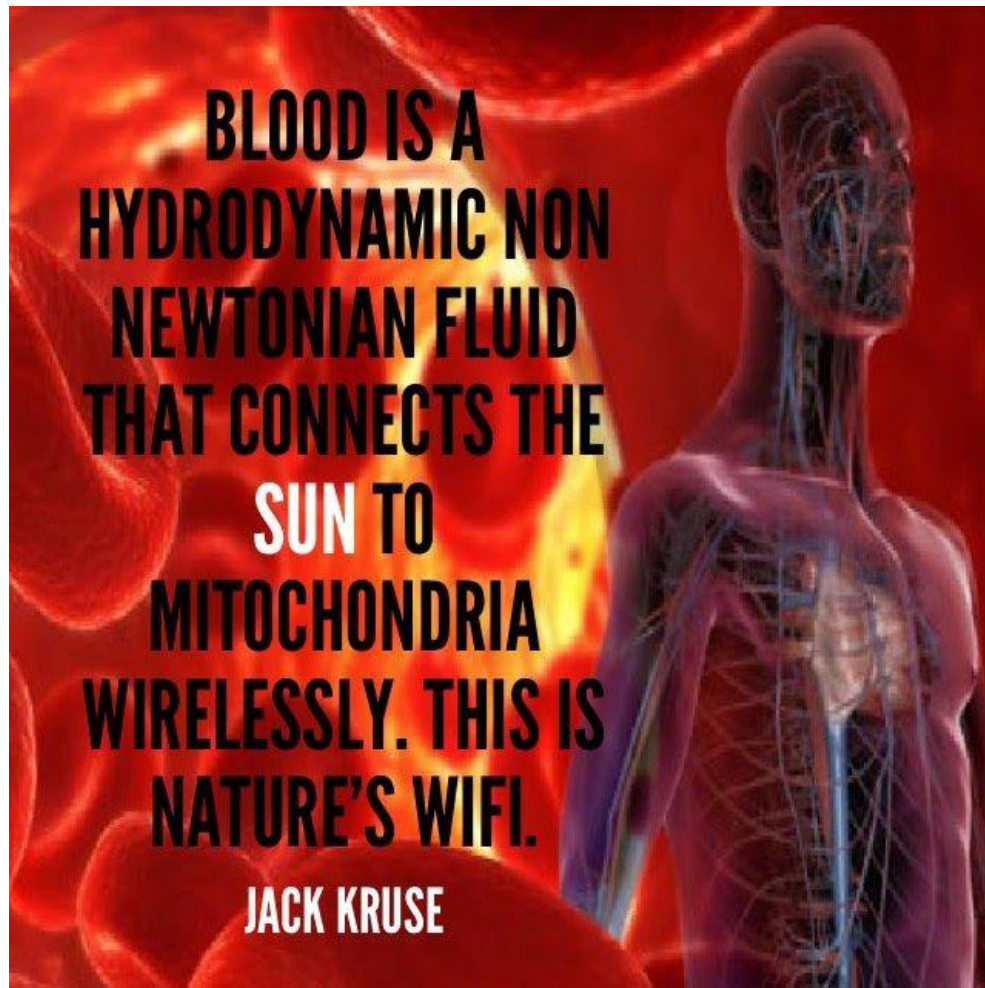
Why do I use peripheral blood smears at Kruse Longevity Center to detect how bad your exposure to nnEMF really is?



How and why does this happen? So far my 2019 Farm members know this answer because they visited me and I showed most of them their bad RBC's and explained to them what it meant to their lives.

Now this blog post explains to you what I really am doing at Kruse Longevity Center.

What are your RBC's in your blood?



