Introduction to Dr. Dawn Mussallem

Welcome, everybody, to a Plant Based Cancer Summit. This is just such a critical, important summit for you to attend and learn from. And we're so lucky today to have with us a physician with so much experience, both personally and clinically with our patients and and research experience, too.

This is her. Her name is doctor Dawn Mussallem, and she's a oncology consultant at the Mayo Clinic and assistant professor of medicine there. And she's a board certified in lifestyle medicine and a breast specialist at the Robert and Monica Jacobi Center for Breast Health.

And she also serves at the as a medical director for the Mayo Clinic Well-Being Committee and a medical director for the humanities and medicine. Very busy.

A lot of obviously experience in this field. We're talking about today in this month, right. And she has a unique personal connection to her work because she herself had cancer.

She actually had a stage four cancer diagnosed when she was in medical school. And then 2020, 21, she actually had a heart transplant, which is kind of amazing.

And so she shares her journey. And this enabled her to redirect her practice and interest and cultivator her purpose to help people flourish during and after adversity, you know, so she has that ability to have compassion, to actually have gone through this herself. It's just amazing.

And in 2015, she founded the Integrative Medicine and Breast Health Program at the Mayo Clinic in Florida. And she works with breast cancer patients both during and after their diagnosis, with a goal to reframe their, you know, position as like a teacher of living and being, how to properly live, to discover renewed vitality through healthier living, to live with confidence, to live longer, to help you know with their health and to help them recover and help them survive.

And it's so we're tremendously lucky to have somebody with this background and experience. So thanks for joining us. Thanks, Doctor Fuhrman, I'm so excited to be here.

I love my time with patients. I adore my time with patients, but I really enjoy engaging with a broad audience to help people really understand the power of self-care and how we show up for ourselves.

It's so critically important. And, you know, thank you for mentioning the fact that I had my own personal journey because, gosh, I learned so much in medical school, but I learned so much more as a patient.

And I actually had a bone marrow transplant. And I remember so keenly during that bone marrow transplant, you know, this is back in the day when you're kind of like, you know, I was the girl in the bubble.

You know, they dropped your immune system down with all this high dose chemotherapy so you can have no visitors. You're in the hospital for, you know, a few months.

You're in the hospital for a long time. And I remember looking out and seeing everyone so sick. And, you know, I describe this every time I asked something related to this question in these folks who were dying in an effort to stay alive.

Personal Cancer Journey and Lifestyle Medicine

But I attained my vitality without pause. My existence was so heightened because I was really taking good care of

myself during this entire time living those pillars of lifestyle medicine.

You know, a large part of it was that plant based nutrition and exercise and, you know, faith based practices, social connections, making sure I slept enough.

You know, all of these things matter so much. There's no magic bullet. You have to show up for yourself. And it's so empowering. It really gives you a Tommy over your diagnosis.

I think the health care establishment thinks that it could be a burden on people or a stress on people. Still to this day, even my own institution, I recently had a metastatic pancreas cancer patient.

Even though my focus of my practice is primarily breast cancer, I do see some patients who are unfortunately facing very critical metastatic disease and complications, and they want some answers.

In terms of lifestyle, I recently had a woman that was having a lot of failure to thrive. She couldn't gain weight. She had seen numerous nutritionists and one nutritionist in fact, unquote.

Just eat creme brulée. It's okay to have candy bars. It's more important you keep your weight up. And this woman asked to see me, and she was so empowered to be told, no, no, no, let's try to do some lentil soup.

Let's try to do, you know, a smoothie with, you know, some berries and some soy and these healthy things in it. And so patients want to show up for themselves.

We shouldn't give them these quick answers just to hush them up. And instead, we need to guide them to this fact that everything you've been practicing for years, and I've admired all the work you've done for so many years because it's what the patients are really seeking to hear. Wow.

And how did you how did you go through all that? Had this, had cancer, damage your heart and still managed to go through medical school and you went through Natural Path School, too, and you went and you also became an athlete.

