TIME #11 CAN YOU SUPPLEMENT SUNLIGHT?

Take Home: **Vitamin D3 is just the chemical signal made after unpolarized light is captured by our skin and in the pill form, it does not the power of the sun's light or photons. Taking supplemental vitamin D3 is like trying to hire someone else to do your push-ups for you.**

Man-Made EMR is Polarized, while Natural EMR is not

Solar electromagnetic radiations (EMR) intensity incident upon a human body ranges normally between 8 and 24 mW/cm^2 from the sun. This power density varies depending on the season, location, atmospheric conditions, altitude, and temperature of your local zip code. This means the quantum yield of sunlight is always variable and never fixed. A computer screen or your phone have it fixed at 5750K which is equivalent to solar noon in your retina and brain. This is not normal. It leads to many biologic collateral defects. Today modern communication technologies have corresponding intensity from a digital mobile phone placed upon a human head during "talk" emission is normally less than 0.2 mW/cm^2 . This is a massive power difference. This shows you power and intensity is not the key issue in biology. The sun contain far more power than a cell phone. The irony is the sun is capable of raising Vitamin D3 levels, while cell phone will destroy them. Sunlight has a powerful energy density but comes to our cells in an unpolarized state. K^+ ions become polarized by sunlight in cells to glue water molecules together like a colloid or plasma. nnEMF has weak power density, but its incident format is to be polarized. This radically affects K^+ ions and unglues water molecules and destroys the dielectric constant in water. When Vitamin D3 is affected by polarized light

cholesterol cannot be sulfated well. When this occurs Vitamin D3 cannot be sulfate either because cholesterol is the substrate to make Vitamin D3 with UV stimulus from the sun. This small change leads to non linear changes in the blood plasma with respect to hydrogen isoforms and inorganic phosphorus. This one physical change alters the local geometry of water molecules in cells and becomes problematic for living things who rely on water for energy transfer to live. This change in water domains, then changes the hydration shells around proteins. This changes the local geometry because of the respiratory proteins in mitochondria to change its size and shape. Similarly, terrestrial electric and magnetic fields, or infrared radiation from every human body at normal temperature, have significantly larger incident intensities and exposure durations on any human than most artificial EMF sources.

Polarization destroys the dielectric constant in water because of its effect on small atomic radii cations like potassium in cells. K^+ is the most common cation in a cell and acts to glue water into something called an exclusion zone (EZ). That EZ acts like a battery for incident light from the sun. Without a battery life cannot function properly. It is not the energy density that matters in incident light, whether it is polarized or not. Why? This is the first step in charge separation of water and allows our cells to transition energy from the solar form to other forms that the matters in cells can use. So this brings up a key insight about light and Vitamin D3.

Can you supplement with Vitamin D3?

Sure, but the better question is, should you base on what I just explained?

When light, specifically UVB photons, hit our atomic lattice in the skin semiconductors, photons effectively become particles and they have a non zero mass. This means

unpolarized light from the sun becomes polarized, gains mass, and acquires inertia and momentum. That momentum and inertia is what changes cholesterol to another type of semiconductor for light to capture it for transfer to the kidney for final activation. When a photon is captured by any semiconductor it can no longer act like a wave. It must act as a particle in the semiconductor substrate. That particle is key in making ATP from ADP and inorganic phosphorus. This is a quantum mechanical law in the photoelectric effect. When you take a Vitamin D3 supplement this never happens in your cells. This has huge implications on the surfaces of our body and in the blood and on electron chain transporters where are respiratory proteins are located. This increases ubiquitin marking in proteins. This explains why activated Vitamin D3 is capable of activating 3% of the genes of the human genome. It cannot do this if the mass, inertia, or kinetic energy is not within the tissues getting the chemical signal from a supplement. When you take exogenous Vitamin D3, none of these photoelectric effects happens properly in your atomic lattice. When your endogenous Vitamin D3 level is low it means water in your cells has a much lower dielectric constant than normal. This lowers the amount of sunlight it can absorb to make an EZ. Everyone seems to know light slows when it travels through glass or water, but no one seems to realize those interactions must occur in our cells to get to the chemical Vitamin D3 signal. That is the critical quantum event.

Nature’s disruption for cells is dependable because we use all different forms of waves to disrupt cells. Light disrupts us daily with light and dark cycles. The unique feature of cells is that they cannot control her waves so evolution built cells designed to capture her waves to make sense of them. Cells give humanity a truly unlimited trajectory because they are velcro for nature’s waves. That direction, however, can move forward or backward in time and is codified by clock genes and chemical signals like Vitamin D3. This is why 3% of the human

genome are affected by endogenous Vitamin D3 production that sulfated. Non-sulfated Vitamin D3 does not have an equivalent effect. The natural waves allowed into Earth's ecosystem that we should surf, push a man to greater heights and those made by man set us back and slow and often reverse evolution. Cells are designed to be a repository of collectible wisdom from nature's energy and information. That energy and information come to cells as waveforms.

Given our cellular design to capture and collected and decipher waves, no human being itself should be considered impaired innately, instead, there are environmental shortcomings that cause the impairment. Thus, it is incumbent on the on the clinician to recommend treatment of the environment their patient is in. People react to an inferior environment, way before their genome is altered. That is what the science of epigenetics and ubiquitin rates are telegraphing us, but the modern paradigm is not listening. You must.

Nothing is more "paleo" than the sun……..it has a 4.5 billion year history of winning. Every morning we're designed to jump out of bed and step on a landmine. The landmine is the sun's rays via our eyes and skin. That explosion sulfates many things in our body. After the explosion, our body and mind

spend the rest of the day putting the pieces of us back together like a quantum puzzle. The mosaic of solar light explosions and collisions with atoms in us are where all human thought occurs as electrons/protons and light collide in our cell membranes of our RPE and our skin.

Unfortunately today, more of us live like surgeons have to, permanently on call, under an alien sun, requiring us to heal ourselves because of our own ignorance on light, but we remain unable to find ‘our Rx’ because of all the “clutter on our desk” in this life. This explosion is more nuclear for our eyes and skin and causes more collateral damage than our regeneration programs can handle. The reason is simple: Regeneration requires a DC electrical current built into to UV light. Our modern world subtracts that frequency from our existence. We’ve created the perfect storm of destruction for our lives. We’re all searching for ourselves so hard that we’ve lost ourselves completely. You must stop, and create your Rx today.

Look at the timeline in evolution for a minute. What trend do you spot?

1. Naked animals evolved and need food and sleep to live and regenerate.
2. Trees and plants evolved and do not need food. They use sunlight, water, and CO_2
3. Paleo = 10,000 yrs ago where we moved from hunting to agriculture.
4. Cambrian explosion occurs 585 million years ago and forms all the phyla of life as we presently know them.
5. 600 million years ago DHA shows up in the oceans when light and algae meet. UV light becomes useful to life photoelectrically on the particle size
6. 2 billion years ago oxygen photosynthesis began on Earth. All food webs form from it. It appears the waveform of light is more important at this point on Earth.
7. 3.8 billion years ago archaea and prokaryotes show up in ancient forms. They are unable to use UV light to generate energy. In fact, UV light remains a toxin for them even today. Today all eukaryotic cells use ELF-UV light to detox their systems by increasing the redox potential of cells by controlling quantum spin of

electrons and protons

8. 4.5 Billion years ago the sun begins to emit the solar spectrum.