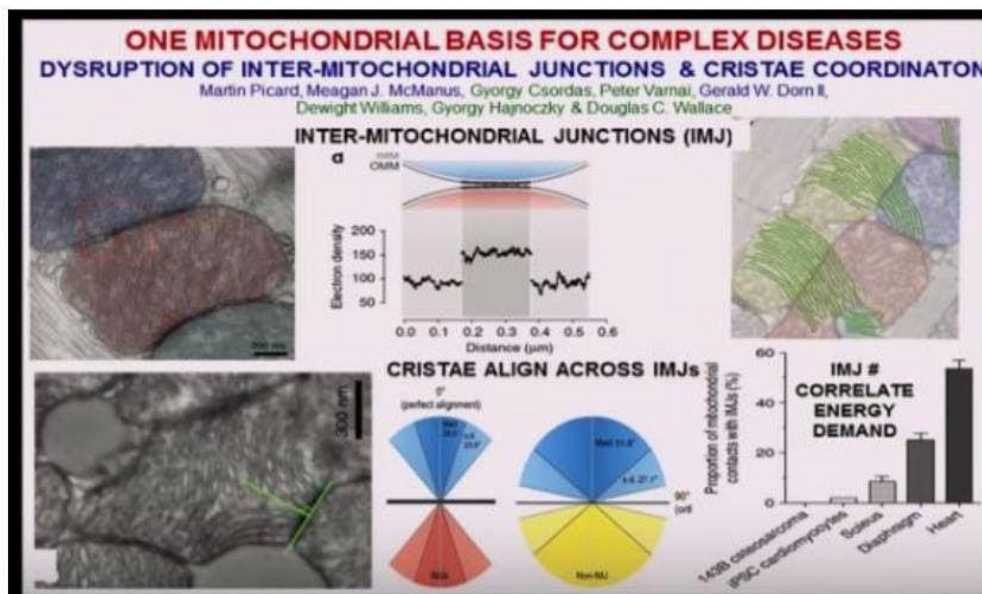
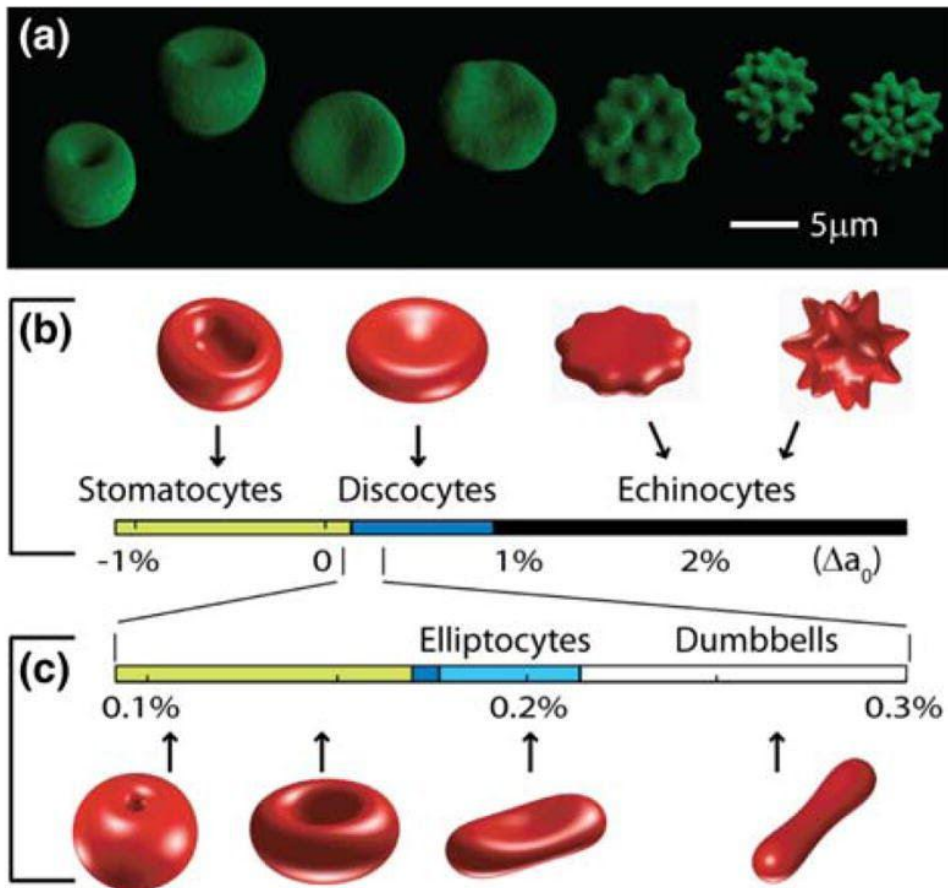
This is Nature's Wifi systems of how life operates with the sun and your colony of mitochondria.

