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# The Solari Report

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## The Solari Wellness Series: Strengthen Your Immune System by Addressing Intracellular Oxidative Stress With Dr. Thomas Levy



**Brigitte Mouchet:** Hi. This is Brigitte Mouchet with The Solari Wellness Series. I hope you are all doing well.

Today I have the honor to interview Dr. Thomas Levy on how to build a strong immune system. A healthy immune system is not only important to be ready for the colder weather, but also for health in general and to prevent cancer as well as chronic diseases.

Dr. Levy is a board-certified cardiologist and a bar-certified attorney. After practicing adult cardiology for 15 years, he began to research the toxicity associated with some dental work as well as the ability of properly-administered vitamin C to neutralize this toxicity.

He has written eleven books, several of which address the wide-ranging properties of vitamin C in neutralizing all toxins and resolving most infections as well as its vital role in the effective treatment of heart disease and cancer. His other books address the roles of dental toxicity and nutrition in disease and health.

Recently inducted into the Orthomolecular Medicine Hall of Fame, Dr. Levy continues to research the impact of the orthomolecular application of vitamin C and antioxidants in general on chronic degenerative diseases. His ongoing research involves documenting that all diseases are different forms and degrees of focal scurvy arising from increased oxidative stress, especially intracellularly, and that they all benefit from protocols that optimize the antioxidant levels in the body.

Dr. Levy, welcome to The Solari Wellness Series.

**Dr. Thomas Levy:** Thank you, Brigitte. Glad to be here.

**Mouchet:** Dr. Levy, you said that the cause of all disease is increased intracellular oxidative stress, also called IOS. That is a pretty big statement.

You have studied extensively the effects of vitamin C on the human body and how it can decrease oxidative stress. Could you take us through the steps that led you to these conclusions, and maybe also explain what redox medicine is?

Of course, it would be great if you could also explain how all of this relates to the coronavirus.

**Levy:** Of course. As it turns out, a biomolecule in your body – whether it's nucleic acid, protein, sugar, enzyme, you name it – is either in a normal 'reduced state' with a normal amount of electrons, or it encountered an oxidizing agent and lost some electrons and it's in an oxidized state.

Well, when it's in an oxidized state, a biomolecule is either rendered less active or completely inactive. So you might have an enzyme, and when you oxidize it, the enzyme no longer works.

The point of that is that all disease is a unique array and concentration of different oxidized biomolecules in different locations. No matter what the disease is, it's a unique array of these oxidized biomolecules. And to the extent that you can take those oxidized biomolecules with an antioxidant like vitamin C or something else and reconstitute electrons back to that oxidized biomolecule and put it in its normal, reduced form, then the biomolecule regains its normal biological function and biochemical reactions or whatever else it is involved in.

The point that I would like to make about that is that there is nothing more to any disease than these arrays of oxidized biomolecules. In other words, if you have Alzheimer's Disease, the cells in your brain that are affected by it don't have some ill-defined disease that is being labeled 'Alzheimer's'; all it has is a unique array of different biomolecules in different locations in different concentrations being oxidized. That is the case for any disease.

Ironically enough, it also works with infections. You can't have an infection if the cells that were infected are able to regain a normal intracellular level of oxidative stress – no increased oxidative stress.

The other point of this is that this brings us down to a more complex component. There is a lot about biology that is complex, and there is a lot about biology that is simple. I just gave you the simple version of what disease is.

Remediating a disease is the complex part because your goal is to reduce and normalize the oxidation status of those biomolecules. It involves more than just

taking in a large amount of antioxidants, primarily because you also need to look at what is initially causing the ongoing oxidation.

Let me say right here that the word 'toxin' really means pro-oxidant. A toxin is an oxidizing agent. So they are synonyms. Something that oxidizes is toxic, and something that is oxidant is toxic. It works both ways.

Then you have to ask the question: What is supplying the ongoing new toxins or oxidants in my body on a daily basis so that the antioxidants that I bring in on a daily basis can't repair more than is newly damaged? That is infections.

Infections are the primary source of pro-oxidants or toxins that are generated inside your body. As my mentor, Dr. Hal Huggins, many years ago told me – and it made all the sense in the world when I was talking about treating diseases with him – he looked at me a little impatiently and said, “Tom, you can't dry off while you are still in the shower.”