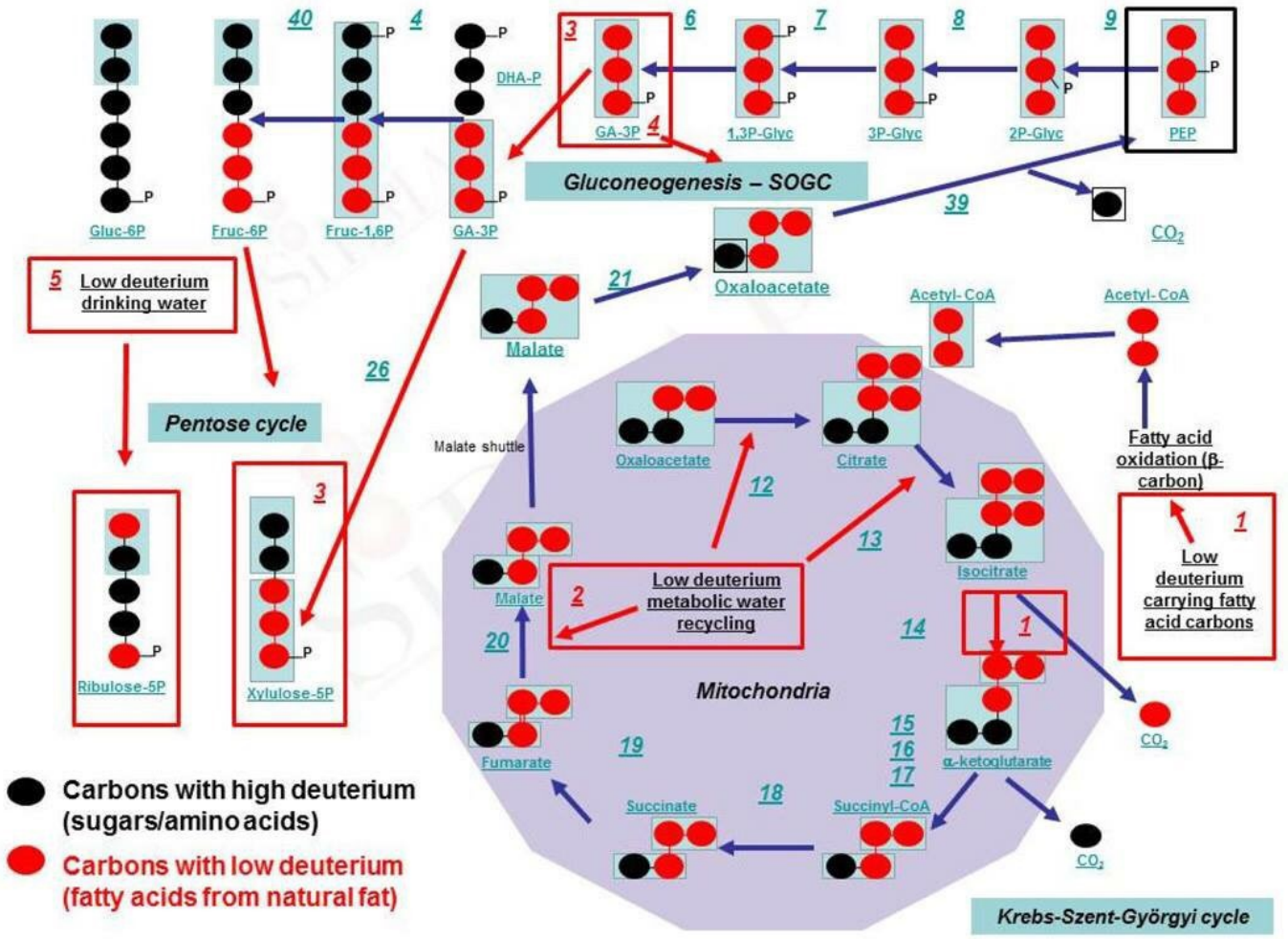
A light was here a long time before food was and most of the early life on earth could not UV light That light was starlight from the sun. Consider this perspective: The amount of vitamin D in a glass of milk is ~100 IU. Most of that Vitamin D is D2, not D3. If you have pale skin and lay outside in a bathing suit, which is termed modest sun exposure in the literature, meaning your skin was not burned, but lightly pink 24 hours later, you'll make anywhere from 15,000-20,000 IU of vitamin D3 naturally. You can fact check that in the Journal of Investigative Medicine, 2011. Plants still do not rely on food, they rely on the photoelectric effect for energy to recycle atoms in the air and dirt. Light sculpts life in plants and all plants form the basis of the entire food web. It is a well-known fact that photosynthesis forms the entire food web on Earth. Given these facts, how can food be more important than light at any level in organization? Food is a story about how electrons are changed by photons energies that excite them. **This makes foods and diets = a chemical signaling pathway for light waves.**

You must focus on your own light diet your own eye sees

constantly and not the food diet you gut senses. We do not live off the food we eat as the food guru's selling you. Food is just an electromagnetic fingerprint of the season power density as our pale blue dot revolves around the sun. It is a HORRIBLE MEME we have let them infect our thinking with. The more half-truths you believe the more you focus on diet and exercise to solve all your problems and ignore the light of the sun.

Life is not a thing as most perceive it to be; it's an iterative process. While the most origin of life theories have focused on the molecules of information transfer, the evidence is accumulating that life is primarily rooted in mechanisms for energy capture and storage. *It might turn out that information capture might be more important than energy production in our colony of mitochondria*. This was hinted at in Nick Lane's latest book, The Vital Question. It has been a running theme in Stuart Kaufman's work too. This radical re-framing focuses on a foundational paradox; ***the global increase of entropy requires the emergence of the local instance of order. It seems cells gain order from chaos when they use entropy as the starting point.***

Local order of geometry is a function of light's ability to interact with intracellular K^+ ions to make a sea of plasma colloid inside our cells that controls energy flows to proteins. Those energy flows are in the form of light from the sun not the ones in your house or phone. Sunlight becomes the controlling lever for all protein function in life. How? Ubiquitin marking. I have a series on it. Read it.



