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How to Measure and Optimize Your Mitochondrial Health

Analysis by Dr. Joseph Mercola Fact Checked

March 06, 2022

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STORY AT-A-GLANCE

- As you age, your mitochondrial function decreases, and this is a hallmark of both the aging process itself as well as most chronic disease. Bio-energy testing can quantitatively measure the function of your mitochondria
- Even asymptomatic people in their 30s can have significantly decreased mitochondrial function. Early onset mitochondrial dysfunction is indicative of premature aging and future health problems
- Two substances that significantly improve mitochondrial function are B vitamins and intravenous ozone
- Certain lifestyle strategies will also improve mitochondrial function, the top two being interval exercise and an individualized diet. Lowering your stress and detoxing heavy metals are two others
- Your thyroid may also need to be addressed if your mitochondrial function is impaired. The key here is using bioidentical hormones

Dr. Frank Shallenberger, author of "Bursting With Energy: The Breakthrough Method to Renew Youthful Energy and Restore Health," has been a natural medicine physician for nearly five decades.

He's a true pioneer in the field and, as most good natural medicine physicians, a perpetual student. He was actually the first to innovate the use of nebulized hydrogen peroxide, which has become my favorite intervention for upper respiratory infections, including SARS-CoV-2. Sadly, it's been widely disparaged, but those that have used it are typically really impressed by the results.

In this interview, we'll review a number of strategies you can use to optimize your mitochondrial health and function. After graduating from medical school, Shallenberger first went into trauma medicine. After about seven years, he transitioned into being a general practitioner and internist. Within months, however, he realized that nobody was getting well. In fact, many were getting sicker from the drugs he prescribed.

As it happened, Linus Pauling had a once-a-month study group in the area, which Shallenberger was able to join. He quickly realized there are far better ways to treat disease.

The Importance of Mitochondrial Optimization

One of the things Shallenberger has pioneered is bio energy testing that measures mitochondrial function. As you age, your mitochondrial function typically decreases, and this is a hallmark of both the aging process itself as well as most chronic disease.

He decided he wanted a way to test mitochondrial status, and by 2004 he had developed a system that evaluates how much oxygen you consume and, in real time, how much carbon dioxide (CO_2) you produce. This can give you a quantitative measure of how well your mitochondria are working.

> **“My goal for all my patients is that no matter how old they are, they have youthful mitochondrial function. A lot of the stuff I've learned over the years is how to maximize that. ~ Dr. Frank Shallenberger”**

What he found was that even asymptomatic people in their 30s were having significantly decreased mitochondrial function. He calls this “early onset mitochondrial dysfunction,” and it’s indicative of future health problems, even if everything seems good and well right now.

> *“The conventional thinking has always been that our mitochondria lose their efficiency as a result of the aging process. But I started questioning that, and wondered if our mitochondria in fact lose their efficiency even before any signs of aging. And, the amazing thing I discovered was that mitochondrial efficiency can decrease significantly even in our 30s and 40s, long before any of the effects of aging.*
>
> *I believe that this early decline is the primary factor that accelerates the aging process and makes us more vulnerable to the diseases of aging. And this is exactly what I have observed over the years. People with optimal mitochondrial function, no matter how old they are, rarely develop any of the diseases associated with aging, and routinely maintain full function even into their 90s.”*

B Vitamins Needed for Optimal Mitochondrial Function

So, what are some of the most effective interventions Shallenberger has found for optimizing mitochondrial function? After a lot of testing and experimenting, the only two substances found to really move the needle were B vitamins and ozone treatment. He explains:

> *“B vitamins are absolutely critical for mitochondrial function — especially niacin, riboflavin and folate. Orally speaking, with niacin, I typically start them at 100 to 200 milligrams a day [but] you can go up to 2,000 mg easy on some patients. I use a B complex because I like to balance it out, but I'm focusing primarily on niacin, folate and riboflavin.”*

Typically, when a deficiency of B vitamins is the cause of decreased mitochondrial function, I will see improved readings within two to three weeks, although the level of improvement can vary tremendously from one person to the next. An important caveat here is that mitochondria are vulnerable to any number of assaults, including emotional stress.

> *“I have literally seen patients have great mitochondrial function, be under stress for two months, and have their mitochondria wiped out just from emotional stress,”* he says. *“I haven't done the studies, but I'm pretty sure that if you get under a lot of emotional stress, I bet your mitochondria suffer a measurable hit within 48 hours.”*

Ozone Therapy

The other intervention Shallenberger found for mitochondria optimization is ozone therapy. He explains:

> *“First of all, people should understand what ozone is. When we talk about ozone and medicine, we're not talking about ozone in the atmosphere. We're talking about a very pure molecule, it's pure oxygen, period. There's nothing else in there. Regular oxygen that we breathe is what we call O_2, that's two oxygen atoms combined together.*
>
> *Ozone is basically three oxygen atoms combined together. What makes that molecule so unique is that it is very electron deficient. It needs electrons big time. So as soon as you put that into the human body, or into any tissue, it's going to start grabbing electrons. And as it grabs the electrons, it's going to form molecules called peroxides [a reactive oxygen species, ROS].*
>
> *So, after ozone treatment, you're loaded with peroxides, and these peroxides can stay in the body for a good seven, maybe as much as 14 days. These peroxides are what mediate the various physiological and biochemical effects of ozone. They're also, by the way, molecules that are electron deficient ...*

Ozone is a hormetic molecule, it has a hormetic clinical effect. This means that at low doses, it does one thing, and as you increase the dose high enough, it starts doing the exact opposite. So, deciding on the dose for ozone is pretty critical.

To stimulate mitochondrial function, I use relatively small doses, in the order of 10, maybe 12 mg ... I get ozone treatments myself every week, just because I can. And it would be super good if everybody could do that."

It is important that the ozone used intravenously be free of contaminants, so you need to use a machine that converts pure medical grade oxygen to generate pure ozone.

Ozone generators that convert air from an oxygen concentrator are only good for certain topical applications, not for intravenous injection. Also, while the peroxides are ROS, in this case, that's what you want. You do not want to try to counteract the oxidative stress with antioxidants before the treatment, and here's why:

"The reason is because I want these peroxides. When the ozone goes into the tissue, I want it to be interacting with lipids and maybe amino acids. I don't want it to interact with ascorbate, because then I'll get dehydroascorbate. That's not what I'm looking for. I'm looking for peroxides.

The basic thinking with ozone therapy is, you really never want to give any kind of substance that's going to donate electrons, like vitamin C or glutathioneprior to the treatment, if you want to maximize peroxide production. Now, after the treatment, yeah. You want to do it after, but you got to have that sequence correct."

Lifestyle Strategies to Improve Mitochondrial Function

Certain lifestyle strategies will also improve mitochondrial function, the top two being interval exercise and a ketogenic diet (high in healthy fats and low in refined carbs, provided that's optimal for you. For additional details, see section below). Lowering your stress and detoxing heavy metals are two others. With regard to exercise, Shallenberger says:

"Resistance training is really important, especially for the over 60 crowd. For lean body mass-types of reasons, for resting metabolic reasons, it's very important. But it doesn't do what classic aerobic interval training does ...

For normal people, not athletes, to maintain good mitochondrial function, what you need is two 30-second intervals [where you go all-out, max exertion], followed by about four or five minutes of rest between the two, done three times a week. That's hardly anything ... [but] it's every bit as good as any of the harder exercise routines."

The Case for Bioidentical Hormones

Your thyroid may also need to be addressed if your mitochondrial function is impaired. The key here is using bioidentical hormones, which unfortunately is getting more difficult to get a hold of. Bioidentical thyroid hormones are basically made from desiccated animal thyroid and therefore contain all four of the natural thyroid hormones: T1, T2, T3 and T4.

Conventional doctors typically use Synthroid or Levo-Thyroid, which only contains synthetic T4. Ideally, you want all four of them, but at bare minimum, you want T3 and T4.

"Thyroid is critical for a number of reasons," Shallenberger says. *"First of all, probably 80% of people over the age of 50 have suboptimal thyroid function. It's such a common problem ... When I first got my equipment, I started measuring resting metabolic rates. Resting metabolic rate is how much energy your cells are producing when you're actually not doing anything.*

You're sitting very quietly in a chair. In other words, no exertion. How much energy do you need for no exertion? It turns out the resting metabolic rate is almost entirely determined by thyroid hormone. Thyroid hormone also activates something called uncoupling protein 3 (UCP3), which is an uncoupling receptor on the mitochondria, which stop mitochondria from self destructing.

The thyroid prevents self-destruction of mitochondria. Thyroid also stimulates mitochondrial biogenesis, and stimulates mitochondrial division, so that when the cells divide, you get representative DARs cells with the same number of mitochondria. Also, through UCP3, that's where a lot of fatty acids come in. Thyroid is very important for fatty acid metabolism of mitochondria.

So, [thyroid] hits mitochondria in about four or five different ways. It's absolutely critical for mitochondrial function. A lot of the times that's the big problem. Somebody comes in, their resting metabolic rate's low, the mitochondrial function's low. I give them enough thyroid to bring the resting metabolic rate up to what would be considered close to optimal, and bang, the mitochondrial function goes right up with it."

Thyroid Tests Are Unreliable for Diagnosis

Unfortunately, many of the thyroid blood tests aren't particularly good. TSH is particularly useless, according to Shallenberger. He's convinced that measuring resting metabolic rate and increasing the dose of bioidentical thyroid hormone until you're at an optimal or near-optimal metabolic resting rate is a far better way to gauge how much thyroid medication you need. For general reference, the most commonly used dose is between 1 grain (60 mg) and 1.5 grains (90 mg).

> *"I had lots of these cases. They'll tell me, 'I feel really good. Everything's wonderful. Thank you so much.' Then they come back maybe a year later and they say, 'I'm miserable ... I saw my doctor, he did the thyroid test and said 'Oh, you're being way overdosed.' So, he reduced the dose and the test is looking good now, but I feel like crap again.'*
>
> *The doctor says, that's OK, 'because your tests are looking good.' So, that's how good these tests are. They're totally useless. The patient comes back to me, I put them back on the thyroid and that's the end of that story. I'll use T4 and T3 to monitor what I'm doing. But the TSH is absolutely useless. And they're all useless for diagnostic purposes."*

The Importance of Being Metabolically Flexible

About 90% of the population are metabolically inflexible, and that will have a tremendous impact on their mitochondrial function. Most eat far too many refined carbs and have an impaired ability to use fat as their primary fuel. To address that, you typically need to significantly reduce your carb intake and increase healthy fats.

This is not a 100% absolute certainty, however. The mitochondrial machinery in some people is preferentially adapted to carbs and they won't do well on a high-fat, low-carb diet. The good news is you can actually measure how well your mitochondria are working on a specific diet, using Shallenberger's test. This way, you can really get a clear idea of what your personalized ideal diet is. Shallenberger explains:

> *"Mitochondria have the ability to generate energy by either burning glucose or fatty acids. If they're purely burning glucose, they produce twice as much CO2 than if they're purely burning fat.*
>
> *If I look at the ratio between oxygen consumed and carbon dioxide produced, since it's a linear equation, I can tell them exactly how much energy they're generating from glucose and how much energy they're generating from fatty acids. We have that capability, just from looking at these numbers, to determine that ...*
>
> *Now, carbohydrates in certain people suppress fatty acid metabolism. There's a subset of the population that, when they eat carbs, it's mitochondrial suppressive. The rationale is that since we're all different, there are going to be a subset of people whose mitochondria prefer to get their protons from glucose.*
>
> *There's going to be another subset of people whose mitochondria prefer to get their protons from fatty acid. They're just more efficient that way. So, you have these two extremes. The rest of us fit on some continuum between those two extremes."*

Nebulized Hydrogen Peroxide

As mentioned, Shallenberger was way ahead of everyone else with the use of nebulized hydrogen peroxide. Anytime you inhale something, it enters your bloodstream. Shallenberger had been using intravenous hydrogen peroxide for about 20 years when he suddenly had the idea to inhale it.

Respiratory viruses, of course, tend to hang out in the sinuses, respiratory tract and lungs. Hydrogen peroxide, meanwhile is known to kill most known viruses on contact. "It's pretty simple, but it's unbelievably effective," he says. All you need is:

- A plug-in jet nebulizer
- 3% food grade hydrogen peroxide (food grade does not contain chemical stabilizers)
- Saline
- Optional: 1 to 2 drops Lugol's iodine

Simply dilute the peroxide by mixing 7 teaspoons saline with one-fourth teaspoon of peroxide. This gives you a 0.1% solution, which is perfectly safe to inhale. If you like, you can add one drop of Lugol's iodine into the cup along with the solution.

Heavy Metal Detox

Heavy metal toxicity is another problem that can take a toll on your mitochondria. To address heavy metals, Shallenberger typically uses a combination of colonics, saunas and chelation therapy. Like me, he's a big fan of saunas. While most use far-infrared saunas, I prefer near-infrared saunas, for several reasons.

For starters, near-infrared penetrates much deeper into your tissues, releasing toxins. Importantly, 95% of melatonin is also produced in your mitochondria in response to near-infrared light. Melatonin is a very powerful antioxidant that helps mop up ROS in the mitochondria. Melatonin also helps increase glutathione, which is a major detoxification agent. For tips on how to create an EMF-free sauna, listen to our interview, as we go into more details than what I've summarized here.

TH1 Versus TH2 Immunity

In closing, we touch on immune function. Your immune system is divided into two "arms" or branches, the innate immune system (TH1) and the humoral immune system (TH2). If your innate immune system is not working well, you're more prone to infection and illness. Unfortunately, vaccines of all kinds suppress TH1, pushing you toward a TH2 dominance.

