

Rip Esselstyn:

In honor of Father's Day last Sunday, I gathered up your questions, called my dad, Dr. Caldwell B. Esselstyn Junior. Affectionately known as Esse. I want you to know that there's probably nothing in this world that he loves more than to help people to understand the importance of their fork, the simple fork in fighting disease, and how we should never think that it's okay to injure our endothelial cells. He is the ultimate taskmaster. Much to everyone's disappointment, he doesn't prescribe a 90% plan. He is 100% all-in, and he expects the rest of us to follow suit. He does not believe in moderation, as most of you know, but he does believe in you, and your ability to tackle this disease head-on, and bring it to its knees.

Rip Esselstyn:

Nobody said that this was going to be easy, and that's okay. All of us, from time to time, need a really good challenge in our lives, to push ourselves outside our comfort zones, test our limits, and see exactly what we're made of. My father speaks the truth. He never rounds up to make an argument land in his favor. He just wants us to live our best, most vibrant lives. Now, to give you a sneak peek, some of the topics we discuss are nitric oxide, and why chewing leafy greens every day is your best defense against chronic Western disease, including COVID-19. Why fluoride toothpaste is a no-no. My father's take on statins, and supplements. Of course, the fear of getting enough protein.

Rip Esselstyn:

You've got questions, we've got easy answers, so let's dive in. Before we do, a quick reminder, all of you are invited to join our new live, and online Plant-Stock event. It's from August 14th to the 16th. We'll be streaming this interactive weekend learning lab straight from the Esselstyn family farm, which is where my father grew up, and where he formed his early world view, and unwavering work ethic that led to a lifetime of research, and truth-seeking. We have a world class video team that's going to be on hand giving each of you a front row seat to the history of the farm, and very candid conversations that I'll be having with my parents in between talks by the [brockstars 00:02:52] of the Plant Strong Movement. Visit the show notes, or go to plantstock2020.com to register today. I've got some good news. Partial proceeds will benefit the Esselstyn Foundation, a 501(c)(3) dedicated to helping share the good news about plants.

Rip Esselstyn:

All right, I want to welcome everybody to another episode of the Plant Strong podcast. In honor of Father's Day, I'm going to be interviewing my father. We last brought him on the podcast three months ago, when we just had the outbreak of COVID-19 here in the United States. We'd love to get his thoughts on that. Also, we have a bunch of questions from our podcast listeners, really that are directed towards you, daddy. Let me open this up by saying, in honor of Father's Day, how lucky I am to have you as my father. You have done such a great job blazing such a wonderful, bright path forward. Not only for me, but for so many other people that have had the privilege, and the honor of embracing your tenets around a whole-food, plant-based lifestyle. Beyond that, I've had the privilege of seeing just how you conduct yourself as a father, a man, and a great human being. Thank you for that.

Rip Esselstyn:

Let me start by... I want to share something with the listeners. Something that happened to me last Sunday. It's obviously something that you're well aware of. I love mountain biking. I mountain bike behind my house. There's this green space of probably anywhere between 20 to 50 miles of mountain

biking trails. I've been mountain biking back there for well over 20 years, without any kind of mishap, or injury. Last Sunday morning I was riding with two of my friends, and on a decline that was going into a creek bed, I hit a slippery rock, took a nice tumble, and basically broke the distal part of my fibula. Would you say that's considered part of the ankle? Fair to say?

Dr. Caldwell Esselstyn:

Yes.

Rip Esselstyn:

Yeah. I immediately knew that something was seriously wrong. I tried to stand up, and got nauseous and wanted to vomit, got lightheaded. These two guys had to end up carrying me out, through the woods, into a back yard. Long story short, went in for x-rays the next day, and in fact it showed that it was fractured. Now, over the next couple days we were trying to get some reassurance as to whether or not I should have a surgery to try and determine if this was a stable, or unstable fracture. We were able to determine a week later, after the inflammation was down, that it was an unstable fracture and needed to be set. Needed to have eight screws and a plate. That surgery happened two days ago. I think everything went really, really well, but I am now convalescing in bed, and it's been really a bit of a torturous last six, seven, eight days on my back, trying to take care of this thing. You've been so helpful as far as guiding me through this process, so thank you.

Dr. Caldwell Esselstyn:

Well, Rip, I'm just delighted to have you share your story with the audience. The key, when you have a fracture of the distal fibula, that, along with the tibia makes up the ankle mortis. The bone on either side that rides on the talus. It was very nice to see that they absolutely brought back precisely, as it should be, the anatomy of those bones, even though it took eight screws and a metal plate.

Rip Esselstyn:

Also, on the other side...

Dr. Caldwell Esselstyn:

You may have some excitement. You can join me when you go through the airport line, and the bells go off. Yeah.

Rip Esselstyn:

Yeah, yeah.

Dr. Caldwell Esselstyn:

Well, it's a little more tincture of time, and skillful neglect, and this will take care of itself nicely, for sure.

