



Testing, Nutrient Gaps & Smarter Supplement Choices with Dr. Douglas Kalman, PhD, RDN (ep – 73)

[00:00:03] **Dr. Douglas Kalman** We also know vitamin D is not just a vitamin, it's a hormone that influences everything from mood states to other hormones, even far-reaching impacts that affect muscle strength.

[00:00:19] **Dr. Ginger Hultin** As a registered dietitian, I have clients bringing supplements to me all the time. I get it, it can be so overwhelming to understand what's right for you. It's part of the reason I'm so passionate about helping my patients understand how to evaluate supplement labels and their marketing claims. Dr. Douglas Kalman is back for part two of our conversation, and this time we're exploring who can benefit most from supplements, how to navigate common deficiencies, and what the latest research says about personalized testing and emerging nutrients like creatine and choline. We also cover targeted supplement strategies for athletes, women, and aging adults, plus how to critically think about marketing claims. Let's get into it. Maybe you could talk me through some of the groups that you feel should supplement.

[00:01:09] **Dr. Douglas Kalman** Supplementation can be beneficial for almost everyone. It doesn't mean that you have to be an athlete or that you are being treated for a medical condition. I know that we have such changes in the nutritional quality of the content of fruits and vegetables, of grains. And we see that when we have about 75 percent of this country cumulatively that's either overweight or obese, that means that those people also have nutrient gaps. And their nutrient gaps are not calories, they're nutrients that are typically occurring in more fibrous foods, more natural foods, as compared to processed foods. So, for example, people that have diets that are higher in simple sugars, if you will, and higher in saturated fats over a lifetime are at a significantly increased risk for mild cognitive impairment all the way to Alzheimer's disease, just from those two dietary approaches of their lifestyle alone. So, not that nutrient supplementation may prevent that, but what it can do is maybe help fill the gaps for what they're not getting so that their immune system is reacting as optimally as it can. So it's the body's own inflammatory regulation systems can be in

check. If a person is an athlete or a coach or interested in sport nutrition, the International Society of Sports Nutrition has published 20 or more position stands giving guidance, specific sports, nutritional assessments, nutrition and body composition, specific dietary ingredients, creatine, caffeine, coffee, everything that you could look at, and provides research and the recommendations. So these evidence-based systematic reviews have led to position stands that now coaches and sport team nutritionists use as their guide for when they're doing nutrition programming. I do think when it comes to cancer, we can't broadly endorse dietary supplements as a way to help cancer recovery, especially while somebody's on radiation or chemo, because there are some studies that show negative interactions of various isolated nutrients. But one of the institutions that does have a good integrative health library that's publicly available is Memorial Sloan Kettering Cancer Center. They have a dedicated, of course, part of the Sloan Kettering website with a library of free information for people to use if they want evidence-based approach. If you go to clinicaltrials.gov, you can always look at what dietary ingredients or supplements are being researched as adjuncts or for some type of use. And also there are different nutrient needs, men and women, right? And more varies on women than it does men, especially during the years of menstruation. Men and women can benefit from getting dietary assessments, and then first look to fill those gaps. It can be assessed by dietary recall or blood testing and some other types of testing. Even now you can go to your local big box drugstore, and you could pick up FDA-cleared medical device test where you can have your vitamin D levels tested, right? And that they have a few other vitamins that are available that way. I think knowing helps people make an informed choice. Young professionals, I like to give you an analogy that I gave my class last night. I asked them, do you consider yourself stressed individuals? And some said yes. And I asked why. Well, classes from eight to four, right, then I have to study for an hour or two, grab dinner, and I have a nighttime job. So I said, 'How's your sleep?' They said, 'What sleep?'" And they laughed. And so I said, well, let's talk about what happens with your microbiome. Let's talk about when your protein intake is less than 1.5 grams per kilogram, how it negatively impacts sleep quality. Let's talk about the lack of nutrients that you're getting and now how it affects mood states and also cognition. Professionals that are not getting adequate time for nutrition, stress, not sleeping well, probably highly caffeinated. Yeah, supplements can play a role.

[00:05:13] **Dr. Ginger Hultin** Welcome to Ginger's Plate. I want to highlight one of my go-to tips for supplementing protein. The easiest way to get my protein in is by adding a scoop of protein powder to my morning or midday smoothie. As fall approaches, I've been enjoying an autumn inspired peanut butter pumpkin breakfast smoothie, and you can find that on my blog. Smoothies are a simple and effective way to meet your protein needs, no matter

how hectic life gets. Plus, you can tailor them to your nutritional goals. A lot of people are like, I'm young and healthy, I don't need to worry about it, but you do. Every stage of life has some considerations that could be zapping nutrients or you're not maximizing them to be optimally healthy.

[00:05:52] **Dr. Douglas Kalman** It's been estimated that somewhere between at least 35 to 50 percent of pregnant women have iron deficiency and don't know it. There is a strong correlation, meaning and causation that of iron deficiency levels and severity of depression. And then actually, what happens in the third trimester of pregnancy, if a baby is iron deficient, it causes a whole bunch of different cognitive delays that last up to the first 23 years of their life, including social disorders, depression, anxiety, and cognitive delays for like arithmetic and verbal skills. So iron deficiency is real. It's been said to be about 35 to 50 percent of pregnant women are iron deficient and undiagnosed. Yet they don't unfortunately know the risk that's happening to their infant and also themselves that potentially just a blood test and some treatment could be what is making the difference. And that's where supplements also play a huge role therapeutically.