That means that you can't just repair oxidized biomolecules if you haven't addressed the new toxins that are coming in on a daily basis and oxidizing new biomolecules. You have to do both. I mean, vitamin C and antioxidants will help anybody, but they don't solve the situation completely until you are able to identify and eliminate or minimize the new sources of toxins on a daily basis. Statistically speaking, in most people, this has to do with infected gums, infected teeth, infected tonsils, and infected sinuses.

If people had a completely clean head, there would be very little chronic disease.

**Mouchet:** Nice. Are there any other sources?

**Levy:** Any sort of acquired infection is highly pro-oxidant. This is really how an infection causes this damage. You have endotoxins, exotoxins, the metabolic byproducts break down into pro-oxidants, and virtually all infectious agents contain large amounts of free iron. When they get killed, they release free iron, which is very pro-oxidant.

So all of these things come into play with infections of any type. It's just that, statistically speaking, most people are going to have most of their new oxidative

stress coming from infectious sources in the head and neck. You can have them elsewhere in the body. You could have an infected bladder and various areas of the gut and other areas infected, but statistically speaking, those are a very tiny proportion and percentage of the things that people have the most problems with.

Ironically enough – and we may or may not address this later – is that the fact that you have such a high concentration of infections in most people in the head and neck area, what happens--as the young people like to say--24/7, is that you are continually swallowing pathogens and swallowing the pathogen toxins that are produced every time, all the time. What does that do? It goes down to your gut.

I would submit to you – in my opinion and from what I have observed and clinical responses – is swallowing these head and neck pathogens and their toxins 24/7, that is the primary cause of abnormal microbiomes with all of the diseases that come from that. When you take the measures to eliminate these toxins, it's incredible how normal bowel function can get very quickly, unless you already had a severely advanced gastrointestinal disorder.

**Mouchet:** I have a question about stress and oxidative stress. Can you talk further on that?

**Levy:** It's hard to know what the mechanisms are. Certainly if you are under stress, this taxes your body more in producing epinephrine and norepinephrine. This makes everything work at a higher level, it consumes more nutrients more rapidly, and if you start consuming more nutrients and antioxidants due to a need for a revved up physiology, that will ultimately result in more oxidative stress at the physical level. So they are connected, absolutely.

**Mouchet:** I also heard you talk about undigested food, which may be a surprise to a lot of people. How does that create toxins?

**Levy:** The normal gut is supposed to take in food, process it over the course of between ten and twelve hours – no more – and proceed through the gut and then produce a bowel movement. Well, as it turns out, when you poorly combine foods, you slow down this process. As you slow down the transit time

through the gut, you begin to allow a greater time for putrefaction of the food in excess of what it takes to digest the food.

So when you go through it quick, it's mostly digestion. When you go through slow, you increase the amount of food that begins to rot and putrify. It's probably quite logical that when food rots and putrifies, you can identify a large number of toxins being produced, and you can identify a large amount of anaerobic bacteria such as the clostridium species proliferating in the gut, all of which produce highly potent bacterial toxins.

Probably one of the most impressive demonstrations of this was by Dr. Ivan Pavlov in the early part of the last century. He was a Russian physiologist, and he took dogs and would put different types of foods in the stomach. He found that when he put pure starch in the stomach, the stomach would take about 60-90 minutes to empty. When he put pure protein, like meat chips, into the stomach by itself, it took about three hours. But when he put the starch and the protein together at the same time, the stomach took eight to nine hours to empty. So this is what happens.

Unfortunately, our most popular food combinations are the combinations that are most negative for good digestion. I like to make the statement, and I think it's true because a lot of people appropriately so are very concerned about the quality of their food and eating organic, but I will tell you that just about the lousiest diet that you could select that is properly digested is going to be less toxic for you than the perfect diet poorly digested because the toxins that are generated from poorly-digested food are some of the most toxic substances known to man.

So when you're not having a bowel movement basically twice a day, your toxicity is increasing. When it's once a day, more. And if you are a person who has a bowel movement every few days, that is an enormous amount of endogenous toxicity that is putting you way behind the eight ball before you even start to play.

**Mouchet:** I agree, and food combination is really, really hard and not always very pleasing. That is one that I haven't mastered yet. That is very useful.

If intracellular oxidative stress is the root cause or characteristic of all disease, can we measure it? And can we lower it?

