

The Possible Role of Vitamin C in COVID-19 Recovery: A Special Interview With Dr. Andrew Saul

By Dr. Joseph Mercola

Dr. Mercola:

Welcome everyone, this Dr. Mercola helping you take control of your health. And today, we have some new updates and insights for you on the COVID-19 pandemic. We are joined by Dr. Andrew Saul, who is a previous guest on many episodes, and most recently with the COVID-19 and vitamin C connection, which had almost half a million views. Interestingly, we're recording this on April 7th, it's important to note because the data and the information on this epidemic changes so rapidly.

Dr. Mercola:

So, interestingly, on our last interview, in our discussion, I had mentioned that ... I had predicted, and I forget when that prediction was, it was sometime in February, I believe, that the number of COVID-19 deaths would be less than the number of people who die from traffic accidents in the United States. That still may be true, but it doesn't look like it's going to be the case. It looks like it's going to exceed it.

Dr. Mercola:

Now, since our last interview, Fauci made the prediction that there would be anywhere from 100,000 on the low end to 250,000 deaths, which is still less than the up to two or three million people that others were predicting. But even that prediction, just yesterday was revised. And let me get the current stats on who revised it, it was some governmental authority. A new model, Dr. Christopher Murray, who is the Director of the Institute for Health Metrics and Evaluations at the University of Washington School of Medicine. And this prediction was less than 82,000 people will die in the next four months from this infection, requiring less than 140,000 hospital beds, and which is less than 120,000 than they had predicted.

Dr. Mercola:

So, we're on course for this, and I still think, I'm confident. There's not a micro doubt in my mind that there will be more deaths from the financial collapse, destruction, and effects and impacts from that, than there will be from the people who actually die from the infection. So, it's a sad state of affairs, and we're here to provide you with reassurance and comments in Dr. Saul's credible, and rational, and common sense insights, which everyone appreciates. So, with that preface, welcome and thank you for joining us today.

Andrew Saul:

Thank you Dr. Mercola, it's a pleasure to be with you. You know, a lot of folks need to remember that just in any given year, influenza escalating to pneumonia is a killer. And in any given year, there's around 40,000 to 65,000 deaths, depending who you listen to, from pneumonia. And, this is an awful lot of people dead every year. It's a serious disease, COVID is a serious disease, but it's not worth shutting down the world for. The stress from that, as you correctly point out, is going to be a killer.

Dr. Mercola:

Yeah. And I think in 2018, literally two years ago, the number of deaths from influenza was 80,000.

Andrew Saul:

CDC said that at first. They did downgrade it later to 61,000.

Dr. Mercola:

Oh, okay, sorry about that.

Andrew Saul:

But no matter how you slice it, this is a very large number of people that are dying. And the people who die from COVID are dying basically from SARS, Severe Acute Respiratory Syndrome, or pneumonia. So it doesn't really matter what virus does that, it matters if you die or not. And, a lot of people are going to get COVID, and they're going to have a mild case. And, for those who have a typical case, they're going to have a miserable flu, they're going to be sick as a dog for a couple of weeks.

Andrew Saul:

Well, welcome to humanity, because how many times have we all had a miserable flu in our lifetimes? And those who are at danger, really at risk from COVID, usually have multiple pre-existing health problems, or they have a demonstrably poor lifestyle, they're overweight or they're smoking, or they have an impaired immune system, or they're elderly. And if you have a combination of those, anything can take that person out. So, we have to have perspective here. And I tell people, if you really want to get the latest update, turn off the TV.

Dr. Mercola:

That's a good strategy. And then tie into sources that have essentially been eliminated from the conventional search engines, like Google, which controls 92% of the search engine traffic in the world. So much so that if you want to look up something on the internet, it's called Googling it, which is a sad commentary. But anyway, if you use alternative search engines, you can get the truth. Because I believe this is part of the plan, to suppress access to the truth, the information that you need and require to improve and up-regulate your innate immune system.

Andrew Saul:

Right. Let me give you a perfect example, and this is something that you can verify, everyone right now can test this right at home, wherever you are, with your own Facebook account. Try this little experiment. If you post a picture, a poster, a meme that I have at DoctorYourself.com, on Facebook, it will immediately be blocked. Now, here's what the poster says, "Dr. Enqiang Mao, who is chief of medical service at a hospital in China, treated 50 patients with high dose intravenous vitamin C. They had moderate to severe COVID. 50 out of 50 recovered. There were no fatalities."

Andrew Saul:

Now, this is a report from a senior physician right from China to my contact in China, Dr. Richard Chang, who is a Board Certified Specialist himself, and a Chinese-American, right there, reporting in firsthand. And this is labeled false news and fake news. And you can test that. You just try to share that poster, which you can lift off my website at DoctorYourself.com, and you will instantly find it blocked. This is demonstrably oppressive.

Dr. Mercola:

Yes, it's a suppression of the truth. It's censorship. It's all designed to essentially fulfill their agenda, which is control the discussion on this, and to control access to the information. And thankfully-

Andrew Saul:

Well, I've got news for you on this, you're going to like this.

Dr. Mercola:

Yeah, good.

Andrew Saul:

Dr. Chang on ... your program here with me will go out after this happens, but as we're recording today, Dr. Richard Chang is going to be doing a presentation for the National Institutes of Health in just another couple of days. I've seen his PowerPoint, and it's really good. And he's going to run down why vitamin C is an antiviral, and how it can be used, and what doctors are doing. And he'll mention Dr. Mao's work, and he'll mention Dr. Pang's work, who is doing the major COVID trial in Wuhan.

