Opening Hook: Flu Shots and Immune Terrain

You know what I hear a lot at Vitality Nutrition and have heard a lots for a lotta years. I never got sick until I got the flu shot. My company talked me into it, my spouse talked into me it.

my friend, mom, dad, co-worker. The flu shots can't give you the flue. That's what they always say. And technically, according to research, that seems to be true.

But the standard injectable shot used an inactivated virus. And so in theory, it can't make you sick with that virus, but that's not actually what people are describing.

They're describing getting sick more. colds, sinus stuff, the crud that hangs on for two weeks. And there's research that takes that experience a lot more seriously than the pharmacy counter does.

Welcome to Vitality Radio, The podcast that helps you make sense of natural supplements and thrive without pharma drugs. I'm Jared St. Clair. every fall it starts the same way you run into the grocery store for whatever you need for dinner and before you can get to the front door you've got a sign out front that says flu shots today no appointment needed get five dollars off your order get some fuel points absolutely free So here's a question worth carrying with you every time you see that sign.

When was the last time anybody handed you a free product, particularly Pharma, plus a coupon for taking it purely because they were worried about your health?

Because we know that that's their primary concern, right? Welcome to Vitality Radio. I'm Jared St. Clair, and today we're going to Talk about bulletproofing your immune system.

And without the need for any kind of pharmaceutical intervention, we're going to do this by flipping the conversation you hear every single cold and flu season.

The mainstream conversation is all about the germ, avoid it, sanitize it inject against it. My conversation today is about you, your terrain, the soil that that germ comes in contact with.

Today we take a hard look at the flu shot, follow the money behind it, and spend most of our time on the part that's fully in your control, which is taking care of your body.

If you've rolled up your sleeve for a long time and taken that flu-shot, I'm not here to shame you. I am here hand you some information that nobody at a pharmacy counter is likely to do.

I see these signs every year i see flashing billboards at Walgreens and CBS and here at Smith's but that's Kroger or any of the number grocery stores that you know you have around your place Publix or whatever it is.

And they're everywhere and they are all free and a lot of times are giving you a coupon to take it why why this aggressive push. Well, we'll get into that in just a minute.

But first, let's talk about the germ itself and the terrain. There's an old idea in natural medicine that goes back to the 1800s, a line usually credited to a French physiologist.

His name was Claude Bernard. The microbe is nothing. The terrain is everything. Bernard spent his career on what he called the internal environment, the idea that health depends on how well your body keeps its inner world stable and balanced, not so much what's going on outside of your.

Modern medicine took the other road. It focused almost entirely on the microbed, find the bug, name the book, kill the bag or vaccinate against the buck.

And look, Germs are real. Nobody on this show is saying they're not. The question is, why do two people in the same office or the home, breathing the air, sharing the break room, or the same kitchen table have two very different winters with their immune system.

One might be down for 10 days, the other never misses a beat, same germ, different terrain. So here's where I land. Your resilience to seasonal respiratory viruses has never come from a needle.

A flu shot is at best a narrow strain specific gamble, your terrain is your whole defense. Let me explain what I mean by that. Every year, the strains that go into the flu shot get picked late in winter, usually around February, months before the season even starts.

Flu Shot Effectiveness and CDC Data

It's an educated guest based on what's going on with influenza in other parts of the world. and what strains they think might be circulating next fall.

The shot then trains your body to recognize those specific strains, or at least that's the idea. Influenza is constantly shifting, as we know, so the virus drifts away from the guess, then the shot is aiming at last year's target, not the one that it needs to aim at this year.

And influenza is just one family of bugs that you can potentially get knocked down with in the cold and flu season. More than 200 different illnesses that we call the common cold are circulating every year.

Rhinoviruses alone come up with more than 100 different types. And then there's your RSV, seasonal coronaviruses, adenovirus, metanumovirus, which I think is the virus you get from listening to too much of Mark Zuckerberg.

I'm not sure why it's called meta. But anyway, the flu shot doesn't touch any of these. So that means there are 200 different things that it doesn' even address.

Now compare that to your terrain. Your first line of defense is what's known as your innate immune system, the mucous membranes in your nose and your throat.

The antibodies that coat those surfaces, your natural killer cells, neutrophils, macrophages, cells that show up first no matter what bug walks in the door.

That system doesn't care what strain was picked in a meeting last February. It responds to everything and every piece of it runs on raw materials. Things like vitamin D, vitamin C, zinc, a healthy gut, sleep, sunlight, blood sugar that isn't on a roller coaster.

That's the whole thesis of today's show. You can't control which germs come through the front door this winter. you can try to kill them and you. Try to vaccinate against them, but you absolutely control one thing and that is the terrain that they land in.

So let's talk about the flu shot from the CDC itself. I'm not going to use anybody's opinion. These are actually the CDC's own scorecards and the cdc has been estimating flu-shot effectiveness every season since 2004 and they published a table on their website in 2004 to 2005. Effectiveness was 10%. Yeah, 10%. 2014 to 2015, 19%. 2018, 2019, 29%. 22 to 23, 30%. And for the season we just came out of, 25, 26, the preliminary number is 36%. Those aren't great numbers.

The best year they've ever recorded was 2010-11 at 60%. Just a little better than one and two and a lot of seasons more like one in three or one four or One and ten even so in an average year.

It's a coin flip at best That maybe you might not get the flu Maybe not those other 200 things but the blue if you do get a flu shot now Here's the detail that almost nobody knows When the CDC says effectiveness, they're not measuring whether the shot kept you from getting infected.

They're measuring, whether it reduced your risk of having to go see a doctor for flu illness. That's a different question, too, because in plain terms, the C. D. C.' 's own definition, The shot isn't promising you won't catch the flu.

