DR. FUHRMAN INTERVIEW
Nutritarian Diet

By Chris Wark

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Hey everybody. It's Chris from Chris Beat Cancer. And today my guest is Dr. Joel Fuhrman. Dr. Fuhrman is a board certified family physician nutritional researcher and six time New York Times bestselling author who specializes in preventing and reversing disease through nutritional methods. His numerous scientific publications include his foundational discoveries on food addiction and human hunger, published in the scientific journal Nutrition Journal. And in November 2010, Dr. Fuhrman coined the term "nutritarian" to describe a plant-rich, nutrient-dense eating style designed to slow aging, prevent cancer, and extend lifespan. All things I'm very interested in. And so is my audience. Dr. Fuhrman has been on the radio and TV hundreds of times, he's been on Doctor Oz lots of times, The Today Show. He's educated millions of people about health and healthy eating. He's had four big PBS specials – maybe you've seen one of those. He’s raised over $35 million for public television. And in addition to running the Dr. Fuhrman Wellness Center in New Jersey, he also operates the Eat to Live retreat in San Diego where people from all over the world come and stay from anywhere from 4 to 12 weeks. And we'll talk about that too because for some of you watching or listening, this actually might be a great resource for you just to break out of your home environment, and get into a super healthy living and eating environment to help you get well. So, his latest book is called "Fast Food Genocide: How processed food is killing us and what we can do about it."

Chris: How was that for an intro?

Dr. Fuhrman: Sounds great to me. Who is that guy?

Chris: That’s you. So, it's great to be with you. Thanks so much for taking the time to talk. I know my audience is going to love you. Many of them know you already and love you, so they're going to love hearing from you and enjoy our chat. So, thanks.

Dr. Fuhrman: Well, thanks for having me on Chris. And I appreciate all the good work you do, as well.

Chris: Thank you, man. It means a lot. Thanks so much. So, I'd love to hear your origin story: How Joel Fuhrman became Dr. Joel Fuhrman. And not just any old MD, but an MD who is so passionate about nutrition, diet, prevention, healing, all those things. Because most medical doctors, as we know, don't talk about diet at all.

Dr. Fuhrman: You mean how did I kind of decide to go to medical school?
Chris: Well, how did you become...

Dr. Fuhrman: You know, I went to medical school with the specific intent to be a physician specializing in nutrition. That's why I wanted to go to medical school.

Chris: How did that happen? I mean, how did you become interested?

Dr. Fuhrman: I think I became interested when I was in my teenage years. I was reading books that my father was reading too because he was overweight and sickly, trying to get his health back. And I read the books and started to expose myself to the community of like natural hygienists – most of it being doctor Herbert Shelton's works, back in the 1950s. And I was born in 1953, so it must've been around I guess the 1960s. And I was a competitive ice skater. And then, when I left the skating community, I was working in my father's shoe business, but always thinking that I should probably go back to get the premedical requirements to go to medical school. My passion was nutrition. I was dabbling in that.

Then my sister, who was five years younger, graduated from college and had a graduation party. And I one of her friends at that party said they were going to medical school. And I started having a conversation with this woman saying, "Well, what do you want to go to medical school for? Doctors just treat people with poisons. And you know, people are smacking themselves with poisons and junk food diet and they think the drugs are going to fix that." I said, "We've got to get people to change the way they eat, if we're going to get people healthy." So, this woman used the word passionate, She said, "You sound so passionate. If you're this passionate about that, why don't you go to medical school too? Why don't you go to medical school and try to change things and maybe do it differently and have an impact?" And that's why I wound up marrying that person.

And so, at that point, I left my family's shoe business because I had graduated college three or four years earlier. So, then I left. So, I was dabbling and taking some courses. But I said, "You're right." The person I was dating then became my wife, Lisa. She was going to medical school. So then, I quit my father's business and I went back full time to the postgraduate program at Columbia to get the premedical requirements I didn't get in college. So, I went back to the postgraduate premed program and then went to medical school. So, I quit everything and said, "You're right. I should just do this. This is my passion. I've got to do it." And we got burn got engaged and we both went to medical school together.

Chris: That's really interesting. And it makes sense that you came into it already, sort of with a passion and a focus. Because probably most of your colleagues in med school were not thinking that way. And did you learn much about nutrition in med school?
Dr. Fuhrman: You know, I was chairperson of the nutritional education committee at Penn, at the medical school. And I was working with some researchers there. They allow you and they encourage you to pursue your own interests. To specialize and to be an expert, and they want you to be able to decide what you want to do. So, I did pursue that a little bit in school.

It was funny. I would influence my classmates and even the teachers about nutrition, when I was in medical school. I remember when I would be walking to my seat to sit down, some of my fellow students would be hiding their candy bars. Like they'd be putting it back in their bag when I would walk by. And I would say, "Well, I'm not your mother. Do whatever you want." But I remember even back in medical school, I had an influence. And even students and people who are now 65 years old (so my contemporaries), even though I was a little older going to med school, most of the doctors who graduated med school with me are older today. And they always write me about how much I had a positive influence in their life and their health and their nutrition and their practices, as well. So, I did have an influence back then, even on my classmates in medical school.

Chris: That's amazing man. It must feel good. So, you have published a number of books. I have not read all your books. But two of my favorites are "Eat to Live," which is obviously a monumental legendary book, and "Super Immunity." And one of the concepts in there that you talk about is G-bombs – an acronym for some of the most nutrient dense foods that we should be eating every day. Can you talk about that and explain what G-bombs are?

Dr. Fuhrman: Right. So, as you said, the acronym G-bombs stands for Green (particularly green leafy cruciferous vegetables), and then Beans and Onions and Mushrooms and Berries and Seeds – these food categories that have the most scientific support for their anti-cancer effects. And we know that from scientific studies, the same foods that powerfully protect against cancer, prolong life and prevent recurrence in people who already have cancer. So, the same dietary portfolio that's preventative against cancer is as effective for people who have a diagnosis of cancer. So, I want people to eat those foods and try to eat large amounts, especially green vegetables because with regard to leafy green cruciferous vegetables, the studies seem to indicate there's no threshold effect.