**Levy:** You can indirectly measure it by how you manage the levels of the most important nutrients and minerals that bring it down.

In one of my books, *Death by Calcium*, I address the fact that the title is not an exaggeration. Calcium, iron, and copper are what I call ‘the three toxic nutrients’. They are absolutely necessary for life, and once you get above a fairly low daily dose, they play an absolutely essential role in cell death. So they really play both ends of the spectrum.

As it turns out – and this is well-established as you go through the literature – every cell in every diseased organ has elevated intracellular oxidative stress, and this is always caused by and associated with elevated levels of intracellular calcium. As long as those levels stay high, there is nothing that is going to reverse the disease process that you are dealing with.

On the other hand, when you take large amounts of magnesium, which is sort-of the yin and yang of calcium, if your calcium is high, your magnesium is low. You bring your magnesium up, and you push your calcium down. As you start to normalize magnesium levels inside the cell, you bring calcium levels down, and you start to normalize the physiology. Once the calcium comes down, then vitamin C can come into the cell as well and start to produce glutathione, and then you have a balanced, healthy cell.

But as long as the calcium stays up, that will never happen. This is why – and there is a lot of data to show this – the more calcium you take in, the greater your chance of all-cause mortality and the greater your chance of death from anything.

Conversely, I just said that magnesium counters calcium. As it turns out, the people with the most optimal levels of magnesium in their body are the ones with the lowest all-cause mortality. It’s also a question of the fact that this affects every cell in the body.

As cardiologists, we look at the coronary artery calcium score where calcium is

deposited in the coronary artery, and it generates a number in the computer. You have a level of zero or 100 or 500. The higher that calcium number is, the greater your chance of a heart attack. That is what the test was designed to do.

What that test also indicates is if you are depositing calcium in your coronary artery, you are depositing it abnormally throughout your body. They've now done studies to show that not only does the coronary artery calcium score directly reflect your chance of death from heart attack, but it is also about the best test for determining your chance of death from anything, your all-cause mortality.

So these are the interwoven nature of magnesium, calcium, vitamin C, glutathione, and even zinc. When all those things come into balance, you have an excellent chance of being in good health and staying there.

**Mouchet:** Do you know if EMF increases the intracellular calcium levels?

**Levy:** Yes, it does.

**Mouchet:** By blocking the calcium ion channel?

**Levy:** Probably. I can't give you the mechanism, but I can tell you that any clinical cell abnormality is going to be attended by – if not primarily caused by – intracellular calcium. We see it in EMF damage. We see it in radiation damage. All of these things produce the same final common pathology which is increased intracellular oxidative stress with increased calcium accompanied by low levels of magnesium, low levels of vitamin C, and low levels of glutathione. It's a very significant and consistent final common pathophysiology inside the cell.

**Mouchet:** I said that they block the calcium channel, but it's probably the opposite; they keep it open so that the calcium can get in.

**Levy:** Yes, that is true. A calcium channel blocker is beneficial. That is correct.

**Mouchet:** Good. So can we talk a little bit more about all of the beneficial nutrients?

Do you have more to say about magnesium, glutathione, and vitamin C and all of the good things that they can do that you've studied or observed?

**Levy:** Even though I've written a lot about vitamin C, my most recent book has been about magnesium. When I finished the research for that book, it became apparent to me that-- and you shouldn't limit yourself to one supplement, don't get me wrong – but if you could only take supplement, your best supplement would be magnesium. That is because a magnesium deficiency causes a large number of diseases, but it absolutely makes any other disease process preexisting worse.

Obviously vitamin C and antioxidants are very critical, and I would never tell anybody not to supplement them, but when you are comparing the two of them – which is magnesium and vitamin C, which I would certainly call your top two supplements – nothing can compensate for a magnesium deficiency except magnesium.

You can get a partial limited compensation of decreased vitamin C with other antioxidants because they all interact and work together. So in that regard, I would make magnesium slightly more important than vitamin C. But obviously both are critical.

The other one is vitamin D. Let me tell you what I consider to be my five most important supplements: Magnesium, vitamin D, vitamin C, vitamin K2, and a good form of iodine. Most people are iodine deficient with a strong contribution to the epidemic we have of minimal hypothyroidism throughout the country. But the other four – the magnesium, the vitamin C, the vitamin D, and the vitamin K2 – all share one important thing in common, and that is that they all positively impact calcium metabolism and help calcium levels come down inside the cell.