I mean, how did you get that all done? How did you do this? You know, and this is huge. My parents raised me in such a healthy lifestyle. We were raised on a whole food plant predominant lifestyle.

Exercise was a big part of what we did. We always had faith, you know, we had to church every Sunday. We were loving with our neighbors. It was just how we grew up.

And so that really taught me the foundation of living healthy. Early on I went on to Nature Path School, and from there I wanted to learn a little bit more.

I knew that perhaps a traditional path of education with a medical school was right for me. So I applied to one osteopathic school in Arizona, and I played that single osteopathic school because they had a really robust nutritional training program.

And I really wanted to kind of continue that natural philosophy that I really enjoyed. But to embrace it with a little bit more clinical science and the ability to practice a little more traditional medicine.

Combine that integrative modality. And it was three months into medical school that I was diagnosed with my cancer. It was misdiagnosed for many months, but because I took such good care of myself, I had such a high reserve, I was diagnosed at a very late stage.

Unfortunately, those treatments back. This is in the year 2000. This was, you know, over 24 years ago. My tumor was around my heart. So the radiation actually had to go right to my heart in an effort to help cure my illness.

They knew that this collateral damage was a big possibility, you know, and I have a lot of people say, well, wait a

minute. You took care of yourself.

You may not be the best poster child of a healthy living, but the truth is, is I would not be here today. I would not have this incredible vitality. I'm more alive than any other human walking the planet.

Despite having all these adversities in health challenges, I never once really felt like I lost a beat. You know, I felt really empowered and blessed to have been given parents that showed me how to take good care of myself in the importance of that.

And this is a huge call out to patients and families because I have women, the majority of my practice are women, and they come and they say, yeah, Don, I really want to take better care of myself, but my husband's not going to want to do this.

My kids aren't going to want to do this. And this is something the whole family should be a part of. You know, we see this remarkable rise in breast and colorectal cancer and young people.

This is because we have totally weeded out anything healthy in our diet and ultra processed foods, because we sit too much, because young people are drinking alcohol at two young of that age.

In fact, today, you know, when we're doing this recording, the Surgeon General just released that alcohol is a third leading cause of cancer.

Plant-Based Nutrition and Cancer Recovery

Yes. There's just so many insults coming our way, and we just have to really get back to the basics. It's not about some fancy pill or some fancy potion or some, you know, fancy procedure that's really going to show up for us.

It's us that has to be there. And and I would say, you know, one thing that's really important when I meet with my patients is how I show up for ourselves.

You know, this is to nourish our body, to love our body. We shouldn't be turbulent about it. So we have to kind of like check in, dial in and, and do this in a way that's very meaningful and out of that lens of love.

So I think that's so important. Yeah. And and I think, you know, the people going to doctors and oncologists, they lose this respect for the power of natural help, healthy natural foods and putting all those phytochemicals and phytonutrients in the body to boost the immune system to recognize, because they're thinking like, you got to kill the thing with radiation or chemo.

But of course, as you know, there's always a escape cells that are that can still be scattered and come back for recurrences years later. And our findings are the strengthened immune system is able to seek out those stray cells that escaped and prevent recurrence and enhance survival.

And, you know, but I know you're working a lot with breast cancer patients, too. And so it's really exciting to see us so aligned and seeing the, you know, and what I'm saying right now is that people think the power is all in chemo and not the power of the own body to do the healing when you establish optimal nutrition.

Right? I can't agree more. You know, it's a collaborative effort. At the same point, I would say that, you know, once you have cancer, I respect cancer.

You know, we have to get rid of it. I do believe that the majority of cancers, especially those that are invasive cancers, need chemotherapy, need radiation, they probably need some traditional form of treatment to get rid of that heavy burden supported by healthy living with that whole food plant based nutrition.

It is so critical in the research is proving this to us. You've promoted this for years. The research has been there for years, but people are finally starting to pay attention because we're at this critical disease epidemic.