A more GEEKIER version of this idea is now here:

The effects of electromagnetic fields (EMFs) upon genes, proteins and enzyme kinetics on a molecular level have been recognized and investigated in the literature. This is information few clinicians read and this is why they remain clueless about where our modern diseases begin fundamentally.

The mechanisms responsible for these EMF-induced effects and not fully understood by modern medicine and have been the subject of ignorant debate in academia and on the internet. This is especially true in functional medicine. When you understand that nnEMF makes RBC's more permeable to things in foods and supplements you become acutely aware of how bad an idea it is to recommend exogenous chemicals to people who are living in a 2G-5G city. Lactate becomes even more permeable to

RBC's ruining their morphology and it also ruins mitochondrial size and shape (IMJ's of mitochondria below) affecting energy production by lowering the redox power.



It is thought that the effects of EMF are diverse and dependent on the strength, frequency, and duration of the EMF exposures because this is the belief of physics. That belief does not go far enough for Black Swan clinicians like me. Why do I say this? Most American cities are now using 3GHz - 25GHz frequencies right now. What does this range do to us?

The EMF microwave effects in GHz frequencies have been studied recently and it was reported that multiple 18 GHz EMF exposures, with specific energy absorption rate (SAR) values between approximately 3.0 and 5.0 kW kg⁻¹, induced **permeabilization** of live bacterial cells and yeast. ***Y'all remember where your mitochondria came from huh?***

It is an ancient bacteria/archaea. This means that mitochondrial permeability is also at risk at these lower power densities. Do you understand yet why my ideas seem counterintuitive to allopathic and functional medicine paradigms? That is why the next meme was made.



WE BEGIN WHERE
ALLOPATHIC MEDICINE AND
FUNCTIONAL MEDICINE END



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Jack Kruse
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I am a neurosurgeon on a mission to create health from disease with a change in thought!


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My understanding of the situation goes way deeper than their knowledge base because of the biophysics at play. This blog is your playbook to hand to any skeptic who thinks this is hyperbole. IT IS OUR MODERN REALITY.

Recent data has shown in the lab bacteria uptake high molecular weight chemicals in alien fields. The uptake of high molecular weight dextran (150 kDa) and silica nanoparticles (23.5 and 46.3 nm in diameter) was shown for several cell types, including the prokaryotic organisms *Branhamella catarrhalis*, *Escherichia coli*, *Kocuria rosea*, *Planococcus maritimus*, *Staphylococcus aureus*, *Staphylococcus epidermidis*, *Streptomyces griseus*, and a unicellular eukaryotic yeast *Saccharomyces cerevisiae*.

YOUR COLONY OF MITOCHONDRIA HAS A PROKARYOTE ORIGIN FOLKS.

