Hello, everybody. Welcome. We'll just give another 15 seconds for everybody to join to the audio here. Great to see all of you joining us for this live Q&A. I see multiple people trying to connect to the audio still, so we'll give it another 10 seconds or so and then we will get started. Welcome, welcome. All right. Let's go ahead and get started. I see all of you are connected to the audio now, so hello everyone. I am Nathan Crane, creator of the Supplements Explained masterclass, and I want to thank all of you for joining myself in this live Q&A with Doctor Joel Fuhrman. So far, you should have had a chance to watch the first few modules of the masterclass. First module with Dr. Fuhrman, which was about creating your supplements game plan with personalized nutrient testing. The second module with Dr. Fuhrman, as well, which was about which supplements to keep, which ones to throw away. There were a couple of modules have come out with Dr. Joel Kahn. You should have seen those, as well.

#### Nathan Crane:

If you've not watched the first five modules yet, I highly encourage you to go back inside your members area and watch them. They're very supportive for helping you really get the most out of your supplements to maximize your health and your lifespan. And that's why I'm really excited in today's live Q&A. Dr. Joel Fuhrman is here to answer the questions you might have so far from the masterclass. Dr. Joel Fuhrman is a board certified family physician, seven time New York Times bestselling author, and internationally recognized expert on nutrition and natural healing. He specializes in preventing and reversing disease through nutritional methods. Dr. Fuhrman is the president of the Nutritional Research Foundation. For over 30 years, he has shown that it is possible to achieve sustainable weight loss and reverse heart disease, diabetes, and many other illnesses using what he calls smart nutrition. In his medical advice and through his books and television specials, he continues to bring this information to hundreds of thousands of people around the world. His website is drfuhrman.com. That's D-R-furhman.com. You can Google his name. It'll take you right to his website. You'll find all of his books, his retreat center, all the wonderful work that he's doing.

# Nathan Crane:

Dr. Fuhrman, thank you so much for joining us for this live Q&A. Appreciate you. I know how busy you are, so thank you for taking the time to come here and answer our community's questions.

Dr. Joel Fuhrman:

My pleasure. Lots of fun.

### Nathan Crane:

Let's begin. First, everybody, please note. As usual, this is not medical advice. This is informational only, so please consult with your physician if you have specific medical questions. Secondly, if you're joining us live, you can submit your questions in the chat box for Dr. Fuhrman and we will answer as many of them as we can. If you want to come on live on video or audio, you can just click the raise your hand icon and I'll call on you, as well. Let's begin with some questions that came in online. We're going to Jackie, and Jackie has a really great question about osteoporosis. So, she is saying she's exercised all her life. She's 65 years young. She's been vegetarian 30 years, vegan 90% of the last 10 years. Osteoporosis runs in the dad's side of her family. I'm trying to implement the recommendations you've been talking about and adding some vitamins to my diet. My question is why did I get diagnosed with osteoporosis even though I've been proactive not to, and number two, should I take calcium and magnesium as part of healthy supplementation?

Right now, she's taking vitamin D. Her last check was at 61. She's taking vitamin K2. She is taking calcium, 1,000 milligrams a day, magnesium 90 milligrams a day, and zinc 30 milligrams a day, three days a week. She says she stopped B12 because her levels were sky high, but she's going to do another blood test soon. So, really wondering about what she can do for osteoporosis, which I think is a fantastic question for anybody as we age.

#### Dr. Joel Fuhrman:

It is. And you know, there was a recent study that came out of Britain that showed that vegans, but these were British vegans, we don't know how healthy they were eating, had weaker bones, higher risk of hip fracture than meat eaters who were bigger and heavier to begin with in the group. But when I analyzed, they gave the diet that most of these English vegans were eating and I found them to have almost half the calcium intake and half the protein intake of those people following the plant-based diet that I recommend, a Nutritarian diet that includes the more liberal use of seeds, and greens, and beans, and soy beans particular.

#### Dr. Joel Fuhrman:

This person said she's a vegan but we don't know the type of vegan diet she's been eating. She could have had a diet high in potatoes and rice and low in greens, and beans, and nuts, and seeds, and it's the greens, and beans, and nuts, and seeds that give you more calcium and protein. And the fruits, when the diet is too high in of course processed carbohydrates, but even too high in potatoes, and rice, and fruit on a vegan diet as you age, could be a little low in protein and calcium. We don't know if that's the issue.

### Dr. Joel Fuhrman:

There are three things here to be considered. She also said she exercised, but we didn't know the type of exercise she's doing, like biking and swimming does not do anything to build your bone. You have to really put the bones under some stress. And the other thing is is that bone loss and bone weakness is the same as muscle loss and muscle weakness. You can't develop weaker bones without develop weakened muscles, so they go hand in hand. When you strengthen your muscles, you strengthen your bones simultaneously. When you build muscular strength, you enhance bone density.

#### Dr. Joel Fuhrman:

If you could test yourself on a machine that tests the amount of muscle strength you have, how much weight you can pick up, how much weight, then you are measuring your bone density simultaneously to the amount of weight that you can lift. Bone density correlates best with strength more than it correlates with anything else, so the type of exercise this person is doing maybe is not the kind that's weight, that has enough weight bearing on her spine and on her hips. There's something called... There's equipment and there's these places you go that... We have a bioDensity machine in our practice in Jersey that I closed down, but essentially you're taking a weight and you are maybe slightly bending your knees and picking up the weight with your hands and pressing up against this weight trying to lift it one or two inches off the ground. And women can really put a tremendous force because their legs are hardly bent, and they're pulling with tremendous force in their spine.

We're seeing people put 300 to 500 pounds of pressure on the machine that measures the amount of pressure applied to it. We're saying that taking a weight, let's say on a bench, maybe it's 25, 30 pounds in each hand, that's 50 pounds of weight, and putting that weight on a bench, the weight's on a bench, and I'm picking it up off the bench just a few inches and putting it down on the bench. Picking it up off the bench a few inches and putting it down on the bench. I'm picking up. I can pick up a heavy weight if I'm almost standing up straight.