They have actually done studies on each of these individually and found that each one of these things – magnesium, vitamin C, vitamin D3, and vitamin K2 – as a single supplemental intervention reduces all-cause mortality. There is not much more that you can ask of a supplement than that it decreases your chance of dying from anything.

I want to emphasize that I am definitely not telling people that they should limit themselves to these four supplements, but I'm also not advising what else to take because there is an enormous amount of very good supplements and very positive nutrient and antioxidant, and most of them are good for you. But, hey, most people don't have the money, the time, or a big enough stomach to take all of them.

So the point that I make is: You decide for yourself what other supplements you want to take. Obviously the zinc is important and the vitamin B3 is important and a lot of the different coenzymes like coQ10. All of that is important. I would only emphasize that whatever you decide to make your supplement regimen to be, make sure that it has got those five components that I just mentioned as a baseline.

**Mouchet:** Great! I agree.

Is there any particular form for those nutrients? They are not all equal, right?

**Levy:** Magnesium has many forms. Each of the different forms has different positive qualities. I mean, magnesium is the cation, so you're wondering what the anion is.

Magnesium glycinate, magnesium oxalate, magnesium citrate, magnesium chloride, magnesium threonate, all of the different anions – the negative part of the chemical – have their own unique array of benefits. So you will do well (or you will do better) taking any form of magnesium. A lot of that just ends up being what agrees with you and what you can afford. Some of them are more expensive than the others.

Never pass up the opportunity if you are getting an IV for any reason at all to request your doctor to add some magnesium to it. Intravenous magnesium is phenomenally important and vital in keeping your body and intracellular levels up. So that would be the case with magnesium. Magnesium really has no toxicity to speak of when it is taken orally because you get diarrhea – like with vitamin C – long before you are taking a toxic degree of magnesium.

On the other hand, intravenous magnesium can kill you if you take too much

too rapidly because it continues to lower the blood pressure by blocking the calcium channels. In fact, in some cases in different forms of surgery, jaw surgery for example where it's very difficult to get hemostasis to stop the bleeding after the jaw surgery, they will actually use magnesium sulfate intravenously to deliberately induce hypotension (low blood pressure) until the bleeding stops, and then back off of the magnesium and let the blood pressure come back up again.

So magnesium you take that way, vitamin C you take that way, and many different forms. We have the intravenous, which is always great when available. Probably the best oral form is a good liposome-encapsulated form of vitamin C. Here in the states I only really trust the LivOn Company that I've worked with for about 13 or 14 years. Since then I've seen so many fraudulent liposomal products come out, trying to jump on the bandwagon of success of LivOn I suppose. Human nature, you know.

A really good liposomal form is, although a little more costly, far more effective at getting vitamin C inside the cells where you want it than any other form, including intravenous.

You have other forms – regular vitamin C powder, sodium ascorbate, ascorbic acid – and those are all fine. When you are dealing with a chronic disease, it is good to take more than one form of vitamin C because different applications get the vitamin C in different areas.

The vitamin D3 is probably the one important vitamin/nutrient where you need to not compulsively but minimally regulate by blood level. Ultimately you want to get a blood level between 50 and 100 ng/cc. For most people this is going to end up from taking 5,000 to 10,000 units a day. Some can do well on less, and some might require more.

But once you figure out what works well for you, you don't have to go crazy with continually checking the level after that because it pretty much stays in the same range as long as you supplement in the same range.

Vitamin K2 is extremely important in keeping calcium in solution and not depositing out throughout your body. I might add that one of the primary

criticisms or supposedly concerns about vitamin C therapy – namely the formation of kidney stones – is a big myth. Kidney stones are usually formed of calcium oxalate. The oxalate can come from the breakdown product of vitamin C, but it can come from many other sources as well. So they jump on that and say, “Well, you’ve got to keep your oxalate down so you don’t get stones.”

Well, there is an important second contribution to that stone, and that is calcium. If you keep your calcium intake low and don’t supplement calcium, you’re not only not going to get kidney stones, but you are going to help dissolve preexisting kidney stones, especially when you take the magnesium and the Vitamin D3 and the vitamin K2 along with the vitamin C. They have actually showed studies that show the higher your vitamin C level, the less chance you have of developing a kidney stone.