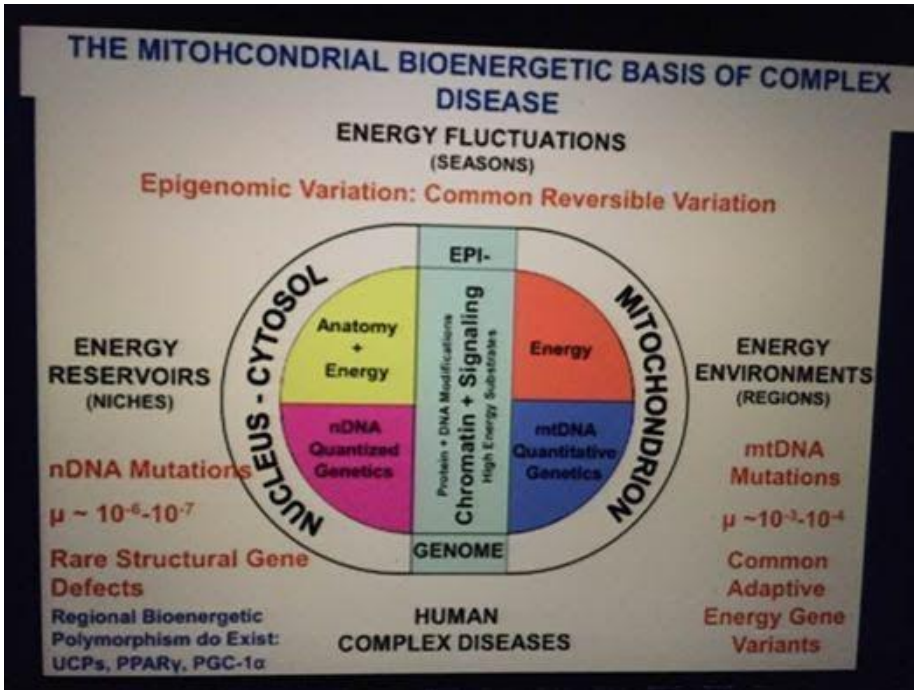
ENERGETICS IS DUE TO SYMBIOTIC BACTERIA, NOT THE NUCLEUS-CYTOSOL



The diagram shows a cross-section of a cell with various organelles labeled. On the left side, labels include: Microtubules, Microfilaments, Plasma Membrane, Mitochondrion, and Centrioles. On the right side, labels include: Nucleus (Nucleolus, Nuclear Envelope, Chromosomes and INK), Vesicle, Lysosome, Rough Endoplasmic Reticulum, Smooth Endoplasmic Reticulum, Golgi Body, and Vacuoles.

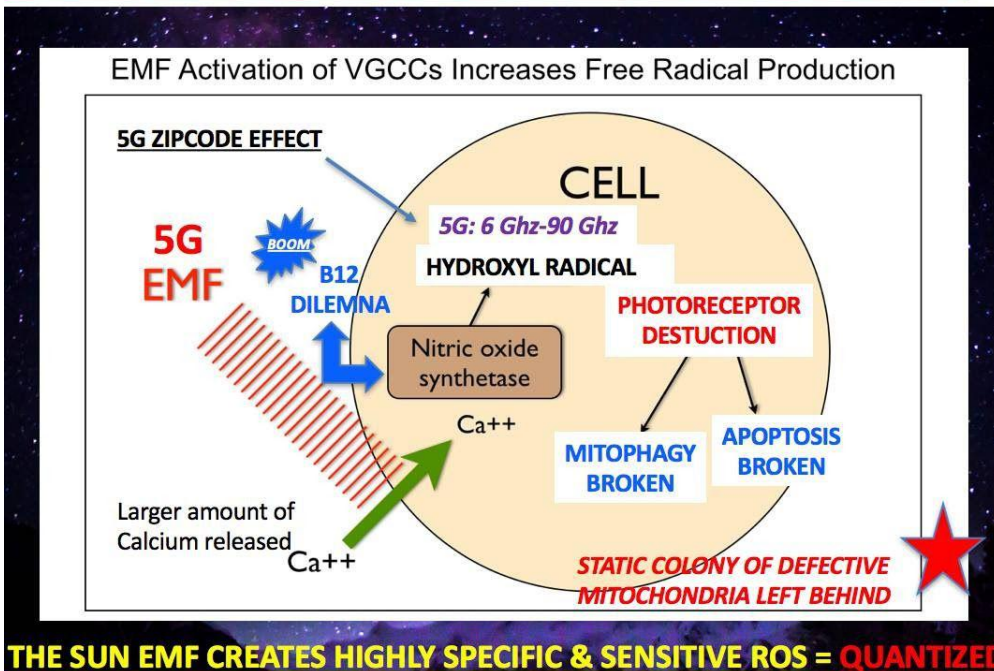
Nucleus-Cytosol: Specializes in Structure (Anatomy)
Mitochondrion: Specializes in Energy (Vital Force)

Mitochondria are bacterial symbionts, ~ 2 X 10⁹ YBP.
Each cell has 100s of mitochondria and 1000s mtDNA.