### Dr. Joel Fuhrman:

Then there's also side-to-side movements. We give a whole series of exercises to build agility, and balance, and bone mass. Okay, so it's a whole you could say protective protocol for osteoporosis. It's not just based on supplements. Okay, then, so this woman's-

# Nathan Crane:

Real quick on that, I just want to add to that, because if people don't have access to those kinds of machines and things like that, like you said, it's as simple as some dumbbells, or some kettlebells, and they don't have to be heavy, right? Or a barbell. And these things you can work with a personal trainer to learn how to do these movements safe. But different forms of dead lifts. Basically, basic forms of power lifting or bodyweight exercises with a little extra weight, right?

# Dr. Joel Fuhrman:

Right, but you don't have to bend low to hurt the back. You can just even lift the weight six inches up and down.

Nathan Crane:

Exactly.

#### Dr. Joel Fuhrman:

You don't have to go bend down and hurt your knees or your back and do a dead lift or a clean and jerk. You just got to pick up some weights and put them back down a few inches off the ground. A few inches-

### Nathan Crane:

It's just putting the bones under the pressure-

Dr. Joel Fuhrman:

Right.

#### Nathan Crane:

... which forces them. It says, "Hey, we're getting some pressure here." It would be like if you look at a lot of the people who live the longest in many parts of the world, they call the blue zones, right? And they look at their lifestyles, they're very often carrying things long distances, or moving rocks in the garden, or carrying water. It's not necessarily super heavy but they're constantly putting their body under some weighted pressure. Moving things, picking things up, carrying groceries, and water, and things like this, right?

Right. All right, so getting back, so we're talking here about she's exercising, refining the type of exercise she's doing to include balance, side-to-side motion, strengthening, and then to refine her supplemental regiment. Taking 1,000 milligrams of calcium at one time has been shown to increase cardiac calcifications and calcification in the joints. It's not natural to take 1,000 at one time. We give food-based calcium in my Osteo Biotect, and we give a few hundred of calcium, food derived, with each meal. So, I would say even if she cut that 1,000 milligram capsule up in four pieces and took a little bit with each meal, she wouldn't be flooding so much at one time. What I'm saying, the most important thing is to spread the dose out during the day. Not to take a lot at one shot. That's why we make one that has extra K2, a little extra vitamin D, and food-derived calcium that post-menopausal women can use with their meals three times a day. Not taking one, and a lower dose.

#### Dr. Joel Fuhrman:

It's better to just add a little bit of calcium over and above what the meal has and not take a huge amount at one time, which then has an opposite effect, and then suppresses vitamin D absorption and vitamin D activity. And she's taking too much vitamin D, as well, because driving your level up to 60 is not necessary and isn't better than 30 or 40 to protect against osteoporosis. So, it's not the supplements, per se, that's the problem here. It's getting more protein in your diet through the of, and particularly using more edamame, tempeh, and dried soy beans, because the genistein in soy beans... First of all, soy beans are higher in protein, are high protein. And when you have a diet which has hemp seeds, and broccoli, and greens, hemp seeds which is really high in protein, and soy beans, the genistein in soy beans block the E1 receptors on breast and prostate tissue, lowering risk of breast cancer. But they activate E2 receptors on bone and muscle, enhancing women's post-menopausal bone mass and muscle mass, giving you the diet more protein and of course more estrogen stimulation of muscle and bone for post-menopausal women.

# Dr. Joel Fuhrman:

So, I'm saying use soy beans. Not tofu and soy milk as much as the whole soy bean like edamame or dried soy bean that you make into a chili or a soup, and so that's an important part. We can take this person's diet, we can increase the protein in her plant-based diet through adjusting the diet. We can increase the effectiveness of the exercise she's doing and we can improve her supplementation a little bit to make it more absorbable and more safe. And then she could find that she'll be okay.

#### Nathan Crane:

Fantastic. What's the name of the supplement that you offer that has the lower doses of the food-based calcium you were talking about?

Dr. Joel Fuhrman:

It's called Osteo Biotect.

Nathan Crane:

Osteo Biotect. That's available at your website?

Yes. Right. So, we're recommending people not take like two or three at one time, a high dose at one time, but you have to split it up between the meals, so you're getting a little extra calcium, because that's where the body absorbs it, utilizes it, instead of putting it to make calcifications by pushing up a high level of calcium all at once. You're just keeping it nice and smooth.

#### Nathan Crane:

Got it. Great. Thank you. Dianne, I see you have your hand up, so let's go ahead and unmute and why don't you come in and ask your question here? Dianne Davis, if you're still with us, I see that your hand is-

Dianne Davis:

Hi. Can you hear me now?

Nathan Crane:

There we go. Yes. Hello, welcome.

#### Dianne Davis:

Okay. Yeah. Thank you. Great program. It's really helped me with everything I know add to it, which is I need more education here, but the soy beans. I had breast cancer so I've been staying away from soy, but the soy beans are okay?

# Dr. Joel Fuhrman:

Yes, because we have lots of studies on people with breast cancer eating soy beans, and they have longer lifespan and lower rates of breast cancer reoccurrence, so soy beans are not only safe for breast cancer, they're actually indicated and documented in medical literature to be helpful for women with breast cancer. So, the problem is is that there's billions of dollars put out there by the meat industry, and the meat and dairy industry try to bash vegan foods, and vegan diets, and one way they've spent their money is to attack soy beans because we know soy beans are a high protein food that people use as a meat substitute. So, there's a lot of false information on the internet attacking soy beans and saying that the genistein or estrogen-like compounds in soy have negative effects on women's body, or have effects like estrogen to increase risk of breast cancer or cause breast cancer.

# Dr. Joel Fuhrman:

And those claims have been adequately disproven and shown to be complete myths because we have too many studies that show the opposite.

Dianne Davis:

Gotcha. Thank you.

### Nathan Crane:

Yeah. Good question, Dianne, and to add to that for everybody here, there are studies that show soy increases cancer risk, but when you look at those studies and you break them down, what I've discovered is they take a soy isolate, and it's a soy isolate protein powder.