That pretty much wraps up the dosing with the big four.

**Mouchet:** Yes. Thank you. So glutathione is that part of your top supplements?

**Levy:** Not really because glutathione is synthesized inside the body, inside the cell. As long as your oxidative stress is elevated inside the cell, the glutathione synthesizing enzymes are oxidized, and they can’t make glutathione well. So when you normalize your calcium, normalize your magnesium, and normalize your vitamin C, then your cell starts making normal amounts of glutathione. So I’m not saying that you can’t impact glutathione level with good supplements, especially a liposome-encapsulated form of glutathione. But generally speaking, my attitude about glutathione is that it takes care of itself once you take care of the other three.

**Mouchet:** Good. Some people like to take a multivitamin supplement because it’s easier to swallow one pill than many, but there is often calcium in those and iron. So would you recommend checking the list and making sure that people don’t take a multivitamin with those ingredients? It may not even be possible to find one without calcium.

**Levy:** Actually, yes. I advise avoiding supplemental calcium, supplemental iron, and supplemental copper at all costs. You’re right: It’s rare. I have no financial

involvement in this, but Life Extension Foundation in Florida, [www.LEF.org](http://www.LEF.org), carries a multivitamin/multi-mineral called 'Two-Per-Day'. It has no calcium, no copper, and no iron. So if you are going to go the multivitamin route, that would probably be the best one that I know of.

**Mouchet:** Thank you.

I just saw today that NAC is also an interesting supplement, N-acetylcysteine, to help with infections and even the coronavirus. Do you have an opinion on that?

**Levy:** It's very excellent, and it probably has many different mechanisms. One mechanism of N-acetylcysteine is it is one of the precursors to glutathione, and it is probably the part of the precursors that are in low supply so that when you supplement N-acetylcysteine, you get a strong support to the synthesis of intracellular glutathione. Anything that you can do to get your intracellular glutathione up is going to be a powerful anti-infection property.

**Mouchet:** I think that you have also talked about the importance of balancing hormones to normalize the intracellular oxidative stress. Can you talk a little bit about that?

**Levy:** Sure. As I mentioned earlier, what is the most important determinant of intracellular oxidative stress? Calcium. As it turns out, testosterone and estrogen are both calcium channel blockers. So that is one important way in which they modulate and bring down not only intracellular but body-wise increase oxidative stress.

Thyroid hormone is similar. So amongst the basic functions of your most critical hormones is a calcium regulating, not only in terms of level in the cells, but also in terms of metabolism. A lot of these things are in some ways antagonist to the biological functions of magnesium that they begin to exert when they are present in excess.

The interesting thing about thyroid – and I do say this point – a lot of people, doctors and other healthcare providers seem to think that regulating estrogen or regular testosterone is either not that important or too much to deal with on older patients, so, "Let's just give them a prescription and send them out the

door,” but I strongly, strongly disagree with that. I mean, if your patient is alive and you are wanting to make them as well as possible and minimize their body-wise oxidative stress which contributes to all the disease processes that you are trying to treat, including chronic cancer patients, absolutely do your best to adjust estrogen and testosterone into at least the low normal levels.

If they are low normal or getting toward mid-range normal, that is fine; don't worry about it. But if they are below the lowest level of normal, you should try to bring them up at least some. But it requires expertise and it requires – at least early on – more frequent blood testing and more frequent office visits, which some very busy practitioners don't want to deal with. That is up to them how they want to do that, but I would only make the point that even a very old person deserves some modulation and improvement in their sex hormone status.

The thyroid hormone is especially important when it comes to oxidative stress. As it turns out, a very large percentage of the population – and I can't give you a strict percentage – has minimal hypothyroidism. It doesn't show up on the regular thyroid tests.

The regular thyroid tests are good at showing you hyperthyroidism or severe degrees of hypothyroidism. But minimal degrees of hypothyroidism – which is very impactful on your oxidative stress body-wise – is really only detectable when you start measuring things like the T3 and the reverse T3 hormone levels in looking at their ratio. Eighty-five percent of the T4 in your thyroid gland doesn't get converted to T3 until it leaves the thyroid gland. It gets converted inside every cell in your body, which means, ironically enough when you are dealing with low levels of thyroid, you are less concerned with what is going on inside the thyroid gland than you are with what is going on inside the cells of the body.