Rip Esselstyn:

Yeah, yeah. Thanks.

Dr. Caldwell Esselstyn:

Remember what Ralph Waldo Emerson said.

Rip Esselstyn:

What?

Dr. Caldwell Esselstyn:

This time, like all times, is a great time if one knows but what to do with it.

Rip Esselstyn:

Yes. Well, I'm trying to figure out what to do with this. I want to get out. I want to swim. I want to walk. I want to do something, ugh. The last time that we had you on the podcast, COVID-19 had just hit. It was back in March, I believe. We're now April, May, June... it's three months later. Do you have any thoughts on where we are right now with the coronavirus?

Dr. Caldwell Esselstyn:

Well, what is very apparent, if you follow the television update every day is that, there are a number of states in the east who really buckled down and played hardball with the masks, social distancing, staying at home, hand washing, and getting, really it was interesting how Governor Cuomo absolutely pounded that message home day after day, after day. The states there in the east have really kept it pretty well under control. On the other hand, those that opened early, and were a bit more lax, or never closed, it looks like we're paying the price. I think the next week will really tell.

Dr. Caldwell Esselstyn:

The virus doesn't listen to anybody. The virus has its own pace, and what it's going to do. There has been something that I'm particularly keen on, because it fits right into the lifestyle that we want our patients who have cardiovascular disease to follow. Just to give you a bit of background, this has to do with nitric oxide, and we may have talked about it somewhat last time, but I think it bares repeating because sometimes the whole concept is not that easy for people to grasp the first time. It was actually, I think, a decade or two ago... maybe more, that it was found out that earlier, coronavirus could be killed by nitric oxide, which is obviously a molecule of gas.

Dr. Caldwell Esselstyn:

At the present time, there are two academic institutions, both the Massachusetts General Hospital in Boston, and Ohio State University in Columbus, Ohio, where they have set up a study where the patients who come in with coronavirus will be first exposed to 30 minutes of inhaling nitric oxide. That's repeated three times a day. They're also doing the same with the healthcare workers who will get 30 minutes of inhalation of nitric oxide when they arrive at work, and 30 minutes of inhalation again when they depart for the day. Hopefully, we only really begin to get some results from that, I would think, within the next three or four weeks.

Dr. Caldwell Esselstyn:

I'm going to try to stay close to the internet to see whether that progresses. Remember, where the virus enters your system is not through your mouth, it's through your nasal passages, and your trachea, and your bronchus and so forth, down into your lungs. If you happen to have, as most people do, a very rich supply of endothelial cells in your nose, and if those endothelial cells are able to manufacture nitric oxide, then as soon as your virus tries to enter you through your nose, it'll wham into this wonderful

population of endothelial cell that are putting out nitric oxide, which hopefully will diminish, or kill off the virus.

Dr. Caldwell Esselstyn:

Now, it's a little tricky here because we've got to review how nitric oxide is made by each of us. Well, when we're younger, and actually into our senior years, but not as plentiful... When we're younger we make tremendous amounts of nitric oxide. Our endothelial cells, which are the delicate, innermost lining of the artery, they're all over the body; every blood vessel. When you're young and these are so healthy, did you ever hear of anybody at age eight having a heart attack? No.

Rip Esselstyn:

No.

Dr. Caldwell Esselstyn:

When we do those autopsy studies on women and men in their late... 17 up to 34, women, that is, these are persons who have died of accidents, homicides and suicides. Now, the early coronary artery disease is ubiquitous. Not enough, with their coronary events, but there it is already started. Now, we know that through measurements, that by the time you are age 50, beautifully healthy, your endothelial cells are only making 50% of what they made for you when you were age 25. By the time you're over 80, you've lost over 70% of that endothelial production of nitric oxide. With one simple change, we are able to goose up that endothelial production of nitric oxide. At the same time, begin to utilize an entirely different pathway, which has really just been discovered in roughly the last decade or so, where we, even in our senior years, can make plenty of nitric oxide.

Rip Esselstyn:

Well, what's that one simple change?

Dr. Caldwell Esselstyn:

That one simple change is chewing greens. I'll tell you what the greens are in the moment, but if I can get people to chew... at least for my heart patients I do this because, the very reason they have their heart disease is because, over the years they have so sufficiently trashed, injured, compromised, and turned their endothelial system into a train wreck. They simply no longer have enough endothelial production of nitric oxide to protect themselves from making blockages, and plaque. However, the good news is that this is not a malignancy. Once you can get patients to never again pass through their lips another morsel that is going to further injure their endothelial cells, then the endothelial cells recover, makes enough nitric oxide so we can not only halt disease progression, but also often we can see elements of disease reverse. Now, that's the heart disease part.

Rip Esselstyn:

Right.