Oh, yeah. Isolated soy protein. That's correct.

Nathan Crane:

Exactly. Has nothing to do with the whole bean itself with all the fiber nutrients, and the fiber, and everything that Dr. Fuhrman's talking about. And then they show a slight increase of risk from that isolate. So, if anything, don't take a soy isolate powder. Eat the whole food as it's meant to, as Dr. Fuhrman's saying, and all of those studies show decreased risk of cancer and increased muscle and bone density, et cetera, that Dr. Fuhrman's talking about.

Dr. Joel Fuhrman:

Right. The soy protein isolates raise IGF-1 like meat does, so it pushes, it's like eating meat, whereas these... And of course, they remove the beneficial parts of soy. You don't have the fibers and the antiestrogen components. So, the bodybuilders use it, and bodybuilders take a lot of high protein stuff at risk, put themselves at risk. Yeah. That's like a meat product even though it's made from soy. But okay, so you have to differentiate soy protein isolate from the whole soy bean, of course.

Nathan Crane:

Ulrique, I'm sorry if I didn't pronounce your name right, but I see you got your hand up. Do you have a question here?

Ulrique:

Yeah. Can you hear me?

Nathan Crane:

Yes, I can.

Ulrique:

Okay. I'm so sorry, my camera doesn't work because I put my router in the basement and I didn't realize it connected to the router. I'm sorry.

Nathan Crane:

That's okay.

Ulrique:

My question is is there a supplement that mitigates the autoimmune effects of oatmeal? Two years ago I had a food sensitivity test with Cyrex Laboratories with a result of oatmeal at 1.23, and the ELISA index range is 0.0 to 1.4. I really miss having oatmeal for breakfast, and there is like this gluten-free, organic, quick cooking rolled oatmeal from Bob Red Mills, but I don't know if there's a supplement I can take because of my higher ELISA index range result.

Dr. Joel Fuhrman:

There's three parts. Three part answer. Number one, the test is inaccurate and shouldn't be relied on, and unless you're having a symptom, or unless you have a RAST test positive or a skin test positive, or

you have symptoms when you eat it, such as itchy mouth, a burning throat, or symptoms, then you shouldn't be avoiding oatmeal. There's no test that... It's not the way the body works and those tests are notoriously inaccurate and mostly worthless. They just pick up foods that you eat a lot. So, I'm not recommending you go by that test.

#### Dr. Joel Fuhrman:

To lower your sensitivity to foods, the most effective thing to do is to eat a large salad every day, about a nine-inch salad bowl, and to mix in half lettuce, which has high in sulfoquinovose, and a half cruciferous greens, like arugula and sprouts and things, and you have this big chew to a liquid in your mouth, and then also we do have one supplement called Ultra Cell Biotect, which mixes turmeric, black turmeric, a C3 curcumin complex for better absorbability, and a special type of green tea extract, a high phytogreen green tea to maximize absorption, because those have effects to improve immune function and decrease food sensitivity to noxious stimuli.

#### Dr. Joel Fuhrman:

But I don't think that you have a major problem here. I don't think you should be avoiding oatmeal unless you have a symptom that's creating.

# Ulrique:

I am so surprised at your answer because you know, I paid a lot of money for that test, like over \$500. It was for it says all analyze are tested for IGG and IGA combined, and it tested positive for wheat, oats, rice, and sesame.

#### Dr. Joel Fuhrman:

IGE and IGA do not determine a person's allergy. RAST test determines allergy. IGG and IGA are just working with digestive. They're digestive immunoglobulin that raise when you eat a certain food. So, I'm saying those tests should not be... People shouldn't be wasting their money on them and relying on them.

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Wow.

# Dr. Joel Fuhrman:

You're not going to be in better health because you avoid those foods. A matter fact, your health is improved when you eat a wider variety of plant foods. So, we recommend not one or two mushrooms a day, but actually taking more variety. Not one or two types of greens, a wide variety. If you're eating greens in a few different varieties, and a few different variety of beans. Don't just eat one or two beans a week. So, the more variety you eat, so those tests that needlessly narrow a person's variety of food and they think they're going to... Anyway, they're not accurate.

Ulrique:

Wow. Thank you. Thank you.

Dr. Joel Fuhrman:

My pleasure.

All right. Thank you for your wonderful question. I am going to go to the chat now. A Barricot is asking what might cause my carbon dioxide levels to be just above normal. Is there a vitamin deficiency that might address that? I'm assuming this is carbon dioxide levels tested in the blood?

Dr. Joel Fuhrman:

Yes.

Nathan Crane:

Thoughts on that?

### Dr. Joel Fuhrman:

There's no problem with having a carbon dioxide level a little above normal. Some people have different... The range they're putting there is usually too narrow and a person... Sometimes the carbon dioxide above normal actually could be a good sign. In other words, it's not something to be concerned about. It's not due to a vitamin deficiency.

#### Nathan Crane:

Thank you. Eli Sins is asking, "Dr. Fuhrman, please share your device on prebiotic and probiotic supplements. Are they necessary if one is following a Nutritarian diet?"

# Dr. Joel Fuhrman:

No. They're not necessary. We do recommend people take probiotics for prolonged periods of time if they have been taking antibiotics recently or if they have digestive impairments, such as reflex, or irritable bowel syndrome, or some other issue we're treating like constipation. But for a person on a healthy diet, they don't need to take probiotics. The body makes the own beneficial bacteria. But we do encourage people to chew better and to eat foods that produce the best probiotic in the gut, and those best foods are the two raw foods we talked about, are lettuce, green cruciferous like kale, and bok choy, and arugula, so the lettuce is the richest source of sulfoquinovose, which activates the good bacteria. The combination of lettuce with other greens, and sprouts, and micro greens, give you incredible... And then you add some onions or scallion to that, or green onion, and then the cooked foods, of course, are well cooked beans with different varieties of cooked mushrooms.