The cells of the body take up the T4, which is the inactive form of thyroid, and then enzymes called deiodinases break off an iodine and make T3, which is the active form. When you have a lot of oxidative stress, another deiodinase takes off the wrong iodine molecule, and makes reverse T3 which is an inactive form of thyroid.

So as the reverse T3 goes up and the regular T3 goes down, this is a direct reflection and cause of increased oxidative stress. What is really important about getting this adjusted is when your T3/reverse T3 ratio, which should be roughly about 20:1, is properly adjusted, focal infections tend to stay focal and not metastasize.

I mean, if you have an infected tooth or root canal, my advice is always to get it taken out if you are concerned about your long-term health. But if you don't do that, or if you choose not to do that, or if you are not aware of it, having your thyroid function perfectly adjusted significantly decreases the likelihood that that infection is going to metastasize and spread to your coronary arteries and result in a heart attack or go to different organs and set up shop and begin a malignancy.

So definitely the estrogen and the testosterone and the thyroid are very, very critical no matter what condition you are managing with your patient or no matter how old they are in my opinion.

**Mouchet:** That is very important. Thank you.

Do you have anything to say about insulin? We keep hearing that people with diabetes have a higher risk with COVID. Is that related to the role of insulin and magnesium and vitamin C?

**Levy:** The interesting thing about insulin resistance – when people are dealing with brittle diabetics and they need large amounts of insulin to get the sugar under even reasonable control – one of the most common and most important things that are being neglected is they haven't supplemented magnesium. You need magnesium in order for insulin to exert its ability to have its effect on sugar, and insulin directly facilitates magnesium uptake. So once you start taking magnesium and you are taking it with insulin that is being administered, you get a much better magnesium uptake, and you start to bring down that intracellular oxidative stress, and then everything starts working better. Once the glucose gets inside your cell, it is more properly metabolized.

Insulin has many important properties in addition to facilitating the uptake of glucose into your cells to be properly metabolized. That is that it facilitates the

uptake of magnesium, and it also facilitates the uptake of vitamin C inside the cell because vitamin C and glucose use the same transporters facilitated by insulin.

So, yes, insulin is important. Obviously when none of this is working right and you're on a high dose of insulin and it's still not having the optimal effect on your glucose, your intracellular metabolism is severely deranged, and that is an absolute setup for any infection to take hold much easier.

**Mouchet:** Good. And I think that there is one last type of hormone, hydrocortisone. Do you want to say something about that?

**Levy:** Sure. This is very interesting, at least to me. Hydrocortisone strongly facilitates – again, like insulin – the uptake of vitamin C into the cell. In fact, we will go onto something else, and I will show you how this ties in.

When you have a focal inflammation or focal infection, like when you have coronary artery disease you have an ongoing inflammation. The inflammation is initially caused by a depletion or lack of vitamin C because it was consumed by the pathogens that got seeded there from the oral infections. But once those vitamin C levels go down, that triggers the immune response and inflammation. The very first cell to show up from that inflammatory immune response is the monocyte – the macrophage.

The monocyte has 80-fold, 8,000% more vitamin C inside it than the surrounding blood. Really, the only thing that is going wrong at the place where the immune system is mobilizing is the fact that there is a very low to absent level of vitamin C.

So it is my opinion and theory that the primary role of the immune system is to deliver vitamin C where it is most depleted. And we also know that if we take that to be true for the moment, we also know that one of the most powerful anti-inflammatory agents is hydrocortisone or cortisol.

Well, I just said that we now know that hydrocortisone and cortisol strongly promote vitamin C uptake into the cell. So I would submit to anybody listening to this that I think that the primary role of cortisol as an anti-inflammatory

agent is its ability to increase the intracellular levels of vitamin C into cells that are affected in the inflammation.

**Mouchet:** I see. Thank you.

Of course cortisone is not always good, right? It can have side effects.

**Levy:** When you take large doses for long periods of time, yes. But you have to also remember that none of these mainstream doctors are giving any nutrients like vitamin C. I would speculate that much lower doses of hydrocortisone could have the same positive effect of anti-inflammatory that you are looking for without the long-term side effects if you gave one-tenth the dose but with a large amount of vitamin C on a daily basis as well. That's just my hypothesis.