By a threshold effect, I mean that as you go from 10 grams, 50 grams, 100 grams, 150 grams, as you increase the amount you're consuming, it doesn't level off. The benefits don't flatten out. You continue to get benefits as you go to the higher amounts. A study on 134,000 Asians showed that when they divided green vegetable intake into five different quintiles, in the highest quintile (the highest fifth), we had the most long living people and the most longevity. With mushrooms it's a little bit different because mushrooms seem to max out, their threshold effect is 20 to 30 grams a day. You can eat cups and bowls of mushrooms, but
it's not going to give you additional benefits from eating moderate amounts.

Chris: And 20 to 30 grams of mushrooms. What does that translate to?

Dr. Fuhrman: 10 grams is the size of your thumb.

Chris: So, yeah, just a few or one.

Dr. Fuhrman: But they are the most powerful foods with the most powerful anti-aromatase effects. Aromatase is an enzyme that produces estrogen, and higher circulating levels of estrogen increases risk of breast cancer and prostate cancer.

And you know that the fat cells on the body (you have fat on your body) is a hypoxic tissue. Hypoxic means the it's not well perfused with blood vessels. So, it's not getting enough oxygen. So, it puts out the inactive oxygen species and free radicals and toxins, like cytokines and lipokines. It just throws out the waste products. And the inflammatory compounds thrown off by the fat supply excite aromatase and make you produce more estrogen.

So, when an overweight person with fatty infiltration of the breasts – a women, for example, could have 10 times the estrogen stimulation of breast tissue, if she’s overweight compared to not being overweight. So, it's the combination of being overweight. But then if you are normal weight and you consume mushrooms, it really protects the breasts tremendously against breast cancer. And it's comparatively more effective than taking Tamoxifen, the anti-aromatase inhibitors drugs that they give people with breast cancer.

But what I'm saying right now is that there's no such thing as a healthy, overweight person. The underlying principle of a nutritarian diet is moderate caloric restriction in the context of micronutrient excellence and full phytochemical exposure of all the protective compounds. But if you're overweight, the fat cells make you insulin resistant. And higher circulating insulin increases risk of cancer, promotes angiogenesis. And then it produces more aromatase activity, and higher levels of estrogen promotes cancer. And it also promotes other inflammatory and pro-cancerous compounds.

And so, we need to get the nutrient levels up. But at the same time, we have to have the diet be [inaudible] favorable. And the precision in the amount of calories is important and has to be individualized. So, people slow their metabolic rate down by moderately reducing calories, but not to the point of getting to an emaciated or anorexic state. So, it has to be very controlled for maximizing human lifespan and maximizing against cancer.
Chris: So, as complex as it sounds, it actually is pretty simple in practice, right? In terms of eating the right foods and the wrong foods. So, I know the question you get a lot, and I get it a lot too, is... Do humans need to eat meat or animal foods to be healthy?

Dr. Fuhrman: Well, I would reword that question a little bit and say, is a diet with a little bit of animal product going to be more dangerous than a diet that’s completely vegan? In other words, does a little bit of animal product add to the quality of the diet or does it distract from the quality of the diet? Let’s look at that for a minute, because that is a really complicated question. Because most of the studies... We like to look at long-term studies, to look at hard end points like death and how old people are when they die to get more facts and treatments. Because short term studies with soft endpoints can show anything. But in any case, it seems that all the long-term studies with many thousands of people show that, as you ratchet up animal protein in the diet, you accelerate risk of cancer and risk of cardiovascular death.

And there’s a few different mechanisms. One is that, as you eat more animal products, you produce more gram-negative bacteria and more TMAO – trimethylamine n-oxide. It’s a byproduct of gram-negative bacteria in the gut and of [inaudible]. So, you produce more pro-inflammatory compounds that promote dementia, heart disease, and cancer. And as you get more animal protein... Because the protein is all biologically complete. It’s already preformed to be complete. And when you eat excess protein, it produces excess hormone because the body can’t regulate down. It’s not going to burn all those protein for energy. And the body can’t excrete protein as efficiently in the urine. So, it’ll turn it into hormone and the hormones will accelerate cancer. So, just excess insulin from excess simple carbohydrates... excess insulin promotes most cancer. But extra protein from animal protein, from IGF-1, also is growth-promoting hormone that promotes cellular replication and cancer as well.

But we know from looking at primitive populations that don’t eat animal products, they would be deficient in B12. And it seems like a little bit of seafood in the diet may supply people with the extra zinc, DHA, and B12 – making the diet safer than being on a strict vegan diet, which may have been the case in prior generations that vegans couldn’t thrive. But in today’s society, we have the opportunity and ability to take B12, to take a little extra zinc, or to take DHA to remove those potential deficiencies that a vegan diet might have.

And then the question is, is an intelligently and conservatively supplemented vegan diet more lifespan-promoting than one that includes a little bit of animal product, even in small amounts? That’s a difficult question to answer.
The Adventist health study looked at that. That was just published about a month ago. They looked to see if small amounts of animal products, three to five servings a month, had increased risks of sudden cardiovascular death, over people that were complete vegans. And they seemed to show, in that study, that you had more cardiovascular deaths in those eating even a little bit of animal product. That was cardiovascular death. And I'm not sure, I don't think they accounted for seafood versus other animal products.

We do know a lot of seafood is contaminated with different types of chemicals and microplastics and things like that. So, eating too much seafood puts more toxins in the body. And because of the biological concentration of toxicity in most animal products, even in seals in the arctic and polar bears, it's not commercially raised animal products, it's just the nature of predatory animals eat that smaller animals and smaller foods and concentrate the toxins in their tissues.

So, I'm suggesting that it's most likely that a vegan diet that's appropriately supplemented is going to more likely promote lifespan and lower rates of cancer and cardiovascular death in people.

However, that doesn't mean that that would be the case in every individual, because there are certain individuals who, as they age, don't absorb sufficient protein. They're weak in their ability to absorb protein. And their IGF-1 could get too low, making them frail and reducing immunity. And there may be some people that may need to modulate the protein, and even need to add animal protein to keep their IGF-1 from dropping too low. So, it's certainly not a "one size fits all" approach. But I do agree for most people that a conservatively supplemented vegan diet is most likely the most lifespan-promoting.