I mean, you know, we can't keep pushing this any further. And it's so challenging when I see 20 year old women with breast cancer that have no family histories, no genetic links, and they're getting these cancers, same thing with colorectal cancer.

And you just have to ask the question why? And it is because of this very insulting lifestyle that women are living when they're pregnant with that baby in their belly.

And we know that epigenetic influence is starting then. So, moms, when you're pregnant, this isn't the time to be liberal with how we live. We want to really nourish the body, nourish the baby, because that's going to set the stage for later on when when that baby becomes a young child and adolescent, a young adult and beyond.

So I really am so excited where we're at in science. I love that Mayo Clinic is so supportive in this space. I mean, it's just vast. The opportunity that we are really coming out and answering that call to action in this space of promoting healthy living.

Yeah. And I think people get the opposite. You know, we should talk about this research differentiating plant protein from animal protein and how animal protein can accelerate all cause mortality.

And higher plant protein foods can accelerate lower all cause mortality. And that is that we have to touch on this idea that people think fish is so healthy when when we're actually seeing more and more the plastics, the BMA toxins from, you know, from the cyanobacteria, we're seeing so much toxicity in seafood, which people are told his health food, which is probably, you know, further driving cancer epidemic.

So it's just we have to rely on these clean plant based proteins today. Exactly. I mean, it gives me chills. Actually. I love the most recent Nurses Health study that was published this year with almost 50,000 women.

They followed them for over 30 years. And what they showed is the path to healthy aging. And I share this with all my patients because there's no better question to ask, you know, whether you have cancer, whether you have heart disease, diabetes, early cognitive decline, or whether you're healthy.

But the biggest thing we all want is to be on earth in age, healthy. We want to feel good when we're old. And what this study did is it proved that that yes, that the plant protein for every 3% increment increase in energy from plant protein, it enhanced that healthy aging by 38%.

It did much better than any other animal protein, including dairy. I mean, so it's like hands down I'm done stock anymore, right?

Fiber, Gut Health, and Survival Benefits

Yeah. Right there. There's been other cities that have said the same exact thing. But for my patient population, this is so incredibly exciting and it's so inexpensive.

You know, people are so worried about the cost of eating healthy. It is way cheaper to cook beans or have some edamame or tofu than it is to have animal protein.

So being plant based isn't expensive. It does take a little more planning. You can't go through the fast food restaurant, but that's again part of showing up for yourself, nourishing yourself.

The amount of time people spend on social media, watching TV, or just sitting idle doing anything can be really part of this preparation of showing up for yourself so that you could be the healthiest version possible.

But I absolutely love that study. You know, the greens, the beans and the seeds that are high, these high protein plant foods that also have all these phytochemicals that do a lot of other things besides produce good bacteria in the gut and other protective support immune function.

It's the do you know, my G bombs acronym that I've used? Yeah, I know you started saying that, but it's perfect. Yeah. Cool. Yeah. I mean, I really do.

And I would say that, you know, in America everyone gets so hung up on protein. Now I want to say that, yes, protein is important, but nobody that comes to see me as protein deficient, very few people coming to see me a protein deficient, they're all fiber deficient.

No one is getting enough fiber, and fiber is fuel. Fiber is going to help to modulate, you know, the glycemic response to a carbohydrate that you're consuming.

Everyone gives carbohydrates such a bad rap. When you and I talk about carbohydrates, what we're thinking about are whole, intact grades. When they're talking about carbohydrates, they're thinking about tortilla chips and white bread. Right.

So it's like we have to make sure that we're all talking about the same thing when we talk about carbohydrates, but carbohydrates rich in fiber. I have long conversations with my patients.

When you go to the grocery store, what to look for in terms of really enhancing that fiber, because that fiber is fuel, that fiber is going to help to ignite the immune system.

From a gut microbiome standpoint, you would mentioned even resistant starches. We know it helps to kick out extra cholesterol, helps to kick out extra estrogen.

Metabolically, it's more favorable in terms of calorie density and even the metabolism. So I really think we just need to focus more on fiber for my breast cancer patients.