It's say percentage reduction in doctor visits. whatever that means. And even that percentage needs context because it's a relative number, not an absolute number.

In 2018, a large review of randomized trials in healthy adults found that about 71 people needed to be vaccinated to prevent one single case of confirmed influenza.

71 shots, one case prevented. The other 70 were either never going to get the flu that year or they got it anyway. one out of 71, and that was just seven, eight years ago.

When a product with that track record gets marketed every fall with the confidence of a sure thing, that should tell you something. And it should make you a lot more interested in the parts of your immune health that you actually have control.

You know what I hear a lot at Vitality Nutrition and have heard a LOT for a lotta years? I never got sick until I got the flu shot. My company talked me into it, my spouse talked my into, it my friend, mom, dad, co-worker, whatever it is.

The standard response is that the Flu Shot can't give you the Flue. That's what they always say. And technically, according to the research, that seems to be true.

But the standard injectable shot used an inactivated virus. And so in theory, it can't make you sick with that virus, but that's not actually what people are describing.

They're describing getting sick more. Colds, sinus stuff, the crud that hangs on for two weeks. There's research that takes that experience a lot more seriously than the pharmacy counter does.

In 2012, researchers at the University of Hong Kong ran a randomized placebo-controlled trial. They gave 115 children either the standard flu shot or a placebo, and then followed them for nine months, swabbing them when they got sick to see exactly what virus was responsible.

The kids who got the flu shot had about four and a half times the risk of a confirmed respiratory infection from a virus that was not influenza, Rhinovirus, Coxaxivirus if I'm saying that right, and other bugs that the shot doesn't cover ever.

Think about that. That's kind of crazy number. four and a half times more likely after getting the flu shot to get a respiratory illness? The researcher's own explanation is kind of fascinating here.

When you get an natural infection, your body seems to build a short window of broad, non-specific immunity that helps protect you against other respiratory viruses for a while afterward.

That's why I often am said to call germs our friends, because more often than not, they are.

Flu Shot Ingredients and mRNA Concerns

The theory was that with the vaccinated kids being shielded from the flu, if that's what happened, may have missed out on that temporary broad protection.

Scientists call this viral interference. Now I have another theory. I don't discount this one. There's actually some legitimacy to it. But what if the Flu shot just generally weakens your immune system because of the assault that it gives to the immune.

What if? That's all I'm saying. Then in 2025 came the one that got a lot of attention. Researchers at Cleveland Clinic tracked more than 53,000 of their own employees in 2024 and 2025 flu season.

Over 82% of them got the flu shot. This is, you know, a hospital basically. By the end of the season, the vaccinated employees had a 27% higher risk of getting influenza than the unvaccinated employees.

The researchers calculated the vaccine's effectiveness at negative 27%. Their conclusion was that they couldn't find a protective effect from the shot that season and that vaccination was associated with a higher of flu when flu activity was high.

And those aren't random people, those are healthcare workers exposed constantly. If the shot were going to show a value anywhere, you'd think it might be there.

Now, what's in the syringe besides this inactivated virus? Because if you listen to Vitality Radio, probably a label reader, I know I am, You've probably spent years now, or at least months, if your listening to this show, looking for things that ought not to be in your products, specifically things release formaldehyde out of your shampoo or polysorbates out your pantry and the foods that you eat.

So let's read the label of the flu shot because it is public It's in the package insert for every brand. First, a correction to something that you'll hear a lot.

Standard flu shots in U. S. don't actually contain aluminum. They have in past. The mercury-based preservative thimerosal was the big one that was in many of them.

And as of July 2025, Yeah, that's last year, okay? The US stopped using flu shots that contain mercury. Well, thank goodness the government finally decided, let's not put mercury in these things anymore.

That's a genuine win, but the rest of the list of things I don't want inside my body didn't go anywhere. Depending on the brand, the syringe can actually hold actual formaldehyde, a detergent called Triton X100, sounds like something we all want in our bodies, polysorbate 80, egg proteins, and trace antibiotics like neomycin and gentamycin.

One brand is grown in dog kidney cells, so residual canine cell protein and DNA are on its ingredient list. And the senior version called Fluad adds an oil-based adjuvant made from squalene, which exists specifically to provoke a bigger immune reaction.

Now, the amounts are small, trace amounts, measured micrograms in most cases, but route matters maybe more than you realize here. When you eat something, it runs a gauntlet, stomach acid, digestive enzymes, the gut lining, a massive network of immune tissues in your body and in you gut specifically that decide what is friend and foe, what needs to stay and what need to go.

Then your liver gets first pass at it before it ever reaches general circulation. Your body has layers of screenings built in for things that come in through your mouth.

An injection skips every one of those checkpoints and delivers its contents directly into your muscle tissue. Formaldehyde is classified as a known human carcinogen.

Your body does make small amounts of it on its own. and the amount in a shot is also small. But when you've worked this hard to get it out of your nail polish and your hair care products, it's fair to ask why it is acceptable to actually inject it directly into the body.

Triton X100 is an industrial detergent in the alkylphenol ethoxylate family. Its breakdown products act as endocrine-disrupting chemicals, and the European Union considers it concerning enough that in nine and cents 2021, companies there need special authorization just to manufacture it.

Yeah. And yet we're injecting it willy-nilly into whoever is willing to roll up their sleeve. Polysorbate 80 is an emulsifier. Now I'll say in food, I'm not completely opposed to polysorbid adenine small amounts, but it's just another thing.

Research from 2015 showed it can thin the protective mucus layer in the gut and disrupt the microbiome in animals. In pharmaceutical research, it used precisely because it help carry drug particles across the blood-brain barrier, meaning it kind of open things up.

And it's one of the more commonly identified triggers in rare allergic reactions to injections. So while a little polysorbate 80 in your food supply, maybe not as big of a deal, directly injected into the body?