Dr. Caldwell Esselstyn:

Now, let's get back to, how do we make that green leafy vegetable make more nitric oxide? When you chew the green leafy vegetables six times a day, roughly the size of three-quarters of your fist. After it has first been boiled in water, five-and-a-half to six minutes, so it's nice and tender, then you must

anoint it with several drops of a delicious balsamic, or rice vinegar. Why? Because it is the acidic acid in the vinegar that restores the nitric oxide synthase enzyme contained within the endothelial cell that is responsible for making nitric oxide.

Dr. Caldwell Esselstyn:

Now, the second great thing that happens when you chew on the green is, it restores the capacity of your bone marrow to once again make plenty of endothelial progenitor cells. What do they do? The endothelial progenitor cells replace our senescent, injured, worn out endothelial cells. Now, we come to the third thing, and this is the absolute key. When you are chewing a green leafy vegetable, you are chewing a nitrate. Those nitrates are going to mix with the facultative and anaerobic bacteria that reside in the crypts and grooves of your tongue. Those bacteria are going to reduce the nitrates that you are chewing to nitrites. Now, when you swallow the nitrites, it is your own gastric acid that further reduces the nitrites to more nitric oxide.

Dr. Caldwell Esselstyn:

Here you are, literally, from dawn to dusk, because remember, you're going to chew these green leafy vegetables along with your breakfast cereal, again as a mid-morning snack, again with your lunch and sandwich that's three, mid-afternoon, four, dinnertime, five. Of course, I adore it when you have that evening snack with kale. What are you doing? All day long, from dawn to dusk, you are absolutely replenishing your body with this amazing molecule of nitric oxide. The deficiency of which gave you this heart disease in the first place. It doesn't have any extra expense. There's no hideous side effects.

Dr. Caldwell Esselstyn:

Imagine it this way. When your body, therefore, is now just loaded with nitric oxide, when that virus tries to get into your nose, and your endothelial cells are just pouring out nitric oxide, I'm convinced that you're going to be much healthier, and better resist. Remember, it's felt that one of the reasons that the younger people are so resistant to that coronavirus is because they have that higher level of nitric oxide. Whereas, the elderly, obviously it's much more diminished, unless they're eating the greens.

Dr. Caldwell Esselstyn:

Now, what are the greens I'm talking about? They are...

Rip Esselstyn:

Yeah, [crosstalk 00:17:51].

Dr. Caldwell Esselstyn:

... kale, collards, collard greens, beet greens, mustard greens, [inaudible 00:17:55] greens, nappa cabbage, Brussels sprouts, broccoli, cauliflower, cilantro, parsley, spinach, and arugula, and asparagus. The top five are kale, Swiss chard, spinach, arugula, beet greens, and beets. Look what it does for your memory.

Ann:

Woo-hoo.

Rip Esselstyn:

Hi, Ann.

Ann:

Hi, Rip.

Rip Esselstyn:

Hi. Good to see you. That's the perfect segue into the first question that we have from one of our listeners. This is a gentleman named Mark. He's from Birmingham, England. His question is, "Rip and Dr. Esselstyn, could you advise me? I live in the UK and I have not had COVID-19. Is it advisable to continue training, and running marathons? I have read that distance runners' immune systems are compromised, albeit temporarily after pushing their bodies to the limit? Would it be a more sensible strategy to run less miles, and keep my immune system strong, or is this a myth?"

Dr. Caldwell Esselstyn:

Yeah, I think that if you really, really crank it, there is some data on swimmers who, as you may or may not know, competitive swimmers really train, not once a day, but they train twice a day. Those are tremendous workouts, and they can get really, before they taper at the end of the season, they can really be a bit broken down. There is some data that they seem to catch colds, or flu a bit more frequently in that particular format. I'm sure the same would be true if you were running. Instead of running four or five miles a day, suppose some people get carried away and they'll run 18 or 20 miles a day. It might be possible that would be a bit hard on the immune system.

Rip Esselstyn:

Yeah.

Dr. Caldwell Esselstyn:

Whatever you do, don't stop exercising. Yeah, keep it up, it's really such a bonus.

Rip Esselstyn:

What I would also remind, Mark, is that, if you remember from when we had Dr. B., the gastroenterologist on the podcast a couple weeks ago, he told us how 70% of our immune system resides in our gut, and the key is really, if you want to build up an immune system that's like a fortress, well make sure you're getting more than 30 different types of whole plant-based foods in a week with all those different types of fiber.

Dr. Caldwell Esselstyn:

Yeah, the fiber is king.

Rip Esselstyn:

Yeah, yeah. I would tell Mark, listen to your body. If you're feeling like those miles are beating you down to a pulp, then maybe dial it back a bit.

Dr. Caldwell Esselstyn:

Absolutely, called over-training, right?

