Discover Essential Nutrients For Your Brain Health Transcript

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Introduction and Sarah Ballantyneu2019s background

Welcome to the MS and Neuroimmune summit. I'm here with my very good friend, Dr. Sarah Ballantyne. we've known each other for many, many years. Sarah has her own really amazing, wonderfully inspiring healing story.

She's a PhD scientist, and she's taken that, into a, like me, a mission to take what she's learned to the public so you two can learn how to transform your health. Sarah let's let's talk.

is there anything else you'd like to add to that bio first? No. That's a lovely introduction. I think the main thing I would like to say is thank you for having me again.

I'm like, I'm so happy that we just get to have a conversation today. You know, we have, sort of broke into the consumer world, the nutrition world, at about the same time.

and then we both had a lot of criticism early on, for our messages. and we have sort of evolved, what our thinking and what we were telling the public over time.

What I'd like to have you do is, is tell us about nutrition or, what that is because that's a little bit different than your original message, that you had about nutrition.

Yeah. Thank you for that opportunity.

Nutrition as a philosophy of adding nutrients

I think that you and I, as voices in the sort of wellness community at large, have always been in the minority in the sense that we have been very focused on the importance of nutrients.

and how nutrients impact our biochemistry, our physiology. And while, you know, nutrition can't change everything, about our sort of health fates, our health destinies, there's a lot of things that contribute to health challenges that are beyond our control.

Genetics is kind of the obvious example. Nutrition is a really clear point of intervention, and supplying the body with the nutritional resources that it needs to do all of the things that that keep us thriving is the most fundamental aspect of nutrition, right?

Nutrition is about supplying nutrients. And I think that the sort of diet, culture, wellness community at large, tends to focus on restriction rather than the foods that we can add that supply our body with those nutrients.

You and I been voices talking about that for a very, very long time and talking about nutri dense foods. but when I started working on addressing some of my own food fears, expanding my diet, that all started with research on the gut microbiome.

I realized that there was a really important, like, dietary philosophy missing from wellness culture that could help to, bridge that gap between how many sort of health educators are thinking about nutrition in terms of avoiding potentially problematic foods and give people the resources that they need to select foods within whatever dietary template they resonate with, or any diet for that matter, to help focus those food choices on supplying the body with nutrients.

So I referred to neutral or not as a diet, but as a dietary philosophy. It's really just the goal of getting all the nutrients our bodies need from the foods we eat.

But a lot of what, especially those of us who have been, on the like, I've tried every diet to lose weight type, diet journey. those of us who've been really steeped in diet culture for a long time, our parents were steeped in diet culture.

You know, there's 70 years of erroneous messaging from various diets that have made that most of us don't really know intuitively. What are nutrient dense foods, what types of nutrients those foods provide, how to put together a plate so that we're getting the full range of nutrients that are our body's need.

So what I'm building with neutral air is not just, a focus for people to make sure that in whatever other dietary priorities they're pursuing, they're still able to make food choices so that they're increasing their nutrient intake and they're getting all of the nutrients that they need.

But I'm also trying to create that, like base like nutritional sciences, knowledge base for the average person, to help inform those choices. So nutrition is as much a dietary philosophy as it is, sort of a like nutrition 101, type knowledge base for, everyone, from the person who has fallen down, maybe too many restrictive diet rabbit holes, kind of like how I did, but also somebody who thinks that there's no point in making diet changes because the bar is so high, it feels like it's too insurmountable of a task.

And this helps, just like lower the barrier to entry. I think in a way that's really important in the wellness community right now. So what I, what I think I'm hearing you say is you're really focused on what to add.

Yes. And less on what to remove. So I would say I'm 100% focused on what to add rather than what to remove. I'm going to let what to remove fall to two other.

People so other people, you know, and I think that's really important. what what I made that shift myself personally and I would say, like, you know, what do I need to be adding?

That's when the magic happens for me. Yeah, that is when I started having it structured eating. But it was all about to be sure. I'm getting these things into to my diet because they're so important for me.

Social determinants of health and the limits of diet

and I to get nervous when people start being accountants, and a little too rigid on their diet, that can get you into something that we call, orthorexia, and, disordered eating patterns.

So, what would you say, as you think about multiple sclerosis and people who have autoimmune disorders attacking their brain, or the spinal cord or their peripheral nerves, and then as you were putting on the lens, the New Orleans.

What what suggestions are you giving to those folks? Yeah. So, I mean, there's what's really fascinating is to take a like a 30,000ft view to this question.