Andrew Saul:

And Dr. Pang has already told us that it's working. The IV vitamin C is successful. The number of new cases of COVID in China is very low, it's gone way down, almost to the vanishing point. This information, somehow, is not on the news. And this is the very thing America and the rest of the world so needs to know now.

Dr. Mercola:

Yes. I mean, we've known for a while that they were using IV vitamin C in China to treat this, but really there's been very little to virtually no feedback on how those trials were going. Interestingly, though, and I do think it's an interesting observation, that the number of reported cases of COVID-19 in the US is somewhere around 350,000-360,000 as of April 7th, but the number in China has been 82,000 for the last three weeks. It hasn't increased in three weeks, which to me, strongly suggests fabrication of the data, that people are just ... that they're not submitting it. It has to go up, it doesn't fall off a cliff in three weeks.

Dr. Mercola:

They had 82,000 deaths, they led the world, and they had the most cases reported, and then US surpassed them, and we're now four times as many reported cases as China, which has a population that is four times our size. So, it's hard to believe that they plateaued out at 82,000. I think they have more cases. But, I'm glad that they're implementing it. And the US has implemented the IV vitamin C. We reported that in an article today in New York.

Andrew Saul:

[crosstalk 00:08:34].

Dr. Mercola:

Some New York hospitals are using that. Maybe you can comment on it.

Andrew Saul:

Yes, that's the, I think, Northwell chain of hospitals, which is the largest healthcare provider chain in the United States. That's New York City and Long Island, over 20 hospitals. It's difficult to get information out of them, but to their credit, their spokesperson has announced that vitamin C is being used. And Dr. Andrew Weber, a pulmonologist, has reported that the vitamin C works. And he said, basically, as close as I can quote him, "It's not getting more publicity because it's not a sexy drug." I love that.

Dr. Mercola:

Well, we need a lot of strategies like that, that aren't sexy, that aren't going to cost an arm and a leg, and that have virtually no toxicity or side effects. That's almost the definition of an ideal drug. And actually, maybe we should just touch on this, we did in our last interview, but I just would like you to reinforce it that, at least my view, that there's two functions, there's two purposes of vitamin C. One is a nutrient at normal doses, and then one as a drug at high doses in intravenous form. Why don't you take it from there?

Andrew Saul:

Both are important, and if we can prevent, we obviously don't need to have a hospital at all. In fact, people now are being told if they can manage this at home, to please stay home. Leave the hospital beds for those who really need them, and reduce risk of infection. Remember, a hospital, by definition, is where we have our very sickest people with the greatest load of viruses and drug-resistant bacteria that you'll ever find.

Andrew Saul:

So, if you have vitamin C for prevention, you are much less likely to have a bad case of any kind of viral infection, including COVID. Doesn't mean you won't get it, it means that your immune system will be able to handle it, and that's what your immune system does. We don't live in a bubble, we live in a world of viruses, and they're constantly mutating, and they're constantly developing. This is an arms race.

Andrew Saul:

So, for prevention, even a modest amount of vitamin C, and the Orthomolecular Medicine News Service Editorial Review Board, and the Japanese College of Intravenous Therapy both recommend 3,000 milligrams of vitamin C a day in divided doses, 400 milligrams of magnesium, a very modest amount, 20 milligrams of zinc, a very modest amount, 100 micrograms of selenium, a very modest amount, and 5,000 units of vitamin D, scaling down to 2,000 units of vitamin D a day after the first week. That is a big difference. So, between the vitamin D and the vitamin C, we have something that will strengthen the immune system.

Andrew Saul:

When a person is in hospital, they are less likely to have access to supplements, at a very time when they're going to need them more. And this is why we have to push, and the only way to do that is for the family to get in there and make it happen. More and more doctors are willing to do it because of the studies you mentioned in New York, reported on in the New York Post newspaper, the third largest newspaper in the United States. So they cat's out of the bag, the genie's out of the bottle, and it's not going to go back in. There is a precedent. Just say to your doctor, "I want you to do what they're doing in New York."

Dr. Mercola:

Yeah, that's pretty simple. And tragically, New York does have the most reported cases, literally a third of the reported cases and deaths are in New York.

Andrew Saul:

And I live in New York.

Dr. Mercola:

Yeah. So, they're the epicenter of, essentially, the epidemic in the world. I'm not sure why that is, but that's clearly the observable data, which as I said may be distorted because of inaccurate reporting by China. But nevertheless, that's what the stats currently say, and it's going to spread to other areas. But, it appears, at least as of April 7th, to be on the decline in New York. And I think that was the report that the number of cases are going down. And I don't know, what is your take on it at this point?

Andrew Saul:

It's a little blurry right now, because New York is being told basically, everybody go home, only emergency essential services open. Stay put, it's going to blow over in a couple of weeks. That's the official pronouncement. But I think that's probably based on what you said, they can already see the trend. These things always happen with viruses. It happened with Ebola, it happened with bird flu, it happened with Swine flu, it happened with SARS. They come and they go.

Andrew Saul:

The way this goes is historically just like this. You have people that have weak immune systems, and they suffer the most. The lesson from history, which of course we don't always learn from history. I think, Hegel said the one thing we learn from history is that we don't learn from history. But what we should learn from history is have a strong immune system and you will survive.