Rip Esselstyn:

Yeah, yeah. All right, here is another question. It's one that I think we get all the time. "My 18-year-old son is interested in going Plant Strong, but is extremely picky, and he's very worried about getting enough protein. How much protein should he consume each day to build muscle? He works out six times a week, and was playing lacrosse daily before COVID-19, so he's very active. He eats roughly 2000 calories a day, he's 5'9", and weighs about 160 pounds. I'm Plant Strong myself, and have been trying to convert him. Thank you." You have any thoughts about it?

Dr. Caldwell Esselstyn:

Yeah, there's not going to be any protein deficiency. That's an absolute classic myth that has to be really blown away. There is so much protein in grains. There is protein in all these different legumes, beans and lentils. There is protein in red, yellow, leafy green vegetables. There is protein in potatoes; sweet potatoes, white potatoes. Really, it's almost impossible to be protein deficient. As far as trying to measure out in grams, it would probably be somewhere up around 50 grams. A bit more for men than women, but I wouldn't like to have you have to eat by a calculator. Just know that the spectrum of plant-based foods that you're eating are going to give you plenty of protein. As a matter of fact, if you want to be really convinced about this, go see the movie that was recently produced by James Wilks, The Game Changers. Take a look at the German guy, Baboumian, who's lifting 1,200 pounds... plant-based. Where does he get his protein?

Rip Esselstyn:

Yeah, it's a boogey man, don't need to worry about it. Just to drive this home a bit for this mother who's concerned about her son, one piece of whole grain toast is about seven grams of protein. One-third of a can of black beans is about seven grams of protein. One two-ounce serving of a whole grain pasta is about eight grams of protein. They now make a red lentil pasta that's got 20 grams of protein per two ounces. If your son is 160 pounds, like my father just said, if he needs right around 50 to 60 grams of protein a day, he's going to meet that very easily, as long as he's consuming enough calories. Not a problem.

Rip Esselstyn:

Yes, it's true. There are ample sources of clean, and heart-healthy protein in a whole-foods, plant-based diet for humans. Did you know the same exists for your dog? Well, say hello to Wild Earth. This veterinarian-developed dog food is made meat-free, with complete plant-based protein, plus super-food ingredients like oats, chickpeas, and sweet potatoes to nourish your dog, and optimize their gut health. Our pets, and our planet deserve the best that we can give them right now. Scroll down to visit the show notes, or visit plantstrongpodcast.com and click on the Wild Earth banner to claim your exclusive offer for up to 50% off your dog food purchase.

Rip Esselstyn:

All right, this is somebody, "Dr. Esselstyn. I have had a heart attack, and have been following your book, Preventing and Reversing Heart Disease, for almost four years since the heart attack. My question is about the difference in your food groups. Dr. Esselstyn says, 'No to avocados and nuts,' but you seem to include them. Can you ask your father, is it okay for me to add some portions of those two things back into my diet? I'm not overweight, my cholesterol is nice now, and low, and my blood pressure is fine. I'm 67 years old."

Dr. Caldwell Esselstyn:

Yeah, well thank you for that. It's an interesting question. It really comes back to what I talked about earlier. Everybody agrees that where this disease has its inception, its onset, its beginning, is when we progressively injure the delicate, innermost lining of our artery called the endothelium. What he has done, successfully, over the last 65 years, he has so sufficiently trashed his endothelial production of nitric oxide that he didn't have enough nitric oxide left to protect him from developing heart blockages and so forth.

Dr. Caldwell Esselstyn:

Now, when you have this business about nuts, and avocado, remember this. Nuts are loaded with saturated fat. What are the key fats people want to get rid of? Obviously, the trans fats, and saturated fats. Nuts are loaded with saturated fats. I have no problem with people who have not got heart disease having nuts, providing it doesn't go crazy. Right now, we've got a winner. If I ever tell people it's okay to have nuts, it's not going to be three nuts, walnuts on their cereal. What it will be, nuts are so addicting, they will be in the glove compartment, they'll be in the bathroom, the bedroom, the hallway, the living room. Suddenly, we've got all this saturated fat, which is the last thing I want, for somebody who has an injured endothelium, and has got a history of heart disease. The same goes for avocado.

Dr. Caldwell Esselstyn:

Now, what about seeds? I'm very supportive of, even patients with heart disease, having either chia seeds, a tablespoon or two, or your flax seed meal, a tablespoon or two, on your cereal because there's your additional Omega-3. I have to go back to look at the studies that we've had. It is so gratifying, and so exciting to see when every single one of the patients that adhered to our program halted their disease. Whether it was the first group of 18, or it was the latter group of 177 patients, all who had serious heart disease, absolutely no recurrence in over three to four years of patients who adhered to this.

Rip Esselstyn:

Halted, and then as Collin Campbell said on the podcast a couple weeks ago, he would even say treated their disease. Right?

Dr. Caldwell Esselstyn:

Yeah. Right.

Rip Esselstyn:

Yeah. Okay, so this next question, it actually relates to leafy greens in a boomerang way. Here's the question, "I have read that green leafies interfere with its effectiveness. I haven't heard Dr. Esselstyn address thyroid issues, and whole-food, plant-based eating. Do I have to limit, or avoid any foods, especially leafy greens because I'm on this medicine?"