# Dr. Joel Fuhrman:

It's better to give yourself the most favorable and healthiest biofilm with food and not with supplements. The supplements give you acid, acidophilus bifidus. We used to think that taking in even fermented foods, and sauerkraut, and kimchi, and yogurts were better in the acid, the dairy things, but those were based on studies on using fermented foods and fermented products, and we now know from studies based on measuring people's actual bacteria and the amount of protection they're getting from the biofilm against infections and against glucose going to the bloodstream that you get better protection when you actually eat a healthy diet with these foods in them than you actually do from taking the supplemental ingredients.

It doesn't mean that I'm not recommending the supplemental greens in some cases. I am. But the primary focus should be on diet, not on the supplements with regard to probiotics.

# Nathan Crane:

Thank you for that. What about fermented foods?

#### Dr. Joel Fuhrman:

They're okay and there's been studies showing there's some benefits of fermented foods, but the studies don't... The benefit of fermented foods doesn't overwhelm the salt content of those foods. And we here at the retreat, we make some pickles, and sauerkrauts, but when we ferment them without using salt in them, so we make low salt fermented foods because in the Asian countries where they use more fermented foods, like kimchi, they add so much salt to it that they have the highest risk of hemorrhagic stroke and stomach cancer from the high salt intake. The answer is yeah, use some if you want to, but try to make fermented with salt.

#### Nathan Crane:

Some of the kimchi that I buy, or one that I bought recently, was so salty I couldn't even eat it. It was just like it was way too salty.

### Dr. Joel Fuhrman:

Yeah. The salt content, it's better to have nothing fermented if you're going to have all that salt in your diet.

#### Nathan Crane:

In terms of the gut microbacteria, as well, they used to think there was only a few different strains, maybe a couple hundred strains, but now they know that there's thousands of different strains, right? So, depending on a probiotic that has one or even 12 strains, couldn't that actually make your gut microflora out of balance because you're feeding just... You're just building more of those few strains when really you need a diverse microflora of thousands of strains? Like you're talking about, eating foods to build that more-

# Dr. Joel Fuhrman:

If you aren't eating enough variety of healthy food, yes. But if you're eating a huge variety of healthy foods that you chew very well, you're not going to hurt that with taking a probiotic. Yeah, so it's possible, yes.

# Nathan Crane:

Perfect. There's another question that just came in. What are your thoughts on alkaline water?

# Dr. Joel Fuhrman:

My thoughts on the amount of alkalinity in the water is insignificant to have a major effect to do anything positive or negative. It's a small degree of alkalinity. Has no effect. In other words, your body produces such a huge amount of acid, huge amounts, when we eat animal protein, and so if you cut

back on animal protein you're making the body reduce the acid load and increasing the alkaline load in huge amounts. And let's say by a thousand fold. And the little water you're taking can't affect one thousandths of that PH. So, it can't have enough of an effect to counter the high acid production. The only way you can counter that is by eating less animal products.

#### Nathan Crane:

Now, let's say someone was on a healthy plant-based diet or a Nutritarian diet. What are your thoughts on alkaline water? Does it help at all? Is it beneficial? It doesn't matter?

#### Dr. Joel Fuhrman:

No. You waste the money. It's like it's there's so little alkalinity there, you're better off eating a piece of celery.

# Nathan Crane:

Now, what about too much alkalinity? People are going to the extreme and saying, "Oh, get 12.0 PH." They're promoting these really high alkaline waters. Are those something? Could those even be risky? Or it doesn't matter?

#### Dr. Joel Fuhrman:

Possibly. I'm not sure about that but I don't know why a person would want to do that. There's a lot of crazy marketing and some people say take huge amounts of iodine. There's all kinds of craziness out there. Overdosing vitamin D. There's all these things that are... There's so much nonsense out there. In other words, your diet has to control your alkalinity. Not drinking water. And then people drink too much water. Because if you're not salting your food much, see, when you take in a lot of salt in your diet then you're excreting a lot of salt in your urine and your sweat, when the body's removing a lot of salt all the time it's removing other minerals shunting out of the body with the salt. You're losing magnesium, phosphorous, potassium. You get cramping from the sweating now because you lost so much minerals when you sweated out your salt.

# Dr. Joel Fuhrman:

But when your diet is low in salt, you don't lose salt in your sweat and your urine, and you don't lose salt when you exercise. So, you don't need so many minerals because your body's holding onto your mineral content better. So, the same thing is key here with regard... I'm saying don't over drink water because when you over drink water it washes away too much minerals and we don't want to think that the water is the key here. You get your minerals and your water content a lot from the food you're eating.

# Nathan Crane:

Fantastic. Grace is asking you to please repeat the name of the turmeric and black pepper product that you mentioned.

### Dr. Joel Fuhrman:

It's called Ultra Cell Biotect. And the reason I started making that a few, like five to six years ago, is because a study came out in 2014 where people were tested with the ENOX2 proteins, which is a marker of early stage cancers, and out of people with early stage cancers they took this supplement that they made which contained the EGCG from green tea and a mixture of curcumin and turmeric extracts,

and in 94% of the cases the blood tests showing the cancer markers went back to normal again. And they timed the supplements so people took it like every four and a half hours, or five hours, all through the day and night, so these cancer cells never had a chance to replicate, so they killed the chance for replication.

#### Dr. Joel Fuhrman:

And that was a very expensive supplement, so we tried to design it again and make some improvements on it, and since that time in treating cancer patients I use that as part of my protocol, the Ultra Cell Biotect. But then I start... So, I give it to people who don't have cancer, and I take one or two a day. I'll take one in the morning and one at night, or take one with my multivitamin, because I don't have cancer or anything, but I'm just thinking it's good to take the extra because I'm not eating turmerics and getting these compounds into me that are good and have protective effects, but they have cancer, then we're using it in a higher dose.

#### Dr. Joel Fuhrman:

So, a lot of people are taking two a day just for immune strengthening, allergy protection, and protective cancer effects, and that's called the Ultra Cell Biotect. Of course, when you have cancer, we're giving people more. Four or five a day.