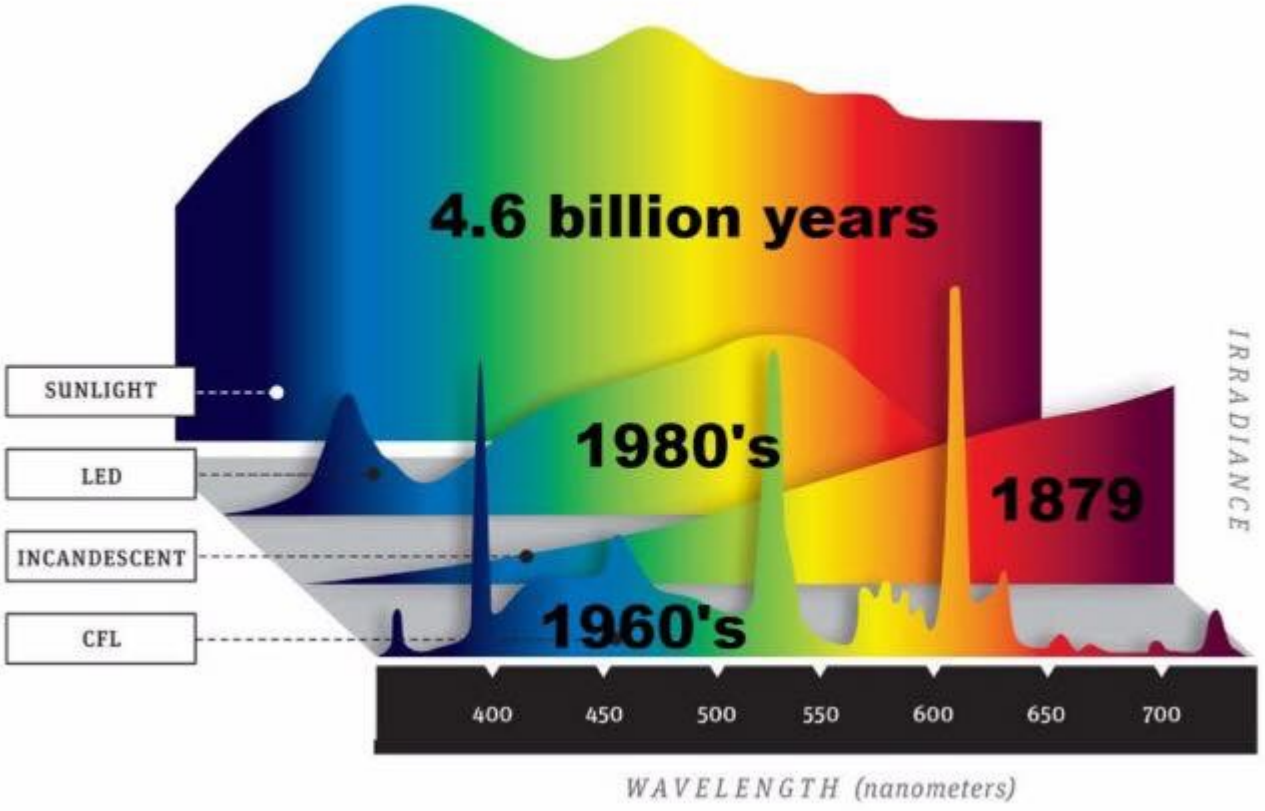
Light builds hormones like Vitamin D3 in many ways. Light builds our pituitary hormones by first creating dopamine using aromatic amino acids that absorb UV light. It does this to cortisol too. The suns light is used to power up and excite electrons. That excitation changes the local geometry of amino acids in proteins. Incident light at surfaces are unpolarized and becomes assigned an order by K^+ ions and water. Food electrons and protons become assigned energy in the same fashion in the foodstuff, but those electrons get processed by our cells differently in our mitochondria. All foods are broken down into their electrons and foods are stripped of specific hydrogen atoms to be fed into electron chain transporters and those electrons have to get assigned a new spin and excitation state in mitochondria. **So incident light from the sun really acts as the currency of the compound pharmacy in our pituitary every day to make things we need from light to live our life in our local environment.** This

makes your hormone panel a “shadow cast” of your local light environment. This is why your “*local zip code*” for light is incredibly important. The picture below shows you what humans have done to the night when sunlight should be absent. Today, fake light is present 24/7 in mans environment.

This is modern life’s zip code creation

So what is the real power of sunlight? The entire spectrum of light has 73 octaves of frequencies. Life only exists in one octave, namely the visible spectrum of light. If you understand factorial math, that means within our single octave of the visible spectrum that retinal cells and skin cells can control many biochemicals. Using numbers to make the case, incident light from the sun provides **8,683,317,618,811,886,495,518,194,401,280,000,000 different frequencies.** This is a staggering level of power and control that leverages our proteins in cells. So when you open up any biochemistry book and realize that biochemistry only uses 100,000 substrates in reactions every second, you realize light can control every last one of them. The speed at which it occurs also offends the common sense of biochemists because they fail to remember that the ***photoelectric effect occurs instantaneously with no time delay***. We just cannot fathom

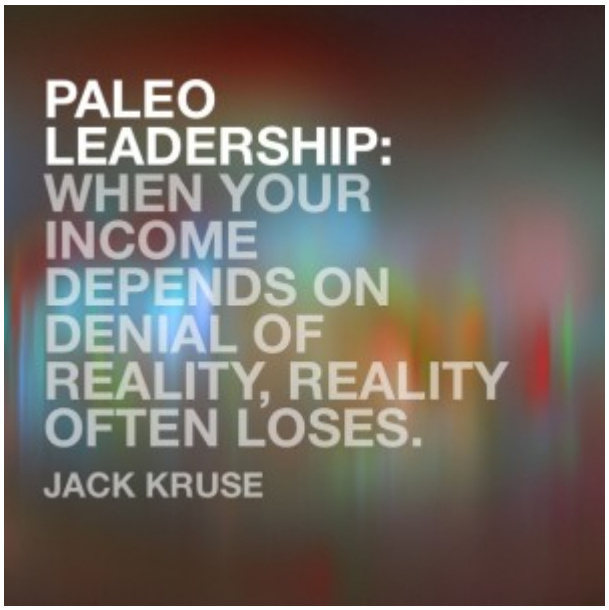
what light is ‘physically capable’ of, because we don’t observe what it can do at the small scales in a cell. Light has the ability to operate in a nonlinear fashion. This means a small change in the light stimulus can lead to seismic changes in a cell. This is precisely why fake light used in technology is destroying our cell biology. When you factor in that the photoelectric effect acts instantaneously, with no time delay, then you begin to see how 100,000 biochemical reactions can *easily occur* per second using light frequencies from the visible spectrum easily.



As such, scientific research, much like life is always conducted along the ragged, shifting line between what we know, and what we don’t. Many enticing clues emerge in this casino too, but ultimate discovery frequently remains elusive because we don’t pay attention to correlated novelties of order and its sequence of events. DHA preceded photosynthesis and the Cambrian explosion appeared before the food webs were developed so the sun had to order life before it passed this job off to food. Novelties and innovations in science share

the same dynamics, where one novelty fosters another innovation to build the complexity that life needs to harness energy to limit entropy.

We live from the energy from the food we eat because of the frequencies of light buried in the foods electrons. **All chemical properties of any substance depend only on a number, the number of electrons.** This is why all food breaks down to electrons and is processed by the respiratory proteins designed to decipher the light code in our mitochondria. That energy should come from the sun and nowhere else. Today it comes from places that can harm us. Photosynthesis forms the ENTIRE food web on Earth. Thusly, this is why no two people get the same amount of energy from any given number of calories in food. Might that be because no two people get the same amount of light via the eyes, skin, and gut? Damn straight.



People need to talk about this idea and decided for themselves. Paleo is like a Disney movie, they tell you to eat grass fed meat, bacon, and carbs to make all your body issues go away in 90 short animated minutes. When that does not work, they tell you to join a gym and buy supplements, while

exercising and supplementing under this “alien sun” inside their gyms while exercising yourself to another disease like adrenal fatigue or an autoimmune condition. Most of their thought leaders have these diseases, too. Have you ever wondered why? “Going paleo” makes you feel better for a very short time, before reality sets in, and you realize their memes can set you back decades in your real battle because you focused in on food and exercise and not LIGHT which controls circadian mechanism that controls the spin of electrons and protons inside mitochondria. You have to repair your light cycles first before you do anything else with diet or exercise. This is the essence of the Leptin Rx. That is the reality of the world we live in today. We have created an alien planet because man has invented a high color temperature “alien sun’s” for us to live under. That ‘sun’ is killing us all to varying degrees based on how much of it “we eat” via our surfaces.