Nah, not for me. The antibiotics and egg protein are allergens for some people. And injecting an allergen is a very different exposure than eating an allergy.

Especially when the whole point of injection is to put your immune system on high alert in the first place. That last point is one that really ties it together for me.

A vaccine is designed to provoke a reaction. Everything in that syringe arrives in an environment that's been deliberately revved up. That's why I want you reading the labels with the same eyes that you use at the grocery store or in the body care area.

Now, did you know? I don't know if you saw the news, but there's a new mRNA flu shot this season. Since August, the FDA approved Moderna, one of our favorite drug companies after COVID, an mRNA flu shot called Imfluciva.

It's approved for adults 50 and older, so they're only targeting people my age and up, and it's showing up at select retailers this fall. Well, thank goodness.

Its the first flu-shot in this country built on the same RNA platform as the COVID shots, And here's how that's different. A traditional flu shot hands your body pieces on an inactivated virus.

The mRNA version hands yourself genetic instructions wrapped in a lipid nanoparticle, and your own cells then manufacture the viral protein. Your body becomes the factory.

Now, you'll hear people say that this isn't gene therapy. So let's look at what the company itself said. In 2020, in a filing with the Securities and Exchange Commission, Moderna wrote that mRNA is currently considered a gene therapy product in the FDA.

Whoa, let's step back just a moment here, folks. Does that sound like a vaccine? They don't think other vaccines that aren't mRNA are called gene therapy, but yeah, Moderna specifically is calling it that.

In the same filing, they said their products are designed not to permanently change your DNA. And that's the line that you'll hear repeated, But they use the words gene-therapy in the product themselves.

It's regulated as a It's marketed as a flu shot and the technology underneath it is actual genetic manipulation. A few more details worth noting. For people 65 and older, this was an accelerated approval, meaning the FDA approved it on early data.

Oh, just like the COVID jabs. That's good. Moderna still has to run a follow-up study to confirm the clinical benefit in that age group. I'm sure it'll come out fine.

It always does. Whenever we rush these things to market, nothing What could go wrong, right? The selling point is

that it performed about 27% better than a standard flu shot in the trial.

27%, better, than not much is still not, much, but you know, better according to that. Remember the CDC's own numbers. We just went through. It's a pretty weak baseline, right?

What bothers me most is how this plays out at the counter. A lot of people walk up to the pharmacy counter and say, I'm here for my flu shot. They don't ask which one.

I would say most people. If you're over 50, you could be handed a brand new genetic instruction technology without anyone ever using the letters M, R, N, A in the conversation unless you ask.

Informed consent only works if you're actually informed. So whatever you decide, if we're going to the counter, ask for the brand name, asked directly whether it's an mRNA product and ask the package insert, period, you are allowed to and you should always look at that before you take any drug.

And you always should look the label before taking any supplement or any food. It just makes sense. Now, let's follow the money like I talked about earlier.

Who pays for a free flu shot? Let's do a little consumer investigation here. You walk up to the counter, hand over your insurance card, if you've got one, get your shot and walk away with a coupon.

you paid nothing and you might've saved five bucks on your groceries. Start with Medicare, which covers a huge share of flu shots because of the age group most pushed to get them.

Following the Money Behind Flu Shot Promotions

For the current season, Medicare pays the pharmacy for the vaccine itself at 95% of what's called the average wholesale price. Then it pays a separate administration fee.

Roughly $33 just for the act of giving the shot. One trade publication put it perfectly. You essentially get paid twice. Once for product and once for service.

Which I have no problem with. Because I charge for my service, if somebody wants to sit down with me for 45 minutes and do a nutritional assessment. If somebody who wants sitdown with my wife and a biofeedback session, we charge that.

I think that the pharmacy should charge if they're going to do whatever service that they are doing. What I have a problem with is it ain't free, right?

It is being paid for. The question is, who's paying for it? Well, in this case, you are and so am I because it's Medicare. Now, look at what the pharmacy actually pays for the product because according to the CDC's own price list for 26 and 27 season, a standard flu shot costs a private buyer about $21 a dose.

The high dose and recombinant versions marketed to seniors run about $86, like four times as much. And one adjuvanted version is listed as high as $107. So what does a pharmacy actually clear?

What's the profit picture? Well, pharmacy trade publications estimate roughly 20 bucks in profit per flu shot after all costs. They point out that's more than they make on most prescriptions.

One of those articles had a headline that said it all about turning immunizations into a pharmacy profit center. It quoted an industry consultant saying every single immunization adds to your bottom line.

So that's why the signs are out there everywhere. That's they're flashing big, the same as they are flashing for the bag of Depends that they selling on sale or the Diet Coke, I've always found it.

Hilarious how much candy and diet coke and every other junk food is sold at pharmacies. Isn't that interesting? Now, let's multiply this. Pharmacies gave about 38 million flu shots in 2024 and 2025 at about 20 bucks each.

That's on the order of three quarters of a billion with a B dollars in profit from flu shot alone at the pharmacy counter. That's just rough math, but three quarters of a billion dollars for a free shot?

And then there's the incentives. This season, CBS is offering $5 off a $20 purchase. Publix gives you a five dollar gift card. Walgreens offers store cash.

Kroger gives points that by one customer's reported math are actually worth about 25 cents. But think about that trade. They spend $5 to bring you in clear about $20 on the shot.

So maybe they're down to 15. And then when you're standing in their store, waiting for 15 minutes, and now you are a pharmacy customer, your prescriptions might follow you there.

Industry analysts actually have said that openly for years insurers pay enough on these shots that retailers can afford coupons to win loyalty and the more lucrative prescription business that follows.