> *"In 1994, there was a study published, looking at homosexual men. It had to do with AIDS and all these men were HIV positive, but only a portion of them had AIDS. They found that of the ones who had AIDS, 100% of them were all in TH2 dominance. Of the ones that didn't have AIDS, only 30% were in TH2 dominance.*
>
> *They were in TH1 dominance ... I looked at that study and I thought, 'Wow, you're telling me that 30% of men in the control group were already in TH2 dominance? That's pretty pathetic. This basically means their innate immune system is more or less shut down, and they're in a TH2 humoral system imbalance.*
>
> *I thought, they've ruined the TH1, because what happens is that the TH2 system produces cytokines that suppress TH1. TH1 produces cytokines that suppress TH2. So, it's sort of like one aspect of the immune system is saying, 'I got this, we don't need you anymore.'*
>
> *So, we've got a number of our population of so-called healthy people that are in a TH2 dominance. In the '80s, it was a big thing to test for antibodies. Everybody was testing for antibodies. The conclusion we came to is that if you have a lot of antibodies, that means you're super-duper infected versus somebody who doesn't have a lot of these antibodies.*
>
> *Turns out that's just not the case ... The problem is not that these antibodies are being caused by super infection-type situations. The problem is they're in TH2 dominance and that's what they do. They live off antibodies.*
>
> *Maybe as much as one-third of the population is already in TH2 dominance. Why is that? ... What are we doing that's making all these antibodies? Hello, vaccines. But what's the definition of a good vaccine? It's one that makes an antibody. Every time you get a vaccine, you're automatically suppressing your innate immunity.*
>
> *Statistical data came out a couple years ago, comparing the death rate from COVID in countries where the population was highly vaccinated for the flu in 2019 as opposed to countries with a low flu vaccine rate. And the death rate was something like 400% greater in the countries where most of the people had the 2019 influenza vaccines.*
>
> *That stands to reason, because they suppressed their innate immunity. That was one thing that got to me. You know, vaccines aren't really helping this game here. The other thing that got to me is that we know ozone stimulates gamma interferon and IL2, which are TH1 stimulants that act to suppress TH2.*
>
> *So, my conclusion, finally, was that when you add it all up, why does ozone work for every viral infection you can get? ... It has to do with the fact that I'm taking them out of a TH2 dominance putting them in a TH1 dominance."*

More Information

To learn more, you can pick up a copy of "**Bursting With Energy: The Breakthrough Method to Renew Youthful Energy and Restore Health**," which is loaded with good advice.

If you're interested in getting bio energy testing to measure your mitochondrial function, check out Shallenberger's website, **www.antiagingmedicine.com**. Aside from Shallenberger's clinic in Nevada, there are also **testing centers**[1] in a dozen other states, and several other countries.

By popular demand, I am pleased to share with you an exciting update — my entire Censored Library has finally returned! Through Substack, an information sharing platform, I am once again able to share with you all the valuable research I have gathered through the years. Click below to access my Censored Library now.

Access Now

As a reminder, my daily newsletter is still free and content will be released on Mercola.com before anywhere else. After 48 hours, the articles will be transferred to my Censored Library on Substack.

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bar3430
Joined On 11/19/2014 2:37:42 AM
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Just to encourage nebulizing, my husband would have landed back in hospital if I had not read a Mercola article about it and bought a nebulizer. He had a bone marrow transplant and viruses can be deadly although he is in seemingly perfect health and not taking any medications. He contracted a cold when we're away last September and I ordered the nebulizer to arrive home before we did. On the way home he was going downhill fast and, as I've seen this before, I knew he would probably be in hospital by the following day on IV antibiotics which we both really do not want. When we walked in the door he was a very ill man and I mixed up the hydrogen peroxide with iodine and he used it straight away. Immediately, he improved immensely and with further treatments that day he was over it completely! He is a retired surgeon and thus appreciates the power of hydrogen peroxide but would never have known about the nebulizing. Thank you, Dr Mercola!

Reply | Mark as Spam | Posted On 3/6/2022 5:09:02 AM
Like | Dislike

Guillermou
Joined On 4/7/2015 8:47:48 AM
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Gratitude to Dr. Mercola for reporting essential building blocks for improving mitochondrial function. It would be ideal to achieve a coexistence environment that increases happiness and reduces stress by changing our food system. The first is to eat differently, focusing on consuming healthy products, especially plants, fats and berries, rich in phytonutrients, vitamins and minerals. The second is to manage the change in our environment by becoming organic farmers or helping to promote true biodynamic agriculture. The third is the most difficult: changing the system that governs everything, especially the production and marketing of food.

This means changing economic theories and political practices, and in fact the nature of the very fascist capitalism to which we are subjected, which does not respect nature or biodiversity. We have the mitochondria are especially abundant in the organs and tissues of the body with higher energy requirements. Mitochondria also have other important functions, including: signaling, differentiation, programmed cell death, and control of cell growth.

As discussed in the article and related to Dr. Mercola's reports, additional support for mitochondrial function includes acetyl-L-carnitine, Q10, pyrroloquinoline quinone, vitamin C, choline, NADH, α-lipoic acid, α-ketoglutaric acid , resveratrol, N-acetylcysteine, magnesium and a quality multivitamin and mineral complex. In the following link more references: 33 NATURAL WAYS TO IMPROVE MITOCHONDRIAL

FUNCTION selfhacked.com/blog/natural-ways-to-improve-mitochondrial-function/ (03/11/2021).

Reply | Mark as Spam | Posted On 2/20/2022 1:15:20 AM

Like Dislike

Guillermou

Joined On 4/7/2015 8:47:48 AM

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Regarding Q10. The most common metabolic and mitochondrial diseases (MMD) are cardiovascular diseases, cancer, respiratory diseases, diabetes, and chronic kidney diseases are a great epidemic. Prevention of the development of mitochondrial NNS by coenzyme Q 10 is one of the basic ways of protecting human health. www.sciencedirect.com/.../B9780128198155000495 (2022) Putting it two ways: A ketogenic diet combined with exercise can improve mitochondrial function and metabolic health. journals.physiology.org/.../ajpendo.00305.2020 (2020)

Current experimental evidence suggests that KD may positively impact mitochondrial bioenergetics, mitochondrial ROS/redox metabolism, and mitochondrial dynamics. www.sciencedirect.com/.../S1357272521001308 (2021) Prolonged COVID and mitochondrial dysregulation. Some relevant aspects: SARS-CoV-2 hijacks mitochondria and uses them for protection and viral replication, diverting resources from supporting normal cellular function to now serve as a viral factory. Viral influence on mitochondrial activities leads to suboptimal energy production. The binding of this receptor by the SARS-CoV-2 virus decreases the production of ACE2, which has a regulatory effect on mitochondrial function.

The aging process results in fewer mitochondria and decreased ATP production with a decrease in mitochondria autophagy, which contributes to chronic inflammation. The overall effect reduces mitochondrial capacity by about 50%, leading to fatigue and muscle weakness. www.zrtlab.com/blog/archive/long-covid-and-mitochondrial-dysregulation.. Long-term disturbance of the peripheral immune system months after SARS-CoV-2 infection link.springer.com/.../s12916-021-02228-6 (2022)

Mark as Spam | Posted On 2/20/2022 1:15:37 AM

Like Dislike

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juststeve

Joined On 1/5/2012 11:13:54 AM

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Gui, Doc's formulas for Pau D'Arco & Berberine & Micropqq seems to have a big impact for me, as well as some of the advice in the article & you. The peroxide treatment seems to stop colds in their tracks, to support immune fucntion & the mitochondria a health foundational bonus. The crippled innate arm of our immune systems in the developed countries may be a clue as to why just the regular vaccines in general are not a good idea to be giving in a mass one size fits all program. Add in all the other offenders and its a roll of the dice what combination is going to drive your health into the pits.

Mark as Spam | Posted On 2/20/2022 5:10:24 AM

Like Dislike

Guillermou

Joined On 4/7/2015 8:47:48 AM

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Just, you always know how to choose well.. As you know NAC good medicine for you.THE EFFICACY AND SAFETY OF INHALED ACETYLCYSTEINE IN COMPARISON WITH ORAL ACETYLCYSTEINE IN CHRONIC OBSTRUCTIVE PULMONARY DISEASE: A RANDOMIZED SINGLE-CENTER STUDY. www.paom.pl/The-efficacy-and-safety-of-inhaled-acetylcysteine-in-compa.. (2020) NAC is commonly used to reduce inflammation and mucus in people with lung diseases, such as chronic bronchitis or chronic obstructive pulmonary disease (COPD).

It can break down mucus and replenish glutathione in the lungs, reducing airway damage and breathing difficulties. According to a large review, NAC improved symptoms and prevented worsening of the disease in people with chronic bronchitis without side effects. It had to be taken for at least 3 to 6 months, as 2 months of NAC did not improve COPD in one study. In combination with vitamin C, NAC increased nutritional and antioxidant status in 79 people with COPD. High doses for 1 year were safe and improved lung capacity and breathing in people with COPD in another study.

NAC has also been given along with oxygen, the typical treatment for COPD. In 45 patients, it could prevent oxidative damage that can result from long-term oxygen treatment. People with chronic bronchitis or COPD have benefited from long-term NAC supplementation; It is believed to improve lung function, prevent illnesses from worsening, and soften mucus. supplements.selfdecode.com/blog/nac-top-43-science-based-health-benefi.. (2021)

Mark as Spam | Posted On 2/20/2022 5:25:47 AM

Like Dislike

Guillermou

Joined On 4/7/2015 8:47:48 AM

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RENOVION, COPD FOUNDATION PARTNER ON NEW THERAPY TO CLEAR MUCUS. copdnewstoday.com/2021/09/23/renovion-copd-foundation-partner-new-ther.. (2021). TOP 10 WAYS TO TREAT COPD SYMPTOMS NATURALLY. draxe.com/.../copd-symptoms (2020)- The supplements that you are taking that have great antioxidant and anti-inflammatory power are also included in these articles, A REVIEW ON NATURAL REMEDIES USED FOR THE TREATMENT OF

RESPIRATORY DISORDERS ijpjournal.com/wp-content/uploads/2021/05/2-Vol.-8-Issue-3-Mar-2021-IJ.. (2021). PHARMACOLOGIC ACTIVITIES OF PLANT-DERIVED NATURAL PRODUCTS ON RESPIRATORY DISEASES AND INFLAMMATIONS www.hindawi.com/.../1636816 (2021).

Mark as Spam | Posted On 2/20/2022 5:46:01 AM

Like Dislike

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juststeve

Joined On 1/5/2012 11:13:54 AM

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And Gui, you always know how to pump up a good practice to make it better. A big thank you as you have improved my struggles with health challenges throughout the years. ;)

Mark as Spam | Posted On 2/20/2022 6:02:16 AM

Like Dislike

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sunflowerjanis

Joined On 5/17/2014 4:50:34 PM

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Yes, a huge thank you to Dr. Mercola for all he does. Interview with Dr. Shallenberger is very informative. Alpha-Lipoic acid is very unstable; so unless you are purchasing one that is specially treated you're wasting your money. i quit using it for this very reason. Stress Meridian test showed this to me; then an article from another source stated this very thing. i would love to know what Dr. Shallenberger thinks about the planet's biggest destroyer and pollutant, albeit very insidiously; wireless radiation/microwaves.

Mark as Spam | Posted On 2/20/2022 11:47:20 AM

Like Dislike

As.I.see.it

Joined On 6/13/2017 2:11:17 PM

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Hi Guill, "Gratitude to Dr. Mercola," I'll certainly second that and without hesitation. However, with all the benefits of ozone, it never gets mentioned that if it was not for a doctor with great compassion for his patients, ozone would not even be available for any treatments. Several years ago the FDA ban ozone treatments or more correctly, they ban the use of ozone machines, thus preventing any ozone treatments. Martin P. Gallagher, M.D., D.C. took the FDA to court and won. He had fought them alone, because if he didn't, ozone would not be available to his or any other patients. Thus I would like to say, gratitude to Dr. Mercola, gratitude to Dr. Shallenberger and gratitude to Dr. Gallagher.

Mark as Spam | Posted On 2/20/2022 9:27:26 PM

Like Dislike

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radarphos

Joined On 5/17/2013 10:25:27 AM

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This is a comment to Gui's first comments on the web site regarding NAC. I had worked about 9 years in a bakery production department, generally inhaling fine dusts from flours, powdered sugars, donut frying grease and oven exhausts when they back-flowed, as well as semi-truck delivery exhausts when the garage door was open for bringing in pallets of 50lb bakery products. I was breathing fine until I finally caved in to my MD's 4-year pressure to take the first of two Sr. Citizen Pneumonia shots. I took the first and 3 days later developed a mucus phlegm cough. That was not almost 3 years ago as I write this; and I still have he cough.

I was upset, thinking that I took the vaccine to ward off such coughs and not to acquire a permanent cough. I never took the 2nd shot and now refuse all MD treatments (other than if I were to break a bone). While I was working I considered the coughs mild, but always phlegmy. When I chose to quit and stay home during Covid to care for an adult child with Charcot feet and Guillian Barr (because only I could lift him off the floor when he fell from his walker, I started taking NAC. It works great to clear mucus and improve health, even though I still have the cough.

I also H202 Nebulize with C, Quercetin, Mg., D3/K2 and a bunch of other heart-lung and anti-viral, including probiotics. Every fall I buy up a winter's supply of sprouts. This year I'll try to ferment them after they have sprouted. I also plant 20 qt black raspberries. I'm doing well, but still have that darn cough. So I am writing to caution Seniors who smoked, or work in fine dust environments to beware of the MD recommended pneumonia shot(s); and try NAC pills. I guess I'll have to pull a pill apart to nebulize that with hydrogen peroxide (H202) to see how well that works. Respectfully.