**Mouchet:** Good. If you think we've covered this topic enough, then we could talk about what to do to stay away from COVID. Could you talk about prevention and treatments just in case? Maybe that could be a summary of a lot of the things that you have discussed.

**Levy:** Sure. Prevention in a nutshell is just a low-dose formulation of what is good for treating it. Taking several grams a day of vitamin C, taking vitamin D, zinc – which is important in destroying the virus once it gets inside the cell and keeping it from replicating – and magnesium. Those are your foundational supplements that should be supplemented on a regular basis.

The other thing, too, is the hydroxychloroquine and chloroquine – which are zinc ionophores that help pull zinc into the virus-infected cell – are very effective at low-dose for prevention and at higher dose for cure. I mean, don't believe any of this political garbage that you hear these days that these drugs are ineffective or toxic. Both of those are bold-faced lies. They are very safe, they have been used for 80 years around the world with millions of patients, and they are very non-toxic. In the case of coronavirus, they are very effective.

I'm not going to go into why they are not being used. I will let the listener try to figure that out for themselves.

The problem with those is that they are prescription. So you can want them all you want in the world, but if you can't get your doctor to prescribe it or for the hospital to get a hold of it for you, you are out of luck. That means that we need to use things and be aware of things that are readily available.

Ozone is highly effective, but again, you need a doctor who has an ozone machine and who is willing to use it, and that is not likely to happen.

Other things like ultraviolet blood irradiation, again, has the problem of availability. However, I can now say quite comfortably that in my own experience – and I've been getting feedback from physicians now from around the world – that hydrogen peroxide nebulization (where you inhale a fine mist of hydrogen peroxide) is highly effective at knocking out virtually all of the virus in that area of the body. Once you do that, virus elsewhere in the body is quickly mopped up. You will not only get over coronavirus, but you will get over any cold or any other respiratory viral syndrome or flu that you might be in the process of contracting or suffering from.

Early on there was a criticism of President Trump for saying, "Let's inhale a disinfectant."

Well, he might have been inarticulate, but he was spot-on. Yes, hydrogen peroxide is a disinfectant. But guess what? It's the body's natural antibiotic. It's made in every cell in the body – inside the cell and outside the cell. And guess what? Inside the lining of your lungs the epithelial cells continually secrete hydrogen peroxide so that you maintain a thin coat of hydrogen peroxide over the epithelial cells that are exposed to the air that you inhale. So it's a natural mechanism for dealing with any new pathogen that you inhale into your lungs.

Guess what? When you start to have inflammation or infection in your lungs, the amount of hydrogen peroxide in your exhaled air increases. So everything indicates that it's the body's natural antibiotic. When you inhale higher concentrations of hydrogen peroxide, you are just augmenting the body's natural response to an infection.

Furthermore, in contrast to all pharmaceutical drugs and many other "disinfectants" such as bleach and all this sort of thing, hydrogen peroxide

metabolizes down to water and oxygen. So after you've knocked out the infection, the only bad things that you've done to that area is you have oxygenated it and hydrated it.

**Mouchet:** Right.

**Levy:** So using the hydrogen peroxide on a regular basis can easily prevent COVID. And although I would never tell anybody to just do hydrogen peroxide nebulization above everything else, obviously everybody is going to benefit from taking all of the supplements that we've talked about. And I will say and I will maintain that I've had feedback that tells me very often that hydrogen peroxide nebulization has served well as a monotherapy to eradicate COVID.

**Mouchet:** That is wonderful. And if you do that before going to a public space or getting onto a plane, and if you do it right after that, that would be good enough. You don't need to do it all the time, right?

**Levy:** Absolutely. Do it before and after. I've talked to a lot of dentists. I say, "Hey, Mr. Dentist. You are exposed to more airborne oral pathogens than anybody else on the planet."

They all like the idea of having a hydrogen peroxide nebulization at the office and just nebulizing for a minute or two at the end of the day. Anything that might have started to colonize in your nasal pharynx you knock out on the spot.

Also, as a practical point, these COVID-19 tests are swabbing the nasal area. I'm going to tell you that if you nebulize with peroxide, you will knock out the positive test really quick.

**Mouchet:** Right. Just in case some of those tests are contaminated, which might be possible, would that also help protect you from any contamination?