Chris: Yeah. And I appreciate the fact that you are not hard line on this, which some people are, that everyone should be vegan and that's the best solution for everybody. What you were talking about reminded me of Dr. Valter Longo's study where they found that basically a plant-based diet was extremely protective for heart disease and cancer and a lot of chronic disease, up until age 65. But then, things started to flip the other way for older folks and they might need a little more animal protein, like you said, if they have a hard time metabolizing it from plants.

Dr. Fuhrman: Yeah. So, I don't agree with that study, by the way, age 65. Because what I'm saying right now is if you're following a nutritarian diet, you're aging slower. So, I'm 65. And I'm doing more chin-ups and push-ups and more aggressive athletic activity now, than I did when I was 30. Because when I was 30, I was coming out of medical school and I was sitting on my can the whole time. I wasn't as fit as I am now. I'm more ripped and more lean. And I have lower body fat now than I did when I was 30 years old. And I'm not like other 65 year olds, you know what I mean? I'm much more physically fit.
So, my digestion’s not going to be like other 65 year olds. There are 65 year olds who are old 65 year olds. You know what I’m saying? Like people I went to school with, most of them are dead already. So, I’m saying that may flip in a healthy person at age 80, not at age 65. Number one. And number two, eating the right diet may prevent that need for increased biological protein to raise IGF-1. If what happened if a person’s eating high levels of meat all their life. So, that data needs a lot of scientific figuring out accuracy and details that are not quite accurate. So, what we do differently is we measure each individual and we see their bioavailability of protein or level of IGF-1 or their level of inflammatory proteins. So, it's not just a guessing game.

So, I would never give that type of advice: if you’re age 65, eat more protein. Because what I’m finding is that most people, even as they get to be 80 and 85, don't need more protein. And a nutritarian diet is different from these low fat, high carbohydrate vegan diets with a lot of potato and rice. A nutritarian diet is much more protein adequate to begin with because it contains the soybeans and other beans and salad greens and leafy greens and quinoa and Mediterranean pine nuts and sunflower seeds and hemp seeds. So, we’re already increasing the protein content of plant foods. And in the Seventh Day Adventist protein study published in March of 2018, it showed that more animal protein made for shorter lifespan, even as people got older. But more plant protein food accelerated life and increased longevity.

So, what I’m saying right now is when your diet is primarily plant-based, eating more high protein plant foods showed in that large scale study to enhance lifespan. And we’re talking about high protein plant foods like broccoli artichokes, quinoa, Mediterranean pine nuts, hemp seeds, sunflower seeds, black beans, soy beans, edamame. So, we’re trying to include high protein plant foods. Whole foods does make the diet more beneficial to the elderly. These rice-based macrobiotic potato-based diets are not adequate protein for toddlers and young children, and they’re not adequate protein for the elderly, let’s say above 80 (not about 65 anyway. And then, we’d have a lot of that vegan community, advocating that you don’t need supplements like DHA and things like that.

And then, we have seen a lot of those elderly vegans losing their memory or becoming demented – early stage of dementia prematurely and getting demented in later life. That’s been my experience. I’ve taken care of this community for the last 30 years. I’ve seen that DHA is an important element that affects about 50% of vegans. When you measure the blood tests, about 50% of vegans who are not supplementing, don’t fall in that ideal range of the Omega-3 Index. We see that the Omega-3 Index, when it starts to go below four, we start to see studies showing brain shrinkage. And so, we want to keep that level at five or above – a safe level. And some people would not need supplementation because they genetically make enough. But other people would. Why again it’s not the
"one diet fits all" approach. We want to make sure everybody is safe and doing the right thing.

Chris: It does make sense to actually have someone look at your blood work and see where you're deficient or not. Are there any other supplements that you find that maybe vegans or those eating a plant-based diet need, on occasion?

Dr. Fuhrman: Well, some of them are variable. Like vitamin D. You don't want anybody to be vitamin D deficient. And the amount of vitamin D people need varies from where they live, their skin color, how much they're outdoors. Their genetics vary tremendously too. So, we just can't assume that people don't need it. I you have a blood test showing you don't need it, that's fine then. You know what I mean? So, we want to make sure people have sufficient vitamin D. That's one thing.

The next thing is zinc, because you'll only absorb about 20% of the zinc from plant foods, compared to 80% from animal products. And we know that zinc absorption goes down with aging. And if we're not going to have a heart attack or cancer, then another cause of death from thousands of years ago is infection and pneumonia, as the immune system winds and the immune stem cells start to get depleted in later life. The question is, does added zinc make you have less chance of pneumonia and infection later in life? And we do have some answers, some studies. Not on vegans, but we do have some studies just in regular people. Elderly people taking zinc show they show they have less pneumonia. So, I'm thinking it's most likely the case – since the vegan diet is marginally borderline zinc status, because of the low absorption of zinc in plant foods – that's most likely the case that zinc benefits vegans as they age, as well.

So, I'm thinking most likely that B12, vitamin D, zinc, and DHA are the most important elements to think about. K2 is another element, but the data on K2 is a little more iffy. Not sure if you're on a healthy diet, whether you can convert more of the bacteria from K1 into K2 sufficiently. Another unknown where the data is not really there yet to come to a definitive conclusion. So, I do recommend people add that, just in case. Because a little bit extra is not going to hurt anybody, and we don't really know for sure. So, some of the areas are gray areas. You know what I mean?

Chris: Yeah. Like the D3 with K2?

Dr. Fuhrman: Yeah.

Chris: Okay. Is there any particular form of zinc that matters, that's better than others?

Dr. Fuhrman: Yeah, I don't think so. I don't think you need to do to take that much either. And the problem with zinc also is you can't check your blood test
to see if you're adequate with zinc. You have to just guess because the blood is not an accurate indicator of zinc status. It's mostly intracellular.

Chris: Okay. So, you mentioned beans earlier. And I know it's one of the G-bombs, sort of fundamental high nutrient dense foods. And there's a lot of food fear these days around legumes and beans. Thanks to another very famous MD. And I'd love for you to touch on beans, and specifically on lectins and phytates in beans, and help alleviate this fear that a lot of people have that is unfounded.