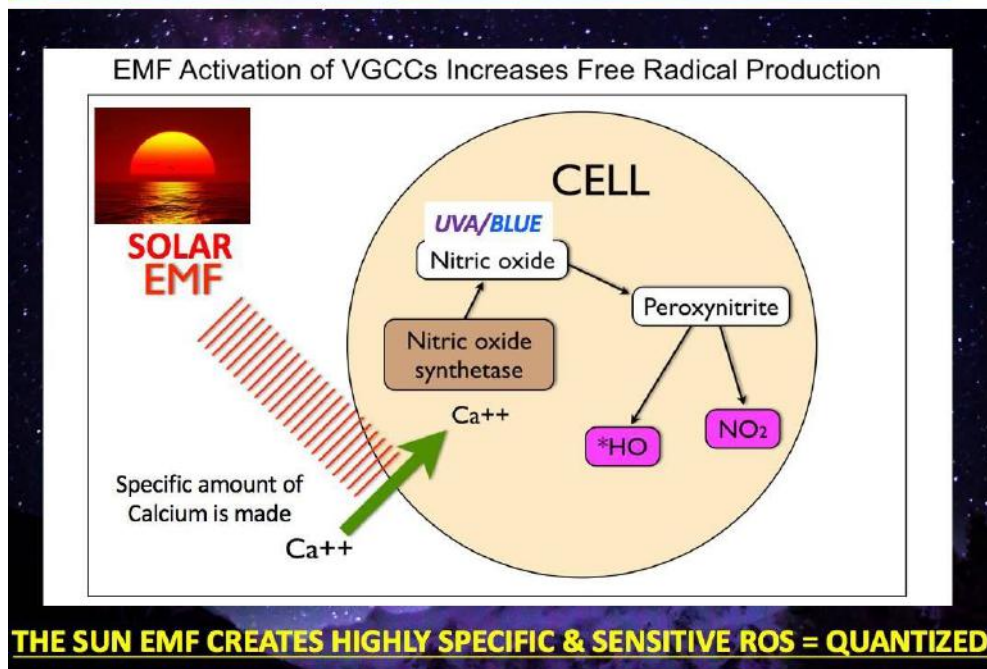
^^^^^ALL modern diseases have a mitochondrial basis. Why?