Dr. Caldwell Esselstyn:

No.

Rip Esselstyn:

All right.

Dr. Caldwell Esselstyn:

I would not limit his foods because he's taking Thyroxin, no.

Rip Esselstyn:

Nice, and easy. Like it. "Dr. Esselstyn, what is your opinion on statin medications if my numbers are optimal on Dr. Esselstyn's protocol without them?"

Dr. Caldwell Esselstyn:

Well, the whole idea of a statin is to simply try to reduce the cholesterol. The way the statin drugs work, is they interfere with the liver's production of cholesterol. There is an enzyme called the HMG-CoA reductase enzyme on the pathway to manufacturing a cholesterol molecule. What a statin does is it literally interferes with that. The statin manufacturers don't like it when I refer to that as poisoning the enzyme, because that's in essence what it does, but the manufacturers say that a statin inhibits the enzyme.

Dr. Caldwell Esselstyn:

Now, the problem with statins are that some people just simply cannot tolerate any of the statin side effects. They get the severe muscle cramps, they can't take it. It's injuring their liver, they can't take it. It's causing them to be diabetic, they can't take it, or it's given them brain fog. There are these serious side effects that have to be considered. Now, statins found their place in patients who have heart disease who are eating the horrible Western diet. They've been able to show that there's some benefit to lowering their cholesterol, and helping these people. On the other hand, how many statins do you think they take in Okinawa, rural China, or central Africa? Huh?

Rip Esselstyn:

Not many.

Dr. Caldwell Esselstyn:

No heart disease, no statins. In other words, what we have found through our program, where every month I counsel a group of 14 or 16 patients with serious cardiovascular disease. What we have found is that, in that group of patients, many, by the time they arrive to see us, have already found out that they simply cannot take a statin; too much side effects. Yet, if they adhere to whole-food, plant-based nutrition, never having another morsel of food pass their lips that is going to endanger, or hurt their endothelium, then they literally are building an endothelial fortress. Even if they have a few extra molecules of cholesterol coursing through their bloodstream, they don't get any progression of their heart disease.

Rip Esselstyn:

Good, we like that a lot. This next question is about Omega-3s versus Omega-6s. They want to know, "Can we get enough Omega-3s, and Omega-6s from whole plant-based foods, and which in particular do you recommend, Dr. Esselstyn?"

Dr. Caldwell Esselstyn:

Well, I think the key here to know is, these are essential fatty acids. We need both Omega-6, and Omega-3. Ideally, the ratio between the two should be something like 1:1, or even 3:1 of Omega-6 to

Omega-3. In this country, everything's out of kilter. Our Omega-6 to Omega-3 is either 17:1, or 30:1. That's what leads to, really, a development of disease. You're never going to be short on Omega-6. It's almost impossible. It is so omnipresent. We look a bit more carefully at Omega-3, and really, where Omega-3 found in abundance are in green leafy vegetables. Green leafy vegetables, and in flaxseed meal, and chia seeds. That really ought to cover you nicely.

Dr. Caldwell Esselstyn:

On the other hand, if you want to be sure about what your Omega-3 is, you can get an Omega check. It's a blood test. You can determine whether your Omega-3 is low, medium, or optimal. You can always, if you want to kick it up into optimal and you're not there, you can always take Omega-3 algae. I prefer that because it tends to limit the amount of oil.

Rip Esselstyn:

I think that's a great-

Dr. Caldwell Esselstyn:

The body, the reason there's a bit of competition between Omega-6 and Omega-3 for an enzyme, 6 saturates. If there's a swamping of Omega-6, it may burn up enough of this enzyme so there'll not be enough left to convert to linolenic. In other words, the body's conversion can be compromised. You should be able to do all right with you getting plenty of the green leafy vegetables, as well as the chia seeds, and flaxseed meal.

Rip Esselstyn:

Right, so green leafies, soy beans, walnuts, chia seeds, ground flaxseed meal. Those are winners. I think that's a good segue to this questions, which is just, "Dr. Esselstyn, what supplements, if any, do you recommend your patients take?"

Dr. Caldwell Esselstyn:

I like them to take the vitamin B12.

Rip Esselstyn:

Okay, B12. What kind of dosage do you like?

Dr. Caldwell Esselstyn:

Well, I got a bit bias in the dosage by, Dan Jacobsen, who for years was a sort of international authority on B12, who worked at the Cleveland Clinic as a colleague. Dan pretty well convinced me that, probably for persons over the age of 60, it ought to be 500 micrograms a day. Over the age of 70, he kicked it up to 1000. The reason, he said, is that we don't want anybody to be deficient in B12, and there seems to be no downside if you're taking 1000. What happens as you become more senior is, your gastric acid, which is responsible for helping to absorb vitamin B12, and as well as your intrinsic factor in your stomach, which is important in the absorption of B12, as we become more senior, like so many other things, becomes a bit more compromised, so we say. That's pretty much why I feel the way I do about that.