Reply | Mark as Spam | Posted On 2/20/2022 7:43:12 AM

Like Dislike

Guillermou

Joined On 4/7/2015 8:47:48 AM

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Thank you radarphos for sharing your experience. You have solved your problem very cleverly. We can quote a proverbial phrase that is used today to refer to the importance of the resolution of practical cases: "experience is the mother of science"

Mark as Spam | Posted On 2/20/2022 9:14:42 AM

Like Dislike

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rrealrose

Joined On 11/10/2011 8:59:01 AM

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You are lucky to have survived the shot, my mom died about 5 days later, with no outward symptoms, in her 90's. Sure puts a new definition of what it means to "protect the seniors"? And how long has this been going on for?

Mark as Spam | Posted On 2/20/2022 12:08:27 PM

Like Dislike

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forbiddenhealing

Joined On 2/21/2011 9:51:43 AM

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Why not just call this REDOX medicine? ...A real physical balance between the mythical forces of creation and dissolution? The trick is to know and use substances and practices that either oxidize (Mega C, O3, H2O2, I, NaClO2/MMS chlorite) or anti-oxidize (Vit C, RALA, NAC, H2, NaHCO3, all polyphenols) for a short list....Like nebulizing H2O2/I followed later by nebulized NAC...Sunshine, earthing, sauna, exercise, breathing, mineral electrolytes, etcetc... all figure in the formation of a healthy water-based charge terrain and alkaline pH 7.45/ .40v...where O2 is protected and delivered to cells....all to maximize e-electron energy.

Metals, pathogens, Vit/min deficiencies, emotional stress each add to gnawing chronic oxidative stress/aka inflammation.. So to optimize this redox balance involves everything and should be recognized as the basis of holistic medicine that determines the course of all downstream biochemistry...Like money in the pocket or a fresh battery/good alternator in the ol Chevy.....Don't get lost in complexity or the language, redox is very simple; zx4.bc9.myftpupload.com/forum-comments

Reply | Mark as Spam | Posted On 2/20/2022 9:11:36 AM

Like Dislike

Guillermou

Joined On 4/7/2015 8:47:48 AM

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A very complete relationship to achieve Redox balance. We include sleep. Sleep pathology may be an underreported complication of primary mitochondrial diseases. The likely underlying mechanism is cellular energy failure causing both central neurologic and peripheral neuromuscular degenerative changes that commonly present as central sleep apnea and impaired ventilatory response to hypercapnia. In turn, sleep disturbances in affected patients contribute to a vicious cycle of progressive daytime fatigue, hypotonia, and exercise intolerance. This self-perpetuating pattern is similar to the positive feedback loop experienced by many other people whose sleep disturbances are not known to be caused by primary mitochondrial disease. www.ncbi.nlm.nih.gov/.../PMC4224726 (2014)

The findings of this study support a role for sleep disturbances in increased accumulation of mitochondrial damage, increased cellular senescence, shortening of telomere length, altered expression of telomerase activity and the acceleration of epigenetic aging. Specific pathways, including mitochondrial metabolism, are accounted for DNA damage and repair, altered by sleep deprivation www.sciencedirect.com/.../S2451965021000466 (2021) Mitochondrial calcium retention in the heart during sleep dissipates membrane potential, slows respiratory activities, and increases ROS levels, which may contribute to increased vulnerability to cardiac stress during the sleep-to-wake transition. These pronounced daily oscillations in mitochondrial functions related to stress vulnerability may explain, at least in part, the daytime prevalence of cardiac pathology. www.sciencedirect.com/.../S2090123221000138 (2021)

Mark as Spam | Posted On 2/20/2022 9:37:07 AM

Like Dislike

Guillermou

Joined On 4/7/2015 8:47:48 AM

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A five-night period of sleep restriction leads to reductions in mitochondrial respiratory function, glucose tolerance with concomitant reductions in mitochondrial function and sarcoplasmic protein synthesis and the amplitude of diurnal rhythms of skin temperature. This study reports novel data showing that these same detrimental effects are not seen when exercising during the sleep-restricted period. Therefore, these data provide evidence to support the use of exercise as an intervention to mitigate the deleterious physiological effects of sleep loss. www.sciencedirect.com/.../S2212877820301848 (2021) A reduced concentration of endogenous CoQ10 can partially block electron transfer in the respiratory chain, resulting in reduced adenosine triphosphate (ATP) production in post-COVID-19 patients.

Targeted mitochondrial therapy with CoQ10 supplementation and rehabilitation may improve mitochondrial health and speed recovery for patients after COVID-19. Platelet mitochondrial function and CoQ10 content may be useful biomarkers of mitochondrial health after SARS-CoV-2 infection. pubmed.ncbi.nlm.nih.gov/34967652 (2022) SARS-CoV-2 sequesters the mitochondria with the binding of this receptor by the SARS-CoV-2 virus decreasing the production of ACE2, which has a regulatory effect on mitochondrial function.

The aging process results in fewer mitochondria and decreased ATP production with a decrease in mitochondria autophagy, which contributes to chronic inflammation. The overall effect reduces mitochondrial capacity by about 50%, leading to fatigue and muscle weakness. www.zrtlab.com/blog/archive/long-covid-and-mitochondrial-dysregulation.. Long-term disturbance of the peripheral immune system months after SARS-CoV-2 infection link.springer.com/.../s12916-021-02228-6 (2022)

Mark as Spam | Posted On 2/20/2022 9:37:21 AM

Like Dislike

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forbiddenhealing

Joined On 2/21/2011 9:51:43 AM

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Thanks Gui, Another commonly overlooked factor is "Humidity." Winter time conditions coupled with electric heat dry out sinuses and lungs making those tissues a perfect medium for the proliferation of bacteria and viruses...O2 cannot even penetrate dry surfaces so it is wise to use humidifiers, saline nasal sprays and steamy showers. NAC promotes thinned mucus flow to constantly clean these tissues. Why I love the radiant heat of a wood stove. Under the censorship and marketing of the pharmaceutical monoplies, we have lost the wisdom and reasons behind home and natural health practices and free/cheap remedies....You never see orthomoleculars or alternative redox based medicine or even voices of peace and personal freedom highlighted in the media...for a reason...

Mark as Spam | Posted On 2/20/2022 10:04:08 AM

Like Dislike

Guillermou

Joined On 4/7/2015 8:47:48 AM

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Aspects of temperature and humidity that can influence a possible contagion by covid. Of course, in interior spaces, ventilation is essential. This study revealed that temperature and relative humidity were negatively related to new daily cases and deaths. A 1°C increase in temperature was associated with a 3.08% reduction in daily new cases and a 1.19% reduction in daily new deaths, while a 1% increase in relative humidity was associated with associated with a 0.85% reduction in daily new cases and a 0.51% reduction in daily new deaths. The results remained robust when different lag structures and sensitivity analysis were used.

These findings provide preliminary evidence that the COVID-19 pandemic can be partially suppressed by increases in temperature and humidity. www.sciencedirect.com/.../S0048969720325687 (2020) Higher temperature and higher relative humidity potentially suppress transmission of COVID-19. Specifically, a 1°C increase in temperature is associated with a reduction in the COVID-19 R-value of 0.026 in China and 0.020 in the US; a 1% increase in relative humidity is associated with a reduction in R-value of 0.0076 in China and 0.0080 in the US. bmjopen.bmj.com/.../e043863.abstract (2021) SPRING AND OMICRON WILL END THIS FALSE PANDEMIC. OF COURSE VITAMIN D IS ESSENTIAL.

Mark as Spam | Posted On 2/20/2022 11:00:50 AM

Like Dislike

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forbiddenhealing

Joined On 2/21/2011 9:51:43 AM

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Thanks again Gui...I knew this intuitively and through personal observation....things people should trust and rely on over the advice of medical professional vaxxxinators. The morass of the pharma-matrix gives criminals like Fauci "scientific" legal deniability within the context of the fake-science and restrictive laws they pulled out of their butts.

Mark as Spam | Posted On 2/20/2022 11:34:27 AM

Like Dislike

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rrealrose

Joined On 11/10/2011 8:59:01 AM

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Hi Forbidden and Gui, you may want to watch/listen to this recent interview; Dr Robert Young dominated this conversation revolving around the human body as a self-healing mechanism: Hidden Science Greater Cause Of Disease With Andrew Kaufman MD - www.bitchute.com/.../RBw1QhMB6qVb

Mark as Spam | Posted On 2/20/2022 12:02:00 PM

Like Dislike

cozzieacresgmail.com

Joined On 2/5/2021 4:28:59 PM

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You are totally awesome with the news you share, it lifts the stress from my body knowing how to somewhat tackle the problems that are being thrown at us from our enemies. My husband is 80 years old, I'm 79 and I have been nebulizing when we get home from crowds, plus we take the important supplements, thanks to you and Dr. Mercola for sharing that information on how to do that. I have been using the iodine solution one, and also switch to using NAC with the saline, I like both of them. Thank you and God bless you.

Mark as Spam | Posted On 2/20/2022 11:16:37 PM

Like Dislike

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axkershaw

Joined On 7/8/2013 3:01:14 PM

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Forbidden's and Gui's thoughts together are very interesting. The heat and humidity relationship to viral infections shows how traditional wisdom can be better than modern medicine. It was traditional in the Fall and Winter to heat the kitchen with a wood stove. There was always something providing moisture. When there was not a pot of porridge or soup cooking there was a heavy iron steam kettle simmering for tea but also to just provide humidity. Shallenberger talks about thyroid optimization and testing for it. Broda Barnes developed a simple DIY test. Take your temperature every morning on waking in an armpit for a week-ten days.

Write it down. If it is regularly below 97.7 F or 36.6 C, hypothyroidism is indicated. It is better than any blood test. www.andreabayles.co.uk/wp-content/uploads/2018/11/BRODA-BARNES-THYROID.. Shallenberger's test is probably more reliably accurate, but most do not live near Carson City, NV. The thermometer test is also easier and cheaper. I take my temp daily and have for 25 years since Roundup rounded up the mercury from my teeth and took it to my thyroid and severely damaged it. I adjust my dosage according to my temperature. Usually 1 grain, 25mcg, twice daily dissolved under the tongue does it.

When my temp is low, I will add a dose. I have to do that every two weeks or so. I use levothyroxine since in Ecuador, desiccated thyroid is not available. Cost 8 cents a pill without prescription and is made by Merck. Same thing I was charged $12 a pill in the hospital in 2004 in Walnut Creek, CA. Ivermectin in human doses is available without prescription also. So with a thermometer, nebulizer, MgCl, MgSO4, H2O2, ClO2, vitamins B, D3, ascorbic acid, sodium ascorbate, the ocean, sun and a bicycle and thyroid medication and a low carb diet, I do not need a doctor even at the age of 79.

Mark as Spam | Posted On 3/6/2022 11:10:52 AM

Like Dislike

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wwooten

Joined On 11/5/2010 5:38:32 PM

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Great discussion. But I would think you would be more current. Peter Duesberg is still alive He is 85. This man is a saint - he stood up for the truth. I was in new york during the AIDS epidemic. I was diagnosed with AIDS. Fortunately two homosexuals told me not to take AZT . They had been in a group of 20 taking AZT and they stopped taking it because it made them so ill. They were the only ones out of the original 20 who were still alive. I had AIDS okay but it was not HIV that was making me so ill I almost died. I had severe Heavy metal poisoning, mercury and lead and I had Lyme disease , I was overrun with parasites and bacteria and fungus, one in particular was H-pylori. It is a long story but obviously I am still alive today. IN fact Dr mercola should interview Peter Duesberg.

Reply | Mark as Spam | Posted On 2/21/2022 12:29:57 AM

Like Dislike

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sunshine11

Joined On 6/19/2006 3:23:25 PM

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Does anyone have a recommendation for a 'best' nebulizer. My current (and rather expensive) one isn't working well. BTW - My first time to reply here and just want to say I'm continuously blown away by the extraordinarily informed comments and diligence of the generous people who post here. I know the time it takes - your commitment to the Tribe is invaluable and so very very appreciated. I usually read Mercola and, especially, Comments first with my morning coffee and always feel I used my time very well. There's so much to learn - and use - so Thank You all.

Reply | Mark as Spam | Posted On 2/20/2022 12:02:06 PM

Like Dislike

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rrealrose

Joined On 11/10/2011 8:59:01 AM

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Look up "Aura" - online, handheld, or battery powered, pricey but often has accompanying discount coupons.

Mark as Spam | Posted On 2/20/2022 12:10:14 PM

Like Dislike

Ringer2

Joined On 8/30/2011 7:33:48 AM

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DeVilbiss Pulmo-Aide Compressor/Nebulizer, Model 5650D is my unit. It's a large plug-in for use with USA power. That company also has locations in UK, Australia, France, and Germany with units available which are usable in those countries. DeVilbiss Healthcare shipped directly to me. I bought it from justnebulizers.com where their excellent customer service rep recommended this particular unit as the best when I asked for the best oilless (compressor uses no oil for lubrication) tabletop plug-in nebulizer. It has a limited 5-year warranty. Its dimensions are as follows: 10.1" D x 10.5" H x 6.5" W (26 cm x 27 cm x 17 cm). It weighs 7.1 lb. (3.2 kg). Sound level is 51 to 55 dBA.