Dr. Fuhrman: Right. Well, a lot of people in the nutritional field come up with various hypotheses. But the hypothesis is that it's better to cut out all the nuts and all the fat out of your diet if you have heart disease. Now, that's the hypothesis. But the question is, what do the studies show? What if we look at all the evidence we have that's been collected and every study on that subject. All the data. An impartial jury of French judges. If they viewed all of the evidence, what would they find? So, we have to, in other words, view the evidence in a very comprehensive and impartial way.

And so, what I'm saying right now is that unquestionably, we know that beans are linked to enhance longevity and lower rates of cancer. In probably more than a thousand different studies. And all the blue zone almost consume zinc. And all of the [inaudible] consume beans. And we know what's in beans. They have a lot of resistant starch, a lot of [inaudible] phosphate, a lot of polyphenols. We know they're protective against cancer. This idea that lectins and phytates are anti-nutrients, we actually know the opposite is true. Lectins and phytates have beneficial effects in the body and beneficial effects of longevity.

So, lectins from certain beans can be dangerous only when the beans are raw or inadequately cooked. And that's why we only sprout small beans like lentils and mung beans. We don't sprout the big beans, like red kidney beans or cannoli beans. We don't sprout those beans because when they're raw, they can have dangerous amounts of lectins. But when they're well-cooked as they should be, when they're soaked and well cooked, there's no danger from lectins. You get tremendous benefit from those foods.

So, the person who wrote that book, most of us in the nutritional field don't consider his writings and what he says to be honest and truthful. Because the data that he supports it with, the studies that he supports it within his book, don't say what he says the book says. So, he's misrepresenting what the literature says. And then, he's claiming that he's done research, his own research, and that doesn't even make sense. It's never been published. Never got any peer review. Never been out there anywhere. So, he's just making lots of false claims. And certainly that doesn't mean that some people can't be allergic to certain foods and some people can't do better without beans. Nobody's denying. There's always exceptions. Some people may be allergic to nuts and they
shouldn't be eating nuts either. But that doesn't mean that beans are not an excellent food for the vast majority of individuals, which of course they are.

And I'd like to say one thing about this. The blue zones are where we have the most long living people – Sardinia, Okinawa, Loma Linda, all these areas of the world where you have the most long living people. They are living longer in some haphazard fashion because you happen to have healthy food around and they're happy to be eating a healthy diet, compared to other areas of the world. But I want to just make this clear that nutritarian diet is designed scientifically to be much more lifespan promoting than a blue zone would be. Because we're using scientific studies to show what the advantages of the blue zones are, and what the advantages of the most powerful anti-cancer foods are. And we're using modern transportation and growing methods to have like wild blueberries available all year round, the frozen out of your freezer. Or to have access to green cruciferous leafy greens all year round. And have access to foods the blue zones didn't have access to.

So, you have a high potato eating blue zone, like the Okinawans (sweet potato with some low amounts of fish and some sea vegetables), or the Loma Linda blue zones (more vegetables) and Sardinia (tomato sauce, no sweet potato, and more fish). But so, the question is, how do we take the best from every blue zone? How do we take the best foods that are shown in studies around the world? We look at all those studies on individual food and longevity. Then we check off every box to make sure your dietary portfolio is full with all the most powerful longevity promoting and anti-cancer food. And that's what a nutritarian diet does, which should enable us to live much longer than the blue zones. You follow me? It's tweaking the blue zones up to a different level of excellence.

Chris: Well yeah, it makes sense to investigate and take the best of all worlds and combine them. So, what does your daily diet look like? What's a typical breakfast, lunch, and dinner look like for you?

Dr. Fuhrman: Well, I try to encourage people, including myself, to have a big salad for lunch. I'm usually finely chopping up some arugula or watercress or broccoli sprouts with lettuce, and some kind of little red onion or scallion or tomatoes. And then, I'll make a nut and seed-based dressing. Usually it's a tomato paste or tomato sauce with almond butter and sunflower seeds and some champagne vinegar or fig vinegar or something. I'll make some degree of the healthy dressing. And I'll usually have a bowl of some vegetable bean soup or a vegetable bean chili or something like that.

And then, a piece of fruit. I enjoy having some of my favorite fruits, like frozen jack fruit or frozen blueberries. And I'm mentioning frozen because you can't always get fresh, and frozen is much less expensive. And with frozen blueberries, for example, they're not sprayed with fungicide, whereas if you buy fresh, it has to be organic. Because the
fresh berries are treated with fungicide so they don't get fungus on them. Whereas the frozen is not. So, if you can't afford organic, you're better off buying frozen because it doesn't have fungus on it. Not buying non-organic fresh. You follow me?

Chris: Yeah, that's actually great advice. I'd never heard that before. So, what do you have for breakfast?

Dr. Fuhrman: For breakfast, I vary so much. Sometimes I just have a glass of vegetable juice and go to the gym. Or sometimes I'm just having some type of cooked oats or raw oats with some flax seeds and chia seeds and blueberries and raspberries or something.

Chris: That's pretty much my breakfast almost every day.

Dr. Fuhrman: Yeah. Something like that. Usually seeds. Quinoa, steel cut oats, or something. And lots of berries and things. Or sometimes I may even skip breakfast and just go to the gym. And then I have my vegetable meal when I come back from the gym at 10 o'clock. I have berries.

Chris: Yup. Okay, so you might have oatmeal with some berries and nuts and seeds and flax and stuff like that for breakfast. A giant salad for lunch with some bean soup. And then, what does dinner look like?

Dr. Fuhrman: I usually have more cooked vegetables then raw at dinner. Maybe it'll be like artichokes, asparagus, broccoli, string beans, snow pea pods. Maybe it's a wok with mushrooms and onions and water chestnuts and bamboo shoots and shredded cabbage and onions and mushrooms and things like that. And I'm putting a Thai curry sauce on top. And I'm having a little bit of raw vegetables with a dip. Maybe I have some kale chips or raw vegetables with a hummus dip or a sauce dip or something. And then, I'll have some more fruit for dessert. So, maybe my lunch is more when I have my big salad and get more raw in for lunch. And at dinner, I'm having a little bit of raw, but maybe more cooked vegetables. And then, I have my fruity desserts.