Rip Esselstyn:

Okay. Then, anything else, like C, or D, or anything like that? Iodine? Nope?

Dr. Caldwell Esselstyn:

No, I don't know that I think C... My good friend, Colin Campbell, has pretty well taught me that, in all of us, the body is an absolute wonderful symphony of reactions that's going on all the time. As you sit there, as I sit there, as mummy sits there, all these thousands of reactions are going on all the time. It's a symphony. Now, what happens is, when we take supplements, there's a bit of a major concern about interrupting the symphony. Let me give an example. You go to listen to a symphony, and you find out that you love french horns; nice, mellow tone. You say to yourself, "Well, since I made all that money in a certain transaction, I'm going to donate some money to the symphony. I want them to put 300 french horns." Now, they do that and Jesus, does is sound like crap.

Rip Esselstyn:

Right.

Dr. Caldwell Esselstyn:

The symphony has been destroyed. Well, the only reason I'm using that example is, if you suddenly take all this extra vitamin C, and B, and all the other B-vitamins, there are these studies that are emerging where people are more susceptible to heart disease, and cancer who are taking multivitamins. You're interrupting the symphony. I have no problem when people want to check their vitamin D, see what their level is, if they want to bump it up close. You see, the jury is still out on many of those supplements, so you want to be very careful about those.

Rip Esselstyn:

Right, so unless there's a known deficiency, you don't recommend anybody taking the D, or something else like that?

Dr. Caldwell Esselstyn:

No. No.

Rip Esselstyn:

Okay. Here's a question, "Dr. Esselstyn, I've got a question for you, sir. What's the easiest way to start this program? I have tried over, and over again and can't seem to stick with it."

Dr. Caldwell Esselstyn:

Well, I think what you have to do is, when you get the education about this, it's pretty easy. Vegetables, if this is somebody who is trying to start, who has heart disease, and if they understand... I think the reason we're running about a 90% compliance in our seminar, with patients that we asked to go plant-based, and we think that's pretty remarkable. Again, 90% compliance. Why has that happened? Because these patients, if you just tell them that you've got to change their diet, or get a little exercise and get adequate sleep, you've given them nothing to really latch onto.

Dr. Caldwell Esselstyn:

This is why, in the seminar, I'll spend close to an hour getting them to understand that the reason they created their heart disease in the first place is because, every time since they were children they have

been injuring the endothelial capacity to make nitric oxide. Once they get it into their head that it is their loss of nitric oxide that gave them this disease. When they suddenly understand that we are showing them a way, by avoiding the foods that injure the endothelium, and actually eating the foods that restore the endothelium. How can anybody come up to me after an hour of this and say to me, "Dr. Esselstyn, that was just fascinating. I've never heard that before. I really now know how I created my heart disease. I should tell you that Lois and I are having our 35th wedding anniversary in two weeks, and boy am I going to destroy some more endothelial cells." Nonsense. Nobody with a brain in their head is going to do that.

Dr. Caldwell Esselstyn:

The other way that you get people to start, let them know that it's absolutely going to be a knockout taste to this food. It's absolutely going to be delicious. The way that we have them understand that is, the Monell Chemical Senses Center in Philadelphia, a number of years ago did an interesting study where they took patients and divided them into three groups. One group getting 34% fat, typical Western diet. Another group, significantly down, but still up, about 20% fat. Then, the third group, where we are in our program, about 11% fat. At the end of 10 weeks, one of those groups had completely lost their craving for fat. Right, the group at 11%. Why? You were simply down regulating your brain receptor for sugar, and fat when you do this. If you therefore simply try to do this and you say, "Well, Dr. Esselstyn, I was good all week. I'm going to reward myself, and belly up to the trough on the weekend." Well, nonsense. You don't want to do that. If you do, you never really fully down regulate the fat receptor. You're constantly then in a state of misery, and denial, and you get recidivism.

Rip Esselstyn:

Right. That is a nice answer to this gentleman's question as far as, he starts, but he always seems to basically fall off the wagon, because he's probably not giving himself the opportunity to down regulate those receptors in his brain, and totally lose those cravings.

Dr. Caldwell Esselstyn:

Perfect.

Rip Esselstyn:

"Dr. Esselstyn, could you please explain why we should not use fluoride? Thank you so much."

Dr. Caldwell Esselstyn:

Yeah. I remember when we introduced this podcast today, we talked about the whole business about making extra nitric oxide. The way you do it was by eating green leafy vegetables. Remember what I said was, when you are chewing the green leafy vegetables, you are chewing a nitrate. That nitrate is going to mix in your mouth with the facultative anerobic bacteria that reside in the crypts and grooves of your tongue. Those bacteria will reduce the nitrate in your mouth to nitrite, which is an essential step. Then, the nitrite, when you swallow it, will be further reduced by your gastric acid to more nitric oxide. The caveat here is, you can destroy this wonderful sequence. If you're taking antibiotics, or if you've got fluoride in your toothpaste, you destroy those beneficial bacteria in your mouth, and then you can't make the transition from nitrate to nitrite. If you are taking antacids, you reduce the acidity in your stomach so you cannot convert the nitrites to more nitric oxide.