Mark as Spam | Posted On 2/20/2022 9:00:50 PM

Like Dislike

andiroadrunner

Joined On 1/24/2012 6:19:21 PM

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Here is where I got mine recently: www.healthproductsforyou.com/ar-top-5-best-reviewed-nebulizers-2018.ht.. I got the Pari Vios Table top model $45.99 US (plus the mask for $4.15 because the purpose was to prevent sinus infection); because of the comment that it was the one most people switched to/longevity/power output/noise level. Having not used any before; I did not have any personal experience and really weighed the pros and cons; which is also your personal choice. You can get coupon codes readily on top of the sale price. I got extra filters while in stock; and I have been very pleased with this one, and with this company; just my personal experience and nothing more; do what is right for you.

See Dr. Mercola's videos on Nebulizers and H2O2 concentration/dilution with saline. My MD/ENT did not mention this at all; even though the condition I was born with a fistula in palate really indicates a need for this. I learned about this treatment from Dr. Mercolas' website; as well a tremendous amount of extremely helpful info. I look to the references and sources listed at the end of the article for verification. The comments by readers have given a lot of information as well. I am especially grateful for the scientific research articles and sources. Again, many thanks to Dr. Mercola!

Mark as Spam | Posted On 3/6/2022 12:41:21 PM

Like Dislike

arirub

Joined On 5/2/2020 2:49:21 AM

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Another great and extremely valuable and helpful article. Thank you so much, Dr. Mercola. And I am really grateful for your articles on nebulizing hydrogen peroxide ("NHP") and other articles on dealing with Covid. I started NHP only with a handheld nebulizer, as that's what I had at the time. And I started NHP after experiencing major symptoms, not before, and not after suspected exposure, as is recommended. But I'm convinced NHP was responsible for the degree of my healing. So was GSE. GSE was amazing. I actually felt undeniable improvement each time after I took it. I read what I think was one of your articles on the value of antioxidants in healing from Covid, and I remembered I had a bottle of GSE, which I was grateful for, after reading how much of a potent source it is of antioxidants.

Re: mitochondrial health, I see that it has a directly proportionate relationship to telomere health/predominance. Also, seeing how ozone (O3) is vital to mitochondrial health, I'm wondering if my water oxygenator that happens to not have a PEM filter and thus results in O3 is actually more beneficial than a water oxygenator with a PEM filter. The info I got was that water oxygenators without PEM filters are harmful. I understand most of the warnings are about the concomitant chlorine that's produced, but chlorine can be neutralized.

Does anyone know anything about this? Also, in one of your posts on NHP, there was a video of an interview with Dr. Brownstein, wherein it was recommended NOT to nebulize hydrogen peroxide ("HP") every day. Is there a downside to nebulizing HP every day? The placebo effect has kicked in to the degree that I feel unprotected if I don't do it. And I actually have grown to love the air that I breathe when doing it. I have a tabletop version now and love this version of self-love. Also, what about the fact that hydrogen peroxide is a free radical? Does nebulizing change its chemical structure? Thanks for any feedback/insights that can be provided.

Reply | Mark as Spam | Posted On 2/20/2022 4:23:44 AM

Like Dislike

Guillermou

Joined On 4/7/2015 8:47:48 AM

Add as Friend | Send Message

Hi ARIRUB. Recent research suggests that micronutrients, such as vitamin D hormone, folic acid, and vitamin B12, are involved in telomere biology and cellular aging. In particular, vitamin D is important for a variety of vital cellular processes including cell differentiation, proliferation, and apoptosis. As a result of vitamin D's multiple functions, it has been speculated that vitamin D might play a role in telomere biology and genomic stability and age-related diseases. Vitamin D can reduce telomere shortening through

play a role in telomere biology and genomic stability, and age-related diseases. Vitamin D can reduce telomere shortening through anti-inflammatory and cell proliferation mechanisms. link.springer.com/.../jfa.2020.33 (2021)

In this study, a positive association was found between the length of newborn telomeres and maternal intake of vitamin D (diet + supplement) during the first trimester. www.mdpi.com/.../htm (2021) In this review, higher concentrations of circulating maternal folate and vitamin D were associated with increased telomere length, academic.oup.com/nutritionreviews/article/79/2/148/5910720?login=false (2021) Vitamin D modulates the expression of various ion channels in cells of hormone-sensitive tissues, including cancers, cardiovascular and neurological diseases. www.frontiersin.org/.../full (2020)

Dietary magnesium intake is associated with leukocyte telomere length (LTL) in middle-aged and elderly US adults. Each 1-mg increase in log-transformed dietary magnesium intake was associated with 0.20 kp more than LTL. Participants with the highest tertile (≥299 mg) of dietary magnesium intake had a statistically significantly longer LTL compared with the lowest tertile (<198 mg), with significant linear trends between tertiles. assets.researchsquare.com/files/rs-140035/v1/3b53561c-76ec-43e0-8e16-f.. (2021) academic.oup.com/eurpub/article/31/Supplement_3/ckab164.074/6405446?lo.. (2021)

Mark as Spam | Posted On 2/20/2022 4:25:09 AM

Like Dislike

Guillermou

Joined On 4/7/2015 8:47:48 AM

Add as Friend | Send Message

Exercise and/or regular physical activity, as well as other lifestyle factors, such as nutrition or time and/or quality of sleep, are simple ways to implement in daily life to delay the normal aging process and , thus, extend the service life. This study reports the action of exercise on telomeres and the synergistic effects of the aforementioned methods that could help identify mechanisms of age-related damage. www.mdpi.com/.../htm (2021) Astragalus increase the production of telomerase, the enzyme that controls telomeres which plays a key role in cell replication, cancer and human aging.

UCLA researchers described how a compound derived from astragalus, called cycloastragenol, prevents the progressive loss of telomeres in key immune cells, inhibits the aging process of cells and improves their response to fight viral infections. Spanish cancer scientists identified another compound in astragalus, called TA-65, that also activates telomerase. In their study, the researchers observed that TA-65 significantly increased average telomere length, leading to improvements in glucose tolerance, osteoporosis, and skin fitness. www.jimmunol.org/.../177.4.short (2013) www.mdpi.com/.../htm (2013)

Mark as Spam | Posted On 2/20/2022 4:26:09 AM

Like Dislike

Guillermou

Joined On 4/7/2015 8:47:48 AM

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Chronic stress shortens telomeres. 3 herbs to reduce stress Ayurvedic medicine has many rejuvenating herbs, traditionally known as rasayana, that improve health, immunity, vigor, vitality, and longevity, as well as protect against stress. Ashwagandha also helps the body recover from loss of energy and the mood-altering effects of stress. Ashwagandha has shown promise in maintaining telomere structure. lifespa.com/healthy-dna-stress-telomeres | www.ayush.com/anti-aging-potential-of-ashwagandha.--- HOW TO LENGTHEN TELOMERES WITH 7 NATURAL INGREDIENTS www.healthycell.com/blog/how-to-lengthen-telomeres-with-7-natural-ingr.. (2019) TELOMERASE, TELOMERES & AGING selfhacked.com/.../telomerase-telomeres-aging

DISCOVERY OF POTENT TELOMERASE ACTIVATORS: UNFOLDING NEW THERAPEUTIC AND ANTI-AGING PERSPECTIVES www.ncbi.nlm.nih.gov/.../PMC6755196 (2019) The Spike protein has deleterious effects on telomerase, impairing its synthesis and slows down the body's ability to replenish its natural immune system function. It was discovered after reviewing a peer-reviewed scientific study and a briefing that once the spike proteins in the vaccine actually settle in and start doing what they were designed to do, an injected person's telomerase is inactivated. www.infowars.com/posts/covid-spike-proteins-suppress-natural-immune-re.. | www.preprints.org/.../v1 | twitter.com/.../1426720994367057920

Mark as Spam | Posted On 2/20/2022 4:27:32 AM

Like Dislike

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stanleybecker

Joined On 11/12/2012 3:21:48 AM

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if Shallenberger attended the Linus Pauling seminars why has he not highlighted the role of Vitamin C in the stimulation of mitochondrial energy - the use of B Vitamins would be accelerated with the combination with Vit C - Forbidden Haealing regularly posts on this site about our electron donor cycles

Reply | Mark as Spam | Posted On 2/20/2022 3:10:52 AM

Like Dislike

Guillermou

Joined On 4/7/2015 8:47:48 AM

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Yes, Stan, As Dr. Mercola comments, the elderly population is particularly affected by mitochondrial deficiency. Chronic or acute diseases are prevalent in this group and aging is related to reduced levels of vitamin C and is associated with all causes of mortality, including cardiovascular causes. Low serum levels of vitamin C and vitamin D among elderly patients contributed as a predictor of mortality. academic.oup.com/.../4816042 academic.oup.com/.../4677512 (2003) www.sciencedirect.com/.../S2590098620300518 (2020) www.sciencedirect.com/.../S2590098620300518 A high dose of vitamin C in patients with ARDS is related to some beneficial results, such as: reduced inflammation and organ damage, decreased virulence and pathogen infection, and optimization of immune defense.

Vitamin C may be an adjuvant to ARDS, reduce the deleterious consequences of sepsis associated with acute pulmonary dysfunction, and reduce the incidence of pneumonia by approximately 80%. www.sciencedirect.com/.../S2213716520302587 (2020) citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.414.4443&rep=rep.. (2007) www.sciencedirect.com/science/article/abs/pii/S0899900720302318 (2020) The complex and integrated immune system requires multiple specific micronutrients, including vitamins A, D, C, E, B6 and B12, folic acid, zinc, iron, copper and selenium, which play vital roles, often synergistically. at each stage of the immune response.

Mark as Spam | Posted On 2/20/2022 3:45:56 AM

Like Dislike

Guillermou

Joined On 4/7/2015 8:47:48 AM

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The inflammatory response bridges the gap between innate and adaptive immunity and is regulated by vitamins A, C, E and B6, as well as iron, zinc and copper. Adaptive immune responses encompassing humoral and cell-mediated immunity again depend on the presence of a variety of micronutrients at all stages (ie, lymphocyte proliferation, differentiation, and function, and humoral and cell-mediated immune processes). At the same time, micronutrients participate in the self-protection of immune cells (through antioxidant mechanisms, for example, vitamins C and E, zinc, iron, magnesium, copper and selenium), inhibitory actions (vitamins D, B6 and E) .

Selenium and omega 3 fatty acids have well-established immunomodulatory effects, with benefits in infectious diseases. www.mdpi.com/.../htm (2020) www.mdpi.com/.../htm (2020) www.sciencedirect.com/science/article/abs/pii/S0378512220303467 (2020) Dr. Mercola discusses it in a report. "Quercetin and Vitamin C: An Experimental, Synergistic Therapy for the Prevention and Treatment of SARS-CoV-2 Related Disease (COVID-19)" in the journal Frontiers in Immunology, noting the following: www.frontiersin.org/.../full "Ascorbic acid is a vitamin necessary for the proper functioning of the immune system.

It is important for the stress response and has shown promising results when given to seriously ill people. Quercetin is a well-known flavonoid whose antiviral properties have been investigated in different studies. There is evidence that the combination of vitamin C and quercetin exerts a synergistic antiviral action, since its antiviral and immunomodulatory properties and ascorbate join together to recycle quercetin, increasing its effectiveness. It is necessary to prioritize safe and low-cost interventions that have a solid biological basis in the current context of a global pandemic."

Mark as Spam | Posted On 2/20/2022 3:46:43 AM

Like Dislike

Guillermou

Joined On 4/7/2015 8:47:48 AM

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Mitochondrial abnormalities induced by reactive oxygen species (ROS) may have important consequences in the pathogenesis of degenerative diseases and cancer. Vitamin C enters the mitochondria in its oxidized form through Glut1 and protects the mitochondria from oxidative damage. Since mitochondria contribute significantly to intracellular ROS, protection of the mitochondrial genome and membrane may have pharmacological implications against a variety of ROS-mediated disorders. faseb.onlinelibrary.wiley.com/.../fj.05-4107com (2005)

The complex regulation of vitamin C uptake in these organelles likely contributes to its versatile antioxidant response, thereby providing a central role to the vitamin for adequate control of mitochondrial dysfunction associated with increased mitochondrial ROS production. www.tandfonline.com/.../09553002.2020.1721604 (2020) Ascorbic acid induces apoptotic cell death (indicated to fight cancer and other pathologies) at higher concentrations through its pro-oxidant activity and at lower concentrations; prevents activation of oxidant-induced apoptosis through its antioxidant properties www.sciencedirect.com/.../B9780128215623000344 (2021)

In this meta-analysis and systematic reviews to assess the association between melatonin, vitamin C, vitamin D, zinc supplementation, and inflammatory markers in Covid-19. According to the available evidence, an intake of 50,000 IU/month of vitamin D showed efficacy in CRP. An amount of 1 to 2 g per day of vitamin C showed efficacy on both CRP and endothelial function, and a dose of melatonin ranging from 5 to 25 mg/day showed good evidence of efficacy on CRP, TNF, and IL6. . A dose of 50 mg/day of elemental zinc supplementation showed positive results in PCR. www.mdpi.com/.../htm (2021).

Mark as Spam | Posted On 2/20/2022 4:16:47 AM

Like Dislike

Guillermou

Joined On 4/7/2015 8:47:48 AM

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The progression of the aging of the world population makes age-related neurodegenerative diseases one of the biggest unsolved problems of modern society. A common feature of neurodegenerative diseases is mitochondrial dysfunction and overproduction of reactive oxygen species, leading to oxidative stress. Although lipid peroxidation is one of the markers of oxidative stress, it also plays an important role in cell physiology, including the activation of phospholipases and the stimulation of signaling cascades. Excessive lipid peroxidation is a hallmark of most neurodegenerative disorders, including Alzheimer's disease, Parkinson's disease, amyotrophic lateral sclerosis, and many other neurological conditions.