Who's paying the bill? If you're on Medicare, taxpayers do. If your on Medicaid, tax payers do, if you are on private insurance, the cost gets folded into everyone's premiums because federal law requires plans to cover recommended vaccines with no cost to you at the counter.

Free just means the bill got sent somewhere you don't see it. And here's the pressure point this year. Fewer people are lining up. According to the CDC, flu shot uptake dropped from about 52% in 2021 to under 44% percent in 2025 and 2026. And the people in the industry are openly blaming vaccine hesitancy since COVID.

When your profit center shrinks, the marketing gets louder, bigger signs, more coupons, and more reminders at the checkout. So is your local pharmacy doing you a public service?

Or are they just trying to get you to give them that profit center that they've lived on for so many years? And then of course, what about Pharma? I mean, we always have to think about pharma in the picture, right?

Cause they're making money as well. I didn't actually, I wasn't able to figure out what their manufacturing costs are, but I promise you 100%. It's profitable.

They're making profit on these things. And what's really great about shots, all the vaccines, regardless of whether they're gene therapy or they are not, is that they, are held without liability.

The pharmaceutical company, they all without liabilities if something horrible happens to you because of the flu shot, or even if, something small happens too, because the fluid shot.

So, zero risk, high reward. for a product that is substantially less effective than most other pharmaceuticals and still has a significant risk profile.

Does it make any sense? And let's talk about the other shot. This is maybe the elephant in the room post 2021. And that's the COVID shot because the same Cleveland Clinic research team that have been tracking its own employees They tracked this one too.

In 2023, they published a study following about 51,000 employees after the bivalent booster came out. It offered a modest protection at best, and once the newer variants took over, it couldn't show it was effective at all.

Then came the finding that got everyone's attention. The risk of catching COVID went up with the number of COVID shots a person had previously received.

The researchers called it an unexpected finding that needs further study. Oh, yes, so unexpected. How is it

possible that shoving a gene therapy that has limited research that's been done on it and was rushed to market How's it possible that anything could go wrong?

Like I said before, how is it possibly? It's a surprising and unexpected study. I mean, I expected it, but maybe I expect things that these guys don't expect.

They looked again in 2023 and 2024 and about 47,000 employees. The updated shot was 23% effective against the variant circulating that season. And the same pattern showed up even more clearly this time compared to people with zero or one prior dose.

The risk of getting COVID was about 46% higher with two prior doses, nearly double with three prior, doses and about two and a half times higher. With more than three, the more of these things you get, The more likely you are to get COVID.

That's what they determined. that's weird because my understanding, tell me if I'm wrong here.

Vitamin D, Vitamin C, and Core Immune Support

I put it in the, you know, can chat it up with me online. You can put in Spotify on the comments, and put into YouTube comments. Tell me if I'm wrong.

If I understand this incorrectly, I need you to correct me. Aren't vaccines supposed to prevent the illness that they're marketed to? Isn't that the idea?

So then how is it possible that more of these COVID boosters you get, the more susceptible you become? I don't know. I'm not a doctor. Not a pharmacist.

Certainly not pharmaceutical executive, but if I had that problem with my product, I would be very concerned. Very, very, concerned, like I wouldn't like it if you took say anxiety release and all of a sudden you came in and said I've got heart palpitations and I feel more stressed than I ever felt before since taking this product.

I wouldn't like that. I would feel like, that was a bummer. And I was especially feel, like it was bumer if you, I said, well, try it again. Try it one more time.

You got the same, but even worse. They said well yeah, okay, let's just try the third time or a fifth time But let's just see if this actually works the more we do it.

Is there any logic in any of this for you? I'm having a hard time seeing it myself. Let's talk about the terrain. If I could pick only one nutrient for cold and flu season, not one supplement, but one it would probably be vitamin D3.

And it's not a coincidence that respiratory virus T-Zone lines up almost perfectly with the months when your vitamin-D levels are at their lowest, less sun, more time indoors, lower vitamin d.

Vitamin D really isn't a vitamin. You may know that already. It behaves like a hormone and your immune cells are covered in receptors for it. When those cells encounter a threat, vitamin D helps them produce their own natural antimicrobial compounds that help to fight the threat off.

These act like your body's homemade defense mechanism. In 2010, a researcher at the University of Copenhagen showed that your T cells, the special forces of your immune system, essentially need vitamin B to be switched on.

Without enough of it, they tend to stay asleep. The same year, a randomized trial in Japan gave school children either 1200 units of vitamin D3 a day or a placebo through the winter.

Kids getting vitamin B had about 42% fewer cases of influenza A. Let's think about that for a second. At its best, the flu shot over the last 22 years has been 60% effective.

On average, it is less effective or actually about as effective, and again, effective not meaning it prevents you from getting the flu, okay, but effective as the CDC says it.

About as effect is taking vitamin D. Interesting. Now, vitamin is not free. I like the flue shot is, so to speak. Oh, how I wish. that I ran a business where I could just give everybody free vitamin D, I would love that.

I suggested it during COVID. Everybody should get a bottle of vitamin. The government should pay for it. It's very, very inexpensive vitamin, give it to everybody.

And we'll have a lower issue with COVID, lower issues with mortality, all that stuff. it'll get way, way better if everybody has vitamin d. They've never given away free of Vitamin D. I don't know why it's weird because I can tell you that a supply of vitamin D is substantially less expensive than is the flu shot or the COVID shot.

Now in 2017, researchers at Queen Mary University of London pulled together 25 randomized trials covering about 11,000 people. Overall vitamin supplementation was associated with fewer acute respiratory infections, but the real story was in the details.

People who took vitamin D daily or weekly got the benefit while big occasional doses didn't do much. And the people who started out the most efficient saw about a 70% reduction in risk.