Chris: So, obviously I've got a large audience that are very cancer sensitive. Some of them are cancer patients, some of them are cancer survivors. Others are just what I call cancer conscious. They've had people in their life, parents, siblings, children with cancer. And so, what are the most potent anti-cancer fruits and vegetables?

Dr. Fuhrman: Well, the most potent is probably green cruciferous vegetables. Green vegetables have the most protection against dementia and cancer and heart disease. So, I usually make that juice for people who have cancer. And make it one third, one third, one third. We don't want to make it all green cruciferous totally. Because too much cruciferous can suppress your thyroid too much. But a third, within that three to six ounces a day, is perfectly fine. It's not going to be a negative effect. So, we usually have,
let's say, one third bok choy/cabbage juice, one third carrot/beet juice, and one third lettuce/cucumber/celery. You know what I mean?

So, the reason why I'm using the juice is because when we feed a person a diet that usually takes them six months to get their level of nutrients and their tissues high enough to be equivalent to where mine are, let's say. We could measure your nutrient levels with a carotenoid scanner. And the average American scores, let's say, 30,000. And we wanted to get up to 100,000 or 80,000 or 90,000. And they'll get to be 40,000 or 50,000 in a few months. And then, 60,000 or 70,000 in a few more months. We don't want to wait so long. So, we use juicing to get them up there quicker. You know what I mean?

Chris: Absolutely.

Dr. Fuhrman: Maybe you and I, who have been eating this way for years, our levels are high enough of nutrients in our tissues that we don't have the juice as much. But at the initial phases, we're giving people juices without having to exceed. Because they're too full and they can't eat enough food to get their level of nutrients high enough, quick enough. And we want them to get their immune system to have the full benefit of the phytochemical penetration of the tissues. And also, that's where body fat also sequesters nutrients. And spasm muscles can actually sequester and utilize nutrients too. Causing inflammation, muscles that are in spasm. And cause anoxia or hypoxia. You know what I mean? So, we're talking here about getting the body enough nutrients.

Chris: Let me interrupt you. So, you said fat cells can sequester nutrients. And I think this is something that probably a lot of people never heard before. Can you expound on that?

Dr. Fuhrman: Well, you can imagine if I put some carrot juice in a cup of water, it's going to have a certain concentration per milliliter. But then, if I put that same amount of carrot juice in a gallon of water. The amount of concentration per milliliter is going to go down. And it's the nutrient density in your cells and your tissues that determines your body's immunity. So, when you're putting the same amount of nutrients in a bigger vat of tissue, it's going to be disbursed much more readily. So, when we're measuring people, just losing the weight concentrates the nutrients better in their main tissues. And then, as we talked earlier, fat cells are a magnet for toxins. And they're also hypoxic reducing free radicals. And that's going to suck up a lot of nutrients.

I'll give you an example, I've seen people's nutrient levels, because they had spasmed muscles and some degree of fibromyalgia due to the muscle tissue that was in spasm... And we used therapeutic pressure to soften the muscles to allow for better blood flow. So, nutrients can get in there and remove the lactic acid, and make the nerves less irritated and painful with more oxygen penetration, with pressure along the nerves.
We found it knocks the level of nutrients down in the body. Because as we're opening up the channels for these muscles and tissues that've been in spasm and tight, now that we've opened it up, they were lacking nutrients for so long that we actually measured the nutrients, find that the nutrients temporarily start to go down as this tissue requires more nutrients to heal.

So, healing requires more nutrients. And then, the tissues go back up again. So, during those phases, we want to make sure the body is having extra nutrients and better enabling healing and better enabling immune function and cell repair. Because these phytochemicals fuel cell repair and the longevity proteins like [inaudible] and AMPK (AMP-kinase) protect our DNA and protect our telomeres from shortening and help maintain stem cells. So, they're there to replenish [inaudible] dangerous cells, which are activated by caloric restriction, exercise, and phytochemicals – the phytochemicals in colorful plants, of course.

And the skin of colorful plants are more powerfully protective. Like the skin of an orange, that's why I use kumquats because you eat the whole skin, for cancer patients and not the whole oranges. You know what I mean? And that's why we use wild blueberries because they're really small and they have more skin surface area per blueberry. Their ratio of skin to innards are higher. Take the orange, throw the juice away and eat the skin. That's where all the nutrients are. So, we're paying attention to people's level of phytochemicals because that really protects their longevity proteins and activates the stem cells, by giving these colorful phytochemical compounds in their diet.

Chris: I love that. And I think a lot of people watching and listening will clearly understand why I'm such a big fan of yours. Because you really gave me a lot of clarity as to why what I did helped me. Because my anti-cancer diet, for years – as I was trying to prevent this recurrence the doctors were telling me was a certainty – was vegetable juices all day, giant salad with onions, mushrooms, garlic, cayenne, peppers, kale, spinach, nuts and seeds, sprouts twice a day. So, I was eating a giant salad for lunch and dinner. And then juicing. And I was really operating mostly on instinct. This was 2004 and I didn't know who you are at the time. But I was just like, "How can I get the highest volume of plant food into my body every single day?" And that was through juices and giant salads. I mean, that was it. And I was doing some fruit smoothies too and fresh fruit.

Dr. Fuhrman: It's so incredible. I mean, what I'm saying and you're saying is that we have like an unprecedented opportunity in human history. Because we could never get these superfoods in prior generations so readily available. In other words, we could eat the worst diet in the world and be as sick as crazy. But we also have the opportunity to eat the best diet in the world. I was at a farmer's market recently. And this guy, Josh, was making microgreens. He was like growing the greens and cutting them off so that
he’d have these little baby greens. And the younger vegetables are even more nutrient rich. And there’s more anti-cancer stuff of the sprouts. So, sprouting and using microgreens, like cutting the greens off when they’re young... And now you can buy like baby lettuces and things too. You couldn’t even get baby lettuces and baby microgreens and baby mesclun greens when you were younger. And now you can get watercress and broccoli sprouts. I mean, you're right. We can really have a diet that our ancestors could not achieve, in quality and protectiveness.