#### Nathan Crane:

Thank you. Also Ulrique is asking there's green tea extract. You mentioned there's green tea extract in the Ultra Cell Biotect, which I'd really like to buy, but I'm sensitive to caffeine. I get palpitations. Would the green tea extract have that effect on me?

# Dr. Joel Fuhrman:

No. There's no caffeine in ours. We have a special kind that's been used in medical studies, proven to be effective against these cancer cells, and the kind that we put in there is an expensive type of green tea used in medical studies called green select phytosome. It's absorption enhanced. It has no caffeine. Green select phytosome is a type of green tea that we utilize there for that particular proven therapeutic benefits, so he wouldn't have to worry about it.

# Nathan Crane:

Great. Multiple questions coming in about water, so if you're on a plant-based diet, what's the ideal amount of water to drink daily?

### Dr. Joel Fuhrman:

Don't forget it's so dependent and variable on the client you're in and whether you're out there walking 10 miles a day, or sitting inside in an air conditioned house, and whether you just had a melon or three oranges and you had vegetable soup with no... It really depends on your diet, the heat, and your exercise, but let's use me as an example. I'm in a dry climate in San Diego. I maybe hike for two miles or play tennis for an hour, and I hike for three or four miles up a mountain. I'm playing tennis, I'm running, I'm going to the gym, and I still only drink about four glasses of water a day. That's all I drink is about... But if I'm in a tennis match, I'll probably drink a whole quart during the match. Or if I'm on a hike, I'll probably drink a whole quart during or in a tennis match it would just be like three or four glasses a day. Other than my heavy exercise, you follow me?

So, I think people generally drink too much. Most people, they're drinking water when they're not thirsty too much because their diet should be low in salt. The average American needs eight to 10 glasses or eight to 12 glasses because their diet is so high in salt and their diet is so dry with sandwiches, and pizza, and french fries, and burgers, but we're eating salad and vegetable bean soups, and melons, and we're eating everything that's juicy and high water content foods that are low in sodium, so it's better to have less water. You don't need as much water.

#### Nathan Crane:

Beautiful. Let me see. There was another question.

# Dr. Joel Fuhrman:

The answer is like three to six. Three glasses. Three to six glasses of water a day based on your individual need, pretty much.

#### Nathan Crane:

Got it. You talked about oats but here's a different question. Monique is saying, "I've been told to avoid oats as being bad for osteoarthritis. I love oats. Please?" Just please, question mark. Please answer. Please help me.

### Dr. Joel Fuhrman:

I have no awareness of any studies that show that eating oatmeal and steel cut oats would be a negative for osteoarthritis, so I don't think there's any... I doubt there's any documented science that indicates that that's true. We do know that there are some people, one in 30 people are sensitive to tomatoes, peppers, eggplant, and white potatoes, the solenoids in those night shade foods, but not with oats.

# Nathan Crane:

Great. Lots of questions still on water, which is great. Grace, "Advantages of drinking spring water versus tap water? I've been buying Acqua Panna from Italy because our tap water is questionable.

# Dr. Joel Fuhrman:

I don't recommend people drink water from plastic bottles. The bottles have traveled in heat. They could put micro plastic in the water. It's not even good for the environment. It's so easy to buy a reverse osmosis water purification system and have it installed in your house. You can buy them on Amazon for a few hundred dollars and you won't be shipping water in plastic bottles around the world. You get super clean water. I don't necessarily have to promote any brands but there's some brands today that are really super machines, and so efficient, and they notify you when the filters have to be changed, and they're only a few hundred. They fit right under your sink and you have a little faucet that turns on.

#### Dr. Joel Fuhrman:

I even have one that produces sparkling water called a Zip machine. We have one that produces hydrogen water. So, there's all kinds of them but they're more expensive. But I'm saying get a cheap... We have the retreat, so we have special waters just because people like to have the treat of using some sparkling water and maybe putting a little vinegar in it and making like a homemade soda with the

sparkling water and a little drop of vinegar as a treat, you know what I mean? But get a Waterdrop machine from Amazon for 300 bucks and put it under your sink.

#### Nathan Crane:

Just to touch on the plastic bottle. Again, I did a ton of research on this. Did a report on it. Wrote an eBook on it about a year or two years ago. When you get plastic bottled just about anything, but especially water, because of the bottling process the bottles are still heated when they pour the water in, and the water cools it and seals the bottle. And when they test that water they find that that water is filled with hundreds of chemicals from that plastic literally excreting into the water. So, if you think you're getting healthy spring water in a plastic bottle, you're mistaken, because it's filled with chemicals from that plastic.

# Nathan Crane:

There was a study that was done that found... They tested the phthalates, for example, which are endocrine disruptors. They're associated with cancer risk, et cetera. When the water sits in those plastic bottles, it multiplies the chemicals 10 times more than otherwise. So, yeah, again, no plastic. Simple water purification. And yes, to your concern about is tap water safe, most tap water at least in the United States is not safe. When it's tested they find pharmaceuticals, arsenic, mercury, chloramines, chlorine, lead, you name it.

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Fluoride.

#### Nathan Crane:

Fluoride. And so yes, reverse osmosis gets all that out of there, and then if you're eating a health plant-based diet as Dr. Fuhrman was talking about with some supplementation, then you're getting your minerals back into your body from the food, and in that case that's definitely the best way to do it.

### Dr. Joel Fuhrman:

Agreed.

#### Nathan Crane:

I know you eat oatmeal for breakfast, smiley face. Which oats do you use and how to you prepare them? I don't know if you're talking to me or Dr. Fuhrman, because I eat oatmeal for breakfast too, but why don't you go ahead, Dr. Fuhrman?

#### Dr. Joel Fuhrman:

I have for breakfast, I try to have most days, and don't forget I'm a person who's much more physically active, so I'm eating more calories than I recommend for a lot of the people. I recommend that most of the overweight clients that come here have a teaspoon of ground flaxseed, a teaspoon of ground chia seeds, and a teaspoon of hemp seeds. But I have a tablespoon of ground flaxseed, a tablespoon of ground chia seed, and a tablespoon of hemp seeds. That's a lot of seeds with my plant milk, and with my berries, and with maybe a little bit of oats or whatever is mixed in there. Quinoa, oats, tempeh, amaranth, whatever grain I put in there. So, I'm using less grain. I'm probably using... Or I'm just putting

in some raw oats that I soaked in there for a half hour and absorbed the fluid, absorbed the liquid a little bit.