Andrew Saul:

This is the way it works. And the emphasis now is on scaring people, and actually telling them in the media, don't take vitamin C, it won't help you. Don't take extra vitamin D, you don't need it. There's nothing you can do to build your immune system. You'll actually see this on some news reports, and some newspapers. But, you'll also see others that are reporting that it's working in China and other parts of the world.

Andrew Saul:

And there are a number of studies underway at this time around the world that are going to be using either vitamin D or vitamin C, or in Turkey, they have the good sense to use both. I bet you haven't seen that on the media either. So, we have a tremendous amount of interest around the world in keeping patients alive and preventing if we can. And our media is too busy scaring you into buying more toilet paper.

Dr. Mercola:

You talked about zinc as a supplement. And what's also in the news, is this is incredible debate going on between Fauci and Trump with respect to the ... and Dr. Raoult has been a big promoter of this hydroxychloroquine or Plaquenil, an anti-malarial drug, which combined with a foremost Arithromycin

called Azithromycin or a Z pack, can be used to treat seriously ill COVID-19 patients, and with apparently some good results.

Dr. Mercola:

And appears that the reason it works and the reason I mentioned with the zinc is it appears to be a zinc ... it's a zinc that's in your bloodstream, and helps put it into the cells. And I'm wondering, especially with your focus on natural theories and approaches in opposition to pharmaceutical interventions, what your thoughts are on the of the Plaquinel.

Andrew Saul:

I think if you can use a nutrient with a drug, you get better results than if you use the drug alone. And Dr. Abram Hoffer, who was my personal mentor, really drum the send to me over the years, we worked together, and the four books we coauthored together. He said, "Sometimes you need a drug, sometimes the drug will get you that immediate result that you've got to have, but you have to have nutrition if you want it to stick."

Andrew Saul:

So, if you use medication and the nutrient, you're going to do better than if you use the medication alone. And I'm a believer in any part in the storm. I am inclusive and I don't think we can afford to exclude anything. And if the drug will help get the zinc to where it needs to go, that just makes good sense to me.

Dr. Mercola:

Yeah. Yes, indeed. And the challenge is it's not going to be available to local pharmacies, as I understand, especially in New York, it's only available in a hospital pharmacy, and if you're hospitalized. So, because they have to ration it because obviously everyone and their brother is going to want a prescription of this, and they've got to hold it for the ... reserve it for the patients who need it the most.

Andrew Saul:

Therefore we should be taking zinc preventively, so we don't put ourselves in that position. And your body knows what to with zinc. Zinc is something that your body only needs a small amount of, but if you don't have it, all heck breaks loose. Your immune system really does require zinc in order to function. And this is a problem in the elderly, because we know the elderly tend to not eat as much, or not eat as well because they're depressed, or they're isolated or their food choices are poor. Or they're in an institution where the food is perhaps not very wholesome.

Andrew Saul:

And the need for zinc supplementation in the elderly goes up. This is in every nutrition textbook ever written. So, what we want to do right now is tell people, "Don't worry about the drug unless you really need it, it'll be at the hospital pharmacy. But for the rest of us, let's stay out of the hospital by taking a step so we won't need the drug.

Andrew Saul:

It's not about avoiding doctors, it's about not needing them. And that means you have to get on the wagon here. We have to do this every day. We have to be sure we take our supplements and eat a good

diet, and avoid the junk and continue to get our fresh air and exercise, as my mother would say, "Turn off the television, Andrew, and go out and play in the sun."

Dr. Mercola:

Yes, indeed. And, just to summarize what the observations are, at least in the United States, it's about 80% of the people who get COVID-19, 80%, that's four to five people will not be hospitalized. It's 20% or one of the five who wind up finding their way and be getting sick enough and go in the hospital. So, that really is a challenge. So, 80% of this is a non-issue, in just applying these interventions.

Dr. Mercola:

But for those seriously sick and who are passing from this, one of the ... almost inevitable interventions that's used is putting them on ventilators. And there is a physician, an intensive care physician in the New York area who's put out a video that went viral and may have gotten a lot more attention in the 10 days it's going to take to post this interview about his observation that using a ventilator in patients with this disease may be a very serious mistake. And being treated improperly because of the pathology that's actually going on at the cellular level in the lungs that essentially doesn't allow this transfer, and exchange of oxygen and carbon dioxide. And it doesn't matter how much pressure you're putting in there, it seem to be making them worse. You used an analogy, it seems like it's a mountain sickness, or altitude sickness rather. So, I'm wondering if you have any comments or observations on that.

Andrew Saul:

Well, it takes me back to when I was a dairyman, oddly enough. And we used to use milking machines on cows to save time, and get more milk out of more cows. And we milked 120 a day. And that's no joke because you have to do that twice a day, it's a long day. Well, the problem with milking machines is that they're rough on the animal, and you get more mastitis because you have more irritation, more inflammation. You're stressing that tit, and that's not the way nature intended it. Calves don't do that to a mother cow. And if you milk by hand, you don't have much mastitis.

Andrew Saul:

So, I think ventilation might just be pushing the point physically as much as anything else. You can give oxygen without necessarily having to ram it in there. And I think that we're going to see, as time goes on, just what you said, that the ventilator is not really the issue.