Lipid peroxidation products have been shown to be the trigger for necrosis, apoptosis and, more specifically, ferroptosis and neuronal cell death related to oxidative stress. Lipid peroxidation in the mechanism of neuronal loss and some novel therapeutic directions to oppose it. A variety of mitochondria-targeting free radical scavengers have been developed, for example, ubiquinone, vitamin E, SOD, catalase, antioxidants, heavy metal chelators, plant-derived bioactive compounds, and others discussed in my post header. As such, they are effective in preventing superoxide-induced lipid peroxidation by scavenging all kinds of free radicals, specifically produced in the mitochondria. Also Diet Nrf2 is a transcription factor capable of inducing the expression of different endogenous antioxidants and detoxifying enzymes. This report analyzes onlinelibrary.wiley.com/.../med.21712 (2021).

Mark as Spam | Posted On 2/20/2022 4:16:57 AM

Like Dislike

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mirandola

Joined On 6/27/2014 7:00:58 AM

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Vitamin C is one of the role players, but far from the only one.

Mark as Spam | Posted On 2/20/2022 8:31:29 AM

Like Dislike

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sunflowerjanis

Joined On 5/17/2014 4:50:34 PM

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I think he didn't focus on the use of vitamin C because Dr. Mercola "moved" him along at a fast clip to talk about the use of the other therapies ie the ozone. I don't think he was down-playing the use of vitamin C, he was just hurried along in the interview.

Mark as Spam | Posted On 2/20/2022 11:55:52 AM

Like Dislike

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skiproblive.com

Joined On 12/11/2021 6:33:22 AM

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Dr. Mercola, Just want to say thanks for all the great work you have been doing. I am trying to make people aware that we are perhaps in the greatest war ever in the history of mankind. It is being fought on many fronts and the suppression of the truth has been going on for much longer than most realize. It has been one of the primary means of them sustaining their power for this long. Everything Shallenberger says in the article is confirmed by many others.

Reply | Mark as Spam | Posted On 2/20/2022 11:50:02 AM

Like Dislike

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annambur

Joined On 2/21/2008 6:32:37 AM

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Striving for TH1 dominance vs TH2 does not sound any better. It seems to me that what one should be striving for is balance between the two, not dominance on one side or the other.

Reply | Mark as Spam | Posted On 2/20/2022 10:41:27 AM

Like Dislike

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mirandola

Joined On 6/27/2014 7:00:58 AM

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Thank you Dr Mercola for an excellent and very important article! Always very informative and very interesting, and right on topic with information that many do not know about! Much gratitude. ~~~I also love this excellent article about ways to naturally support the TH1 arm of the immune system, long list of supplements and foods offering Th1 support, which conditions may suggest Th1 underactivity with Th2 dominance www.digitalnaturopath.com/conditions/immune-system-imbalance-th2-domin.. PLEASE NOTE: For anybody seeking information about this, I can not comment about the usefulness or contra-indication either way, with balancing Th1/Th2 immunity in COVID, even if I would suspect (I am not a doctor) that it also would be strongly indicated.

But which way the immune system is tipped is VERY IMPORTANT TO KNOW! Dr Mercola, can you please advise us which way the immune system would be tipped in COVID (early and late stage) and post-covid syndrome? Testing information? WIth which labs? (I have had mainstream doctors look me right in the eye and say "I don't know what Th1 and Th2 is". Ditto regarding methylation, "I don't know what methylation is". How do people get through to such doctors and get the right testing/treatment?)* Many thanks and much appreciation. :-) *Ongoing I note that naturopathic physicians know much more about bodily processes than many or most mainstream medical doctors.

Reply | Mark as Spam | Posted On 2/20/2022 1:32:10 AM

Like Dislike

Guillermou

Joined On 4/7/2015 8:47:48 AM

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Hi Mirandola. Interesting link. As you know, vaccines also "disrupt the natural programming of the immune system", dysregulate the immune system, Th1, help fight infection, but adjuvants and inactivate viruses by stimulating Th2 type immunity, lowering the ability to fight infection and it also stimulates allergic responses, promoting future illnesses. Vaccines bypass the first two natural layers of protection provided by the innate immune system and the early induced innate immune response, and will move directly into the third layer of the adaptive immune response.

Infections in childhood are mostly benign and limited. Going through them is good for the child's body, because they help him to become immunized by his own means. Everything indicates that contrary to what is thought, vaccines increase the vulnerability of contracting diseases, or of postponing their contagion to adulthood, when they become more dangerous. As Dr. Humphries has pointed out, "babies are hardwired not to inflame," meaning that the placenta and breast milk help "wire" the child to stay in a noninflamed state.

You are born with an innate immunity to disease, largely thanks to your microbiome, the healthy bacteria that reside in your gut, on your skin, and on various mucous membranes, such as your nose and mouth. These commensal bacteria protect you from the invasion of potentially harmful microbes. If your innate immune system fails, the infection will spring into action, and other immune cells will take over to fight off the invading pathogen. www.chiropractic.org/wp-content/uploads/2018/12/1200-studies-The-Truth..

Mark as Spam | Posted On 2/20/2022 2:00:20 AM

Like Dislike

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mirandola

Joined On 6/27/2014 7:00:58 AM

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Thank you Guillermou. Harvard Medical School researcher Datis Kharrazzian DACNB says that TH1/Th2 dominance can swing back and forth, they are not necessarily static. So the picture can change. Dietrich Klinghardt talks about the Th0 or neutral T helper cells produced in the thymus gland, naturally becoming Th1, Th2 cells and that it is really interesting how they know just what to do. The wisdom of the body is amazing. Infections, contamination (heavy metals etc), environmental pollutants, and allergies can contribute to immune imbalances, according to various sources (naturopathic physicians) I have read.

Yes re Th17 cells filling in part of the picture, Dietrich Klinghardt writes about that and I am sure Dr Kharrazzian and Dr Mercola do too. As for methylation mentioned in the excellent article you linked, Terry Wahls MD's diet is excellent for methylation support and for generalized wellbeing protocols....be well. EDIT: Guillermou can you please repost the link you originally posted? It seems you edited your post (everybody has every right to do that and we all do at times) my comment here is based on that original article. Many thanks.

Mark as Spam | Posted On 2/20/2022 2:06:20 AM

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Guillermou

Joined On 4/7/2015 8:47:48 AM

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Also the relationship of the mitochondria with the immune system. One of the main functions of mitochondria is the production of ATP for cellular energy needs, however, it is increasingly recognized that mitochondria are involved in the processes of differentiation and activation of immune cells. It is now generally accepted that increased glycolysis is associated primarily with a proinflammatory phenotype in immune cells (such as monocytes and M1 macrophages), whereas oxidative phosphorylation and fatty acid oxidation are associated more with a regulatory phenotype. and the induction of longevity. immune cells (such as Treg cells, M2 macrophages, and memory T cells) Mitochondria also induce immune responses.

During an infection, they release mitochondrial danger-associated molecules (DAMPs). Said DAMPs, the mitochondria guide the immune response towards an inflammatory response against pathogens. This is an important mechanism in the early detection of an infection and in the stimulation and maintenance of immune responses to fight infection. However, mitochondrial DAMPs can also have a negative impact. If damaged cells release mitochondrial DAMPs, without the presence of an infection, such as after trauma, mitochondrial DAMPs can induce an unwanted inflammatory response, resulting in tissue damage and organ dysfunction.

Therefore, immune cells have developed mechanisms to prevent such unwanted immune activation by mitochondrial components. The focus should not only be on the mitochondria themselves, but also on the mTOR pathway and other pathways that affect mitochondrial function and could be inhibited or activated to stimulate or inhibit certain immune cells. In this narrative review, the current view of mitochondria in the regulation of immune responses is described. Mitochondrial dysfunction may play a role in the pathophysiology of autoimmune disease. www.sciencedirect.com/.../S0925443920301927 (2020)

Mark as Spam | Posted On 2/20/2022 2:15:31 AM

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Guillermou

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The complex and integrated immune system requires multiple specific micronutrients, including vitamins A, D, C, E, B6 and B12, folic acid, zinc, iron, copper and selenium, which play vital roles, often synergistically. at each stage of the immune response. . In this review, the role of zinc, vitamin C, and vitamin D for immunity was explored, as these micronutrients show the strongest evidence for immune support. The aforementioned studies show that zinc and vitamins C and D are an integral part of the immune system and show synergistic functions in various stages of host defense, such as maintaining the integrity of biological barriers and the functionality of the cells that make up the immune system.

innate and adaptive systems. Chemical responses such as activation of the complement system and release of proinflammatory cytokines require certain vitamins and minerals (particularly vitamins A, D, and C, zinc, iron, and selenium). The inflammatory response bridges the gap between innate and adaptive immunity and is regulated by vitamins A, C, E and B6, as well as iron, zinc and copper. Adaptive immune responses encompassing humoral and cell-mediated immunity again depend on the presence of a variety of micronutrients at all stages (ie, lymphocyte proliferation, differentiation, and function, and humoral and cell-mediated immune processes).

At the same time, micronutrients participate in the self-protection of immune cells (through antioxidant mechanisms, for example, vitamins C and E, zinc, iron, magnesium, copper and selenium), inhibitory actions (vitamins D, B6 and E) . Selenium and omega 3 fatty acids have well-established immunomodulatory effects, with benefits in infectious diseases. www.mdpi.com/.../htm (2020) www.sciencedirect.com/science/article/abs/pii/S0378512220303467 (2020) Do not put: www.frontiersin.org/.../full (2020)

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datadragon

Joined On 6/14/2015 6:50:55 PM

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Hi Mirandola, you asked can you please advise us which way the immune system would be tipped in COVID (early and late stage) and I had reposted (from last year) about this a few days ago below. Given too early, anti inflammatory supplements that are helpful in a later stage might actually interfere with a proper TH1/interferon immune response needed against the virus early on leading to the later stage. It is important to understand that Covid-19 has a two-stage progression of the disease, an early phase where you need a TH1/interferon response, and if failed leads to a highly impaired interferon (IFN) type I response (characterized by no IFN-β and low IFN-α production and activity), associated with a persistent blood viral load indicating poor control of viral replication by the patient's immune system, and alongside the increased virus load produces an exacerbated inflammatory response (NLRP3 overactivation).

Generally viruses, including coronaviruses also have evolved mechanisms which suppress the initial TH1/innate immune response, thereby helping the virus evade the innate immune system ability to destroy infected cells early on before they can replicate the virus further in infected cells. Low levels of type-I IFN in plasma precede clinical worsening and transfer to intensive care.

So it is important to separate what is beneficial or harmful to use in preventing infection and in the early stages boosting an immune response as needed early on where you need a TH1 response, and what may be helpful or harmful if the disease progressed to a later stage where the focus is on tapping the brakes of the immune response. Inflammation is a necessary and normal function, and it can also initiate host defense responses against viruses and intracellular bacteria pubmed.ncbi.nlm.nih.gov/28169000 and this TH1 response requires NLRP3 activation pubmed.ncbi.nlm.nih.gov/21118671

Mark as Spam | Posted On 2/20/2022 11:51:12 AM

Like Dislike

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datadragon

Joined On 6/14/2015 6:50:55 PM

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However, an uncontrolled inflammatory signal and chronic inflammation can cause prolonged inflammatory cytokines production, resulting in serious disorders and tissue damage. Blocking NLRP3 activation can be either protective or detrimental at different stages of lethal influenza A (IAV) virus for example. Administration of the specific NLRP3 inhibitor MCC950 to mice from day one following IAV challenge resulted in hypersusceptibility to lethality (blocking early blocked the necessary TH1 immune response), but NLRP3 plays a detrimental role later in infection if the virus is not dealt with initially with a good immune response and allowed to replicate, Contributing to IAV pathogenesis through increased cytokine production and lung cellular infiltrates and so delaying treatment with MCC950 to lower inflammation until the height of disease rather than right away significantly protected mice from severe and highly virulent IAV-induced disease later stages.

TIMING IS IMPORTANT whether you are under enhanced inflammation or not as to answer should be trying to reduce it. escholarship.umassmed.edu/cgi/viewcontent.cgi?article=3815&context.. Influenza vaccines differentially regulate the interferon response in human dendritic cell subsets. people immunized with the monovalent influenza vaccine did not show early interferon responses in the blood, but were induced by trivalent vaccination. These intriguing results may help explain vaccine underperformance that is not due to antigenic mismatch. www.science.org/.../scitranslmed.aaf9194

Mark as Spam | Posted On 2/20/2022 11:52:51 AM

Like Dislike

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datadragon

Joined On 6/14/2015 6:50:55 PM

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So going back to Sars-Cov-2...According to research of earlier cases, Sars-Cov-2 can delay the immune response by a few days allowing it to replicate, after which it can hyperactivate the complement/nlrp3 inflammatory pathways leading to issues like blood clotting and death especially in those with comorbidities which also further activate these same pathways unless you counteract that hyperactivation if in the later phase where you did not clear the virus initially with a good immune response. By halting the body's initial immune response, the virus buys time to deepen the infection of its host as well as increase its chances of being transmitted to another person.

Inhibiting the NLRP3 inflammasome would inhibit both IL-1β and IL-18 as well as complement hyperactivation in the later stages. So while most of the treatments that are shown to help after replication (later stage) work in part by inhibiting the NLRP3 inflammasome hyperactivation with the best options also inhibiting viral replication (Plpro/Mpro/Rdrp etc) or cell entry at the same time. www.biorxiv.org/.../2021.02.04.429738v1 Inhibiting PLpro is a very promising double-hit therapeutic strategy against COVID-19. eurekalert.org/.../guf-cra072820.php

It would also be important to note that over suppressing these necessary immune pathways initially that may already be lowered would additionally allow the virus to not be cleared, and in some people who do not have existing inflammation pathways overactive such as those with comorbidities, may even need a boost to restore the initial immune response. That is where suggestions like hydrogen peroxide or Sambucol pubmed.ncbi.nlm.nih.gov/11399518 | www.sciencedaily.com/.../190423133644.htm and similar TH1 immune boosters generally may be found helpful in those specific cases early on only if needed to potentially help restore suppressed immune function.