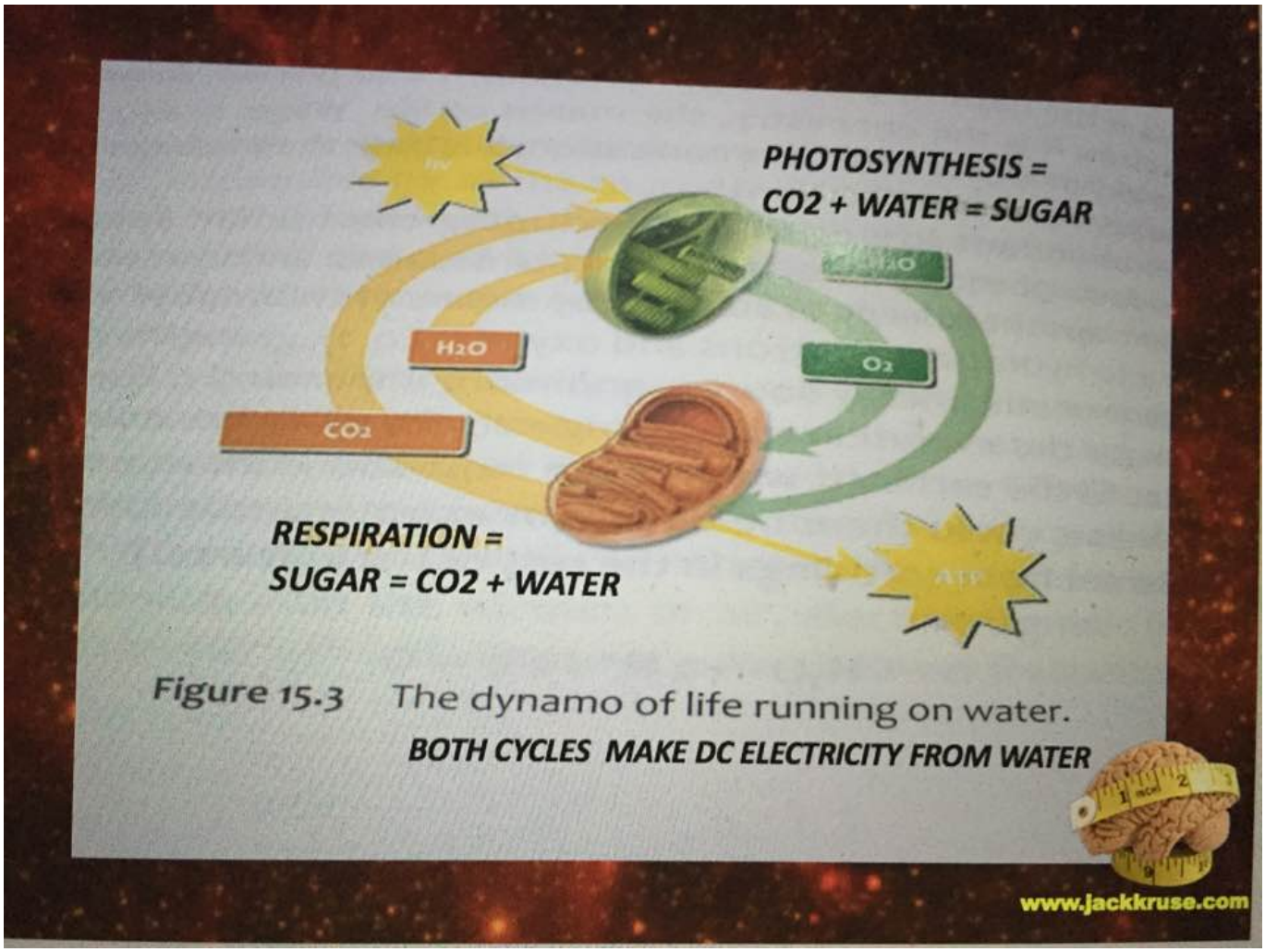
Video Hyperlink

What does Vitamin D3 in the plasma represent to the clinician? It should represent the amount of light energy in the UV range within tissues. The quantum signal that the tissue has absorbed this frequency of light, and the tissue now has excited electrons is the chemical Vitamin D3. So what does it mean when a clinician gives someone the signal in pill form we have assimilated the UVB light when we have not? Might it be an even worse maneuver from this perspective? I think the answer is, it does. Why?

Today, those low in Vitamin D3 think taking an oral supplement is as good as being in the sun. The dermatologist also believes this, and say it to patients all the time. This is also not true, in my opinion, if you read the old research on Vitamin D3. Bicknell and Prescott found in 1953 in their exhaustive research that that “sunlight acting directly on the body should be the way in which Vitamin D is obtained”. ***They found in their research that the gut and body have had no***

power to regulate the amount of vitamin D it absorbs from food. Most foods rarely have Vitamin D3 (sans seafood and mushrooms), so from an evolutionary perspective, this is not a big issue. *Today, it is a big issue because man puts the quantum D3 chemical signal in foods without replacing any of its photonic power.* The situation is actually worse when you understand what Fritz Popp did with food and photomultipliers. He took genetically modified foods and found, compared to organic foods, they contain less light than the natural foods. So if you think eating GMO's is a non-issue, your sensibilities are different than mine. It is a huge issue because the hydrogen in a GMO food has no protection of Nature's quality assurance program built by photosynthesis to control the quantum spin of things in a chloroplast. When you eat processed food chronically you will need to eat more of them to get the same amount of light from their electrons. The protons you get present a larger problem.

Food is a light story, because light is what excites electrons to impart information, energy, to them fundamentally using frequencies of light. Sunlight excludes protons in cells and this is the key way the quantum spin order is maintained in cell water. In physics after 1920, the understanding that "things on a small scale behave nothing like things on a large scale". ***The photoelectric effect shows us that higher frequency light (UV) acts like a particle and not a wave when it interacts with atoms***. It was also shown that when the light is captured in any semiconductor, it can only act like a PARTICLE and not a wave. This means food electrons are only "particle-like" before processing in our mitochondria, but when the electrons are liberated from the semiconductors in the food they can then act differently again. The local environment determines how they can act photoelectrically.



Remember visible light that humans perceive runs from UV to IR in frequency. The human eye cannot see UV or IR light. The same is not true for our other senses. Mitochondria respond specifically to these two light frequencies to alter the local geometry of the respiratory proteins. At lower frequencies (like IR) light acts like a wave in cell water. Could the fundamental difference in the sexes be based upon how their atomic lattices are attuned to the frequency of sunlight? We know women are designed to have more DHA in their breasts and buttocks to fuel a child's brain growth.