#### Dr. Joel Fuhrman:

So, I'm not having like a whole bowl of oatmeal. I would guess that maybe the grain I'm probably taking in is probably half a cup or less, you know what I mean? Because I put so much other things on top of it. And then I sometimes eat like a piece of Ezekiel Bread or something, that sprouted bread or something, so I don't have that much. Yeah, but I do have some grain usually in the morning with my seeds, and then berries and things.

#### Nathan Crane:

That sounds delicious. Yeah. Most mornings I'll have something similar. I use steel cut oats with also like an almond milk to cook it in, and organic steel cut oats. I'll cook it with some cinnamon and then when it's done, I'll add some kind of nuts to it, as well. Walnuts or pecans I love to add to it. I'll add fresh blueberries to it, banana. I've been getting different kinds of berries, whether it's goji berries or some other, and I'll kind of cycle between those. Same thing, adding some chia seeds in there.

#### Dr. Joel Fuhrman:

Do you always add, do you add some chia and flax in there?

# Nathan Crane:

I do. Yeah. I usually add something like that in it. And if I don't do it there, then I'll usually add it in the evening to something else that I eat, like a yogurt. I'll add chia or flax to my yogurt. Add some fruit in there, like a good coconut yogurt is usually how I do it. All right. Grace is asking, going back to fermented foods is it okay if you're not pickling things, or fermenting things with salt, is it okay to do it with cider, white or red wine vinegar? That's the question.

### Dr. Joel Fuhrman:

The answer is yes. It's okay to pickle things in cider or vinegar.

# Nathan Crane:

Perfect. And she's asking salt content. I'm assuming zero or just a little bit?

### Dr. Joel Fuhrman:

I don't like people to take in more than a couple of hundred, 200 to 300 milligrams a day over and above what the food contained. So, they're usually keeping them under 1,000 a day. That's what the studies show, that below 1,000 a day is most beneficial. So, in other words, the recommendations of the American Heart Association, or for people with any heart disease or high blood pressure, to hold their sodium to 1,500 milligrams a day. And I'm saying how ridiculous is that? That's like telling a person who has... That's like telling people to quit smoking after they have lung cancer. Nobody should smoke. We don't wait till people have heart disease before we cut back their sodium. It doesn't even work that well when you wait that long.

So, everybody should be cutting back on their sodium to prevent the development of heart disease. Not to wait till you have it. And then the 1,500, we show that reduced cardiovascular deaths, and particularly stroke deaths decrease as you drop from 2,000, to 1,500, to even 1,000. It levels off at about 1,000. You don't see further benefit. So, we want people not to use more than a couple of hundred milligrams of sodium. And don't forget every tablespoon of salt has 2,200 milligrams of sodium in it, so even a quarter of a... I'm sorry. I said that wrong. Even one teaspoon of salt has 2,200. So, even a quarter of a teaspoon has about 550 milligrams of sodium in it, and any kind of salt you use, from Celtic salt, or sea salt, or from the rock of Gibraltar, the back of the moon, it doesn't matter. It's all high in sodium and the mineral content doesn't make it safe, that you're using natural salt.

#### Dr. Joel Fuhrman:

So, I sometimes will have some mustard, or a healthy Ezekiel bread, or tomato, something that has maybe 60 milligrams or 100 milligrams added. I'm not going to be concerned. But I'm going out to a restaurant and having 1,000 milligrams of sodium in a bowl of soup or something, you know? In a bowl of vegetable soup in a restaurant.

### Nathan Crane:

Got it. Jackie, did you have a question? You wanted to join us here. Go ahead and unmute yourself.

# Jackie:

Yes. Thank you. I'm sorry. I don't know why I can't raise my hand on it and I put it in the chat and I can't send it. I'm on my husband's computer. That's maybe why.

# Nathan Crane:

No problem.

# Jackie:

But yeah. Thank you. My question is on the Food Summit Revolution series that was recently on, some of the brain doctors were talking about a keto diet to prevent Alzheimer's, and I was so surprised to hear that because... I mean, I'm really trying to follow the G bombs and what Dr. Fuhrman says, but I just wonder if you could speak to that.

# Dr. Joel Fuhrman:

Yeah. I'm really against that because we know keto diets shorten lifespan when they include meats and things. And matter of fact, and most of the studies show that they were the shortest lifespan of any group, were those following keto-based diets. And the keto diet just had better dementia study outcomes compared to people eating the standard American diet. Of course if you cut back sugar and go keto you're going to have better outcomes than the standard American diet. They didn't compare the keto diet to a Nutritarian diet where you're having all the phytochemicals, and our Nutritarian program is relatively low glycemic because we have such good bacteria built up. It's high in phytonutrients and it's not a high... We're not using the high glycemic foods like honey, and maple syrup, and white flour, and white potato, and white rice, so they're really distorting the studies there by claiming keto is good for dementia just because it showed it was better than people eating a standard diet. You know what I mean?

Dr. Joel Fuhrman:
You froze.
Nathan Crane:
I think your screen is frozen there, Jackie, but-
Jackie:
Thank you.
Nathan Crane:
Oh. There we go.
Jackie:
Thank you. Appreciate that.

Yeah. Now, Dr. Fuhrman, what are your thoughts on short-term plant-based ketogenic diets for a few weeks or a couple months at a time? I've seen some really interesting case studies in clinical settings, and there is some science coming out, as well, and a lot of the people who have been promoting the ketogenic diet who were really behind it in the beginning to say, "Hey, this is the best thing forever," have realized that hey, this is not the best diet forever and in fact, if you are going to do it, you should cycle on and off it but not be on it for long periods of time. What are your thoughts on that?