70%. The people that needed it most got most out of it. Now, here's my rule, and you've heard me say it before and I will continue to say, I never recommend vitamin D3 without K2.

They are a team. Vitamin D 3 does the immune work, but it's really, really important that we always have vitamin K 2 with it. So if you're going to take vitamin d3, take Vitamin d 3. If you only take it in the cold and flu season, that's fine.

Especially if get plenty of sun during the winter, all of your vitamin D from the sun. If you're getting plenty of sun in the summertime, you are not blocking it with sunblock, that kind of thing, then yeah, probably don't even need to supplement vitamin d3 or not much of it in most cases.

But in winter months, I think it makes sense for most of us. That's when I supplement it at a significant dose, at least 5,000 units a day myself. And so our Vitality Vital D3 K2 has 5,000 units paired with 360 micrograms of vitamin K two is MK seven.

I always liked that combination. Always, always, in the winter months, like I said, one a day, I think is great for most adults. We also have a lower potency vitamin D three, but you're going to hear this twice in this show.

And if you've heard the behind the label show I did a month or so ago, you know, we are having a bit of pain getting products to market right now. And I'm not gonna go into detail, but some things are behind.

We have the 5,000 unit D3K2. It's available for you right. Now the 2,500 may not be available quite yet when you hear this show, But it will be not too long after this shows airs.

If you do need a lower dose, then that's a good way to get that lower-dose. So it gives you the vitamin K2 and the silicon boron that are in there to help with supporting bone health and tooth health, and all that kind of stuff.

So vitamin D3, crucial for bulletproofing our immune systems. Vitamin C is my number two nutrient. And it's a very close number to after vitamin d3. It's one of the oldest remedies in the book.

it is one the best things you can possibly put into your body. I'm a huge fan of vitamin C. and I will tell you that the older supplement that I remember taking or the supplement I remembered taking the most when I was young, the first supplement.

That I ever remember being on was. Well, it's now called Inner-C, okay, but it used to be called Emergency. And

yes, Emergency is out there still. It's in all your drug stores.

it is in your big box stores, It ain't what it use to, be okay? It is owned by Pfizer now. Used to own by a great company. Run by great man doing great things and now it run by those guys and so a much better company came along out of the ashes of original Emergency and created Inner C and I love that product.

From the time I was five years old or younger, I've been using this stuff, or some variation of this, stuff and for years, it's all I use for vitamin C.

Now, its either that or its vital C depending on if I'm looking to do a little drink mix or if i want to take capsules and I'll explain the differences here in a minute.

But vitamin c is a tried and true and let's talk about it because what it does It actually enhances your white blood cells, specifically the neutrophils.

They actively pull vitamin C out of your bloodstream and concentrate it inside themselves 50 to 100 times the level that's in your. Researchers at the University of Otago in New Zealand laid this out on a big review in 2017. Your immune cells.

hoard vitamin C because they burn through it doing their job. And when you're fighting something off, your levels drop fast and your need rises quickly.

The research on regular supplementation comes largely from the University of Helsinki. 2013 analysis of the controlled trials found that taking vitamin c consistently shortened the duration of colds in both adults and children.

So while we know that it has some preventative benefits and really powerful preventive benefits, it also has apparently some curative benefit. where it can actually knock things out sooner.

And one of the first things I reach for every single time that I get the sniffles or anything that feels like something coming on is more vitamin C. Now, the catch with vitamin c for a lot of people is ascorbic acid.

That's kind of like run-of-the-mill vitamin. I'm never going to say anything bad about ascorbic acid. I don't hate ascorbic acids. There are influencers in this marketplace that do not like ascrobic.

Acid I. Don't like genetically modified ascorpic, acid, which comes from corn that's been genetically, modified and heavily sprayed with glyphosate. So it's got to be a clean ascrbac acid and that the only form that we sell here at vitality.

But ascorcic is not bad. It has its limitations though. And the biggest limitation is stomach tolerance. A lot of people, even a thousand milligrams or 2000 milligrams a day will just get them rumbling and potentially cause diarrhea, things like that.

So there are issues with it. It's very acidic, a more buffered form coming from mineral ascorbates has always been my preference. That's what's in inner C that's no longer an emergency.

And that what in vital C. When I developed vital c at the very top of the COVID thing, I was only going to settle for a non-acidic mineral scorbate form of vitamin C.

Then we layered in 15 milligrams of zinc, which your immune cells depend on to develop and function normally, but also two milligrams copper because when you supplement zinc over time, you always want copper alongside it.

It keeps the two in balance. That's a detail that a lot of immune formulas skip. And I don't like that so much. I really do like to have zinc and copper together.

So we have that in vital C, we also have it in our get well, stay well which I'll talk about in just a minute. And then I

added 300 milligrams of olive leaf extract.

Now there's two reasons I put 300 mg of all of leaf extra. First off, there is excellent research on humans with olive extract at 300mg. So we know that's a great dose at 15% oriole peen that form that potency.

We know, that works, but it just so happened that we couldn't fit 1000mgs of vitamin C in one capsule from mineral score rates.

Gut Health, Probiotics, and Immune Resilience

It just won't. I wanted to, but then once you throw zinc and copper in there, you can't fit it even more. And so we had to go two capsules, But then we can fit a lot more than that in two.

Capsules. There was going to be empty space. So it simply made sense not to put a filler in. To put something in that actually gives you something. That's why my Vital D3 K2 have silica and boron.

Why fill the capsule up with nothing? when we fill it up with something that's actually useful. That's what I did with Vital C with 300 milligrams of olive leaf, which we know has powerful immune enhancing effects and has natural antimicrobial, antifungal type benefits as well.

So that vital C. And then the next thing, and actually I'm going to say the first thing that matters is let's get our gut in shape for cold and flu season.