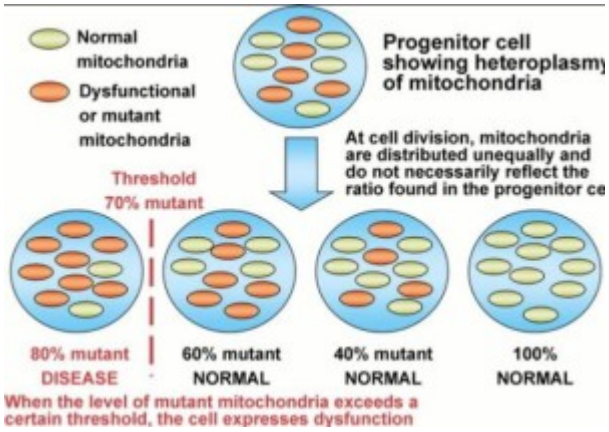
What happens if we introduce a chemical signal, like oral or topical Vitamin D3, that contains no frequency information or angular momentum within its electrons in this lattice? Taking this version of Vitamin D3 may hold off the phenotype of a disease like rickets, but might it lead to more serious diseases if we keep relying on pills or foods over the sun? I

think it is likely based on the physics involved.

Should we expect a proper feedback signal within the gut surface when you just take a pill that contains the chemical signal and no frequency information? The gut has Vitamin D receptors but they are not likely to react the same way the ones in our skin or our RPE do because the incident light they receive is not equivalent. The frequencies of light they all see will be different, therefore the receptor at this local level will be built to sense the frequency they normally face to signal properly. None of these surfaces in the gut face full spectrum solar frequencies. These receptors face frequencies of light released from prokaryotes that release light when we eat foods, which is not in the UV range. This helps explain why the gut and body have had no power to regulate the amount of vitamin D it absorbs from food. This implies that the frequency of light in the gut that Vitamin D receptors will be blue shifted and lower, so the receptor is likely to respond to the wave portions of light and not the particle aspects of light. This marries perfectly with how chlorophyll works photoelectrically in most fruits and vegetables. They tend to use blue light as their main energy source from the sun. This nuance is lost to most in biology because they do not understand how the photoelectric effect varies by frequency.

In Feynman's famous lectures from Caltech, he told us this information clearly. Biology still misunderstands his lessons. The gut is just another surface exposed to the environment in us. That local environment, however, differs in its quantum yield because the light in the gut comes from the light release of prokaryotes in the microbiome. Bacteria release 5000 times more light than a eukaryote. Did you know UV light has a special ability to detox chemical photochemically without creating more chemicals for the liver to clean up as collateral damage? All bacteria release ELF-UV bio-photons for this reason and this why the human gut uses

the microbiome as a tool for detox. It gives the liver a break. This is also why our enterocytes shed their surface every 24-48 hours if our circadian mechanism is intact. This change in quantum yield will change the local geometry of the respiratory proteins in the mitochondria of the gut compared to neurons in the brain or myocytes in the heart.



Our gut is a lumen that is illuminated by light from our foods and microbiome. That light is not the same light that hits our skin or eye surface. Today, most humans low in Vitamin D3, are now relying on their gut's ability to absorb Vitamin D3 in pill form via a supplement, because they are not getting enough full spectrum sunlight on their skin and eye. This is why UV light builds dopamine, melatonin, and melanin from UV light in certain tissues and not in others. It is also why 80% of the body serotonin stores are found in the gut. Serotonin is made from aromatic amino acids that respond better to blue frequencies than UV frequencies. That is because this is the majority of the light frequencies that the microbiome releases. The ELF-UV light from the microbiome is why there are VDR receptors in the gut. It helps optimize the proton spin issues in the gut surface. ***Everything is quantized locally.***

That implies we might want to be careful about what we recommend or consider doing today, to treat low Vitamin D3 levels with an oral supplement. They clearly are not equivalent, yet medicine and researchers, seem oblivious to

the physical reality of light. Our quantum yield is always a "local zip code" phenomena.
This means taking vitamin D3 orally, has no true negative feedback control built into our system. It does have this natural feedback control mechanism in the skin and the eye when sunlight hits it. Oral vitamin D3 will still help increase your plasma levels of this molecule, but this may not be what you want to do until you understand why your vitamin D3 level is low, to begin within today's world. If your porphyrins are not simultaneously loaded with UV light photons from the skin, the elevated D3 signal in the plasma may have some unintended collateral damage associated with it.

Now you might now fully understand why I don't advise for oral or topical supplemental D3. I advise for sun exposure instead; sunlight gives us the signal and the energy and momentum in photons to act as particles to impart kinetic energy to proteins locally in the skin and eye to do things differently there than they can do in the gut. Pills have no photonic power in them to excite electrons in our tissues, they only have the chemical signal. This will lower dopamine, melatonin, and melanin levels locally in anyone who relies on them.

Anyone who says it does doesn't know much about light, the photoelectric effect, and how they interact in tissues. *This "slick sliding scale" of action in tissues has another variable few consider:* namely it goes up and down based upon the redox of cell in question where the light hits it. **This means locality is key to light's action.** Light hits our many surfaces differently. That light either pushes or pulls cell membranes that are loaded or deficient with DHA because of the pi electron cloud in contains. You might begin seeing why eukaryotes have saturated their membranes with DHA where solar light interacts with it. Electrons and light interact because of the photoelectric effect. If you read the beginning of my *brain gut five blog* you will see how DHA and D3 have

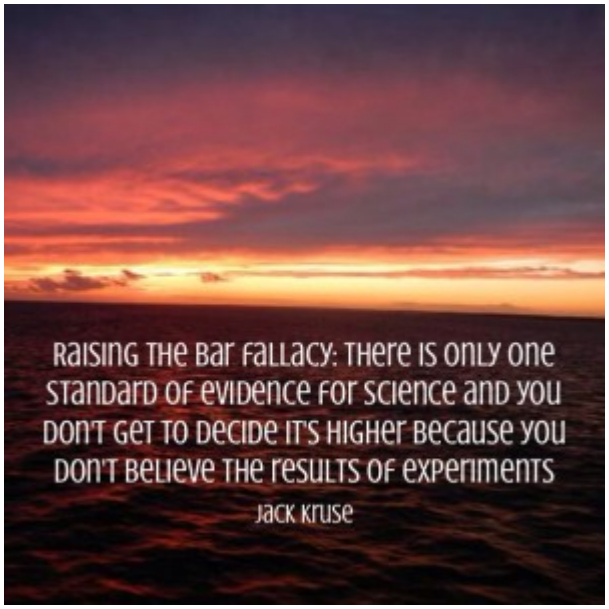
been fundamentally linked by nature for 600 million years.

If you have the chemical signal and no light behind the stimulus the signaling in the brain goes awry. Basically, if you "overdo" the use of oral Vitamin D3, you will not make enough rhodopsin (from a relative Vitamin A deficiency) and you will suffer from night blindness. You will also lower your testosterone levels!!! If you also are devoid of DHA (hence devoid of electrons) you might also be on your way to macular degeneration. *I pick this up in patients who notice night time visual loss during driving.* Many people on supplemental D3 are always shocked when I check their free and total testosterone and show them they are like an 80-year-old guy. The chemical signal can do what the photochemical signal can do to testosterone. Narcotics and Vitamin D3 have the ability to alter the creation of testosterone from the pituitary. No one gets how the photoelectric effect and sunlight work in a coupled cycle via the retina. Most commonly I have found the altered Vitamin A and testosterone levels in dentists, truck drivers, and airline pilots. Why? They are the bluest light toxic professions I have observed in the last 12 years.