Mark as Spam | Posted On 2/20/2022 11:54:11 AM

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datadragon

Joined On 6/14/2015 6:50:55 PM

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When researching autism I had also found differences among populations. Blacks (africans) have a reduced genetic zinc uptake which may have been advantageous to have in sub saharan africa as it skews their immune system toward a B cell TH2 antibody response that helps protect against a local parasitic worm, but then potentially puts them at greater risk to viruses as this shift of Th(1) to Th(2) function from a zinc deficiency can sku you toward TH2 and potentially result in cell-mediated (innate) immune dysfunction https://youtu.be/fix3TEBotsw | journals.plos.org/plosgenetics/article?id=10.1371/journal.pgen.1004128 There are also nutrient interrelationships and Vitamin D and A both are related to zinc metabolism.

Positive and significant correlation exists between 25(OH) D serum levels and zinc level. The mean Zinc level was significantly lower in the true Vit D deficient group than in controls (deficiency at 6.34±1.47ng/ml) www.ncbi.nlm.nih.gov/.../PMC5307609 Plasma zinc levels increased significantly only in the group receiving the combination of zinc and vitamins A and D (in RDA concentrations not high doses). link.springer.com/.../s11011-006-9023-4

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farmercist

Joined On 8/6/2007 8:53:55 AM

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Near Infrared Light can increase mitochondria

Reply | Mark as Spam | Posted On 3/7/2022 7:57:10 AM

Like Dislike

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dstraycat

Joined On 5/16/2016 1:32:56 PM

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Excellent talk :-) Portions were pretty Thick. The average person might not grasp it all. However, due to my ongoing research and studies, I was able to understand about 90% of it. Fantastic!!!

Reply | Mark as Spam | Posted On 3/6/2022 5:13:26 PM

Like Dislike

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scuppi

Joined On 6/20/2006 2:28:50 AM

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Hydrogen therapy, inhalation and water, are now thought to be a good companion therapy to ozone therapy. https://youtu.be/kdqdYM1XAVA

Reply | Mark as Spam | Posted On 3/6/2022 7:17:44 AM

Like Dislike

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ewfamy

Joined On 3/23/2017 10:44:54 PM

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excellent, still watching, wanted to post so I don't forget: what are your thoughts on the theory that when we are under long term stress mitochondria switch from generating energy to a stress sentinel. I'll post a link to a paper below.
www.sciencedirect.com/science/article/abs/pii/S0968000421001067

Reply | Mark as Spam | Posted On 2/20/2022 7:16:47 PM

Like Dislike

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dividingcricker

Joined On 2/25/2012 10:40:20 AM

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Getting a MRI with Contrast (gadolinihm) may cause a symptom of Hypocalcemia which directly affects the mitochondria....In several papers they said the calcium was replaced in the mitochondria by gadolinium which caused a life long cascade of terrible bidy ,mind symptoms ...Many people have unknown illnesses after a medical issue that had a MRI session ....I was given two MRI s in 1993 and in 2003 ....tbis led to many years 17 of just pointing to the MRI DYE as a cause .....In 2011 I had discovered the dye in a list of nanotechnology products ....

It was a very big moment to understand this was actually a toxic illness .....I have used hundreds of products in a methodical 3 month approch ....The only tbing that matched all the symptoms was hypocalcemia of a sorts ....The only thing that had a fast effect was Boron .....I just know most of these symptoms are electrical of cramping , twitching , chronic muscle spasms .....The very old Veterinary webs actually mention Boron as a cure in Milk Fever ..like Eclampsia in women .....You might refer to nanotechnology in other meds too ...We absolutely don't know what damage we atedoing with these new meds but its not looking good

Reply | Mark as Spam | Posted On 2/20/2022 3:44:11 PM

Like Dislike

Ringer2

Joined On 8/30/2011 7:33:48 AM

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Thanks for your comments regarding gadolinium. I'm presently consuming boron 5 mg daily, brand Pure TheraPro Rx, PURETHERA.COM. That brand, for boron, is the best yet I've found.

Mark as Spam | Posted On 2/20/2022 9:20:11 PM

Like Dislike

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mga37965

Joined On 8/29/2014 9:27:10 AM

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This was fabulous!! Thank you to both doctors.

Reply | Mark as Spam | Posted On 2/20/2022 12:15:41 PM

Like Dislike

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sunflowerjanis

Joined On 5/17/2014 4:50:34 PM

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Another great interview with another top holistic health care luminary. I just want to add a couple of things: i wonder what Dr. Shallenberger thinks about the planet's biggest destroyer and pollutant, albeit very insidiously; wireless radiation/microwaves? Would really like to know what his thoughts are on this. Also, let's not forget the power of prayer. That which you focus on, you get more of. Otherwise known as the power of positive thinking. The Universe will give you what you dwell upon sooner or later. Of course we need to be practicing good health habits, hygiene along with our positive thinking.

Reply | Mark as Spam | Posted On 2/20/2022 12:03:14 PM

Like Dislike

dnuzzo
Joined On 1/16/2013 11:22:14 AM
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Wow. This is an amazing article all around. Thank you 🙏

Reply | Mark as Spam | Posted On 2/20/2022 11:17:04 AM

Like Dislike

Dr.Petra
Joined On 2/20/2022 2:57:25 AM
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The #1 way to optimize mitochondrial health is to deplete deuterium. Check out the new science of Deutenomics. It is not about B-vitamins. drpetrad.com/Deutenomics

Reply | Mark as Spam | Posted On 2/20/2022 3:00:34 AM

Like Dislike

Fortywinksbandbgmail.com
Joined On 6/2/2020 5:18:51 AM
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Nearly 70, fit as a flea! Two years of save yourself from covid is, I think, enough. Can we move on with normal, real life. Live keto, 10 miles daily on the bike, one hour a day of Pilates, rattle with supplements, play music and sing. Grow organic veg, only eat organic, write poetry, drink lots, kombucha, kefir water and kefir dairy, raw dairy. No gluten. Nothing dead that had a face, it is all easy. You will be fit and dandy, oh yes PRAY to. Jennifer

Reply | Mark as Spam | Posted On 2/20/2022 5:25:45 AM

Like Dislike

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mirandola
Joined On 6/27/2014 7:00:58 AM
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And keep good social company! Contrary to popular myth, "social" distancing (oxymoron right there!) may or may not be conducive to preserving health. I read MD-reported studies about people with love and connection in their lives, whose immune systems thrived based exactly thereon. When people were isolated, lacking in friendship and connection, their immune system plummeted, according to the studies and reporting MD sources. Doesn't that make sense? That does not mean in person visits can't be contagious wherever someone is infected, and that some cross sectors are not vulnerable, and the decision is up to each individual. The CDC, WHO have no business mandating or telling us what to do and they represent only one side of the aisle, while disallowing other sides to weigh in. So doing, they may be harming instead of helping, and surely are ushering in dictatorship. Not acceptable.

Mark as Spam | Posted On 2/20/2022 8:38:07 AM

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navisos34
Joined On 10/9/2017 12:07:57 AM
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If there is no symptom of COVID-19, how many times a day should one use the hydrogen peroxide nebulizer just for improving mitochondrial function?

Reply | Mark as Spam | Posted On 2/20/2022 12:03:57 AM

Like Dislike

Guillermou
Joined On 4/7/2015 8:47:48 AM
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According to a report by Dr. Mercola: Recent research shows that COVID patients, who irrigated their sinuses with an iodinated saline solution, were 19 times less likely to be hospitalized A recent article recommends fogging with 1.5% hydrogen peroxide twice a day to treat COVID-19 at home, as well as in hospitalized patients who do not yet require intensive care Nebulization with normal saline, 3% hypertonic saline, hydrogen peroxide, and iodine has been shown to help fight respiratory infections. I recommend diluting peroxide with normal saline to get a 0.1% concentration and adding a drop of Lugol's iodine. I understand that it is advisable to use the nebulizer, especially immediately after when you may have had social contact with other people, especially if it is risky, such as poorly ventilated spaces.

Mark as Spam | Posted On 2/20/2022 1:25:57 AM

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rrealrose

Joined On 11/10/2011 8:59:01 AM

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Its highly individual, however, I tested simply using saline solution, this also works to some degree. H2O2 is preferred and I use it about 2x per week. Sometimes 1x per week. You gotta feel your way through it.

Mark as Spam | Posted On 2/20/2022 12:30:25 PM

Like Dislike

Retsbew

Joined On 7/26/2009 1:31:08 PM

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Apologies as this is off topic. After discussing this with a friend, we question if this will be to control Canada to seize the USA. Sorry, we know this sounds very extreme. But I do know that hardly anyone in Canada knows about this. The post, below my friend's comment, confirms UN plane is in North Bay, 3.58 hours by road to Ottawa. The post is on gab.com which is a free speech site. My friend said it's ok if I share her email to me as follows: "My take on how this "emergency act" is STILL to be debated and hasn't been struck down immediately or denounced by politicians of yore like Mulroney, Harper and the silence of Canada's well known citizens etc., can only be that they are ALL in on it? As well, to take Canada means the "plum prize", the US is right next door.

We will be over run with goons who will then start on the US. Those UN trucks hidden in Ontario somewhere are here for a reason. They have an army of mercenaries ready to go somewhere, probably here." Freedom Convoy announced retreat today. Extreme violence on parliament hill, many assaults, pepper spray. NONE of the protesters were violent. Horses purposely turned into the crowd and a disabled lady holding a white cloth, perhaps as a peace symbol, was hit, fell from her walker and was trampled. She's alive. An equestrian confirmed to one of the drivers that the move was purposeful - I think because the reins were dropped at a certain point.

I just thought it looked purposeful because the horses suddenly veered in another direction. gab.com/.../107827847975034179 Post online: "I got to say, that I had my suspicions that many of the Tyrannical Covid-Cops in Ottawa were actually UN Troops, but this is confirmation. They just happened to land in North Bay, my hometown. These Globalists Scumbags can't get, nothing past us Patriots I'll try to swing down to the airport to check this story out myself, tomorrow." This is gab.com post.

Reply | Mark as Spam | Posted On 2/20/2022 2:15:00 AM

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Guillermou

Joined On 4/7/2015 8:47:48 AM

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Good morning Retsbew. Yesterday NW commented on Trudeau's involvement with the schwabs youth school. I answered: Just yesterday I made a comment about the WEF Global Leaders. Countries from around the world are represented in the World Economic Forum's latest crop of 112 potential globalist leaders. This class joins such luminaries of the radical left as Bill Gates, Jeff Bezos, Peter Buttigieg, Emmanuel Macron, Gavin Newsom, Angela Merkel, Jacinda Ardern, and many others.

According to its website, the Young Global Leaders are made up of "more than 1,400 members and alumni from 120 nationalities." Individuals are trained to be "Aligned with the mission of the World Economic Forum", to "advance public-private cooperation in the global public interest", they are the integral part of Davos.
rairfoundation.com/exposed-meet-klaus-schwabs-2021-class-of-great-rese.. (12/26/2021) Now this statement, "I have to say, when I mention names now, like Ms. (Angela) Merkel and even Vladimir Putin and so on, they have all been Young Global Leaders from the World Economic Forum.

But what we are very proud of now is the young generation like Prime Minister (Justin) Trudeau. "Schwab and the WEF had help in setting up their Canadian infiltration mission, including from Trudeau's former chief of staff, Gerald Butts, a participant in the WEF's Davos conferences and a leading backroom organizer of the Trudeau government's ideological gambits. When it comes to subversive plans to overthrow the free-world economy, few are larger in scope than the WEF's global scheme to remake the world and install a new form of "capitalism" based on the recruitment of corporate leaders into the role of government. "
financialpost.com/opinion/terence-corcoran-in-canada-follow-the-money-.. (02/18/2022)

Mark as Spam | Posted On 2/20/2022 2:20:22 AM

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mirandola

Joined On 6/27/2014 7:00:58 AM

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If the powers that be are unleashing horses to run roughshod over the people, it is a blatant act of war. It is the government, not the people, who are the "Homegrown terrorists" and are proving it, in action. They may want to incite civilian retaliation with a purpose in mind, to discredit the very peaceful mandate protest/trucking convoy movement. It is instead, the powers that be who need to look in the mirror, and the people need to clearly point out that the instigators of violence are the government agents on horseback, not the civilians. Good lord what crazed people. They don't belong walking the streets, let alone in public office. Civilians please take note, don't cave to the pressure to fight back, and instead take peaceful legal court action, class action can be powerful. Thank you.

Mark as Spam | Posted On 2/20/2022 2:32:05 AM

Like Dislike

Retsbew

Joined On 7/26/2009 1:31:08 PM

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Hi Gui, Thank you for the excellent links to give substance to this. I am concerned for all of us. The protest in Ottawa has been surrounded by flagrant and unlawful actions, by the authorities. And the residents of Ottawa, who are mostly government employees, are so miffed, Paul Champ, LL.B., easily formed a Class Action Suit for millions of dollars' damages from the Freedom Convoy. The downtown sidewalks have never been so clean - the Truckers clean the streets, take care of their garbage. They did nothing wrong, no violence for 3 weeks and the downtown residents acted as if they were grievously harmed.