# Dr. Joel Fuhrman:

My thoughts on that that it's bad advice. You can smoke cigarettes to lose weight, but we don't want to smoke cigarettes, on and off smoking cigarettes to do it, even if it has some beneficial effect on weight loss. It's better not to smoke and eat right. And when people use any kind of fad or gimmick to try to lose weight, they just yo-yo and cycle their weight up and down, which is not good for their long-term longevity. It's better to learn how to eat right and stick with that way of eating you're going to stay with long term so your weight gravitates towards your best weight and then stays there without moving even a pound up and down for the rest of your life. The longest lifespan occurs in people who were at it, who maintain their ideal weight for the most maximum number of years.

# Dr. Joel Fuhrman:

So, the more years without cycling, so exactly what we don't want people to do is cycle on and off diets. We don't even want them to cycle on and off fasting or juice fasting. We don't want their weight to be going up and down, up and down. We want them to learn how to eat right and that's where I've over the years switched over. What I have at my retreat is teaching people the perfect diet for you that has you gravitate towards your ideal weight and then stay there, and we make it so you can just live with it. It's what's wrong with some of these health retreats where people go and just live on sprouts and lettuce for three weeks. Those are great diets for health, and losing weight, and for fighting cancer, but they're not going to work because people can't stay on them and it may be helpful if you stick.

So, what I'm saying is that it's much better for people to do something they can live with and stay with permanently, and we monitor them to make sure they are losing at least two pounds a week and adjust their diet. But if you start to go too extreme, either by restricting all carbohydrates or just by doing, then person's going to slow their metabolic rate down excessively, cause rapid regain of weight, and it plays with their brain, as well. It makes them want to binge, and crave, because they deprive themselves so much of carbohydrate. Now they're back binging on carbohydrates and they're back on the keto diet again. And it's just the long-term effects are not the same thing as adopting the most beneficial diet for longevity and health and staying with it consistently.

### Nathan Crane:

Makes sense. So, Pat is saying, "Will you speak to the dairy controversy, please?" I mean, I'll just say briefly and then Dr. Fuhrman, I'd love to hear your response. I mean, even if you follow a lot of the so-called health experts today who are promoting a carnivore diet, or keto diet, or paleo diet, or any of these, almost all of them now are saying avoid dairy because they've at least seen those studies. So, when you say dairy controversy, I don't know if there's much controversy anymore today other than if you're following the dairy manufacturers and the dairy industry itself trying to get you to buy dairy. But anybody who's in the health field today that I see out there anywhere online has come to the realization finally what we've been talking about for years, I've been talking about for over 10 years, you've been talking about for decades, Dr. Fuhrman, is avoid dairy at all costs.

#### Nathan Crane:

Do you want to talk about the science behind that?

#### Dr. Joel Fuhrman:

I wasn't aware there's any controversy. I know dairy products raise IGF-1 the most and is most associated with breast and prostate cancer, and my awareness has been that even the paleo and keto people also tell people not to eat dairy, as well. And we're all similarly against people eating processed carbohydrates. Cookies, cakes, and commercial baked goods, and I'm saying that white flour is the same as sugar, and that's a critical thing. And also, the major difference between a Nutritarian diet and a standard diet is that instead of getting our fat from oils and from meats, we get our fat from nuts and seeds and avocado. So, we're using a whole food source of fat. Nuts, seeds, avocados, where the average American's getting their fat from vegetable derived, processed oils, or animal fats, which have completely different biological effects.

### Dr. Joel Fuhrman:

And the studies show incredible extended lifespan in people getting their fat from whole plant foods like nuts, and seeds, and avocado, compared to getting extracted oils and animal fats.

# Nathan Crane:

Thank you. Elias is asking any supplements that can help lower thyroid antibodies?

# Dr. Joel Fuhrman:

No. The answer is that Hashimoto's thyroiditis is very prevalent, it's really linked to people consuming these endocrine disruptors in plastic particles, and being exposed to environmental chemicals. It's

almost not even... And once the person has the reactive thyroid hormones and your thyroid is destroyed, that's one of the diseases that we don't see reserve itself and come back to normal. We reverse almost every disease, but once a person has thyroid disease for many years, we don't usually see that repairing itself. But I don't know of a supplement that would fix that, but I don't think anything would fix that. We just want them to eat healthfully, live a perfect, healthy life, and by keeping body fat low, if they need to take thyroid hormone, the amount of thyroid hormone they would need would be lessened. Would be less.

# Dr. Joel Fuhrman:

And they should still go with their blood test, but I don't want... You know, taking too much iodine can suppress thyroid hormone and taking too little iodine can suppress thyroid hormone production, so we're trying to keep them in that perfect... not to do anything too radical. Don't take pig thyroid, and hormones that have ground up thyroid, and don't try to get crazy. Just take the normal thyroid medication in the lowest dose possible to keep your TSH level between two and four.

#### Nathan Crane:

Dianne actually chatted this in earlier from the website, so it's a different person, different question. "I have hypothyroid and I also had breast cancer. Can I take CoQ10 and NAC, N acetylcysteine? I was told not to take glutathione since I had breast cancer."

# Dr. Joel Fuhrman:

I don't think there's any problem with taking those things in moderate dosages.

#### Nathan Crane:

Perfect. Grace has a question about gallbladders, so she had her gallbladder removed and asking food recommendations, supplements for optimum health if I don't have a gallbladder.

### Dr. Joel Fuhrman:

I don't know the diet you're on, but the gallbladder, obviously being overweight puts your gallbladder under stress. Fluctuating your weight up and down puts it under stress. Having a diet too high in fat puts it under stress, so we're trying to keep... We like people to have and I've been treating people with a Nutritarian diet with gallstones and gallbladder disease for more than 30 years, and almost never had an overweight person who lost lots of weight develop gallstones because we give them at least half an ounce of nuts and seeds with each meal. We don't give them four ounces with a meal. We just give them a little bit of fat with each meal and they get accustomed to having the consistency. Doesn't put too much stress on their gallbladder.