Has your clinician made this connection?

Now ask yourself this: Can light push things like cell membranes? Could this result in phonons and solitons that get transmuted by the tensegrity system in a cell? You bet your ass it does. **Well, just taking a supplemental pill does none of this.** Vitamin D3 carries no momentum or energy. The key issue is that animals, like fish flesh, have the photonic power of the sun's rays in their tissues. Remember from Roeland van Wijk's and Fritz Popp's work we know that eukaryotic cells contain a lot of ELF-UV and we use it to signal biochemical substrates in a cell. ELF-UV light stimulates mitosis in cells. So their plasma Vitamin D3 levels match the light energy in the tissue of the animal when we eat it. In our bodies, when we use supplements, we are

taking the pill without any of the light energy being transferred to our tissues. If your environment is highly light stressed with blue light as most modern environments are, you need more fish flesh with the ELF-UV light in it, or you need more UV light assimilation via your eyes and skin to offset it to improve the signal to noise ration in light signaling.



Our vitamin D3 plasma levels are markers for the light stress we face and the amount we get from our environment. This is why everyone's Vitamin D 3 levels are low when physicians check them. It is also why oral pills often do not budge a plasma vitamin D3 level when the patient goes right back to the same light stressed environment they acquired it in. If they are not coherent with the amount of light assimilated into our tissues then we develop problems inactivating cell membrane receptors that have disulfide bonds. Vitamin D3 level is the "photo-generated chemical signal" that results from the collision of UV light and aromatic amino acids in our skin has already occurred. In us, when we swallow a pill, we get the signal but we do not get the energy or momentum punch present in the UV light photon. We need that punch.

It has long been known that light carries both energy and momentum, but no one seems to know how momentum and energy get

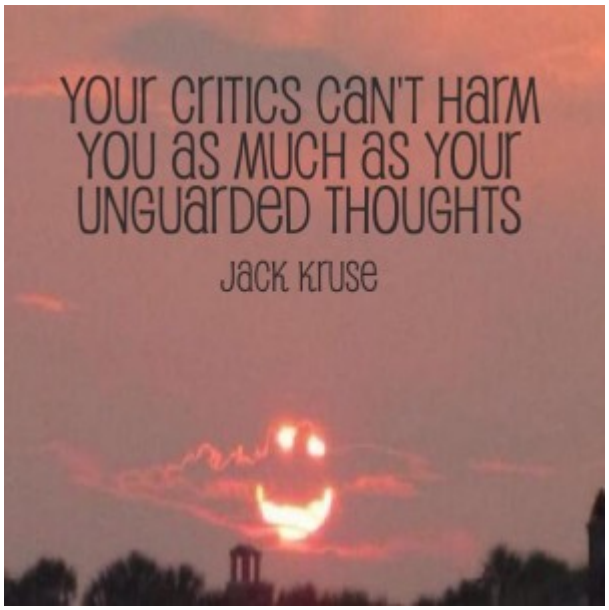
turned into quantum information for the cell. Biology is all about preserving that information from waveforms in a particle that cells can use to form chemicals like Vitamin D3, dopamine, melatonin, and melanin. The momentum of light has not been so easy to describe for physics. New experimental results now suggest that the answer depends on whether or not the light can put fluid into motion: Since all cell membranes are "fluid-like" in humans this begins to make sense why flexible PUFA's like DHA are critical for function with solar light. If light can move a cell membrane, light stimulus shifts toward the red frequency, thusly, lowering its power by altering the frequency and its ability to do work. Red light also dramatically affects cytochrome c in local mitochondria to shrink the respiratory proteins to speed up ECT. **This is how light changes local time in cells and explains why every mammalian cell has an optical circadian clock within them.** This downshift in frequency, attenuates the light's power, thusly, lowering its kinetic energy and momentum. This decreases power, and it exerts a lower "*pushing force*" on a cell membrane.

This is how D3 is made with UVB light. Clearly, D3 needs a lot of momentum to be made from cholesterol in the skin. This means that there is a very little red shifting of UVB light at our skin surface when Vitamin D3 is made. Experiments have proven this. What happens if you have no UV light exposure on the skin below your clothes? Locally you develop lowered melatonin levels and this can explain why skin cancers, like melanoma, show up in places where no sun hits our surface. This is why dermatologists are at a loss to explain why melanoma occurs today in patients in non-sun exposed areas. Time 9 explains it beautifully. The altered solar spectrum changes the local amount of melatonin and this alters the local respiratory proteins in mitochondria. In this way, local control of the mitochondrial DNA is lost because local melatonin levels control the expression of mtDNA. I covered this in detail in Time 9.

So, say you live indoors, under blue fake light like an LED; LED contains no UV light or IR light. Say you belong to a paleo gym with fake lights doing cross-fit nonstop inside. Can you refill a cell with lost UV under blue light stress? No, you cannot. This is why an indoor life is one of the fastest ways to develop eye and skin problems. With time it will destroy your brain too and you'll get adrenal fatigue. Why? Adrenal fatigue is a disease of the brain stem at the PVN. Brain gut 16, read it.

UVB light packs the biggest punch in our spectrum because its smaller, more powerful frequency carries the densest packets of energy that our cell membrane change to a DC electric current. This is the current that regenerates our tissues. The chemicals that are created locally to make this happen are dopamine, melatonin, melanin, with the help of DHA and Vitamin D3. All of them control the expression of mitochondrial DNA and the local geometry on the respiratory proteins. **This represents how the "particle aspect" of light is used to control local regeneration pathways in biology.**

Light frequencies that cannot move the cell membrane as well cannot slow the incident light at the surface and it penetrates like a projectile or missile. As the light travels the light's momentum actually increases more and speeds up into a tissue at deeper levels and it exerts a pulling force on the lattice around it. This is similar to what a bullet tract does when you get shot. This is how someone develops a disease like psoriasis and Multiple sclerosis. People do not understand how light fundamentally operates, and this is why they do not fully understand any autoimmune conditions. ***If you think taking pills equals the sun you are not in my tribe.***



All stressed cells leak ELF-UV light and engage the regeneration programs in biology designed to refill cells with UV. This means a small pulse of damage is the stimulus for repair in our cells. **It is quite a simple concept**. What happens when the small pulse of ROS become chronic and massive? Read Roeland van Wick recent book for all the details. **I'll give you the take away:** Cell growth is altered and becomes uncontrolled with ROS because free radicals obtain the wrong spins in our respiratory proteins. What controls this process in all cells on Earth? UV light release is the short answer. ELF-UV light from one cell affects the mitochondria closest to it to locally alter the spins of electrons in free radicals. All stressed cells release massive amounts of ELF-UV. To regain signaling you need to refill these leaky cells of their lost light.

Growth is necessary for life, but it is always stimulated by damage (ROS) and this small stimulus of damage is limited locally by regeneration programs built by the DC electric current. We get the DC electric current from UV light exposure locally. The DC electric current works with only the "particle aspect" of light in the higher frequency part of the visible spectrum of light. As such, this current emerges from UV light interaction with DHA from the sun. DHA has the ability to turn sunlight into a DC electric current and a DC

electric current back to photons.