Rip Esselstyn:

Where did you learn that about the fluoride, and the antacids?

Dr. Caldwell Esselstyn:

From Nathan Bryant.

Rip Esselstyn:

Nathan Bryant, all right. I believe Nathan Bryant will be on the podcast next week. Okay. Question from a very concerned wife. "On November 1st 2019, my pretty young husband had a heart attack. We got your books, and have been whole-food, plant-based, no oil, ever since. He's lost 20 pounds, but he's not a heavy guy to begin with. His doctor suggested adding some animal protein back into the mix, like fish, and also some fats like nuts and avocado. They are concerned about the medication causing problems if he continues to lose more weight. I was wondering if you have any suggestions on this situation. Thank you, Dr. Esselstyn."

Dr. Caldwell Esselstyn:

Yeah, first of all he has to understand why it is that he had the heart attack in the first place to get him to understand the importance of the endothelial cell and nitric oxide. Now, the weigh loss, interestingly enough, is, we're not asking people to eat any food that is strange to them. The foods that they're eating, they have eaten all their life. What we are doing, we are asking them to relinquish the foods that will injure their endothelium. We ask them to stop the oil, stop the animal protein, and stop dairy, and sugar. That's a lot of calories.

Dr. Caldwell Esselstyn:

Now, what we have found that seems to work is the following. When they have their breakfast, if they have a heaping bowl of Old Fashioned Quaker Oats, plus raisins, plus bananas, plus raspberries, blueberries, strawberries, and blackberries, plus two or three heaping tablespoons of flaxseed meal, that is an absolute delicious, healthy feast. If they like it, and they want to repeat it again either mid-morning, or mid-afternoon or evening, several times we find that absolutely halts. There's so many calories in there, and they're so safe. It doesn't have to be oatmeal. I would encourage them to try to eat the oats, just like a dry cereal. If you use oat milk, that's got a lot of calories in it as well.

Rip Esselstyn:

Right, right.

Dr. Caldwell Esselstyn:

That's just some easy way around to get the extra calories.

Rip Esselstyn:

Yeah.

Dr. Caldwell Esselstyn:

I would totally discourage, with all due respect to the cardiologists that are recommending animal protein, I would totally disagree with that. That's just going to make his disease worse.

Rip Esselstyn:

Yeah. Well, unfortunately it sounds like these cardiologists, they don't know of your work, right?

Dr. Caldwell Esselstyn:

Listen, cardiologists, basically they're good guys. They want to see their patients succeed, but they're at such a deficit because, neither in medical school, nor in their post graduate training, have they really ever had any training about the causation of the illness that they've been designated to treat. This is why I was really feeling pretty proud, and excited to be... five years ago I was asked to join the American College of Cardiology. They wanted me to be a part of their nutrition committee. One of our tasks is to try to educate cardiologists about the importance of plant-based nutrition.

Dr. Caldwell Esselstyn:

You see, immediately, that sets up a challenge, because you can't just suddenly decide, my gosh, there's something to this plant-based stuff. It reverses heart disease. I've seen the picture of reversal of the arteries. It must be great. The average cardiologist has no concept how to do this. You're not going to make it happen in a 12, or 15-minute office visit without the spouse. The reason why we're proud of the 90% adherence that we're getting with our program, if you're going to make a patient change lifestyle, you've got to show a patient respect. The only way that I know to show a patient respect is give them my time.

Rip Esselstyn:

I think we've got two more questions for you here. I'm sorry to all the listeners who have asked questions that we're not going to be able to get around to on this particular episode.

Dr. Caldwell Esselstyn:

Oh, next time.

Rip Esselstyn:

Yeah. "I'm 63, Dr. Esselstyn, and have been whole-food, plant-based for six years. I have low ferritin levels. My doctor told me to take iron tablets. I don't want to take the supplement, but eating green leafies don't seem to be supplying enough ferritin for me. Is this a common problem for vegans, and what can I do about it?"

Dr. Caldwell Esselstyn:

No, it's very uncommon, as a matter of fact. When you think about it, Colin Campbell, looking at all these wonderful counties throughout China that were plant-based, no anemias. If it's a male who has low levels of ferritin, low levels of iron, you want to be sure that he's not losing. Usually, where that's losing iron is through the gastrointestinal tract. You either have some erosion in your stomach. Maybe an ulcer that is very, very slowly bleeding, or it may be somewhere else farther down the gastrointestinal tract. That might be identified by an upper-GI endoscopy, where they look down with the tube, inspect your stomach on the upper-intestine. Then, of course, they can do the reverse, from below with colonoscopy. Look at the entire colon to be sure that's clear as well. I really think it's really tough to blame the diet on the low ferritin.