Dr. Mercola:

Yeah. And it's created a, sort of, a national emergency where you have major industries, primarily the auto industry essentially shut down now, redirecting their manufacturing capacity to make ventilators, which may not even address the issue. Which is ... it's a classic commentary on our strategic interventions.

Dr. Mercola:

And, it's interesting, I couldn't agree with you more. The issue is transferring oxygen into the body, and you can give it to them passively at normal atmospheric pressure. But what's even better, and I'm absolutely convinced, and I've discussed this with a number of people and have some anecdotal comments on the benefit of this, is the use of hyperbaric oxygen. Pure, 100% oxygen under pressure on one to three atmospheres of pressure in a hospital great chamber, a hospital chamber, not these

zippered up inflatable ones. That could have a dramatic change, and probably eliminate the need for the ventilators in nearly all these patients.

Andrew Saul:

Right. And making the oxygen available in a way that's appropriate to the severity of the patient is the answer. We have to remember that our body is singularly good at taking in oxygen or we wouldn't be here. And our lungs have a huge amount of absorptive space. I mean, that's what they do. It's just an extraordinary system that we have.

Andrew Saul:

And oxygen goes in by diffusion. You don't push it in, the body sucks it in. Because if you have more oxygen outside than you do inside, it just goes through. All you do is give a lot of absorptive surface. And if you flattened out all the little alveoli in the lungs, you'd have an enormous area that you wouldn't believe. So, by providing the oxygen and then you see if the body will take it up, you've made the first step. That can be done preventively by fresh air and exercise and going out and playing.

Andrew Saul:

And if you're sick, my father used to kick us out in the backyard and he'd say, "You go outside, and walk around for a little while on the sun. Even if you're not well enough, just do that a little bit." And he'd get us moving, he'd get us outside even though we were still quarantined, and had to stay in the yard.

Andrew Saul:

If somebody needs more oxygen, and you want to give them a little pressure, if that makes the patient better then you do it. But the idea that you've got to ram this oxygen like a supercharger on a Mustang, is I think a little bit, shall we say industry friendly.

Dr. Mercola:

Yeah. Well, especially in light of the pathology that's going on in this disease where it's actually destroying the exchange surface, that large membrane respiratory epithelium and the alveoli cells that is damaged because of the viral infection.

Andrew Saul:

And these are tiny, tiny little sacks. They have some of the thinnest little membranes you've ever seen. Look at them under a microscope. When I talk histology, we saw a lot of this. They're very delicate. So, the last thing you want to do is add injury to insult.

Dr. Mercola:

Yes. So, as I mentioned, 80% of the people who get this infection do not go into the hospital. But if you were really concerned and obsessive compulsive and paranoid and went to any physician and said, "I've got this infection, what do I do?" Well, they're going to send you home and say, "Do not come back to us until you're ready to go into the hospital, because there is nothing that we can do for you. We have no clue on the planet how to make you better." Maybe not every doctor, but that's going to be the typical response by any physician who's going to do this. And, I would challenge anyone to counter that summary.

Dr. Mercola:

So, what I'd like to focus on now, because there are going to be a lot ... I mean, we have 300,000 cases, almost 400,000 cases reported in the US right now, most of them in your area. But that's going to probably spread to a few millions. For the people who are sick with the SARS-CoV-2, or any other viral infection, a regular cold or flu, let's focus on the things that you can do. And one of them, I like to review this because I interviewed Dr. Levy right after I interviewed you last time, and his interview is going to be airing before this one does.

Dr. Mercola:

And interestingly, both of you recommend it to me simultaneously. The recommendation of using nebulized hydrogen peroxide, which I was unaware of prior to your comments. And actually Dr. Rohan mentioned it too. I think ... did we discuss? I think we discussed. I've interviewed so many people, but it was ... I know Levy didn't wrote it, I think you did too.

Andrew Saul:

Yes.

Dr. Mercola:

So, all three of you are recommending this. And, as I hadn't heard of it. So, I put together, I did some deep dives in the literature and I put together a video that will air before this, and instructs people on how to use it. And we'll put an embed video into this article on how to do that. But, it's really an incredible component.

Dr. Mercola:

One of the things I learned in looking into this more deeply is that you just ... you want to be careful about using regular peroxide, because they use stabilizers in there which are proprietary, and by law they're not required to disclose what the specific chemical is. But none of them are designed to be used for humans. So, you want to get food grade hydrogen peroxide, and then dilute it to the 3% concentration. So, why don't you comment on that? And if you had any experience recently, because the last time we spoke was in February.

Andrew Saul:

I would like to underscore what you're saying, and say that you and Dr. Tom Levy are the ones that I would refer to, and refer others to do because you're both physicians and I am not. But, when people go to their doctor and they say, "Well, I have this virus," and the doctor says, "There's nothing I can do." Well, actually there is something you can do. You could take a lot more vitamin C to bowel tolerance orally, the way Dr. Robert Cathcart recommended it.

Andrew Saul:

Take enough C to be symptom free, whatever the amount might be, which is how I've been putting it for 44 years. Dr. Cathcart would say take vitamin C to bowel tolerance, and that's exactly what you think it means. The sicker you are, the more you hold. So, if you are really facing an influenza outbreak, you'll hold a lot of C before you get to bowel tolerance. And this is something that everyone can do at home. My grandchildren can do this. When they get sick, they manage their own case by taking vitamin C until they get to bowel tolerance. They're now in first grade and third grade.