If you wanna talk about terrain, you have to look at the gut first. The majority of your immune cells live in and around your digestive tract. We've all heard 70 to 80% of our immune system is built in your gut.

It makes sense when you think about it though, because your got is where the outside world comes inside of you every single day, at least three meals at a time for most of us.

So your body stationed most if it's security team right there in the got. This is the gut immune axis and it means the state of your microbiome shapes how your whole immune system behaves, including your nose, your throat and your lungs.

One of the key players is something called secretory IgA. Think of it as the immune paint that coats your mucous membranes in your gut. your mouth, your sinuses, you airways, it grabs onto invaders before they can attach and get a foothold in your system.

When that IgA is low, Your front door is essentially unlocked and the research on spore probiotics specifically keeps circling back to that exact marker.

Why spores? Well, spora forming probiotic like bacillus coagulans, bacilli subtilis, Bacillis clausii, These are organisms wrapped in a tough protective shell.

They survive stomach acid. they don't need refrigeration and they wake up and go to work in your intestinal tract. Our ancestors ate these organisms constantly on unwashed vegetables and from the soil itself.

Most of us don' encounter them that much anymore unless we supplement with them. So let's go through the research on each type of organism in the vital spores formula.

These studies use different branded strains as opposed to just kind of generic strains of these probiotics. But let's start with one of the big guys, Bacillus subtilis.

In 2015, a randomized double-blind placebo-controlled study in France gave 100 healthy senior citizens 60 to 74 years old All with the history of getting sick in the winter, a strain of Bacillus subtilis in on and off courses over four months of cold and flu season.

In the group they tested biologically, secretory AIGA went up significantly in both their stool and their saliva compared to the placebo group. And that same group had about 45% fewer respiratory infections, 45%, fewer.

That puts it on with like some of the best years of a flu shot with none of downside. And we're not talking this is important. This is 45% fewer respiratory infections of all kinds, not just influenza.

All those 200, 45 percent less. Remember IGA naturally declines as we age, which is a big part of why older adults get hit harder. So if you're 54, like I am, or moving that direction, the spores become even more important when it comes to protecting you and bulletproofing your immune system during the winter months.

Next is bacillus coagulans. Still my all-time favorite probiotic for reasons I've shared on other episodes, but I love this strain. It's in both our back on track and our vital spore, and it's just an absolute hero.

This is one where they studied it directly against influenza itself. All the way back to 2009, this is about when I discovered Bacillus coagulans. 10 healthy adults with an average age of 44 years old took a strain of Bocillis coaguilans every day for 30 days.

Researchers drew their blood before and after, then exposed their T cells, their immune cells to influenza A in the lab. After the 30 days, those T cells produce more than 17 times more TNF alpha, a key signal your immune system uses to mount a response.

17 Times after just 30 Days. Now, this is interesting because this was done in a lab, not in the human body, but not really in way that a placebo would have any impact.

This is just looking at blood, 17 times higher response. Again, against adenovirus, one of the common cold viruses that circulates around, the response was up 2.5 times, now 17th times but still two and a half times better.

Pretty impressive. In 2019, a randomized double-blind placebo-controlled trial in Mexico gave 80 school-aged children, and I know a lot of people listening are concerned about their school age children coming home from the kind of cesspool that is school.

And check it out. They give it to them daily for three months. Compared to a placebo, they had significantly fewer upper respiratory symptoms like nasal congestion, itchy nose, and hoarseness.

And when symptoms did show up, things like hoarse, headache, or fatigue, didn't last as long. The researchers tied those results to measurable changes in immune signaling proteins specifically in their blood.

Then bacillus clausii. In 2007, researchers at the University of Pavia in Italy gave bacillus clausii spores for three months to children who kept getting respiratory infections over and over.

Do you have one of those kids at home? Their infections were significantly shorter during the three-months-on-the-spores and during follow-up period afterward.

And finally, Saccharomyces boulardii, the unsung hero in so many probiotic things that people just haven't heard of yet. A lot of people have, especially if you listen to this show maybe, but not so much out there.

It's starting to take root, But it is the other big guy in the vital spores formula. it's a beneficial yeast, not technically a probiotics. And here with immune system, it's animal research, but it is impressive because it goes back decades and they've shown that it increases IgA in the small intestine directly.

In one mouse study, Ig A in intestine secretions was almost twice as high in S-Boulardy group as in placebo group. So vital spores is built the way it for a variety of reasons, specifically because I want to optimize your gut health and your immune system at the same time, because they are essentially one and the Same.

You're getting 5 billion CFU forming probiotics, bacillus coagulans in a very well studied form, lactospore, which is a

Very well-studied form. Bacillis subtilis, very Well-Studied and bacilus clausii.

All of these strains have excellent studies on them proving that they're viable and effective. and then you're getting three billion units of saccharomyces boulardii.

So what I tell people is, and I have to apologize. I'm coming to you a little late with this show. It's going to hit, I think in October, but a bit late in october.

Now it's like Utah, it is 82 degrees today when I am recording on like the 7th of October or 8th October. Uh, so who knows? It doesn't feel like cold and flu season yet, maybe by the time this comes out it will.

Normally, I try and get these types of immune shows out a little bit earlier, and I apologize for not having done that. But what's really crazy about this, what I'm talking about here with this probiotic, is that 30-day study with influenza A, where they showed a 17 times higher defense against that and all of these other things that we're talking about.

So I tell people take vital sports for 30 days before cold and flu season. Give yourself that much at least do it with your kids. If you have kids that don't swallow pills, go based on body weight, 50 pounds or sorry, 150 pounds, one pill, a hundred pounds.