# Dr. Joel Fuhrman:

If you have like no fat and then you have a lot of fat, then it starts, then your gallbladder's going to go into contractions, so we're trying to keep the gallbladder, not stress it out. So, I don't think it's a problem. Eat super healthy, a plant-based diet. Use nuts and seeds as the source of fat and don't go more than an ounce of nuts with any one meal, so your nut intake is between half an ounce and one ounce with every meal.

I mean, just relatively speaking, an ounce of nuts would be like a very small portion in your palm, right? Its not very much.

#### Dr. Joel Fuhrman:

Right. Depends on the nut. Like a half an ounce of walnuts is seven walnut halves, so seven walnut haves is a half an ounce, so one ounce would be seven whole walnuts or 14 walnut halves would be a whole ounce, and walnuts are light, so about the same amount when you count almonds. A tablespoon of hemp seeds, of ground flax, is also about half an ounce. So, if we're taking a teaspoon of each and that's about it, so an ounce, so I'm using probably... I'm using three tablespoons, so I'm kind of getting an ounce and a half with my breakfast, where I'm putting some walnuts, so I'm probably getting a higher amount, but a person with gallbladder disease probably should cut it back. Between a half an ounce and an ounce per meal.

#### Nathan Crane:

Thank you. There's another question that came in and we've got five minutes here for any final questions for those of you joining us live. What are your thoughts on castor oil packs?

#### Dr. Joel Fuhrman:

I don't know much about it so I would prefer not to comment about it. I don't think it's... You're not putting it internally. You're putting it on the body, so you're probably not going to hurt anything, but because you're putting it on the body it's not going to have magnificent effects on doing magic, either. But you know, certain things on the skin can help with pain and relax muscles under the skin. We know that putting like Biofreeze, and there's things that you can put on the skin to help with pain and if you have a spasm muscle, so there's some effects of putting massage, vibration, oils, heat. I like to use the pounding jets in the whirlpool, too, which is really good for sour muscles and tight things, and to help healing, is to go in the whirlpool and have the jet, the hot jets be vibrating the tissues to increase blood circulation. And then palpation massage where you're pressing on the tissue firmly ever quarter inch.

# Dr. Joel Fuhrman:

And so, all these things we do to help local tissue get more circulation.

### Nathan Crane:

Got it. This is Cathy. This is another person. Different question about the gallbladder. Also doesn't have a gallbladder. "How do I reduce the bile in my stomach through diet?" I think you basically just answered that on the Nutritarian diet. Lower amounts of nuts and seeds with each meal. Half ounce to an ounce at each meal helps to allow production, right?

### Dr. Joel Fuhrman:

Right. And I was commenting on the person who maybe had gallbladder intact with some stones, and how she should eat, but also a person who took the gallbladder out, it's the same recommendation like you were saying. Because we're not giving, because they don't have the... They can't emulsify fat as well, so they really should be avoiding super high fat meals. But a small amount of fat spread out throughout the day between all three meals is very easy for them to handle.

Right. And if they're on an animal-based diet it's going to be a bigger concern than on a plant-based diet, right?

#### Dr. Joel Fuhrman:

Right. Especially if they're having a lot of animal product at one time. If they were eating some animal product with fat in it. Again, it should be a little bit at a time and not a lot at one time.

### Nathan Crane:

Got it. And then another question here from the website. What are your thoughts on infrared sauna?

# Dr. Joel Fuhrman:

I think they're really good for you to take infrared sauna. But again, let's put this in perspective. You have a person that's 50 pounds overweight. The fat supply sucks up toxins, and mold, and poisons, and throws out inflammatory substances, and just because the sauna's going to help get rid of some of it, you're really not going to really effectively detoxify unless you get rid of your excess body fat, too. So, the sauna can aid it, but if you're not going to eat right and lose weight, you're fooling yourself if you think you're going to get untoxic or cleaned out.

# Dr. Joel Fuhrman:

You got to get thinner to get cleaned out. But I'm building a house and I'm going to... I had a ultra sauna in my old house and when I build my new house I'm going to put one in there, too.

### Nathan Crane:

Yeah. I have an infrared sauna actually here in my office. I use it a few days a week. I love it. Goes up to 170. I'll sit 15, 20 minutes, and I will just sweat out a gallon of sweat. And it can be used as a great tool on your weight loss path if you need to lose weight. But like you said, as long as the foundation is you've got the diet right first. Otherwise, it's going to help you detox, and it can certainly help you lose weight if you're eating properly, but if you're still eating the same way and filling your body with toxins, then yeah, it's-

### Dr. Joel Fuhrman:

The sauna is not the important thing. The diet's the real important thing. You got to get the food right first.

### Nathan Crane:

All right, so that's all the time we have. Monique is saying thank you for all this precious information. You are very welcome, Monique. Thank you for being here with us and asking all these great questions. Again, Dr. Fuhrman's website with his supplements he mentioned, you can learn more about his retreat center. You can buy his books, which I highly recommend. I actually have his cookbooks and we prepare some meals from them that we really love. There is a tofu scramble I love from there. I encourage everyone to try that. His website is dr, it's just D-R, Fuhrman, F-U-H-R-M-A-N, drfuhrman.com.

Our next Q&A is with dietician Julieanna Hever, so make sure you join us for that. You'll get all the details on that in your email. And I encourage you, if you haven't watched previous modules, go watch them and make sure to watch the upcoming modules. There's still so much more good information coming your way. Dr. Fuhrman has another module coming your way in this masterclass, as well, so make sure you watch that. Grace is saying, "Thank you so much for the clear direction." Abe Rock saying, "Thank you." Elias says, "Ditto." Pat, "Thank you Nathan and Dr. Fuhrman." Ulrique, "Thank you so much."

# Nathan Crane:

You're all so welcome. Thank you for being here. Thank you for your great questions. And Dr. Fuhrman, thank you for taking the time to do this. This has been fantastic.

Dr. Joel Fuhrman:

My pleasure. Okay. Best of health, everybody. Good luck.

Nathan Crane:

Take care. We'll talk to you soon.