Dr. Mercola:

And, what's your favorite form of oral vitamin C?

Andrew Saul:

Whatever-

Dr. Mercola:

The regular [crosstalk 00:26:10].

Andrew Saul:

Whatever kind of vitamin C a person can afford, whatever they'll take enough of. I work backwards, take enough C to be symptom free. You take whatever kind that'll get you there. Most all of the research that's been done showing that vitamin C isn't antiviral has used cheap ascorbic acid.

Andrew Saul:

For people who are concerned when they hear the word acid, they need to remember that ascorbic acid is a weak acid. It's about the same pH as a Cola drink, or orange juice or cranberry juice, perfectly acceptable. Your stomach is about 55 times more acidic than that. If a person can take vitamin C that agrees with them such as ascorbic acid, which is an expense, or sodium ascorbate, which is also an expensive and pH neutral.

Dr. Mercola:

Do you like to use a powder or a tablet, or doesn't make a difference?

Andrew Saul:

It doesn't make a difference to me, but a lot of people including on this [inaudible 00:27:09] recommend that you take powder because there's no acceptance whatsoever. And some people are sensitive to tablet acceptance. With vitamin C you can take as chewables, but chewables are expensive and relatively low dose. You want to be sure you have your child rinse their mouth after they have them. If you take vitamin C liquid, when you have liquid vitamin C, it's a lot less stable. And if you have liquid vitamin C on hand, you almost have to add a little ascorbic acid every day to recharge it.

Andrew Saul:

If you use vitamin C, the marker is, are you well? It's not how much theoretically, it's how much he gets the job done. You can't win an argument with your body. You take the amount of vitamin C that your body says at once. And this is the principle that Cathcart brought forward. And Dr. Cathcart treated tens of thousands of patients for decades, and he constantly came back to this. Don't ask for a number, you take enough vitamin C to be well. If you're sick, you will need more. The form is really not that big an issue, the dose is the issue. And if you are successful on this type or that type, I'm in favor of it.

Dr. Mercola:

And what about the frequency? That's brilliant advice on the dose. What about the frequency of the dosing?

Andrew Saul:

The more frequently you can take the C, the better off. vitamin C being water soluble is constantly lost. People think, "Should I get tested to see how much C I need?" Well, you go in for your test at eight 30 in the morning and by noon it's all going to be different. So, you really don't need to do that. You can get the little dipsticks and test your urine if you like. But really the best way to know if you're taking enough vitamin C is by the results.

Andrew Saul:

The more often you take it, the better results you will have, and you will need less to do so. So, taking a small amount of vitamin C every half hour is actually much better than taking a large amount of C twice a day. And taking a large amount of C twice a day is better than taking a huge amount of C every other day. So, the more often you take it, the friendlier it is for your body.

Andrew Saul:

I remind people that you're a 24 hour concern and you spread it out. Do you have one meal a day? Do you say to your newborn infant, "I will feed you once a day." Oh no, you won't. That's not the way biology works. We need to have breathing all the time, day and night. We need to keep having water all the time. We need nutrients all the time. We need oxygen all the time, we need vitamin C all the time. There's no surprise there.

Andrew Saul:

The moment you think about it, well, of course you have it all the time. What do animals do? What do herbivorous animals do? They eat all day. And what do carnivores do? Well, they eat a lot at one time, and then they lie down and they digest all day. So, we're an all-day concern. Dividing the dose of vitamin C is a very good idea, because vitamins C [inaudible 00:30:05] a water soluble vitamin.

Andrew Saul:

So, you need it all the time. Your body's a 24 hour concern, you need vitamin C all through the day. And if you divide the dose, you can take a smaller amount more often. And if you really divide it up, say every half hour taking a little bit, you'll find that you'll get excellent results with less than you would have thought you would even need.

Andrew Saul:

You can get to a false saturation symptom by taking all your C at breakfast, and you'll have bowel tolerance around 10:30 or 11:00 in the morning if not much sooner. Well, that's the false saturation because if you divided the dose your total for the day would probably be a lot higher.

Dr. Mercola:

Okay, great. So, I guess we're transitioning from the nutrient dose of vitamin C to the pharmacologic dose, which you would use when you have an infection. So, along that line, one of the next steps along is to increase it beyond the bowel tolerance dose. To increase your blood levels even higher. And the way you can do that, is there's two routes. One is you could go the oral route, where it have to be a liposomal approach where you can bypass the GI track and it just goes in directly, and you don't have the bowel tolerance complications, or you can do it intravenously.

Dr. Mercola:

I think, obviously, the oral is going to be less expensive and easier to do, and you don't have to get out of your house and go see a physician. So, that would be a strategy. But, we know that the higher doses work, this is what they're using in China that you described earlier, and what they're using in New York, some of the New York hospitals now to treat the COVID-19 infections. So, that's the intermediary step if you can't go beyond the bowel tolerance, is do liposomal, or find a physician to do intravenous vitamin C.

Andrew Saul:

That's right. With IV vitamin C there is no bowel tolerance, because it never got into the intestine. The only reason you have bowel tolerance is because of a change in osmolarity. And your body just decides, "Well, that's it." And you start to draw liquid out into the colon. The colon is actually a water recycling center for us. If we didn't have a large intestine, we'd have diarrhea all the time.