Chris: Yeah, it's exciting. There’s a little bit of a high tech element to it, just because of the science and what we've learned. So, yeah, it gets me excited for sure. So, let me ask you this. I heard you talk about, in a recent interview, something that I thought was so fascinating. And that was the triage effect. Can you expound on what that is?

Dr. Fuhrman: Yes. The word triage means that like, when you go to an emergency room, they’re going to take care of the sickest patients first. And they’ll let you wait, if you have something that’s not that bad. Because the people that need help have to get it the most. And most people are under this impression that if you’re feeling okay and doing okay, that like for example you’re not nutritionally deficient because you don’t have scurvy. You’re okay. And I'm saying that we need to have nutritional excellence. Not just prevent scurvy. In other words, the amount of nutrients we need to prevent a deficiency is not the same as the nutrients we need to maximize the longevity proteins and stabilize our DNA, our telomeres, and our stem cells with aging.

And we could use vitamins K as an example. The RDI for vitamin K is 150 micrograms, which is not going to prevent a bleeding disorder. But a healthy nutritarian diet, all these vegetables that you and I are eating, might have 2,000 micrograms of vitamin K. So, is there some mistake? How come our diets are giving us over 1,000, when the RDI is only 150? Are we just wasting all those extra nutrients? Of course not. There’s some value to those extra nutrients and all the vegetables we’re eating. And we found out that the body, when it doesn't have enough, it will take what it needs for its current survival and reproduction. But it’ll do so at the expense of the longevity proteins, of telomeres, and of stem cells. And to maximize stem cell maintenance and telomere length, the extra vitamin K is useful. It’s just not useful to keep for yourself right now.

So, the triage effect means that we don’t want to just take nutrients to prevent disease. We want to have enough nutrients to maintain longevity of our cells and of our body proteins, so that we can live as long as possible. And that’s what the triage effect is talking about, that we do need over 1,000 micrograms of vitamin K, not from supplements, but from food. And these extra phytochemicals and isothiocyanates (ITCs) we’re getting from the higher green vegetables does benefit us and does benefit the stem cell length of life in later life. But you don't see those benefits until you get older because you were doing fine with less when
you were younger. It's in the long run where you're going to see those benefits show up.

Chris: Yeah. And what you're saying is that if a person is nutrient deficient, then their body is going to rob nutrients from itself for emergencies. That's the triage analogy, right? When there's an injury or there's inflammation or something or other, and it doesn't have the abundant supply from diet, then it's going to take it from wherever it can get it in other tissues.

Dr. Fuhrman: The body takes care of your later life health last. It wants to take care of your immediate needs and reproduction first. It doesn't care if you live to be 100 years old, it only cares that you reproduce the species. And we have to be more intelligent. We have to really think about how to protect our cells between the 80 to 100 year old range. It's the 80 to 100 that we're enabling right now. You know what I mean? We're adding that extra 20 years of really good quality life. You don't have to be that healthy to die at 80. The problem with people dying at 80 is that they have a crummy life between 70 and 80. We want to live to be 100, but we want to have a great life between 90 and 100. In the last 10 years of our life, we still want to have a life worth living. And that's where you have to take a little bit of more intellectual effort and expertise to be able to achieve that, in most cases.

Chris: My focus has definitely shifted towards longevity. I mean, initially it was just cancer survival and healing. And now I'm 41. And I've got 40 to 60 years of life, right? Hopefully 60ish years of life left. And sure, in some ways, if you're discounting the healthy things I do, I still have a risk of getting lots of different cancers in the next 60 years of life. So, my big motivator is A) prevention of chronic disease, heart disease, cancer, diabetes. But then also, yeah, having a great quality of life. My dad is 82 and he's got some problems. He's got Alzheimer's and his health is declining. And yeah, it's difficult.

Dr. Fuhrman: It's so needless. So needless. Because the science is there today, and we don't have to have it happen if we don't want to have it happen to us. It doesn't have to happen.

Chris: Right. And I really thought it was interesting. I mean, I just want to hammer this point home that you said about how our body is constantly trying to keep us in a state of optimal health, but we can be sacrificing our longevity for today's health if we're nutrient deficient. It's like we're robbing days off the end of our life to stay healthy now.

Dr. Fuhrman: And we do that. We rob days off the end of our life when we eat processed foods and foods that don't have nutrients in them. So, the more you eat the pizza and those bagels and then pour oil on your food, the more you eat calories without a nutrient load, the more you rob the end of your life. You can be slim, you can go to the gym, you can run
down the block, but you're going to be paying for it at the end of your life, the more processed foods and low nutrient foods you eat.

Chris: I heard you talk about having some case studies where you were able to reverse childhood type 1 diabetes. Can you talk about that here?

Dr. Fuhrman: Yes. The case studies were actually published in the *International Journal of Disease Reversal and Prevention* about a month ago.

Chris: Oh, okay. We'll link to it in the show notes.

Dr. Fuhrman: Yeah. So, basically, when some children come to me very, very early after they're first diagnosed or even when there's some suspicion of them going soon to be diagnosed with type 1 diabetes... That's when you have the most ability to reverse it. And I gave you the example of the case of a child who was getting type 1 diabetes, and we caught it early enough and we reversed it with excellent nutrition. And I gave the example of a case of an anesthesiologist who was a doctor at a local hospital, who was using 100 units of insulin a day, who almost had to quit his job because his diabetes made him so sick. When he found the nutritarian diet was able to cut his insulin use down by two thirds – only used a third of what he needed – he no longer had highs and lows.

And I'm making the point that type 1 diabetes does not have to shorten your life. But the way endocrinologists and diabetologists treat type 1 diabetes is barbaric because we tell people, "Just take as much insulin as you want to cover the carbohydrate you want to eat." And they're not told how dangerous excess insulin is. And they can't just use insulin whenever they want to cover their glucose. They have to eat their diet to keep the glucose low, so they don't need much insulin. Because excess insulin is cancer promoting, and also promotes heart disease and dementia.