Food is just data on sunlight's photonic power that it packs into food as it travels around our star. We need an adequate balanced diet of light to offset the stress our environment provides. That light is carried on the back of electrons and the said electrons are delivered to your mitochondria. Don't try to let food or exercise be the missing key in your life, or fake light will stop being your unmatched lock and key mechanism that leads to disease; food alone answers little because the photonic power's absence or presence must be yoked in your eye, skin an gut. In this way, food suffers the same fate as Vitamin D3 supplement. If it does not that doesn't let you merge on the path to optimal and eventually you'll leak so much light from cells cancer is the ultimate result.

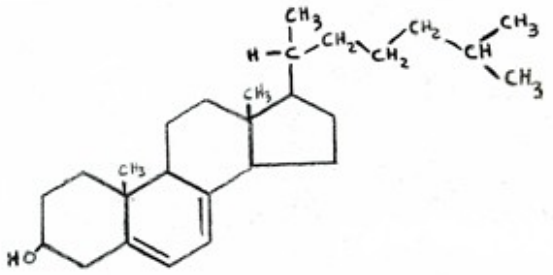
ARE OTHER DISEASES LINKED TO THIS STORY?

Can Big Pharma make money from making the atmosphere above your neighborhood reflective to UV light? Yes. What are the signs in people below this area with a lower quantum yield? Look at your extensor surfaces for cholesterol plaques on the surface of your skin. Look for psoriasis. Look at your labs for ***like lipid profiles; you'll notice lipids will rise, blood glucose will rise in the early AM, and cause the medical complex to act in a way to use a drug like a statin to treat you based upon evidence-based guidelines?*** If you think it is not possible/probable, why is it that no matter what part of the globe is surveyed by epidemiologists we are finding a low Vitamin D3 level in the population below while their immune systems slowly and insidiously get turned off by a lack of UVB light?

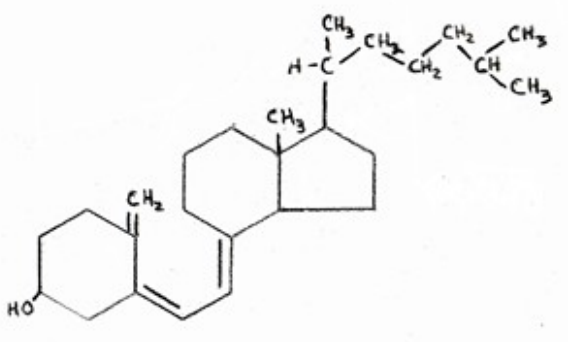
The picture above shows osteoporosis, two fractures, and an aorta calcified from a lack of UVA/UVB light assimilation in the skin and plasma that lowered Vitamin D3 and the Vitamin K2 cycle. Both D3 and K2 are made after light collides with other lipids that absorb UV light. That light photo-chemically changes to form the D3 and K2 chemicals that direct calcium to the proper tissues. K2 phenol rings allow it to absorb massive amounts of UV light from cells in the circulation. With a lack of UV, light chemicals lose their direction and deposit calcium in arteries instead of bones. Light is the most powerful drug we have.

Modern physicians have reported that even when they find a low vitamin D3 level in their patients, often supplements and food (seafood and mushrooms) remain *unable to raise the neurohormone levels!!!! Now you know why this happens.*

How much do you understand about how the quantum yield of sunlight links to the photochemistry of the surface of your skin to control your immune system, brain physiology, and your plasma lipids? Vitamin D3 is synthesized from cholesterol in the skin, upon exposure to UVB rays from the sun. This makes cholesterol become sulfated and this allows it to easily change photo-electrically to Vitamin D. Further modification occurs in the kidney to make the active form of Vitamin D3. In fact, the chemical formula of vitamin D is almost indistinguishable from that of cholesterol if you look at the 2 side by side atomically.



7-dehydrocholesterol in the skin

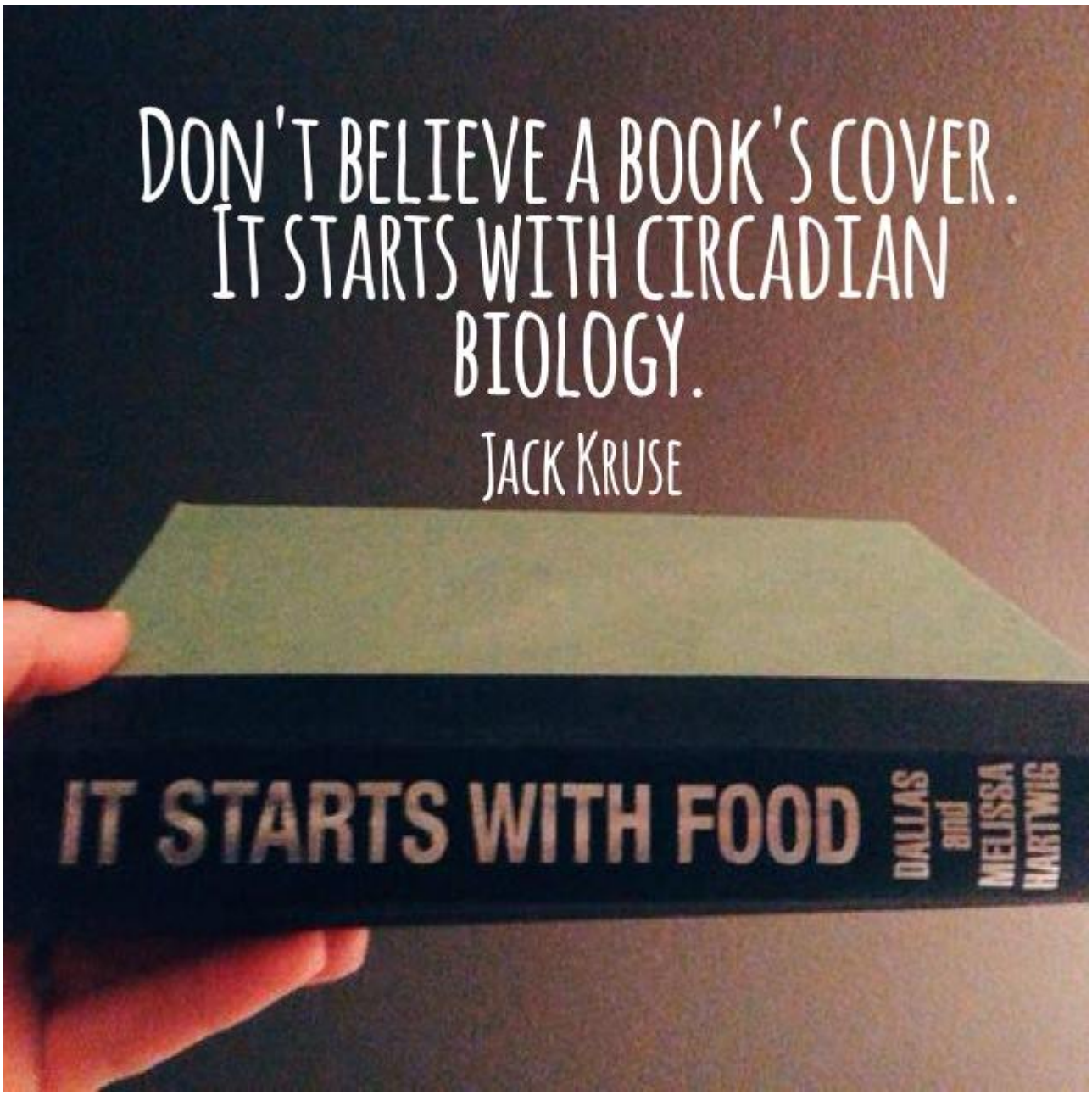


Vitamin D3 active form: Note the open second ring by UVB light.