Two thirds of a pill, 50 pounds, a third of the pill that kind of thing. You're not going to hurt your child giving them too much, but don't waste the money.

you can open up the capsule. It doesn't taste like anything. Super easy to give to kids. Do it for 30 days for your whole family. it can actually be very inexpensive.

If you have three kids, one bottle. if, you know, little kids in the 50, 60 pound range, 70 pound, range. One bottle can be about a month supply of the small size.

So I think it's a great way to just ramp up the immune system before all this stuff starts coming. Now, what else can you do? Well, sugar and sunlight are two things that you have to think about here.

And the first one is less of and the second one, is more of sugar If you look at the calendar, it is sugar season. We're on, It's the 8th of October, as I said.

So what, three weeks till Halloween. I don't know if you've got kids at home or grandkids and the trick or treat thing, but you know as well as do, there is Sugar everywhere this time of year.

And it doesn't stop at Halloween, right? It doesn' stop till after New Year's, But this is, sugar Season. They ought to call it that, Sugar Season, not cold and flu season, especially in America.

Everybody's got a bowl with these little Milky ways in it or whatever, and it's real easy to just grab one and throw it in. Don't. It's okay. Don' You're talking to a guy who really enjoys sugar.

So thankfully I don't enjoy it nearly as much. Okay. That's not true. Let me restate that really quick. I'll find myself eating it. Nearly as. Since I got on my GLP one metabolic optimizer formula, I find the cravings are far less intense, but I still want it when I see it.

And so you have to just kind of be like, nah, it's okay. We're not going to do this. Less sugar matters. In 1973, researchers at Loma Linda University led volunteers, sorry, fed volunteers a hundred grams of sugar, about what you get in two and a half cans of soda.

That's a lot of Sugar. that's not a lotta soda and then measured how well their neutrophils could engulf and destroy bacteria. and that capacity drops significantly within one to two hours.

and the effect lasted at least five hours. It didn't matter whether the sugar came from table sugar, glucose, fructose,

honey, or orange juice. Five hours of sluggish frontline immune defense, falling asleep.

Just imagine it this way, if you've got your guards at the gate, they're taking a nap for five when you take a significant amount of sugar. So when think about it, just think, I'm doing these things to try and optimize my health, my wellbeing.

Lifestyle Factors: Sugar, Sunlight, Sleep, and Stress

I don't want to get sick. Don't wanna get the flu. Or the COVID jab because I've been educated on that. That doesn't make sense to me. So I got to take care of my immune system.

Well, let's do our best this season to drop the sugar intake significantly. your immune system is going to love you for it. Second, it's sunlight. It's vitamin D.

Yes, supplement vitamin, that's fine, but the best vitamin is the sunlight vitamin. And we know this because it does more than just making vitamin and 2016 researchers at Georgetown University Medical Center found that the blue light and sunlight directly energizes T cells, making them move faster, completely independent of vitamin D.

Morning light also sets your circadian rhythm, which drives your melatonin at night and melotonin is far more than a sleep hormone. It's an important regulator of immune function.

And deep sleep is when you get a lot of your immune repair work done. Now I got one more thing I wanna talk about here and then I'm gonna let you out of here because this show has gone a little longer than I anticipated.

So we're gonna wrap it up real quick. But two more terrain tools that I want to talk about that are really important. I just mentioned sleep and it is paramount.

If I sleep fine, I tend to just not get sick. And it doesn't even matter if anybody around me is sick, it just doesn' Now I do a lot of other things to try and enhance my immune system.

But generally speaking, that's just how it works. I don't get The other one is mindset stuff, because here's what I think is happening in this world all too much.

And you're gonna hear me talk about it a little more than I used to. I just interviewed someone phenomenal. Don't know if his show's coming out before this one or not, but Dane Johnson, if you haven't listened to his shows, please listen to a show.

It's really important. Just interviewed him an hour ago and it was fantastic. But we talked a bit about this. Every fall, the messaging ramps up. Flu season is here.

Cases are rising. Wash, sanitize, get your jab. It's built to make you afraid and fear isn't neutral. Chronic stress and worry keep cortisol levels elevated and cortisol dials down the very immune cells we've been talking about all show long.

This has been tested. In 1991, researchers at Carnegie Mellon University measured the stress levels of about 400 healthy volunteers, then gave them nasal drops containing common cold viruses.

I didn't want to sign up for that one, right? The more psychological stress a person was carrying, the more likely they were to become infected and get sick.

in 2006, The same lead researcher came at it from another side. People with a more positive emotional outlook were less likely to come down with the cold after being exposed to the virus.

So when your coworkers coughing or your sister calls to say the whole house has the flu, don't spiral. Their illness isn't your illness and it's not your destiny.

Worrying about it doesn't protect you, it works against you. Do the things that are precautionary, but do it with a smile on your face, not out of fear, just out common sense protection.

If you feel your cortisol rising because, oh no, my son's sick, or my daughter's, sick or whatever it is. The more you dwell on that thing, the more, you fear that, thing the, more inviting you are to that.

Because your immune system just comes down the. More stress you feel. It's really, really really important to understand that all right. Let's talk just really quick about a few more herbal things that you can consider doing to bulletproof that immune.

I'm a huge fan of astragalus. That's a Chinese herb. Nobody talks about enough and I love it. and it is a daily use herb for the immune system in the cold and flu season if you want to do it that way.

I love astragalus, definitely worth giving a shot. May dedicate a whole show to astregalis down the road, but can't do right now. We'll see soon. The other one that I think most people have heard of, there's two big E's in immune herbs, echinacea.

In 2012, researchers at Cardiff University Common Cold Center in Wales gave 755 healthy adults either an ekinacean extract or a placebo every day for four months during cold season.

The echanaceae group had about a quarter fewer colds and a corner fewer days spent sick and the people prone to repeat infections saw those recurrences drop by more than half.