So, what I'm saying is that we have to have a new paradigm of how type 1 diabetics are treated. And there has to be a limited amount of insulin that they are permitted to use. And they have to follow a diet that's going to require that limited amount of insulin. And I assure my type 1 diabetics that they can live a long healthy life without heart disease, cancers, kidney failure, blindness, and leg amputation. Because it's not the type 1 diabetes that gets them in trouble, it's the diet that's requiring some many drugs that are getting them in trouble.

Chris: Yeah. And I know so many diabetics whose diets are just absolutely terrible. And they're definitely not getting better. As you know, some people are not interested in change. You can't help them if they're not willing to change. And so, I don't exhaust much energy at all worrying about folks that don't want my help. And I just try to focus on the ones that do. And I know you're the same way.
Dr. Fuhrman: But those people who need this the most, who wouldn't think about wanting to do it, I now can affect those people positively. Like just a couple of months ago... Because I have this facility now where people can stay for two or three months. And so, let me give an example. A person comes in, she's drinking six cups of whiskey every night, eating a junk food diet, and she's about 80 pounds overweight and sickly and a food addict. And she's referred in by her family. And she doesn't even want to be there. And she doesn't want to change, let's say. And she's irritable and she hates the food. And she's going through crankiness as she's coming off her alcohol.

And if she stayed just three or four weeks, she wouldn't have probably been helped. But by learning this information, retraining her taste buds, we've changed her personality (who she is as a person). From a person who wouldn't have even considered doing this and wouldn't want to do this... She became a person who wouldn't eat any other way now because she sees the benefits, sees what it did to her body, understands the benefits of long-term health. And we've literally changed her personality through enough time away from her addictive triggers. You know what I mean?

So, just like another case I had come in who weighed about 400 pounds and yoyo-ed their weight on various diets. A tremendous food addict. Lost 50 pounds while she was there. And then, when she went home, she lost 150 pounds in the next 12 months because her personality changed and her like, her desire for these foods, her understanding of the food... In other words, we give these people psychological counseling, we know it's an emotional problem. It's a physical addiction to foods. Because these frankenfoods are designed to take over the brain and make you a calorie consuming monster. So, these people who think they can't do this... Or even if they don't want to do it... You know what I mean?

I mean, I have people come to some of my immersions and the husband's coming with the wife. And he's not coming for the food or to learn anything. He's just coming to play golf at the hotel because he's not going to eat this food anyway. You know what I mean? Let the wife go to the lectures. But he sits in for a couple of lectures and it gets to him. And then, over time, he changes when he didn't even think he'd want to change. The point I'm making is that I've had so much experience that I've seen people that don't even know they want this. But if they're exposed to enough of it, they realize it's a good thing for them.

Chris: Yeah. I think there's a shift that happened in my mind, and I feel like it's pretty similar in most people, is that it no longer becomes about what I can't eat. It no longer becomes about deprivation. And they get excited about what can happen to them if they start making those super healthy choices. And like, I totally know that's what you're trying to do. And that's what I'm trying to do too, is get people excited about nutrition because of how it can change their life.
So, talk more about the Eat to Live retreat. What is it? Where is it? What is it?

Dr. Fuhrman: Right. You understand my dilemma. Some people can read a book, come to a video, come to some event, and they can get it. Then they can do it. And that's fantastic. But it's always troubled me that some people who are so addicted couldn't do this on their own, in their own negative home environment. They've got too many negative signals. They just couldn't. They yoyo. They went off it and on it. Or they just couldn't do it. And I knew if I could get these people to stay with me long enough, away from the addictive triggers... Like a drug addiction place, away from your cocaine. You can't get off cocaine while you keep snorting every couple of days. You've got to have the cocaine taken away from you for a longer period of time.

Chris: Yeah. Especially if your coke buddies keep coming over.

Dr. Fuhrman: Yeah, exactly. Exactly. So, the point is, I have incredible chefs there that make the food taste delicious. We teach people how to make the food taste great. They're not doing something extreme, like fasting. They're eating great tasting food and they're losing three pounds a week – at least three pounds a week – over the first month, let's say. But the point I'm making now is that they learn how much to eat, how to eat, how to make the food, how to make it taste good, which recipes they like. They get the psychological counseling to deal with the emotional issues of what caused them to want to use food as a stimulant. And why they want to avoid the problems in their life. And they get their creativity back. They get their intelligence back. They handle their life problems by addressing them and not by burying them and covering them up with their addictive tendencies. And then, they learn how fun this can be.

And once they're there for a while, like you're saying, they start to appreciate and be grateful for the food. They look at a passion fruit and they say, "This is a miraculous food. How can it hold so much water and have such a protective shell and have this..." You know, they didn't even think they would like that because it didn't taste sweet enough. But they start to like things. They start to love and really feel amazed at what nature has designed. And they start feeling good about the world outside of themselves, and less self-consumed and less living just to suit the primitive brain's desire for stimulant relation with alcohol and sugar and processed foods. They become much more worldly. Their personalities shift. They become more happy about life and more hopeful for their future. That fog lifts.

So, what I put together in north of San Diego is a really beautiful place where people can get well. And for certain people who have diabetes or early stage cancers or they're overweight or they're food addicts or they have blood pressure or heart disease problems, it really assures me that they're going to be able to leave and do this. Because they have these
places people go to for a week or two, and they feed them healthy diets varying in some of these places. But the people go home and don’t follow that diet. They can’t stick with it. This is different. They really learn how to master it. So, when they go home they can continue it on their own and do it right and enjoy it. So, I’m really getting rewarded from seeing people... Because all my life, the whole thing about the excitement and my passion was watching people make transformations. And seeing that is so exciting.

When I talk about a patient who had ovarian cancer that metastasized to her lung, and was given six months to live. I never want a person to be put in that position. But the fact that she’s alive now, 18 years later, in great health is a thrill. You know what I mean? Because this person is living and thriving, and was going to die if she didn’t do this. And that is thrilling. But so, the bottom line is that even people who can’t do this on their own or won’t do it on their own, I still have figured out a way where I could help them and make it stick for them. You know what I mean? At this beautiful retreat we set up.