SPIN STATES CREATE FREE RADICALS IN MITO

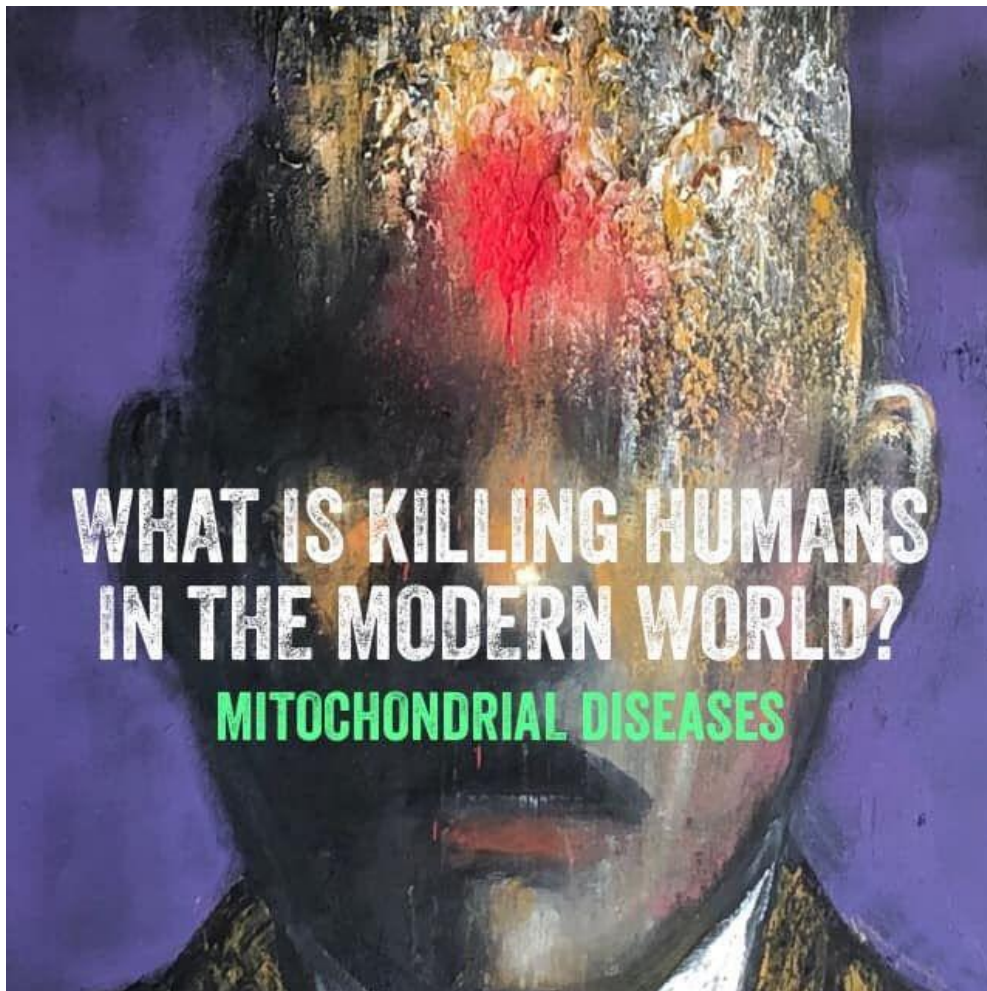


How is your colony of mitochondria supposed to operate?

SPIN STATES CREATE FREE RADICALS IN MITO



If you are following this blog well this next meme should be uber-intuitive.



Why are doctors impotent in helping the public today?

They continue to look in the nuclear genome for modern disease answers and I am saying it loud and clear they won't find any cures in RNA or DNA.

They will find it in the mitochondrial genome and biology. Mitochondria were stolen to operate within the visible range of light with oxygen. That is how evolution built them.



So what happens to the air we breathe on Earth when we use 5G?

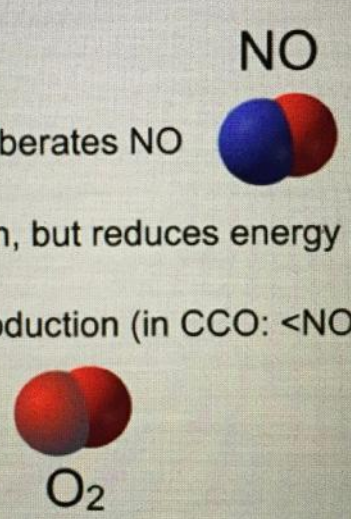
At 60GHz, the extremely high atmospheric absorption level is due primarily to the molecular composition of the atmosphere. For millimeter waves, the primary absorption molecules are H₂O, O₂, CO₂, and O₃. Since the presence of O₂ is fairly consistent at ground level, its effect on 60GHz radio propagation is easily modeled for margin budgeting purposes.

What might some of the collateral damage effects be in a 60GHz system on humans?

We should expect nitric oxide (NO) and thiamine depletion. This means cardiovascular disease and brain diseases should begin to kill humans at unprecedented levels. That began in the 1940's when we started using radar. Why?