Rip Esselstyn:

I think we see it sometimes in some of the younger women that are high-level athletes, that are training [crosstalk 00:49:06].

Dr. Caldwell Esselstyn:

Well, they're losing it through their menstrual activity. That's where they're losing most of their iron.

Rip Esselstyn:

Yeah, exactly. Exactly. Then, sometimes I think it makes sense there. All right, well good. I've got one more question for you. "Dr. Esselstyn, how do you answer critics, especially cancer survivors who don't want to believe the whole-food, plant-based philosophy? They politely listen, but don't read the information I try to pass along." Have any thoughts for that woman?

Dr. Caldwell Esselstyn:

Yeah. It's interesting. As far as the cancer goes, and plant-based nutrition, Ornish did some rather fascinating work with men with prostate cancer that is kind of an example. Where men with early prostate cancer were placed on whole-food, plant-based nutrition. What they found was, over time, there was much less expression of the genetic cancer gene, and much more expression of the cancer suppressive gene. Let's take that a step further. If you have that prostate cancer growing in a Petri dish, and let's say you add serum from somebody who is an omnivore, eating the usual Western diet, that serum will suppress the cancer cells by 7%. However, if you do the same thing, taking serum from somebody who's totally plant-based, it will suppress the cancer cells 70%.

Dr. Caldwell Esselstyn:

I believe it was Dr. Prager, in one of his presentations, shows that same thing, to some degree, with breast cancer. I don't really think that there's a downside. Obviously, it may not be the cure, especially with disease if it's advanced, but there certainly is no downside to eating a whole-food, plant-based nutrition for patients with cancer. There may be, very well, a significant upside.

Rip Esselstyn:

Yeah, yeah. Well, when I interviewed Kyle a couple weeks ago, he went as far as to say, and I think he does in the China study as well, that close to 80% of these major cancers are lifestyle-created. Right?

Dr. Caldwell Esselstyn:

Yeah. Yeah, yeah.

Rip Esselstyn:

Yup.

Dr. Caldwell Esselstyn:

Got the data from the counties in China that were eating animal foods, comparing those with counties that were eating plant-based, there's a striking difference, yeah.

Rip Esselstyn:

Yeah. I think that wraps up all of our questions for today. Thank you for answering those so eloquently. Hey, I'm hoping to see you in a couple weeks, obviously, at the farm. If for whatever reason that doesn't happen, I know 100% I will see you and mommy at the farm August 14th to the 16th...

Dr. Caldwell Esselstyn:

Oh, at the Plant-Stock.

Rip Esselstyn:

... for our online virtual Plant-Stock event that is going to be a real doozy. Daddy, happy father's day to you. You have the heart of a hero, and you epitomize in spades what we're looking for on season two of the podcasts.

Dr. Caldwell Esselstyn:

Thanks, Rip.

Rip Esselstyn:

Thank you, and I'll talk to you soon. Hey, Ann. You want to say hi?

Dr. Caldwell Esselstyn:

Ann, you want to say hi to Rip?

Ann:

Oh. Oh, my.

Rip Esselstyn:

Come on, Ann. Give a little shriek or something.

Ann:

Well, hi.

Rip Esselstyn:

Hi, what are you doing?

Ann:

Well, I'm catching up on emails.

Rip Esselstyn:

Wow, you're looking all athletic in your shorts, and your nice pink shirt. Can you come down a bit so we can see your face? There. Awesome. All right. Hey, I love you guys.

Ann:

Heal fast, Rip.

Dr. Caldwell Esselstyn:

Bye, Rip. Get well.

Rip Esselstyn:

Bye.

Ann:

Bye.

Dr. Caldwell Esselstyn:

Bye.

Rip Esselstyn:

All right. Another wonderful, and informative conversation with my dad, and kale hero, Dr. Caldwell B. Esselstyn Junior is in the can thanks to your burning questions. Please keep them coming, as we'll be doing these on a regular basis. As always, I hope you found his answers, and direction to be grounding, insightful and motivational. If there's anything that you can depend on with my dad, it's that he's going to always shoot straight. Next week, we teased it in the episode and it's an important one. We continue, and expand on the topic of nitric oxide with Dr. Nathan Bryant. He's one of the foremost authorities on the planet on nitric oxide. Find out next week on the Plant Strong podcast.

Rip Esselstyn:

The Plant Strong podcast team includes Laurie Kortowich, Ami Mackey, Patrick Gavin, Wade Clark, and Carrie Barrett. I want to thank my parents, Dr. Caldwell B. Esselstyn Junior, and Ann Crile Esselstyn, for creating a legacy that will be carried on for generations, and being willing to go against the current and trudge upstream to the causation. We are all better for it.