Andrew Saul:

So, this is where you regulate a great deal of water that comes and goes, and it's no surprise that vitamin C does that. Intravenous vitamin C is much more effective than oral, and this is emphasized by Dr. [At-sol Ina-nga-sawa 00:32:33] in Tokyo who has basically said it's about 10 times more effective than oral. That's a rough figure.

Andrew Saul:

So, in the hospital some of them are only using 6,000 milligrams of IVC, some are using 12, some are using 24. And Dr. Mao actually gave one person who was at death's door and dying right in front of him 50,000 milligrams of vitamin C. When we consider how effective this is by IV, you take 24,000 and put a zero on that. That's an oral dose of a couple of hundred thousand. So, 24,000 doesn't sound like a lot by IV, 12,000 doesn't sound like a lot, but it really is.

Dr. Mercola:

Yeah. Well, I think the key is getting that vitamin C into the cell. So, even if you are able to allow the vitamin C to be transported from the gut into the blood, and it's still, the next challenge is to get it from the blood into the cell where you need it, where it's going to work. Because it doesn't work magically in the blood. So, that's where the liposomal vitamin C tends to be beneficial because it transport it right through the cell into the cell. So, I think you get higher levels in a regular oral vitamin C.

Andrew Saul:

Any way we can get C in that body is going to help.

Dr. Mercola:

Well, in the cells specifically. But anyway.

Andrew Saul:

Right.

Dr. Mercola:

And you would be interested, I think, because I have great respect for Dr. Levy. And we discussed some even more effective interventions and intravenous vitamin C. And he agreed because I had just

interviewed Dr. Rowan prior to him, that ozone therapy appears to be more effective than intravenous vitamin C. And to me it's tragic that no one's touching that with a 10 foot pole to treat this.

Andrew Saul:

I'm not qualified to comment on that. So, I would have to take a pass. It's out of my field.

Dr. Mercola:

Yeah. But Dr. Levy was, and ... he was really in strong agreement with that as was Dr. Rowan. So, anyway, that's just another comment. So, we throw all other options, but going back to some of the other things that we can do to support people before they go into the hospital. We talked about the zinc, but I want to talk about thymine now too. What's your view? Because, Merrick's protocol, he has published and used for treating septic patients.

Dr. Mercola:

And, interestingly, I don't know, I think we discussed this last time. But, many people aren't aware, but I was shocked when I first heard it that one out of ... this is independent of this pandemic. One out of five people in the world die from sepsis. One out of five. So, this is where the IV vitamin C becomes so important.

Dr. Mercola:

But, in part of Merrick's protocol, they're using thymine. He also uses hydrocortisone, which Levy doesn't believe is necessary. He actually doesn't believe that thymine is that crucial. But I'm curious as to what your thoughts are.

Andrew Saul:

Thymine's pretty important. Dr. Frederick Robert Connor who did a lot of the early high dose vitamin C work from the '40s, '50s and '60s was very big on thymine. He gave it specifically for neurological issues. But before him, there was Dr. Ruth Flynn Harrell back in the '40s and '50s, and she used thymine for children with learning disorders, and disabilities.

Andrew Saul:

And, if we go back far enough, or a nutrition textbook published last month, we find out that any infection increases the body's need for thymine. Now, that's in all the nutrition textbooks. So, to take someone with an infection, and I think sepsis would qualify, and give them more thymine, it's just common sense. And common sense, unfortunately, is often the last thing we do, even though Dr. Roger J. Williams was to discover a penathenic acid said, when in doubt, use nutrition first. And the United States it tends to be when you're desperate, use too little nutrition, too late maybe. And we have to change that around.

Dr. Mercola:

Yeah. I know that thymine is also used for chronic alcoholics, especially when they develop neurologic complications like [inaudible 00:36:37] and cephalopathy. And that really is the treatment of choice, is thymine.

Andrew Saul:

And it's dead cheap.

Dr. Mercola:

Yeah, really inexpensive. So, vitamin B1, what type of doses are you recommending that prophylactically and preventively versus therapeutically?

Andrew Saul:

That's quite a range. The RDA is less than two milligrams. And Dr. Klenner would use hundreds of milligrams. The amount we would need is somewhere in there, but we're talking a couple orders of magnitude. If people took around 50 to 100 milligrams of thymine preventively especially if they divide that up all through the day, they'd be getting a blast of thymine.

Andrew Saul:

Now, thymine is the vitamin that smells funny. When you open the bottle of your multiple vitamin, or your B complex, that smell is thymine. So, when your urine smells like thymine, you're probably getting more than you need, but that's not a problem. And thymine is safe, and you can excrete that. The excretion's an indicator of saturation. Thymine, really, is best taken, however, with the entire B complex. The B complex vitamins work better together.

Dr. Mercola:

A single vitamin and nutrient and much better as a combination. So, is there any specific range of ratios? Is it just a one-to-one for all of the Bs, or is there a specific ratio that you recommend depending on which B [inaudible 00:38:02] it is.

Andrew Saul:

For prevention, most people will get a B complex, B50, and it's called a balanced B50. It, sort of, looks like it's 50 milligrams of everything, but actually it's going to be 50 micrograms of some. B complex is like cake mix. And, when you make a cake, you don't use a cup of sugar, a cup of salt, a cup of flour, a cup of cocoa, and a cup of baking soda. It doesn't work like that. So, you have to have the right amount of each nutrient.