Totally ridiculous. What I don't understand is why the UN is here. Our Canadian Charter of Rights & Freedoms is our supreme authority. The Emergencies Act hasn't been finalized yet. I've written to the Sikh Society here (we have 5,000 Sikhs in Ottawa) asking them politely if they can somehow fire Jagmeet Singh, MP, publicly. He's a Schwab graduate. -He swung the vote in the house to introduce the Emergencies Act. I know some of the Sikhs because they're drivers with Para Transpo and they are loyally Canadian and have done so much for our country. They offered their temple to house some Truckers and they've got a large parking lot and government/Trudeau told them to shut down the Temple.

They give food to the homeless and you can go there on the weekend and have dinner. They are donors to the blood supply and now they are pure bloods I might guess. But you don't get a choice of donor... There's 6 to 7 metres in a turban and the fabric comes in various weights so you could make a skirt or blouse from one. They do not carry knives in their turbans. It is tradition that men do not cut their hair and they follow tradition when they put on the turban. I have a great deal of respect for this.

Mark as Spam | Posted On 2/20/2022 2:38:45 AM

Like Dislike

Retsbew

Joined On 7/26/2009 1:31:08 PM

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Mirandola, I've never in my life heard Canadians speak of Civil War and now you see it in social media along with the word patriot, which is an adaptation from your country to my mind. The problem is that many of the vaxxed are so compromised still. They can't seem to form a critical thought for all the tea in China and if we had tea in Canada that wouldn't help either. They are tunnel vision - keep going on about the most inane topics, like a couch they'd like to buy, or in places where they're not locked down, what a thrill to go to a restaurant. I think the point you make is very valid because if "they" can get these brainwashed victims to oppose the pure bloods, it could erupt in confrontation and then the UN comes in and quells the riots? As if we haven't gone through enough.

Then I'm forgetting the food shortage that's doubtless in the offing. They timed this in Canada to take place in the bitterest of the weather - February. They just didn't think the Alberta boys would take up the challenge - and most of them are used to worse cold than we get here. In Alberta they plug the big rigs in all night until they go off on their routes in the morning. It's a way of life there. I almost forget this and it's significant - took place on the floor of the house.

Mister Speaker denies answering the question saying he cannot hear and vision is poor - in other words, I can't hear you or see you. That's because, Hansard, the official record of debate and discussion in the Houses of Parliament is a written record. And wait for it... A constituent wants to know if outside interference has occurred via Klaus Schwab - I'm paraphrasing, but listen to it below. The house is empty because it's a virtual/Zoom meeting of members. The member was clear as a bell with his question, as you'll see. https://youtu.be/wFnFJI6Aqaw Denied Ability to Discuss Orders Of Klaus Schwab..WTF

Mark as Spam | Posted On 2/20/2022 3:00:34 AM

Like Dislike

Guillermou

Joined On 4/7/2015 8:47:48 AM

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Thank you Retsbew. Also: MARK STEYN AND MAXIME BERNIER DISCUSS THE TOTALITARIAN STATE OF CANADA www.lewrockwell.com/2022/02/no_author/mark-steyn-and-maxime-bernier-di.. (02/19/2022) The rights to freedom of expression and association are being trampled after an alliance of government, corporations and the media sought to isolate protesters politically and financially. The most worrying element was the freezing of donations by companies and courts. More recently, TD Bank joined in blocking the support of thousands of citizens.

The organized effort to cut off access to donations is alarming, particularly alongside efforts to restrict social media and other avenues of information for protesters. jonathanturley.org/2022/02/14/free-speech-becomes-roadkill-in-the-crac.. (02/14/2022) This is what we want for Justin Trudeau and Ontario Premier Doug Ford, who made good on their promise to use force to end a protest by truckers seeking an end to a futile COVID-19 vaccine mandate.

JUSTIN TRUDEAU IS GOING TO PRISON BUT WHAT WILL IT COST CANADA AND CANADIANS TO ATTAIN JUSTICE? rumble.com/vuv5ii-justin-trudeau-is-going-to-prison-but-what-will-it-c.. (02/13/2022) Justin Trudeau went full communist psychopath against the Freedom Convoy JUSTIN TRUDEAU DECLARES CANADIAN FREEDOM TRUCKERS TERRORISTS!? | LOUDER WITH CROWDER rumble.com/vv38il-justin-trudeau-declares-canadian-freedom-truckers-te.. (02/16/2022)

Mark as Spam | Posted On 2/20/2022 3:04:01 AM

Like Dislike

juststeve

Joined On 1/5/2012 11:13:54 AM

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Thank you Retsbew. Not off topic. All is interconnected & while maybe not the main topic of the article, what happens across the river, border, is coming to a town near anywhere U.S., the globe. It directly impacts everyone's ability to pursue a healthy & chance of a happy life no matter who you are or where on our Garden, Planet Earth one lives. From just across the river, we get mostly the sanctioned filtered No Real News, just they are "fringe," "so-called" Freedom Fighters, Right Wing Radicals, Nazi's. One alternative news pod cast reported Trudeau accused a Jewish member of parliament of being a Nazi. (Was there lead in that Blackface he wore at that party?) Loud, disruptive, interfering with trade.

The majority of Legacy Media in the U.S. is reporting the same lies Legacy Media peddles in Canada. What happens to you is happening to us just currently indirectly, & a warning of what is likely to come. The roadblocks & censorship existing before the Covid lockdowns was already a challenge a big reason a Fauci could remain in charge for decades. The censorship increased through the lockdowns - outrageous, & if the Predator$ keep doubling down get their way - lookout for China Syndrome. Articles like this won't exist much if anywhere if the Predator Dictators aren't dealt with. We will have to let those paralyzed by Mass Formation Fear hide in their basements as it is best to realize 100% is not needed for positive change - only enough.

Our numbers appear to be far greater than the Predator$ would have all believe. Mirandola, the Power Structure screams violence in the headlines as this is what they want, they have all the tools they need to violently strike with. War, & life issues framed as war seems to be all they know. It's a favorite playground, especially when all the softer measures fail. More Rt wing radical Nazi's? Sadhguru and Deepak Chopra Predicted This About Vaccines Last Year | Holistic Health | MOI https://youtu.be/HPGy0EUIsQk

Mark as Spam | Posted On 2/20/2022 4:55:55 AM

Like Dislike

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sdi6987

Joined On 11/23/2018 5:12:07 PM

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Hello Retsbew, retired trainer here in Ontario; from what I saw of the videos with the mounted patrol. Two things, those are draft mix horses weighing about 1500 lbs. They are police trained for crowd control to push through obstacles including humans. But, since we don't have many unruly crowds to disperse in Ontario, those police riders aren't well trained or experienced.... so yes,,,, the riders were not controlling their horses properly and people got trampled. You can watch them at the CNE stable where they train. .. What surprises me is the videos were posted hundreds of times on twitter , but not once on ytube. Of course the optics are very bad,,, did ytube censor?

Mark as Spam | Posted On 2/20/2022 7:30:00 AM

Like Dislike

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mirandola

Joined On 6/27/2014 7:00:58 AM

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@ sid6987 thank you for stepping forward. No excuses, in fact, there are no so called "Excuses". Plus, the police in Ottawa went after the gas supplies for the truckers and thereafter alleged child abuse, while themselves being the abusers, cutting off the supply providing a running engine and warmth in truck cabins. Is this not an act of war? Incompetence, really? Again, no "excuses". @ Retsbew, denial knows no bottom...or only, so it seems. Truth: In fact, contrary to how it seems, once people themselves suffer enough, that is when they will wake up. It is tragic that it takes so much, but this is how denial works. It will happen, watch and see. Give this one to time, but I predict a mass awakening as a result of this. Again, it is tragic that pain and suffering is what it takes, and we wish this on absolutely nobody.

Mark as Spam | Posted On 2/20/2022 8:23:37 AM

Like Dislike

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grulla

Joined On 1/17/2012 8:03:55 AM

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"rets", "Mirandola, I've never in my life heard Canadians speak of Civil War and now you see it in social media along with the word patriot, which is an adaptation from your country to my mind." "Viva la free Quebec" still jars my memory.

Mark as Spam | Posted On 2/20/2022 8:24:02 AM

Like Dislike

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rrealrose

Joined On 11/10/2011 8:59:01 AM

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Hi Retsbew, some portion of this is to create a distraction. It's not clear to me, yet the Daily Expose theorized that the vaxxed and boosted in Canada are about 2 weeks away from going negative (as occurred to the boosted in Scotland, Israel, Gibraltar, Sechelles, etc). On top of that, the political attention needs to be in the EU, where dramatically increased energy costs also affects production of crop fertilizers. A dire focus is on this Putin arming the Ukraine border for military exercises (say what?) and what may occur to farmers across the EU - with smaller yields, less output leads to food instability; and this, in turn, leads to easier control hungry populace.

And it puts pressure on small farmers - sounds like what occurred in the US during the 1930's dust bowl - shoving small guys off the land so large corporate farms move in. Why am I bringing this up? A giant SOVEREIGN DEBT ISSUE or bubble has been brewing since before the Real Estate bubble burst in 2007-08, most developed countries printing money with abandon, eventually breaking govt. banking and pension systems. The cover-up may be covid-19. Where is more in-depth coverage? In this recent 5-hr Corona Committee, starting at about 2-1/2 to 3 hrs in. Take with a grain or two of salt: Session 92: Of the Big and the Small 18/02/2022 - www.bitchute.com/.../kekTe62YdgyA (not yet finished watching, my stomach started to turn - Prof.

Dr. Reiner has been studying this for 1-1/2 years, so he should know, right?)> > > > > >> consider that things are always the darkest before dawn.> > > > > > Perceived risks of potential upheaval are large, worse than lockdown. Unfortunately the discussion did not cover North America well. Eyes on the border crossings: one bridge from Michigan to Ontario cleared first, was estimated to carry $350 million in goods each day. Most of your population lives within 50 miles of the US. Canada is, by location, dependent.

Mark as Spam | Posted On 2/20/2022 11:54:25 AM

Like Dislike

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fromseatoshiningsea

Joined On 3/7/2021 2:40:06 PM

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Retsbew - I spotted this in the comment section in an Epoch Times article yesterday & thought I'd share it with any Canadians on this site: NO CONFIDENCE VOTE AGAINST TRUDEAU. "I called the Governor General's Office in Ottawa to see exactly how to go about sending a non confidence vote against Trudeau. A woman in the office outlined the following: They need an e-mail: info@gg.ca. The subject line should read: "Non Confidence Vote Against Justin Trudeau". The body of the e-mail should read: Dear Honorable Mary Simon. Please register my non confidence vote against Justin Trudeau. Finish the e-mail with your name, address, & phone number to clearly identify yourself as a registered Canadian voter. I was told we only need 3.5% of the people for a non confidence vote to be effective." The commenter advised doing likewise for Deputy Prime Minister Freeland & the entire liberal caucus. I hope this helps to generate some additional support for this endeavor.

Mark as Spam | Posted On 2/20/2022 12:45:47 PM

Like Dislike

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epi-cure

Joined On 5/12/2012 7:02:04 PM

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Retsbew I sure do value on your closer to ground zero feeds, thank you. BTW, a noticed a typo as you know your Canada better than me: North Bay is 3.58 Hours, not miles from Ottawa.

Mark as Spam | Posted On 2/20/2022 1:21:04 PM

Like Dislike

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otis101

Joined On 7/10/2010 6:30:32 PM

Add as Friend | Send Message

Post on FB this am. A private plane flew from Ottawa to DC during the night. I went back to find the post but wasn't able to. Anyone know anything about this?

Mark as Spam | Posted On 2/20/2022 2:09:18 PM

Like Dislike

Save Our Freedom

Joined On 6/19/2006 11:56:17 PM

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Hello Retsbew, This may clarify things: www.civilianintelligencenetwork.ca/2022/02/01/ppc-convoy-to-civil-war-.. Scroll down to " How is this tied to the NWOs Agenda 2030? " In summary: "The “Freedom Convoy” has been Highjacked by the NWO. Canada’s Truckers who have inspired all of us these past few days have been duped! They have walked right into the hands of the NWO whose intentions are far more nefarious than they were lead to believe." Anything we try like this will be used against us, like Jan. 6th. False Flag event is next: www.bitchute.com/.../CTPHLObWHINS And one more not so trivial detail, anyone that posts anything against their agenda, anywhere, even on mercola.com is getting their IP address recorded. If you think using a VPN or TOR is going to hide you, don't be so naïve. These sicko's have been planning this for centuries. They're smarter than us, have unlimited resources, and already control EVERYTHING!

Mark as Spam | Posted On 2/20/2022 4:41:31 PM

Like Dislike

Retsbew

Joined On 7/26/2009 1:31:08 PM

Add as Friend | Send Message

Epi-cure, thanks so much for the typo correction of miles to Ottawa being 3.58, when it should be 3.58 hours. Correction made now. It's worth it, but haven't been to sleep until 5, 6, 7 a.m. this last week. Communication can be everything, so do my best to send current info to sources that can action on it. You're definitely Court Reporter material, Epi-cure!! Thanks again. Drives me nuts if I make a mistake like that.

Mark as Spam | Posted On 2/20/2022 5:01:11 PM

Like Dislike

Retsbew

Joined On 7/26/2009 1:31:08 PM

Add as Friend | Send Message

SAVE OUR FREEDOM - I've examined your material and in my opinion it's rubbish. You are here to activate and rev up the fear in people. I'd really like to swear at you, but I'm polite and given your mind-set, it's not even worth it. You've been here since 2006? And who do you work for???? Maxime Bernier and Randy Hillier are BOTH GOOD MEN representing the possible future of Canada, which we want to remain glorious and free. "SAVE OUR FREEDOM" YOU HAVE NOT A CLUE ABOUT CANADIAN POLITICS. And I'm not taking the bait and educating you here. I will re-publish (BELOW) your rubbish to save others the trouble of searching for your compost materials.