The American Institute for Cancer Research did a recent update over the past two years to show that for every ten grams of fiber we increase in the diet after breast cancer diagnosis, we improve overall survival by 13%.

I mean, that is so easy for every ten grams. So we look okay for breakfast. Let's do some rolled oats with some soy milk and some berries and a tablespoon of flax seed.

You get 16g of fiber. I mean, it's so easy to do this, you know, and it's really exciting. I feel I share the science with my patients because that's what they want to hear as well.

So there's proof that this helps, you know. So I really believe in helping to inform patients with accurate science that we have hundreds of thousands of person years of research to support.

These aren't opinions. This is actually rooted in deep science for decades, decades and decades back. So it really feels good to be able to practice that sort of medicine.

That's great. It's good to segue from that, because you're making a good point, is that people should differentiate the deep science that we have that's really solid about high nutrient plant foods, getting a wide diversity of colorful plants, extending lifespan, and people who have cancer or reducing risk of getting cancer, which is the same thing.

And then they embrace instead of embracing these things that have power, they embrace some of these alternative treatments that don't have the science because they're looking for a a gimmick or a trick to go away to Mexico for a week and get ozone therapy or, you know, whatever, or to take sonogram, you know, heat treatment, or put the body under a heat or to take whatever it is they're doing.

You know, we have so many things that have proven science, and they're grasping onto straws with these things that have don't have much proof instead of the money's at what we know really does work.

I completely agree. I mean, it's as simple as it's like, you know, if there's one takeaway, make sure you get five servings of vegetables and fruits today.

And for you and I, that's like a huge underestimate. Like I want my patients to get 12 or more honestly. But let's just keep it simple, right? Just try to get fiber, more servings of vegetables and fruits today.

We know in patients who get two or less, which that sounds ludicrous to you. I mean, it sounds like that's not possible, right? The majority of the folks listening here probably are pretty mindful of health, and they're probably closer to that.

Five but believe it or not, the majority of people I see in my clinic are getting less than two servings of vegetables and fruits a day. In fact, if we look at the research across America, one out of ten Americans gets the recommended servings of vegetables and fruits.

Whole-Food Diets, Supplements, and Vitamin Support

I did a study at Mayo Clinic and we looked at almost 800 breast cancer patients, and we showed that 95% not getting the recommended vegetables and fruit today.

It's unbelievable what we see and we know that. And people who get five or more servings of vegetables and fruits today you improve survival from cancer by 10%.

That's simple. Just from getting fiber five or more surveys of fruits a day. So it's not even that hard. It's such an easy thing. And then, like you said, we know when you have more variety of different foods, getting a diversity of these vegetables and fruits, you know, not locking into any one type, but trying to get a lot of colors, it can be frozen.

Folks think that they have to be fresh, but you can do frozen vegetables and fruits. They're going to give you just as much nutritional value. In fact, the berries have more nutritional value.

So, you know, fresh or or frozen vegetables and fruits, getting those whole grains, getting those beans, nuts and seeds, your bones, that's what's going to diversify that gut microbiome.

And you know, I really you know, I get excited about fiber, but I get excited about fiber because of the gut microbiome. And when we really want to get fancy.

You mentioned ozone. You know, we were even chatting about methylene blue. And some of these really would sound to be exciting treatments that some people fly to other countries to try to augment their cancer effects, because there's a lot of these claims that maybe these things can help, and there's really not enough science to support that.

And could those things even be dangerous? What I would invite patients to do is eat a healthy diet with a wide variety of whole plant foods. Trying to get at least 30 different plant foods a week enhances that gut microbiome.

We know that's going to enhance your immune system. You're going to better surveillance over cancer. Your body is going to be on better alert for, God forbid, there's a one cancer cell that got away, that keep that cancer cell not able to engage.

When we think about immunotherapy, I mean, oh my goodness. The majority of my patients are getting immunotherapy. Now. We really even for breast cancer.