First is that every biological system has a slightly different collection of nutritional resources that it needs to function optimally to be healthy, to do its job.

And, and we see that those nutritional resources, when they're, when our diets are lacking in those nutrients, that puts strain on the biological systems that need those resources.

And it's not like a disease of deficiency, like scurvy or rickets, where we can say 1 to 1, like not having that vitamin C caused, deficiency in collagen production, and that is directly responsible for the symptoms instead, nutrient shortfalls.

So we're getting enough of those nutrients to not have a disease of malnutrition. But we're not hitting the recommended, dietary allowance either. We're kind of in that weird gray in between.

It puts strain on the systems that interact with genetics, with environmental factors, with, other health behaviors like how active we are, how much we sleep, how stressed we are.

It interacts with social determinants of health, and they kind of collectively increase risk for health challenges. I'm going to stop you for a moment.

You just throughout social determinants. I bet our audience don't know what that is. Oh, I would love to explain what social determinants of health are.

So social determinants of health refer to our social and physical environments, things that we generally can't change. So, it encompasses a wide range of things.

It encompasses economic factors like income. It encompasses education. It encompasses our zip code and the resources we have access to. Do we live close to a grocery store?

What, do we live close to a doctor or, a medical center? do we. What do we have? green space that we can take advantage of? Do we have a safe place to walk at night?

what are the economics? What is the education in our area? So social determinants of health kind of encompass this huge collection of factors that relate to our social and physical environments.

What is our how does the strength of our community do we have support in our community? All of those things together account for something like 20 to 30% of health outcomes.

and then when you add access to medical care on top of that, now you're talking like 30 to 40% of health outcomes. So diet plus lifestyle is only 40 to 50% depending on the study and exactly how they're measuring it.

and then the remainder is is genetics and epigenetics. So social determinants of health really refer to this collection of factors that are influencing our health that for the most part we don't have a lot of control over.

And I think it's always really important when we're talking about nutritional solutions to health challenges that we couch it in. That greater conversation of nutrition can get us a long ways.

Nutrition can be transformative. It can make such a huge difference in our health. However, there's still 50% of other things contributing to our health that we can't alter that isn't related to our day to day choices, that isn't related to the foods on our plate, or how early we go to bed, or how active we are.

And I think it's really important in that, like food as medicine type conversation to remember that, food isn't everything that there are things impacting our health beyond our control.

and I think it's really important to acknowledge that, in part because I come from a place where a lot of the people that I've talked to over the years when they make diet changes, geared at, eating, some kind of health condition.

So, like therapeutic diet, which is hard. It's time consuming. It's expensive. it maybe includes missing out on our favorite foods, right? Making those types of big diet changes and then not having that cure us.

it's very disheartening.

Key nutrients for neurological health

And so I think it's really important in that broader conversation when we acknowledge that there's health impacts beyond food and lifestyle choices. It also, I think is, a permissive statement to use all of the resources that we have access to.

So nutrition, nutrition being like one thing that we can, you know, potentially alter to improve our health, but that

doesn't mean we need to be at the exclusion of of what our doctor can offer us medically, whether that's some kind of pharmaceuticals or, surgical intervention.

So I think that acknowledging the impact that social determinants of health have on the overall health equation leads us to this broader conversation of let's let's use all of the tools that we have to achieve our best health and understand that our best health might not be our neighbor's best health, or my, parent or my child's best health, because there's so much individual to me that I don't have control over.

Okay. So super helpful. and then, so then we'll get back to what we were talking about when I, sidetracked you. Yeah. So nutrients and nutrients that this is about helping people think about what are the things to be adding.

Yeah. To their diet. So let's zoom in on nutrients that have been shown to be incredibly important for neurological health. doing things like, improving neurotransmitter release, neuroplasticity, working memory, cognition, reducing neuroinflammation.

I mean, there's a lot of nutrients the neurological system as a whole requires, a huge host of nutrients to, to function properly. But I think there's four that I would direct someone's like attention to as an area for additional focus.

obviously in conjunction with working with your health care providers and making sure that your other dietary needs are met. but I would say, vitamin B9, folate and vitamin B12, have a really, solid scientific foundation for their role in neurological health in, you know, vitamin B12 is really important for supporting the health of the myelin sheath.