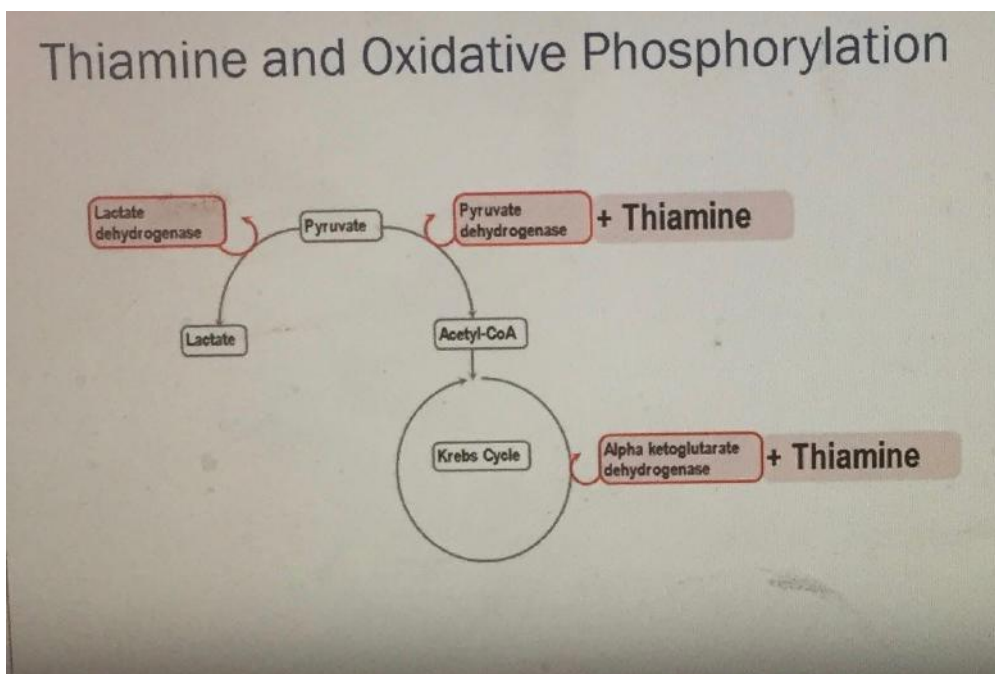
NITRIC OXIDE EFFECTS

- Short wavelength light liberates NO
- NO enhances circulation, but reduces energy production
- NIR restores energy production (in CCO: <NO, >O₂, >ATP)