If there is no conversion of sulfated cholesterol to Vitamin D3, clinicians should expect a rise in plasma *unsulfated cholesterol* as a consequence should they not? Do physicians even look for cholesterol sulfation today? Nope. What do they look at? They look at things they were taught to observe even if they are distractions to their focus. They order lipid panels and just look at LDL numbers. Why do they miss this trend? They do no know to look for it because they were never taught the biophysics of sunlight on cholesterol in the skin surface. I laid this out in my Tensegrity 7 blog post. As the cholesterol LDL rises doctors are taught to prescribe drugs to lower LDL. As LDL levels are lowered and physicians instruct people to remove UV light from their surfaces, Vitamin D3 will be kept artificially low using Big Pharma drugs and bad environmental advice. What is the result? The body will be unable to re-supply adequate amounts of cholesterol to replenish the stores in the skin so they can be sulfated by the sun and transformed to Vitamin D3 by UVB light and chemical changes in the kidney once they have been depleted. The sequence of events is altered to lead to many diseases. Are you beginning to see how important surface light is for wellness now?

This would lead to vitamin D3 deficiency, which is a widespread problem in America. As plasma sulfated cholesterol is lowered the brain suffers because there is not enough for the lipid-protein rafts in cell membranes. *Neurodegeneration results. Today these brain diseases have shown massive increases and incidence and prevalence.* As this process continues, and vitamin D3 falls below 20 ng/dl and we see the immune system T regulator cells turn slowly off to alter the circadian LIGHT regulation of the immune system which can lead to many diseases like arthritis, cancer, and autoimmunity.

Just because is a best seller in a NYT list does not mean it is true. Fake news is everywhere. Just because the majority humanity believes something does not make BS true.



All three of these disease incidence and prevalence are also at all-time highs. This shows you that simple changes in the frequency of light have the power to cause diseases because those changes alter the geometry of the respiratory proteins in mitochondria. Doug Wallace and Nick Lane 101. How else has man changed the quantum yield of UV light in our environment today over our land masses? Did you know aluminum is one of the smallest atoms that is capable of reflecting all

forms of sunlight? This is why it is used in telescope mirrors. Aluminum is not used in biologic tissues because of this reason. Cells are designed to release ELF-UV light so any aluminum in a cell would ruin signaling. Did you know that many of the drugs and prevention strategies advocated by many people today contain this atomic substance? Aluminum is in vaccines. Think this is a good idea now? How we look at things, whether this or anything else, it's all about what lens are we focusing on. We need to stop just looking and really begin to observe what is going on in our world better. We need quantum lenses, not macronutrient lenses.

You learned in Time 6 that UV light makes dopamine via tyrosine. Dopamine levels link to this ability to focus and see trends we face. Dopamine is also made by UV light exposure in your RPE of your eye. This means that the lower quantum yield of sunlight will allow us to miss trends and make poor decisions because our thinking about things is failing. When we measure something by deciding, by choosing, we're forcing an undetermined, undefined world to assume an experimental value. **We're not "measuring" the world; we're creating it.**

Our focus in science should be entirely focused upon the implications of the new possibilities that a novelty opens up. This is why probabilities are the basis of natural systems using quantum mechanics. It is also why the brain looks for trends using dopamine as its fuel source of innovation. Choices are decisions and decisions are the domain of dopamine. A good decision can never guarantee a good outcome. All real decisions are made under uncertainty. *This is how the "uncertainty principle" touches our lives.* A decision is, therefore, a bet, and evaluating it as well or not must depend on the stakes, odds or the probability, not on the outcome. Blind nature will nearly always select the most probable frequency or wave, but man can let the most improbable become actual by altering the environment that nature operates.

Are we seeing through a positive lens or a negative lens today? Our perception determines what we think we see. When your dopamine is destroyed and not replaced you become an energy vampire. If you see life painted by the villain's, paint over that picture and become the artist who chooses to hand out brushes that create heroes. It seems everyone these days is defensive about their lives; the reason is simple…… ***Everyone has settled for something less than they deserve in some fashion because of changes to our environment***. They perceive it, but can not admit it to themselves……..If an A is available, why settle for a B, C or D? This is how your light environment builds good or bad thoughts, decisions, and ideas.

Video hyperlink

Popularity is usually the path of idiocy. If 150 million people say a foolish thing, it is still a foolish thing. For example, in my opinion, there is no basis for saying diet/exercise can trump sunlight in any respect. There is, however, a large meme in circulation that believes this as a truth. Why do I believe as I do? Photosynthesis forms the basis of all food webs on the planet. Light from the sun preceded food and DHA preceded photosynthesis and the Cambrian explosion. Therefore the sequence of events makes it likely and probable that light trumps food at all levels of biologic organization. That is a natural fact of nature and not my precept or belief. My critics like to make fun of my writing, so I like to think of myself as a bad writer with big ideas; I'd rather be correct about life, than a popular author with bad ideas tied to diet and exercise. The paleo solution is a fitness solution, no tone to reverse a medical condition. It gets you part of the way there, but it cannot close the deal. Never allow your critics to dull your luster; revel in who you are. The stronger their dogma the greater their ignorance shines. If I'm a lousy writer, then an awful lot of people have shitty taste.

We don’t need to improve sleep……..we need to innovate darkness and live within the sun rays in the AM and sleep comes naturally. Big difference. Focus in on what matters and not on what doesn’t. Remove your paleo distractions and focus on light.

Everything we put in or on our bodies distorts our sensory perception. This alters our reality. The senses are specific to our morphologic development and present for us to use the specific spectrum of our local environment in the best ways possible. When you move away from your ideal adapted environment things change. Why? Blocking one part of the spectrum alters biochemistry because it often regulates another pathway that is tangentially linked to the first pathway. This is akin to having sex with your clothes on. We can do this, but nature wants us naked for a reason. Moreover, it’s probably not a good thing to consider. Mother Nature perspective is the one makes the point we should adhere to. Our surfaces are designed to decipher waveforms from the space around us; they are invisible to us unless we have our senses intact.

Topical vitamin D3 can help disease but it requires you understanding how to use it. Few do because they do not understand how light’s ability changes once it interacts with

matter.

VIDEO

CITES:

1. http://www.medscape.com/viewarticle/853373?nlid=91245_491
2. http://www.pssjournal.com/content/9/1/14
3. https://www.youtube.com/watch?v=1zBBmh8xQhM
4. www.youtube.com/watch?v=1zBBmh8xQhM#t=2460
5. http://www.pssjournal.com/content/9/1/14
6. http://www.northwestern.edu/newscenter/stories/2015/11/circadian-clock-controls-insulin-and-blood-sugar-in-pancreas.html
7. A Beautiful Question, By Frank Wilczek. 2015. pgs 260-265.