Echinacea is a powerhouse. Elderberry works beautifully every day too. It's rich in anthocyanins, the deep purple compounds that support a healthy immune response, and it tastes good in a gummy or a syrup as well.

And it is great first line of defense if you think that you might be getting the flu. There's really good research on that one. And so, at first sign, the first 24 to 48 hours are when these herbs really shine.

In 2004, a randomized placebo-controlled study in Norway gave elderberry syrup four times a day to adults with flu-like symptoms. Their symptoms resolved about four days sooner.

Four days! Four less sick days, four less days missing school, whatever it is, and just four of those days not feeling like crap. Their symptoms resolved four days sooner, and then in 2016, researchers at Griffith University in Australia gave elderberry extract to more than 300 economy class travelers about as good a germ exposure test as you might get besides maybe the nursery or something, right?

The elder berry group's colds were about two days shorter and noticeably milder. Andrographis is another awesome herb that has 33 different clinical trials showing that it actually improved cold and sore throat compared to placebo or usual care.

Zinc lozenges are a classic for this reason. The zinc has to be in contact with your throat to do its job best. So let these zinc lozzenges slowly dissolve inside your mouth.

It can be very, very effective, especially if you're ill now. I will say this, and I think this is really, really important. Zinc helps your immune system, period.

I probably misstated that a little bit. It is a good thing, but I don't like high levels of zinc every single day. Zink at moderate levels, 7, 10, 15 milligrams daily, as long as you've got copper on there, is great.

And I do like it in capsules. But if you are sick, zinc as a lozenge, like a throat spray or something like that, does make a lot of sense, and it is more efficient that way.

Now, when I feel something coming on, I'm reaching for two things this season. Vital C immunity, the one I already talked about, and quick start immune from life seasons.

Now I love my formula, get well, stay well. But I told you we're low on some things and that one this time of year we are out of right now and I am so sorry about it.

I've got a lot of people a little upset right. We did our part in trying to get it here on time, I promise, but it's just been delayed with this new manufacturer.

They've had to source a lot of ingredients and those ingredients have to pass my standards in order to Get into my bottle with my label on it.

Herbal and Supplemental Tools for Cold and Flu Season

And so it just taking a little longer as of the recording October 8th. I can't tell you when it is going to be here, But we do believe we'll get some time in November, hopefully early in the month.

But I love that product. It's my absolute fave. Its my preventative along with the Vital Spores. Take it at higher doses if I need to knock things out.

But, I actually love Vital C on a daily basis. I think that makes all kinds of sense and tripling the dose. If you start to feel something, I thinks makes a ton of since getting you up to 3000 milligrams of C 45 milligrams.

Of zinc, six milligrams, of copper, plus 900 milligrams evolve. Leaf extract makes tons of cents. And then the quick start immune has something in it called Epicore.

Epicor has some really cool research research. I talked about Saccharomyces boulardii. This is Sacchermyces cerevisiae. It's in the same yeast family and it's not a live probiotic.

But what they found is that it does really good things for your immune system at the gut level. In 2008, researchers at The University of Michigan Medical Center ran a 12-week randomized double-blind placebo-controlled trial during cold and flu season with 116 adults taking 500 milligrams of EpiCore.

once a day. The Epicor group had significantly fewer cold and flu like symptoms and when they did get sick, it didn't last as long. In 2010, the same research team ran a second trial with also 116 adults, this time people who had not gotten a flu shot specifically.

And again, Epicore group, had a significantly lower level of cold in flu-like episodes than the placebo group. So there you go. If you're not going to do the medical intervention, which I personally will never do, these are a lot of tools that you have in your toolbox.

You don't have to use all of them. But what I want to get across to you before I let you go is that we know all these things were studied independently, right?

We talked about independent research for EPICOR, independent researchers for bacillus coagulans, bacilli subtilis, vitamin C, Vitamin D, and so on. Imagine what the stack looks like.

When you get the vitamin D levels right, when you got the Vitamin C consistently, and you have your zinc consistently and when have all of these things that you're doing, including better sleep and more sunlight and less freaking out about cold and flu season, which some of us do.

these numbers start to get better because there's a synergy in building the immune system in a bunch of different ways. And that's why I call this episode Bulletproof Your Immune System because we are doing a variety of things to make ourselves really, really stout this cold and flu season.

All right, so flu shot isn't free and it's something I will never do, but I'm not your doctor. So do you, hopefully this show, has at least influenced you a little bit that way, but hey, not my call.

Vitamin D3, get it from the sun, absolutely. But if you're not getting enough sun get from a supplement, our Vital D 3 K2, of course, my favorite, or you get a great dose of it in our Ultimate Vitality Multi as well.

And have some things on hand. The Quick Start Immune is a good option to have on-hand. The Vital C is a great option to have on hand, it's something you can use daily.

Vitamin D3 and K2, you could use it daily, Nano Silver, I didn't even talk about Nano silver because I'm talking more preventatively, but Nano-Silver is nasal spray.

You gotta have that in your medicine cabinet at home. I've got a episode on that we'll link here in the show notes. But this is what you do to get yourself locked and loaded and ready and prepared and not have to sweat flu season or cold season, or whatever the heck they want to call it.

You can do this and a lot of it starts with the belief that your body is your friend, that it is doing you a solid and wanting to always keep you up and at them.

And if your does say, Hey dude, hey ma'am, I need a little rest. Give it the rest it needs. It's huge. Thank you so much for listening to me. If you have questions, call us 801-292-6662.

My name is Jared St. Clair and this has been Vitality Radio. Thanks for Hello, everyone. I hope you enjoyed this week's episode of Vitality Radio. Just a reminder that this podcast is for educational purposes only.

This podcast has not been evaluated by the FDA. Thank you.