Both vitamin B9 environment, B12 are important for homocysteine metabolism. And, increased homocysteine is a very well known risk factor for increasing dementia and Alzheimer's disease.

and then I would add, omega three fats, especially DHEA, to Coso hexa acid. That's one of the long chain omega three fats that we get from seafood. especially for its role in, acetylcholine, the neurotransmitter release.

and so that's really important for neuroplasticity, for global cognition, for, for working memory. And then I would add up a fourth nutrient, which is the it's a really cool amino acid called ergo theanine.

It's a non protein a genic amino acid. So that means it's not one of the 20 that our bodies, have mapped in our DNA to build proteins. And nor is it one of the three that we will insert into proteins after they're built.

But it is one that has a lot of biological roles, predominantly as a really powerful antioxidant and anti-inflammatory. And it has been very strongly associated with reduced risk of, basically every health problem associated with aging.

And it's been very strongly associated with, increased lifespan. and in particular, it reduces neuroinflammation, has been shown to reduce age related cognitive decline and lower risks of dementia and Alzheimer's disease.

So it has some really potent roles in, the central nervous system. So these are our nutrients, you know, vitamin B9, vitamin B12 are essential. vitamins DHEA as a fatty acid is not one of the essential fatty acids.

And ergo, thinning is not an essential amino acid. And what I like about drawing our attention to this, for besides the fact that there's a huge body of scientific literature showing, that they're really important for, nervous system health, is that, they really help to show why there's so many studies showing seafood, especially being, very beneficial for reducing age related cognitive decline, for reducing risk of Alzheimer's disease.

you know, studies showing dramatic differences with about four servings of seafood per week compared to less than one, And each serving of seafood per week reduces risk of dementia by about 5%.

and in the absence of, you know, research looking directly at at multiple sclerosis, we can look at other diseases where there's some overlap in the, pathogenesis.

So to kind of understand where these nutrients can be extremely beneficial, ergo, finding our best food sources,

mushrooms, by a landslide is actually not found in a ton of other foods.

It's also found in liver. There's a little bit in tempeh, fermented soy. there's a tiny bit in asparagus. I don't know why. Asparagus and not very many other vegetables.

and so, very like really valuable sources and then vitamin B12 and fermented B12, actually, our best sources are shellfish, like clams and mussels. seafood in general is a good source.

Organ meat is a good source. And then we're getting B12 from other animal foods like eggs and meat and folate. again, our best sources like organ meat.

but we're also getting it from seafood, and we're getting, really good sources of folate are legumes, like chickpeas and lentils. And I think that, what's fascinating is that you see that dietary patterns that include a lot of vegetables, that include a lot of seafood, that include a lot of legumes, sort of consistently show up in the scientific literature as reducing risk of neurodegenerative disease in general, also reducing risk of all cause mortality, which can be thought of as a general indicator of health and longevity.

And so I, I love being able to use this as an example because we can say, look, we've got we understand the mechanisms, we understand exactly what these nutrients are doing to neuronal health or to impact neurotransmitter release or, neurotransmitter receptors.

we understand exactly how these nutrients are benefiting central nervous system health. And then we can we can draw a straight line between that and the studies showing that eating more of the foods that are rich in those nutrients, improves those health outcomes or at least reduces risk of, of dementia or slows down age related cognitive decline.

And that is kind of how the nutrition philosophy is built, right? So it's very much built on understanding what nutrients do in the body and what foods contain what nutrients.

and then being able to identify what are the nutrients that I specifically may need more of because this runs in my family, or this is a diagnosis that I have, this is a particular concern of mine, and it can help to shift our focus to eating more of those foods.

That. Are particularly great sources of this nutrients. So then everyone here, liver once a week is really good for you. Yes. and seafood, it's really good for you.

Whole foods, ultra-processed foods, and the 80/20 approach

I, I'm going to ask I have the impression that folate is also present, in green leafy vegetables. yes. So, green leafy vegetables. Great source of that, folate as well.

Do you do you have any thoughts about, the minerals that are particularly helpful for neuronal health? Yeah. So interestingly, we see mice with magnesium, come up again and again.

Calcium come up again and again. Potassium. Right. The electrolytes, in general potassium come up again and again as being protective and interestingly sort of beyond, neurodegenerative disease.

interestingly, having, roles in mental health in, in supporting, sleep, architecture as well, in reducing risk of migraine headaches. Magnesium is really important.

and in general in supporting, neurotransmitter regulation. so, you know, the, the central nervous system in general, I would say, is one of the most nutrient sensitive systems in the body.