Do something constructive with your life and HELP people, don't HINDER THEM. If you don't understand something don't let your negative side rule your mind. COMMENT BY "SAVE OUR FREEDOM: "Hello Retsbew, This may clarify things: www.civilianintelligencenetwork.ca/.../ppc-convoy-to-civil-war-the-un-takeover-begins Scroll down to " How is this tied to the NWOs Agenda 2030? " In summary: "The “Freedom Convoy” has been Highjacked by the NWO. Canada’s Truckers who have inspired all of us these past few days have been duped! They have walked right into the hands of the NWO whose intentions are far more nefarious than they were lead to believe."

Anything we try like this will be used against us, like Jan. 6th. False Flag event is next: www.bitchute.com/.../CTPHLObWHINS And one more not so trivial detail, anyone that posts anything against their agenda, anywhere, even on mercola.com is getting their IP address recorded. If you think using a VPN or TOR is going to hide you, don't be so naïve. These sicko's have been planning this for centuries. They're smarter than us, have unlimited resources, and already control EVERYTHING!

Mark as Spam | Posted On 2/20/2022 5:31:28 PM

Like Dislike

Retsbew

Joined On 7/26/2009 1:31:08 PM

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Hi sdi6987, YouTube has a lot of videos from the Truckers as well as independent journalists doing excellent coverage. YouTube didn't censor them. Our country is now under the Emergencies Act for an undetermined amount of time. www.youtube.com/watch

Mark as Spam | Posted On 2/21/2022 8:04:48 PM

Like Dislike

cakesjean

Joined On 9/10/2008 1:03:53 PM

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Retsbew, I read that Chrystia Freeland is of polish "nasty" stock . . .
naturalnews.com/2022-02-18-the-***-werent-defeated-they-went-undergrou..

Mark as Spam | Posted On 3/6/2022 1:22:23 AM

Like Dislike

mjgill1
Joined On 12/20/2010 5:38:23 PM
Add as Friend | Send Message

Hi Dr. Mercola, I have been reading you since ~2004 and have enjoyed your many articles on diverse subjects. Years ago you either did a video or article about saunas. Technology has changed since that time and I would like to ask you if you would be willing to do an article comparing what is currently available out there for saunas. I know that you do not make particular recommendations. However, I believe there are many folks out there that could benefit from such an article. I am at the point where I am considering purchasing a sauna, so it would be especially valuable to me. Thanks in advance.

Reply | Mark as Spam | Posted On 3/6/2022 6:12:06 AM

Like Dislike

Pete.Smith
Joined On 10/11/2013 8:19:55 AM
Add as Friend | Send Message

Hi mjgill1. If you at the top of this article, right under the video, you see "Download Interview Transcript" (or see the video itself) That download is a pdf, so you can search in there on the word sauna. Doctor Mercola talks about the kind of sauna he recommands, but important it must be a NEAR-infrared light (NIR). The NIR light has no harmful radiation and also improve mitochondria, as explained in that interview.

Mark as Spam | Posted On 3/6/2022 12:50:43 PM

Like Dislike

NewlandsWanderer
Joined On 6/11/2015 6:59:28 AM
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A very helpful article. And sorry this is off-topic, but thought everyone see this short clip of Bill Gates saying: "- "Sadly the virus itself - particularly the variant called Omicron - is a type of vaccine, which creates both B cell and T cell immunity and it's done a better job of getting out to the world population than we have with vaccines." Why would he use the word "sadly"? I guess we all know why!!!
twitter.com/.../1494810193175195652

Reply | Mark as Spam | Posted On 2/20/2022 7:35:35 AM

Like Dislike

Guillermou
Joined On 4/7/2015 8:47:48 AM
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Thank you N.W. It seems that the globalist elite has no choice but to say omicron will end this fake pandemic, but they will continue with the combined mRNA "vaccines". A surprising statement because the essential chapter in misinformation with contempt for natural immunity. 6 BIG DIFFERENCES BETWEEN NATURAL VS. VACCINE-INDUCED IMMUNITY 1. Intramuscular jabs don't induce sterilizing immunity in the upper airway 2. Intramuscular jabs induce immunity that wanes quickly while naturally acquired immunity is more robust and durable 3. Intramuscular jabs induce immunity to the spike protein of the original Wuhan strain of SARS-CoV-2, not the currently circulating forms such as omicron or delta 4.

The payload of intramuscular jabs is not limited to the deltoid muscle as we were led to believe in the early days of roll-out 5. Intramuscular jabs rely heavily on inducing immunity through B cell IgG antibodies and not innate immunity or T cells 6. Might COVID-19 jabs awaken the sleeping dragon of autoimmunity?
childrenshealthdefense.org/defender/differences-natural-vaccine-induce.. (04/02/2022).

New research suggests that becoming infected with the omicron variant of the Wuhan coronavirus (COVID-19) can help protect people from the more dangerous delta. Laboratory tests performed two weeks after patients joined the study showed that antibody levels increased 14-fold in response to the omicron variant and a 4.4-fold increase against delta.
www.dailymail.co.uk/news/article-10355617/Catching-Omicron-strain-prot.. (12/30/21)

Mark as Spam | Posted On 2/20/2022 7:52:33 AM

Like Dislike

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rrealrose
Joined On 11/10/2011 8:59:01 AM
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So they can quickly kill a few million more around the globe? And then slow-kill the remainder? WTF - someone should muzzle this guy.

Mark as Spam | Posted On 2/20/2022 12:18:00 PM

Like Dislike

smoolichen70

Joined On 9/14/2006 8:24:19 AM

Add as Friend | Send Message

Is resting metabolic rate the same as resting heart rate? And what are the optimal ranges? I am sure it is related to age.

Reply | Mark as Spam | Posted On 3/6/2022 8:55:39 AM

Like Dislike

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andiroadrunner

Joined On 1/24/2012 6:19:21 PM

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I do not consent to have anyone hack what God fearfully and wonderfully made; with all my imperfections; born with human rights and free will...Because of this, I am shining a light on the taxpayer-funded program that is seeking to alter humans via cutting and pasting DNA to become cDNA...cDNA is patentable; then no longer human rights, become a commodity/owned/ no longer governed by your own dominion. (cDNA patentable: www.supremecourt.gov/.../12-398_1b7d.pdf)..... Please look closely at the pdfs at the following nih arpa-h publication site....it shows the direction under Pres. Biden for the US....biomedical data collection , genetic counseling /bioengineering (eugenics) and transhumanism : www.nih.gov/.../news-publications and www.whitehouse.gov/wp-content/uploads/2021/09/093021-ARPA-H-Listening-.. This aligns with the Internet of Bodies of the WEF and 4th Industrial Revolution: www.rand.org/content/dam/rand/pubs/research_reports/RR3200/RR3226/RAND.. The Internet of Bodies: Opportunities, Risks, and Governance - RAND Corporation Directly quoting: " An IoB device is defined as a device that • contains software or computing capabilities • can communicate with an internet-connected device or network and satisfies one or both of the following:www.rand.org "An IoB device is defined as a device that • contains software or computing capabilities • can communicate with an internet-connected device or network and satisfies one or both of the following: • collects person-generated health or biometric data • can alter the human body's function....Transhumanism, Bodyhacking, Biohacking, and More The IoB is related to several movements outside of formal health care focused on integrating human bodies with technology...

Reply | Mark as Spam | Posted On 3/6/2022 3:31:39 PM

Like Dislike

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fundamentalassumptions

Joined On 4/1/2009 12:17:58 PM

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Just a couple concerns. 1) We got into this mess thru partial understanding of complex biochemical processes,& assumptions, then systems of merchandising& power, policing were built, allowed by people who didn't even fully understand that partial understanding: just what they were told. Bogus education stopping short of real literacy& understanding,& complicated, complex patent& legal constructs making sure it stays that way no matter WHAT form of political structure or philosophy men build around it.

2) We still have only a partial understanding of what turns out to confirm, yet again, that however much more we learn, there's more to learn,& things are far more complex than men have previously suspected. 3) God help those poor folks who turn out to 'exhale more Co2', the 'glucose' burners as opposed to 'fatty acid' burners in ANY partially sighted political climate: what will the gnostic 'superiors' of craft,& the occulter-s of truth, sacrificers of anyone& everyone's rights& properties but their own do w/ THAT knowledge? I'm not a prophet/profit, nor the son of a prophet/profit, but I foresee a new 'civil rights'& social ranking demonization,& category of propaganda on the horizon.

New 'markets'& more tinkering w/new ways of selectively presenting& occulting information/truth data, steering people: both 'sides' pontificating& self-justifying all the way. Presenting another front& masking face, an apparent opposite, for the same old spirit cultivating another partial hope as whole, exploiting& imposing it to the gain of a few.

Free men beware. Chew the meat: spit out the bones. Protect the right of men to choose,& the weak, w/o cultivating weakness simply to exploit it, &/ or to lift& exalt, to self-justify, self. One eye tightly shut to short-term gain, ultimate loss. Same 2 laws encompassing all the rest: Love the Lord thy God w/ all thine heart, mind& soul:& your brother as yourself. Out of that order, universally corruptible men use &devour 1 another.

Reply | Mark as Spam | Posted On 3/6/2022 7:47:50 AM

Like Dislike

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jamNjim

Joined On 2/20/2008 11:15:54 PM

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....."Statistical data came out a couple years ago, comparing the death rate from COVID in countries where the population was highly vaccinated for the flu in 2019 as opposed to countries with a low flu vaccine rate. And the death rate was something like 400% greater in the countries where most of the people had the 2019 influenza vaccines.".... I really want a link to this study! Does Dr. Mercola, Gui, Real, or someone have a link to this report? One problem with any study on this will be determining who was infected with covid-19 and who wasn't. The PCR test was only testing for viral fragments of the Sars-Cov-2 virus. Probably less than 20% of those that tested positive actually had Covid-19. It would be nice to know how they compiled their data. Maybe they collected data from countries outside the USA.

Reply | Mark as Spam | Posted On 2/20/2022 11:55:30 AM

Like Dislike

rrealrose

Joined On 11/10/2011 8:59:01 AM

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Pushing my memory? - saw at least 1 chart showing that result, from outside the US. May have been from either Ivor Cummins in Ireland or the PANDA group in South Africa, using the expertise of Prof Michael Levitt from Stanford. Did I clip or download or otherwise keep it? Eh? - - - - start with this article from PANDA: www.biznews.com/.../pre-existing-immunity

Mark as Spam | Posted On 2/20/2022 12:28:45 PM

Like Dislike

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dav5185

Joined On 12/31/2013 8:29:58 AM

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Lots of good info here, but I disagree with his disparaging the TSH test. The test is not useless; it's the interpretation. My clinic's lab says that any TSH reading under 3.740 mcIU/mL is ok. What that means is they don't treat the symptom with drugs unless TSH is over that number. That doesn't mean that someone whose TSH is less than 3.74 is optimally healthy. Don't shoot the messenger. What I read long ago is that an irreversible DHEA derivative (now available as a supplement, 7keto) tells cells how much T4 to convert to T3. T4 is basically a storage form which I found you make most of in your sleep. (If your T4 is low, first try improving your sleep, as long as your diet has at least some iodine.) T3 is the active form that tells cells how fast to run the factory. You make less DHEA with aging (starting around age 20) and hence less 7-keto. Body temperature is everything. Fix it and other factors may be able to fix (or partially fix) themselves.

Reply | Mark as Spam | Posted On 3/6/2022 12:25:08 PM

Like Dislike

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lou4519

Joined On 7/10/2021 1:44:21 AM

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What is GSE? Is it selenium?

Reply | Mark as Spam | Posted On 3/6/2022 3:46:43 AM

Like Dislike

Ringer2

Joined On 8/30/2011 7:33:48 AM

Add as Friend | Send Message

GSE can be Grape Seed Extract, or it can be Grapefruit Seed Extract. It's not selenium.

Mark as Spam | Posted On 3/6/2022 9:55:18 PM

Like Dislike

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mky32022

Joined On 6/25/2015 10:27:20 AM

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grape seed extract is not the same as grapefruit seed extract. I think the article is referring to grapefruit seed extract GSE.

Mark as Spam | Posted On 3/7/2022 12:12:14 AM

Like Dislike

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markuzick

Joined On 3/16/2013 5:05:59 AM

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Does anyone here have any opinions on methylene blue for mitochondrial health, cognitive alertness, anti-dementia and anti-viral properties? https://youtu.be/NNZBljVptLs www.youtube.com/watch

Reply | Mark as Spam | Posted On 3/7/2022 12:07:15 AM

Like Dislike

MysticTuba

Joined On 5/28/2009 10:48:57 AM

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I continue to have a problem with the recommendation of ozone. I went for ozone therapy after a severe illness in summer of 2017 left me unable to even climb a set of stairs. I found a local NMD who said ozone would restore my energy. He did an injection ("push") of gaseous ozone into the vein in my elbow, and he just damn near killed me. I suffered INTENSE muscle pain in my arms, shoulders, even my tongue, to the point where I had to pay to have my hair washed because I could not even lift my arms to do it, and I almost could not eat because of the incredible pain in my tongue. I lost my ability to use a keyboard, not knowing what the letters meant, and sometimes when I tried to talk, nothing came out but gibberish.

I went to a DIFFERENT NMD who looked at my blood in a dark field microscope, and there was nothing present but clots and a large number of Heinz bodies. I saw the expression on his face....he did not think I was going to live. He put me on high dose pycnogenol and a couple of other things; it took about nine months to get my mental function back (and it is probably permanently affected) and I had to use a scooter in stores for a full year and had a handicap tag for my car. So when someone says ozone is good, I think they are just insane.

Reply | Mark as Spam | Posted On 3/6/2022 8:56:35 AM

Like Dislike

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