Yes widely we use immunotherapy. So my practice is so busy with immunotherapy patients at my colleagues said to me Don, we want you to enhance the gut microbiome.

I have a very exciting study that I'm working to get funded. It's very hard to get these studies off the ground to look at the impact of a whole food, medically tailored diet during chemo immunotherapy.

It actually look at the impact of chemotherapy on the breast tumor itself with the chemotherapy as well as the gut

microbiome. You know, we know what we're seeing. We know that.

We see that our women who are undergoing these treatments, eating these healthy diets are, first of all, their thriving. I mean, they're feeling very good with low toxicity.

But the question is, is we actually think that they're having very enhanced outcomes as well. We see this in melanoma patients. Why would we not see it in breast cancer patients?

It was funny, you know, years ago when they made that link. Wait a minute. Immunotherapy is working better in patients with melanoma who have more diverse gut microbiome.

Every oncologist started saying take a probiotic. Take a probiotic. Yeah, right. It's not that. Just diversify your diet. They later found out, wait a minute.

Beans are the best way to really enhance that gut microbiome resistant starches. So you know the gut microbiome this is going to be a hot area of research.

It needs to be because that's really where the individualized nutrition is going to come from. But it's going to take us a while longer to really understand that.

So in the meantime, we know getting a diversified plant diet is your answer to optimizing that gut health. Yeah, that's it's interesting because we're like doing the frontiers of nutritional science here by putting in all these diverse substances instead of relying on like taking lactobacilli or taking one probiotic.

We're trying to take, you know, wheat germ and beans and mushrooms and curcumin, and we're doing a whole bunch of things and sprouts and, and different types of beans, types of green vegetables and raw and cooked and mixing all these things.

So we're like it's through. It's almost like precision nutrition. So to take a person who has poor immune function and give them that boost to have a super immune function, you know, with all these healthy foods, you know, I guess we should I mean, I want to do a podcast of these days and have all my patients in the room with me.

I'd be like, look at these women. I mean, they're so incredibly inspiring. You know, the majority of breast cancer patients gain weight during treatment.

So the other really nice thing that we can see is when you're on a plant based diet during I mean, we don't pause. You're diagnosed. We want you to start eating healthy from the time of diagnosis.

We're I'm very aggressive. You know, I don't want it to be stressful. But the majority of patients find this very empowering. And if I do sense stress, then, you know, back off.

We want to meet the patient where they're at. If it's just a tiny little adjustment, that's better than nothing. This doesn't have to be perfect. This is about progress.

It doesn't have to be perfection. For me, this is like harmony. Like I get pure joy out of this, and I find my patients do, too. They want this. They just want the resources to know how to do it.

So it puts the I. It gives them hope to, because we have so much data to show that it can help them otherwise. That being hopeless with conventional, you know what the expectations are conventionally because this does work.

You know, by the way, do you utilize any supplements to add to the plant based diet or to add to the type of herbs or things they get for their cancer treatments?

You know, I really do. I was one of the coauthors for the American Society of Clinical Oncology, integrated modalities that are used during and after breast cancer diagnosis that were really rooted in science.

So I rely on that to inform me with some of the integrative approaches to care that I use. So one example of a supplement that I do use in my patient population, actually during chemo, if they have chemotherapy associated fatigue, which is very common in among all cancer patients.

But we did a study and we did it twice at Mayo Clinic with American ginseng. And it really enhances energy. So I do use American ginseng in my patients.

I use a database called Natural Medicine Database to determine which brands patients should use so that they're getting safe brands. It's very important that if a patient is using a supplement, that they're using a brand that is certified, you know, whether that's USP or whether that's NSF or whether that particular company preferably has a medical advisory board to help guide them with product development.

Those are some of the things that I really want people to look at. But fortunately when I see them, I can guide them. But, you know, for folks on a whole food plant based diet, I do check for vitamin deficiencies.

At least 31% of Americans have vitamin deficiencies. It's actually a much wider range that I've been seeing in my patients. I see a lot of zinc deficiency.