I would say the immune system is on par in terms of being really sensitive to our nutrient intake. And I would say the cardiovascular system, is on par with being really sensitive to our nutrient intake in the sense that when you

start totaling, the nutrient shortfalls that are associated with increased risk of pathologies affecting that system, you get a really long list.

so I think, in my, table, that's in my book, neutral for think there's 30 nutrients that are listed under cardiovascular disease, 20 some odd that are listed under neurological disease, 20 some odd that are listed under immune health.

And that doesn't mean there's only 24 or however many it is, just means that how many are well studied and we really understand exactly why not getting enough of that nutrient is associated with increased risk of, diseases impacting that system.

And to me, that makes an even stronger argument for a dietary approach like neutral for where we're not, we're not cutting out, unique food sources of nutrients and instead we're trying to get the full range of nutrients that our bodies need.

There's 49 essential nutrients, but there's if you want to get into phytonutrients, there's a few thousand other ones that, that have known health benefits.

And so by embracing, like these overall eating patterns that increase our nutrient intake so predominantly whole foods, eating, just eating plenty of a wide variety of vegetables and fruit.

And tick won't say a whole food. So, yes, a whole food. Well, is it our food? Our whole. So. Oh, yeah. Food. Whole food. That. You know, what's interesting about that is that the definition is quite loosey goosey.

So, we basically define a food as whole if most of its inherent nutrients remain intact through whatever processing it has undergone. So we would call some foods whole foods, even though they're actually quite processed, just because the processing that food undergoes, doesn't degrade too much of the nutrients.

So in food, there's something called the nova classification system, which is a way of categorizing foods according to their their processing. so group one is, unprocessed.

Group two is, minimally processed foods. Group three is processed culinary ingredients, and then group four is ultra processed foods. And you can find whole foods in all of group one is whole.

Almost all of group two is full. But there's Whole Foods in group three as well. So like cheese or butter would fall into group three. And those would typically be classified as whole foods.

So I think it's actually easier to say, whole foods are those that have some inherent nutritional value, that don't have, a lot of added sugars, added fats, added sodium.

Those would be things that we would find in ultra processed foods. if find ultra processed, some people may not know that term. So ultra, ultra processed foods is technically technically defined as foods made up mostly or entirely of ingredients that are extracted from whole foods through a series of industrial processes and techniques.

So these are the foods. They tend to be packaged foods. They tend to be, what's called hyper palatable, which means they're so tasty they override our brains satiety signals so we don't even understand that we've eaten as much as we've eaten.

they tend to have sort of addictive like properties. They're impacting our dopamine signaling. and they're the foods that we typically, across diets would think of as being not particularly nutritionally valuable foods.

So fast food, junk food, candy, white, bread, packaged, like instant soups, any anything that comes from a, a box or package with a very long list of ingredients would typically fall under the ultra processed food category.

So one of the ways I talk about it with, with my patients are added sugar. are these sweeteners are ultra processed. If it was made into a flour. Yeah.

And then that flour was made into crackers. breads, pasta, cereal. That's really an ultra processed food. So there there are a lot of really tasty foods have been made that are supposedly paleo friendly, keto friendly, that are really, when I look at them, ultra processed.

and have lost their nutritional value. I think that's a really excellent point, and I'm glad you brought it up. There are ultra processed foods that are sold with all of these labels of, organic, non-GMO, grain free, gluten free.

they are this is something called greenwashing or the health halo effect. But in, you know, Whole Foods in those interior aisles, there's plenty of ultra processed foods that are catered at the health conscious community.

I think what's interesting is the Nova classification system has been criticized, I think validly so, by scientists, because there are foods that fall into that ultra processed category that, overall don't show a negative health impact when people are eating those foods.

So, for example, wholegrain breakfast cereals are a really great example. They would technically fall under that ultra processed, category, but in large meta analyzes, people who eat a lot of whole grain cereals tend to have lower rates of cardiovascular disease, lower all cause mortality, for example, likely because in the standard American diet, whole grain breakfast cereals are a major contributor of fiber to the diet, and 95% of Americans don't get enough fiber.

so because those would be classified as ultra processed foods. But the science doesn't back up the, the for the average person, for general health purposes of limiting those foods.

there is sort of this, this need for a maybe subclasses, a better way of identifying foods that are best kept to that 20% have an 8020 approach versus foods that we would say nutritional merits.

Those form the foundation of a healthy diet. So if we're thinking that reducing the sugar and, flour based, particularly the white flour based foods, that would be a worthwhile diet concept from your point of view.