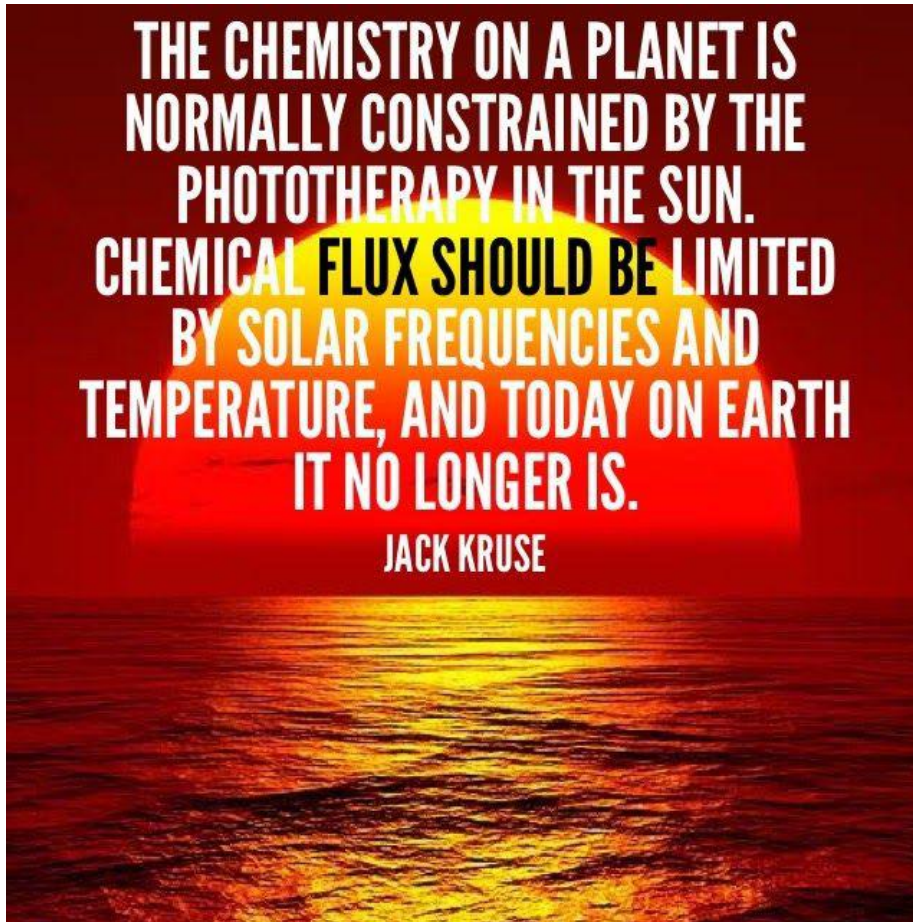
NO

O₂



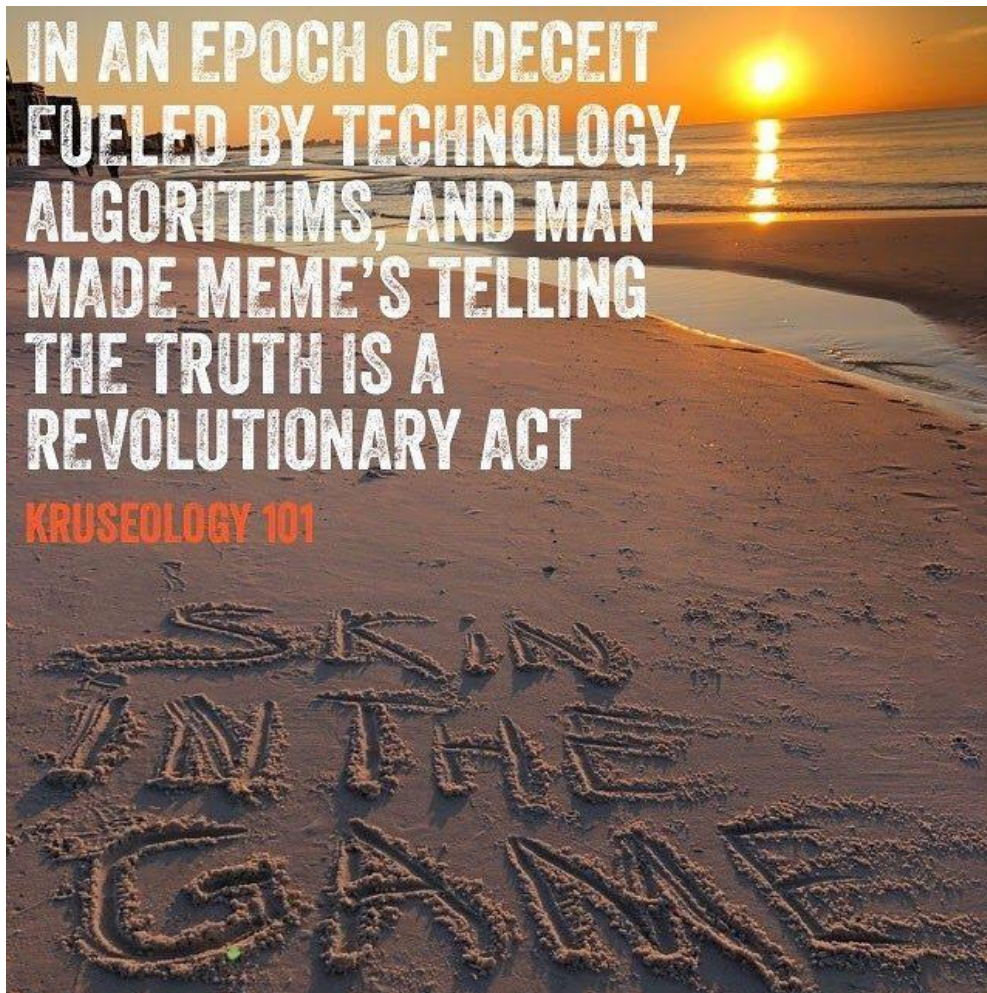
This can occur via reaction with oxy-Hemoglobin (Hb), leading to nonfunctional and toxic metHb. Once this occurs we should expect to see closely-linked hypertension

develop in humans. So far no one has tested 5G for this effect. If this frequency of 5G is used biology better get ready to genetically engineer the Hb in order to slow down its reaction with NO.



Besides NO, the deoxy and especially the met forms of Hb also interact with reactive oxygen species (ROS) such as superoxide ($O_2^{\bullet-}$) or hydrogen peroxide (H_2O_2). These processes yield ferryl (Fe^{IV}) Hb. This nasty molecule is a highly oxidizing species which not only degrades the Hb peptide and heme proteins but also amplifies the stress response by attacking other biomolecules and accidentally generating others (e.g., prostaglandins). This liberation of prostaglandins also causes deuterium to be released from the cell membrane in a stress response. When deuterium is unleashed from the cell membranes adjacent to the mitochondria it is capable of ruining Krebs's bicycle kinetics as my previous blog series have showed. I would remind you that cytochrome C oxidase is a heme protein too. This

means apoptosis would be completely destroyed by a 5G 60GHz wave. The May 2018 webinar explains what this means and now you know why I predicted a massive amplification of cancer autoimmune conditions in cities using this technology. This is a small example of what 5G is capable of doing to your mitochondrial biology at a 60GHz frequency.



It turns out at Kruse Longevity Center I have found several novel ways to offset these 5G risks for some of clients. In 2020, expect more interesting changes to come out of my center at Destin.