I see a substantial amount of selenium deficiency. I see a lot of B6 beach ball deficiencies. And these are B12 deficiency that people on animal based diets as well.

I mean, you know, these are just very common things I see in my practice for many, many reasons. I did check fatty acid profiles in my patients. So as you would expect, I see a lot of omega three fatty acid deficiencies.

And these are in people eating fish because the majority of them are eating like tilapia and things that aren't getting them, you know, mega three fatty acids.

And then they're not doing any plant sources, omega three fatty acids. You know, I want people to get flaxseed. I want them to get walnuts. I want them to get their own mega threes from from natural plant sources.

So I do see a substantial amount of vitamin deficiencies. And this is a huge shout out to vitamin D3. I feel every single patient needs to have the vitamin D3 checked at a minimum.

For cancer survivors. There's a lot of robust data for colorectal cancer patients, but having vitamin D optimized is a cancer survivor is critical even if it takes supplementation to get you there.

So, you know, there's a lot of controversy as to if vitamin D supplementation prevents cancer. That's fine. We're going to talk to survivors right now and say there's enough data to say, if you're a survivor, we want to make sure your might have been D3 is is optimized and you want to take vitamin D3 to get you there.

I see a lot of patients coming in and they have vitamin D deficiency, and their doctor puts them on vitamin D too. But it would be the vitamin D3 that they would want to take.

You know, preferably I'd rather people get a little bit of sunshine so that they can have appropriate, you know, hormone synthesis of that vitamin D. It's really a hormone, not a vitamin.

But we do want to be mindful of the fact that if they're overexposed to that could give them a potential other risk of skin cancers. But 20 minutes a day of direct sunlight on the larger body parts is what I would prefer for my patients to try to get, and that can also be very important.

I try to, you know, of course not just focus only on the nutrition. I look at the entire body. So when it comes to sleep, that sun is something I really want.

My patients, as soon as they wake up in the morning, get that first daylight sun, a little bit of vitamin D exposure, raise that melatonin and helps them sleep better at nighttime too.

So those are just some of the basic vitamins that I really want people to look at. And I do have my patients on, you know, a high quality multivitamin and almost all situations.

Most of my patients usually need a little bit of extra vitamin D. As a result, I do use a lot of magnesium supplementation at nighttime just to help for restorative relaxation at nighttime.

I do see that there is reported magnesium deficiencies, but most of the lab assays are hard to really ascertain that because it's not the red blood cell magnesium that most of the labs are checking.

But magnesium deficiency is is quite common among most folks, probably not as much among the plant based folks, but most of the Americans. So that's usually my lineup. Yes.

You know, you're truly, you know, holistic is in the real sense of the word is like is like lifestyle medicine. Holistic means you look at all the possible risk factors and you try to improve the person, all areas of their life.

But that word has been hijacked to people to be using all types of selling them different types of therapies and not looking at what the person could do to improve their life.

And I think that you really embody this, that type of like being a lifestyle medicine physician. So I'm really excited to know you and to see the work you're doing.

So it's so it's so warm and exciting to see that. Have you be part of this group, part of this session, and to be here in the world of helping people like you are.

So have glad of gratitude for that. Thank you so much, Doctor Furman. Well, I can't think of you enough for all the work that you've done over the years to help to pave the path for people like me.

You've made it easy, but gosh, I just have so much energy and enthusiasm over this because I carry that energy forward that I'm able to receive from my patients.

Seeing them do so well, see so many miracle stories, and see them really able to flourish beyond a diagnosis of cancer. So this is just a huge shout out to folks to really enjoy the opportunity to to be healthy and to prepare that beautiful food for both you and your family. You know.

All right. Well, thanks again for joining us and all of you listening. I'm sure you've got a lot of out of this today and wishing you all much health and and happiness.

All right. Take care of everybody. Thank you. Thank you so much. Thanks, doctor Fuhrman. I really appreciate it.