Yeah. So I, I would say, reduce don't restrict if that if I can. So. Yeah. Yeah. So if I could talk about the difference between those two terms restrictive diets.

unless other we're not talking about restriction for, for medical purposes. I mean, you want to be very clear. We're talking about, learning more or less judgments of foods.

So I don't I restrict that food because my diet tells me that's a bad food. So these very dichotomous approaches to diet, where we have lists of yes foods and no foods, and we think of the yes foods is good and the no foods is bad.

That has a lot of not great psychological, implications. So it increases food fixation cravings, food obsession.

Practical takeaways and where to learn more

it increases, disinhibition where we break our rule and then all of our health behaviors unravel and we end up on that like yoyo on again, off again diet.

And it increases the risk of disordered eating patterns and developing eating disorders. You mentioned orthorexia right off the bat. and I think we've seen that a lot in the wellness community as a disordered eating pattern that is learned from restrictive dieting.

So I think there's a way to improve diet quality, focus on more nutritious whole foods without engaging in restriction. Again, and restriction for medical reasons is is a whole different thing.

And so, that's why I like the 8020 rule. there's a variety of studies that have looked at, dose responses with ultra processed foods and have shown that as long as ultra processed foods don't, make up more than about 20% of our total calories, there's no signal of a negative health impact.

Again, these are broad population studies. so this is talking about the population as a whole. and I think that's a really important cusp. if you do the math, it's really easy to meet our nutritional needs.

If 80% of our foods are whole and minimally processed foods. And for most people, that that gives 20% of calories is is a lovely amount of space to be, enjoying our favorite foods in a way that doesn't lead to, all of the problems with food restriction.

I've heard another speaker talk about this as thinking, classifying their food, that this is an entertainment to it. So you can't have entertainment all the time.

but you can have occasional entertainment experience. And so when they're having the kind of food that you just described, they would say, okay, this is an entertainment experience with my food.

and then I'm going to go back to my, nutrition experience, for the other days this week. and I think. That. that was a, I thought a novel in a very interesting way.

and that's what this person was using with their kids to help them understand how to classify their, choices around food, whether it's going to be nutrition good for my body when I'm going to have an entertainment experience.

I love that. I feel like I've heard a lot of different variations of it, like fuel foods versus fun foods. I think, nutrition foods versus entertainment foods is my my favorite because I think even fuel versus fun there implies a moral judgment of foods.

And I think one of the biggest challenges that we have moving forward in the wellness community is how to focus attention on foods that provide more nutrition without labeling those foods.

It's good because if you label those foods, it's good. The implication is that the other foods are bad, and we don't want to label foods as bad either, because that can drive, all of the negative psychology.

You know? And one of the things that I like teaching people is that, you know, we're omnivores. We we've all migrated our ancestors out of central, Africa, and we've had reproductive success in a wide variety of ecosystems, eating a wide variety of foods.

Yeah. So, ever have a wellness experts say I found the one solution that's the signal to stop following them. Because there is not one solution to wellness.

There are many different solutions for wellness. and, you know, listen, explore, and pay close attention to how you're feeling with the explorations, that you're making.

that brings me to, sort of like a final point about the neutral dietary philosophy is that the great thing about thinking about nourishment in these simple terms, getting all the nutrients our bodies need from the foods we eat is it's very easy to see that there's millions of different ways to accomplish that goal, which means that you can apply the this neutral for, emphasis atop of whatever other dietary priorities that you might have, which means that, in this wide range of different diets that we have to choose from, you can always, have an emphasis over top of a diet score structure.

And, I sort of want to reinforce that the magic for me happened when I decided what I have to eat, what I need to be adding, what was the key nutrients that I needed.

And that's when suddenly, in a surprisingly rapid order, my health, journey, took a sharp turn. for the better. Now, where can people learn more about you and, about nutrition?

Yeah. Please come to my website. nutrivore.com. That is home base for everything. That's where you can find really detailed articles to help you expand your knowledge base about nutrients and foods so that you can start applying for principles.

Lots of really practical resources there. if if you, just want to jump in, while you're, expanding your knowledge base and you just want to get going, there's lots of practical resources there to do that as well.

And then from there you can link to my social media. I'm @drsarahballantyne on, every platform that I'm active on, which is many of them. and from there you can also learn about my book, new Chapter, The Radical New Science for getting the nutrients you need for from the Foods You Eat, which is available now, wherever books are sold.

this is wonderful. Thank you so much. And I look forward to continued, ongoing collaborations. Thank you so much again.