Chris: And weren’t you telling me, when we talked the other day, that you grow all the food that’s served there? Or a lot of it?

Dr. Fuhrman: A lot of it. And eventually, I’ll probably be growing the vast majority of it. But yeah, I put in 55 exotic fruit trees. I have big vegetable gardens. I have the best soil in the world. And the best soil makes the best food, and makes the best nutrients. And when you’re talking to person getting well from cancer or getting over an addiction with the best nutrients from the best soil, it helps. When you have the microgreens and the sprouts and the juicing, when you have the best soil. And my soil – I put in the beds there – is made from gold earthworm castings where the earthworms aren’t fed junk food and cardboard. They’re fed a special, healthy diet.

Chris: From the healthiest earthworms!

Dr. Fuhrman: [inaudible] from animals with antibiotics. We’re using bat guano and wild jungle and forest compost and real crushed mineral walks. We’re not using artificial fertilizers that can be contaminated with cadmium and stuff. So, even the soil is really great. And it’s wonderful to watch the food grow in such great soil. The food is like exploding out of the ground. I remember when I first planted some greens there, we had little defects in the fence, some rabbits got in and ate the greens. So, we fixed the hole in the fence so a rabbit couldn’t get in. And then, within like two weeks, it like exploded in growth because the soil is so rich. So, it’s just really been fun.

Chris: That’s why the rabbits really wanted it, too. Yeah, that’s amazing. That sounds great. And people can come from anywhere from 4 to 12 weeks. That’s the thing that I thought was so wonderful. We talked about this
and you touched on it, but there’s a lot of cancer clinics and retreat centers and things like that where people will go for a few weeks. And they’ll get a benefit. They’ll start to feel better. Their bloodwork might improve. They might increase their energy. They may even get out of the wheelchair. Like things start happening and it’s really great. They start that momentum, but then they go back home and their life’s a mess and there’s a ton of stress and their pantry’s still full of junk food. And so, they are unable to... And maybe it has to do with personality type or astrological sign or whatever it is. But they go home...

It’s biological too. Because it’s not enough time away from the addictive trigger for the brain’s dopamine sensitivity to tune down. People need more time to get rid of those addictive drives. It’s like staying off cocaine, staying off alcohol, and your taste buds don’t get stronger. After a few weeks, you’re not enjoying the flavor of natural foods as much as you’re going to have that ability to enjoy them after 8 to 12 weeks. It takes longer to retrain the taste buds. And it takes longer to not be emotionally attracted to those foods. It takes time to lose the emotional attraction. And it takes time to use the physical attraction. So, there’s too high a probability of falling back.

You know, I’m not saying that it’s not of benefit to some people. And I have people coming to stay one or two weeks for me too, and I do the most benefit to get to them and to help them do the best they can. But the probability of success just as heightened when you stay a longer period. With the probability of success and less chance of recidivism, the same thing as with cocaine addicts are cigarette smokers. The longer we can keep them in a healthy environment, away from smoking and away from cocaine, the more likely they’re going to stay off it long term.

But this is even better because they become experts in how to make the foods, their taste buds change. And of course, they’ve gotten more emotional and psychological counseling about food addiction. So, they are able to deal with the problems in their life better. So, in the whole picture, the time really is needed to assure the obstacles are removed and they can comply with this and enjoy it as much as possible.

Chris: And there’s medical supervision on top of that, right?

Dr. Fuhrman: And it’s my medical supervision. In other words, I’m the doctor there, personally caring for the people, which I enjoy tremendously.

Chris: I love that. Okay, folks. I will put a link to that retreat center in the show notes, if anybody’s interested in finding out more about it. It sounds amazing. I mean, I would be inclined to go myself, had I known about it in my healing crisis, just to break out of my life.

Dr. Fuhrman: I’m going to invite you to come one time, even if it’s for a short period of time. Because we have a sand volleyball court and [inaudible] trees. We
have a disc golf course. So, you're going to come on my invitation just to have a good time. We'll have some fun together. You and your family.

Chris: I would love that. Next time I'm in San Diego, I'm coming, man. That sounds great. I want to see it. Sounds amazing. Well, Dr. Fuhrman thank you so much for being so generous with your time, and sharing your knowledge and expertise with my audience. I know you're passionate about it. And probably, like me, you never get tired of talking about it. So, thank you again for your great work. And everybody, I'll link to Dr. Fuhrman's books in the show notes. We'll link to the retreat center and some of the studies we talked about, so you can go learn more from there. So, are there any final words...? And I'd just like to ask you, if someone is dealing with a cancer diagnosis, what do they need to know? What’s the most important thing you could communicate to them, just in a minute or two?

Dr. Fuhrman: Well, I think my message is similar to yours and I really appreciate the camaraderie here. And this is a message of hope and healing and positiveness. And the fact that people now have something they can do to change their outcome. And we know there's lots of data to suggest that this is not hocus focus. This is not alternative medicine. This is progressive medicine. It’s scientifically vetted that people live longer, have less recurrence, and do better because they watched their diet. And when you treat the diet to this extreme of excellence, it's very, very powerful. And it’s therapeutic. We're talking here that it's therapeutically more effective for multiple diseases – including autoimmune conditions like lupus and psoriasis and asthma and scleroderma and Sjogren’s syndrome and rheumatoid arthritis. In other words, nutritional excellence is therapeutically effective, and people have to know about it and take adventure.

Chris: That's perfect. And I'll just add this little bit, which is that what I am trying to communicate most to people is that you don't have to be a victim of disease. And your choices matter. And no matter what medical treatments you choose, there's so much you can do to help yourself at home, through the choices you're making every day. Especially the diet. That's the foundation of health. And so, to me, that's so encouraging and exciting and empowering. And again, thank you so much, Dr. Fuhrman for your amazing work. It’s so great to know you and to be on the same team.

Dr. Fuhrman: Great to know you too. Best of luck to you and all your listeners. And hopefully we'll meet again in near future.

Chris: Amazing. Okay, well thanks everybody for watching. Please like and share this video with people you care about. This is important information and it needs to get out there. So, thanks again, Dr. Fuhrman. Bye everybody.