Andrew Saul:

Generally speaking, what I would tell people to do is take a look at the RDA, and you can do that on the internet in seconds, and take more than that. And a B complex is this cheapest and safest way to do that. And it doesn't really matter that much if you're a bit out of balance. But as you've asked, the B vitamin we need the most of is niacin. The RDA for niacin is much higher than the RDA for Curadoxin, or a thymine, or riboflavin. So, there is a hint right there.

Andrew Saul:

And then we need much less [inaudible 00:39:10], we need much less B12. The thing to do is to take a look at that bottle, that big complex bottle and you'll get an idea of approximately what the ranges are. It's not like taking a drug, that's the beauty of using vitamins that the margin for error, the margin for safety is colossal.

Dr. Mercola:

Yeah. And as you've mentioned, and I think published on an annual basis, that's a really interesting report. The number of side effects and deaths from vitamin overdose. Why don't you update us on the latest with that, because I don't remember when the last time you published the latest summary.

Andrew Saul:

Every year, the American Association of Poison Control Centers publishes who dies from what. And this is a summary of reporting from 57 poison control centers. This has been going on for about 35 years now, probably longer. And they have, in that time, alleged about 14 deaths from vitamins.

Andrew Saul:

Well, I think that's a pretty good. That's not even half a death a year, but some of my team said, "I don't believe that." And I thought, "You know, let's look into it." So, we did. And we could not find one substantiated death from a vitamin, not one. It was alleged, but none of them had any support for that allegation except they had a dead person who took five things and they blamed it on the vitamin. That, of course, is not really valid.

Andrew Saul:

And in many cases they said, "It might have possibly contributed." In some cases they said, "We think it was a vitamin, but we don't know which one." This is how far it went almost to the point of comedy. So, the American Association of Poison Control Centers data shows that there are no deaths from vitamins in a given year. But vitamins are often reported as having a side effect, or some kind of an issue to the food and drug administration, which is very willing and able to receive these.

Andrew Saul:

But, most of these reports are for very minor things like niacin flushes, or somebody took too much vitamin C perhaps and had loose stool. Well, we know about this. These are harmless, they're just things that happen. They're events, but they are not really dangerous.

Andrew Saul:

Dr. Abram Hoffer said that vitamins are safer than any medication. Dr. Abram Hoffer said, no one dies from vitamins. A sweeping statement, but he had decades of experience using very high doses. And when we read the reports of physicians who do vitamin therapy, one of the things they say right away is how safe vitamins are.

Andrew Saul:

An example is high doses of vitamin C are supposed to somehow cause a kidney stone because of raised oxalate and other things like that. And, theoretically that's true, but Dr. Robert Cathcart said that he had been giving massive doses of vitamins for years and years to thousands of patients. And he said, "By the time I heard that vitamins C could cause a kidney stone, I had amassed clinical evidence that it didn't."

Dr. Mercola:

So, thank you also for pointing out the importance of niacin, and that reminds me that you have actually written a book with the late Dr. Abram Hoffer on niacin, but I think that may have been his last book, if I'm not mistaken,.

Andrew Saul:

Niacin: The Real Story, was Dr. Hoffer's last book. The other coauthors, Dr. Harold Foster and Abram did die before that book was finished. But I think in reading Niacin: The Real Story, you'll get a tremendous amount of information from Dr. Hoffer. He was the expert, the world authority on niacin.

Andrew Saul:

The other one is Dr. William Parsons Jr. of the Mayo Clinic, who did tremendous work on niacin showing that raised liver enzymes do not indicate liver pathology, they indicate liver activity. And niacin causes an elevation in liver enzymes for some people who take a lot, but that doesn't mean there's anything wrong with their liver, it means their liver is operational. It is after all a major detoxification organ, and it's doing its job.

Dr. Mercola:

Yeah. And, he was recommending very large doses in the gram doses, which in most people will cause a serious flushing reaction at least initially. And, first treating some of the conditions he did, I think, the results were really phenomenal. I'm not sure if everyone would benefit for essential high dose, but this-

Andrew Saul:

Oh, no.

Dr. Mercola:

... literally ... No, it wouldn't be that good strategy, because you do need it, everyone needs it. And I think for the biggest reason is NAD, and Dr. Hoffer was one of the first clinicians to do some work on NAD. But, to me that's one of the most exciting bio molecules out, there is NAD and its cousin, NADPH, which is the primary donor of electrons, especially the vitamin C.

Andrew Saul:

And we can fix this with a very modest supplemental dose of niacin. The RDA is less than 20 milligrams. Dr. Hoffer would recommend that most people have 200, 300 milligrams of niacin a day. Some folks will flush even at that level. So, they can take niacinamide, which will cause flushing and only one in a hundred people. Or Inositol Hexaniacinate, which will cause flushing in relatively few people.

Andrew Saul:

Anyway you want to get it is fine, the diet doesn't usually contain all that much niacin. And one of the things that's slowing this down, is that the tolerable upper level, sometimes erroneously called safe upper limit, which is not, the tolerable upper level set by the government for niacin is 35 milligrams, because somebody somewhere had a niacin flush on 36 milligrams.

Dr. Mercola:

Interesting. So, I would just caution though a high dose of niacinamide what is high, we don't know. But, certainly the grams would be ... because there's work that Davidson Claire out of MIT and Harvard published when he was at MIT, that high dose, niacinamide is actually a negative feedback loop on the [inaudible 00:45:36], and inhibits their function. Because the breakdown product of NAD is niacinamide. So, it's believing that there's just too ... not enough NAD around, so it's going to shut down because it

requires NAD to fuel itself. So, if you can take the nice, and I think it'd be better off because it is actually converted better, and more directly into NAD.