**Levy:** If it's a pathogen, a microbe contamination, another virus, or something else, sure. I mean, as far as I know, there doesn't exist a pathogen – virus, bacteria, fungus, you name it – that hydrogen peroxide will not promptly kill and eliminate.

**Mouchet:** Great! And if we want to buy it, what do we need to look for?

**Levy:** You need a nebulizer. So you can go on Amazon and you can get a tabletop model, or you can get a little hand-held model. Obviously the hand-held is good for travel. The tabletop is good for whenever you're at home. They run between \$30 and \$50, depending on the model.

After that, there is really no expense at all. You can buy a \$1 bottle of hydrogen peroxide at Walmart, and that is probably good for 200 treatments. So it probably comes down to about \$0.02 a treatment.

The thing is that if you do it on a regular basis, it is worth your investment to go online and get 3% food grade hydrogen peroxide. The other peroxide does have some stabilizers in there and other things in it. It's not important if you are killing a virus and you are just doing it a few times. But if you are going to make it a regular part of your lifestyle – which I think is a good idea – then you want to get the food grade form so that there are none of these other things added to the peroxide.

**Mouchet:** Great! And for treatment, is it the same but in bigger doses?

**Levy:** Yes, bigger doses. Generally you don't want to nebulize more than 3%. There are a lot of people out there who think that 3% is too strong, and they are saying to do 1% or one-tenth of a percent or even less. The amazing thing about that is that those other extremely low dilutions will work. But not surprisingly, they take longer to work.

When you can tolerate the 3% that is better. What do I mean by 'tolerate'? Well, it might burn or sting your nose a little bit. It might not. Or you might get a little sore throat momentarily.

When you do the 3%, you can oftentimes knock out something in an hour or two that would otherwise take three days to knock out. So I say that if there is no problem tolerating it, who wants to suffer for three days when they can be over something in a few hours?

**Mouchet:** And what about the use of vitamin C to treat coronavirus and other

illnesses? What are the doses? I think that you can go really, really high, right?

**Levy:** Yes. Vitamin C is unique in that, as I think about it, it is probably the only substance that there is no defined level above which is toxic. Just about everything else if you take too much, it's toxic or you are going to have undesirable side effects.

Peroxide will kill you, penicillin will kill you, saltwater will kill you. Anything will kill you if you take it in too high a concentration for too long a period of time. Not vitamin C.

This is the other thing with peroxide that I want to go back to. All of the naysayers say, "You are going to damage your lungs. You are going to cause cancer. You are going to do this or that."

Well, yes, 97% hydrogen peroxide is rocket fuel. You certainly don't want to inhale rocket fuel. But the fact of the matter is that everything in the body is a feedback mechanism to get you at just the right concentration of something. High concentrations of something are not desirable, and low concentrations of something good are not desirable.

So just to prepare anybody listening to this for the type of garbage criticisms that they are going to hear about hydrogen peroxide, yes, everything other than vitamin C is toxic in too high of a dose. I can't think of an exception.

**Mouchet:** I think we have covered everything that I wanted to discuss with you today. It was a great conversation. I think that we have received from you some powerful ways to stay healthy in the current situation and also long-term, which is also very important.

So thank you very much for your time today, and thank you for all of the knowledge that you have shared with us. It represents many, many years of study.

**Levy:** Although I don't do consultations, I will answer questions from people who have looked at your materials and have some concerns. I don't hide from that.

My email is available to anybody. It's [TELevyMD@yahoo.com](mailto:TELevyMD@yahoo.com). You can feel free to pass that along, Brigitte.

**Mouchet:** Great! Thank you. Yes, I will put that in the resources.

Can we mention your website as well? Maybe you have a newsletter that people can subscribe to as well?

**Levy:** Yes, it is all on the website, [www.PeakEnergy.com](http://www.PeakEnergy.com).

**Mouchet:** We can buy your books there as well, *Death by Calcium* and the other one on magnesium.

**Levy:** Right. They are all on the website, and they are all on Amazon as well.

**Mouchet:** Perfect! Thank you again, Dr. Levy. This is Brigitte Mouchet with The Solari Wellness Series. Thank you for listening, and take good care of yourself because it's more fun to be well.

**Levy:** Thank you, Brigitte.

**Mouchet:** Thank you.

### **MODIFICATION**

Transcripts are not always verbatim. Modifications are sometimes made to improve clarity, usefulness and readability, while staying true to the original intent.

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