Andrew Saul:

Dr. Hoffer preferred niacin. Dr. William Kaufman, a colleague of Abram's preferred niacinamide, but I found out from his widow why. It's because Dr. Kaufman didn't like a niacin flush.

Dr. Mercola:

Yeah, well, "Wimp, wimp"

Andrew Saul:

He was a good man.

Dr. Mercola:

All right, that's good. All right. Well, now I think we've covered the B vitamins well. So, another strategy that's been recommended is not really a nutrient, it's actually a hormone, and wondering if you have any comments on it? Because it seems to have some benefit for viral infections, specifically SARS would be melatonin.

Andrew Saul:

Melatonin is a wonderful thing, because the safety studies are very encouraging. If you want to hurt yourself, melatonin will not do the job. And a little bit of melatonin can go a long way. And the older you get, the less you make. If you keep your bedroom dark at night, you will make more melatonin. And I'm about now to impart a piece of wisdom that makes me very unpopular very quickly with a large number of people, and that is if you go to bed early, you will make more melatonin, and you will sleep better. If you go to bed at 7:30 or 8:00 o'clock at night, you will have a far better sleep than if you go to bed later, even if you have the same number of hours.

Andrew Saul:

The old adage is, each hour of sleep before midnight is worth two hours of sleep after midnight. There's something to that. So, making melatonin because you're young, or making melatonin because you keep your environment dark at night are both good. Melatonin is inexpensive, it's non-prescription and, obviously, something that's that safe deserves a try.

Dr. Mercola:

Yes. I'm glad you're in favor of that too, and especially with the perceived benefits of treating these viral infections. And I'm wondering what time you go to bed.

Andrew Saul:

I go to bed pretty early, Joe. The fact is, I literally will make a point to get to bed by 9:00 o'clock, and I try for 8:30.

Dr. Mercola:

All right, well good. That's actually interesting. The range I do, I've literally ... it's basically lights out around 8:30 to 8:45, and I'm hoping I'm asleep by 9:00.

Andrew Saul:

Of course, I miss the late night network news scaring the wellies out of me about COVID, but that's intentional.

Dr. Mercola:

All right. So, thanks for those comments. And I think, one of the ... well, there's two other things. One is, it's not nutrient at all, but it appears to have some value in inhibiting viral replication, and specifically COVID or SARS-CoV-2 would be a nitric oxide. So, there are supplements like arginine and citrulline that uses precursors, but then there's interventions like exercise and exposure to infrared, near infrared radiation that can cause the release of nitric oxide. So, if you need to comment on that.

Andrew Saul:

Well, here we go again. This is Jack Lane, front and center because he said, exercise is your king, nutrition your queen. So, he thought exercise was even more important than nutrition. And I'm not going to argue who's running the kingdom, king or queen, the point is we need them both. It's just amazing how many people need to get off their Caisters and do that exercise. And you can do this right in your living room with an exercise video, or by doing yoga, or walking, or anything at all. The exercise is absolutely crucial. I'm so big on that, and I would like to underscore that this is something that doesn't cost a dime.

Dr. Mercola:

It doesn't have to now. I mean, there are certain interventions that could improve it and make it more effective, especially if time and efficiency is a consideration as for most. Although now with being restricted to home and not working, probably more people, or many people have more time than they're normally used to. So, but exercise is the key. I couldn't agree more, and I've been a longtime advocate of that. All right. That's great information. Do you have any other insights, observations or philosophies or recommendations you'd like to share?

Andrew Saul:

What is missing from most discussions on COVID is an appreciation of how far we have let ourselves go. We've been eating crummy food for a long time. We've been doing behaviors for a long time that don't work. And sooner or later, the body is going to be weakened by that. Too much of the wrong thing, not enough for the right thing, and the immune system is going to be weak.

Andrew Saul:

And viruses, unfortunately, to put it very coldly, will thin the herd. And this is the way nature works. It's grim, but if you study caribou and timber wolves in Northern Canada, you find out that a healthy adult timber wolf does not want to attack a healthy adult caribou, because if that wolf breaks a leg or is injured in some way, they're never going to be able to hunt again, and they will slowly die even if they kill the caribou. They go after the weak caribou. They go after the ones that are diseased. And when you study the skeletons of caribou that are brought down by wolves, almost every single one is diseased. So, what's been said by the Eskimos that the wolves keep the caribou strong.

Andrew Saul:

Now, this is a very harsh lesson from nature, but we would do well to learn it. If we let ourselves go, as my mother would say, if you do this wrong and you know it, don't come crying to me afterwards. We have to take responsibility, and right now the COVID epidemic is pointing that out in a very, very strong way. It is most unpleasant to see this, but bearing in mind that we are not a healthy nation, we have to immediately take steps to become one, or there will be another virus, because this is not the first, and it is not the last.

Dr. Mercola:

All right. Well, thanks so much. Really appreciate your insight and wisdom, and your common sense approach.

Andrew Saul:

Thank you, Dr. Mercola. I appreciate the fact that you are able to talk to so many people who are like-minded. It just makes my day when I learn about people that haven't on straight on. And they're not watching the news, they're going out and they're getting well.

Dr. Mercola:

Yes indeed. All right.