[00:06:49] **Dr. Ginger Hultin** When you look at the formulation of women 50 plus, there's like these ages on the multivitamins. And I get people all the time that are like, I'm taking a kid's multi, or I'm taking a women's multi. I'm like, well, women of what age? Because the formulation matters. And one of the biggest differences is that there's iron in the like young professional age, and there's not in the 50 plus, because in your 50s, you'll often go through menopause and stop menstruating. But like I the presence of iron in the multivitamins is so important. And that's one that I often look at for young professional females.

[00:07:20] **Dr. Douglas Kalman** Another nutrient of importance, especially for the young female professional in the age where she could get pregnant, is choline. And dietary source of choline is chiefly from eggs. But yet for the last 40 years, the country's been saying stay away from yolks, stay away. But choline is really important for acetylcholine production and for cognitive development of unborn baby. It's even the major reason why now choline has found its way into prenatal and perinatal supplements.

[00:07:48] **Dr. Ginger Hultin** If I'm looking at a prenatal, I'm automatically looking for choline. And you also mentioned on our first episode about like quality and cost. And honestly, to have these better formulations and to have choline and like the right type of supplements in the right form, a lot of times they are a little bit more expensive because of the higher quality ingredients. And I think it's helpful for us as healthcare professionals to help people understand where to invest and what's worth it for them.

[00:08:14] **Dr. Douglas Kalman** I would agree with you, and I also find it that there's a challenge even amongst health professionals. When you read a vitamin mineral label and you look at each form of each different vitamin to understand what that form is and how is the absorption of this form in humans. So, for example, often you can label vitamin E DL-tocopherol. However, our bodies poorly absorb DL-tocopherol, but by law, they can use it and label it vitamin E. So I think that becomes also an opportunity for education.

[00:08:50] **Dr. Ginger Hultin** The forms are really important. I look at them all the time, but you're right, it requires a lot of baseline knowledge and education. Sometimes I'll see methylation issues like MTHFR gene, but actually I'm usually looking for methylated forms of B vitamins as an indicator that the company might be going to the next level and like using higher quality ingredients. Do you see it that way?

[00:09:08] **Dr. Douglas Kalman** Dietary-wise, we primarily get through any food that grows through soil. Soil doesn't contain the nutrients that it used to. And so that's another reason also to want to be aware of how can I optimize or what is the form, what's being used. We also know there are people that just walk around and don't know that their bodies are inherently now at higher risk of certain things until they meet a person like you and get a like a functional nutrition screen or test.

[00:09:37] **Dr. Ginger Hultin** Ready to level up your performance? Orgain's creatine monohydrate micronized powder is a clean, effective way to support strength, power, brain health, and muscle recovery. With five grams of pure micronized creatine per serving, no additives and no fillers, you get exactly what you need to help push harder and recover faster. It's unflavored, easy to mix, and made for anyone looking to build strength. I have great hope about more personalized testing in the future, but a lot of people just ask me, how do I know if I'm deficient? For example, I'll get people that have a regular blood test that you get at the doctor. And of course, they're testing for electrolytes in the blood, and calcium is in there. So many people come to me and they're like, my calcium is fine. And I'm like, let me help you like interpret that correctly. So we don't look at bone density from calcium floating around in the blood, because 99 percent of it is in our bones. So then you need to get a DEXA scan. How do you approach testing?

[00:10:35] **Dr. Douglas Kalman** On an individualized basis, if we're gonna do testing, what are we looking for? Essentially what we do is we have a baseline. Where are you now? If we're gonna make changes in your lifestyle nutrition-wise, then let's retest after X amount to see what's happening. And

that's what we do. We might do an omega-3 index test to look at that as a pseudo marker for inflammation. Vitamin D can be done, the B vitamins, electrolytes can be done. So, for example, if you're a coffee drinker and you want to know do I fast metabolize caffeine or am I slow metabolizing caffeine? Nutrigenomics offers that. And then you can also see well, am I a carrier of this gene or not? If it affects like metabolism of certain key vitamins and minerals for cardiovascular and cognitive health. I think testing has its purpose.

[00:11:24] **Dr. Ginger Hultin** For anyone interested in learning more about Nutrigenomics, last year I did a very cool interview with Dr. El-Sohemy, who is the founder of Nutrigenomix and like a fascinating person. We have a whole segment on it. One thing that I've been struggling with is I almost always recommend vitamin D testing because people come to me and they're like, how much do I take? And I'm like, I have no idea. Are you normal? Are you deficient? It's so hard to dose some nutrients without testing. But I'm getting some pushback from doctors. And so I love that you mentioned that you can get a test in the store. That is possible now.

[00:11:58] **Dr. Douglas Kalman** It's gotten a lot easier for self testing, but there's a risk of that. Who's interpreting the information? And like if you're just an individual you went to get tests because you're curious, but you don't really know what it means, and then you're Googling or doing some type of search, and you could be led down a poor rabbit hole.

[00:12:15] **Dr. Ginger Hultin** Yeah. And sometimes I see people get maybe over tested, but they don't know what to do with it. I see that also. So I think the the bottom line here is personalization targeted for yourself and working with someone that can help you interpret it. Because just having a ton of information isn't as helpful as being able to put it into action. I'm a huge fan of testing. So we can have personalized advice. Every year I'm like, can I please get vitamin D? And they're like, you might have to pay for it. I'm like, great. It's so worth it to me because it's such a critical nutrient.

[00:12:48] **Dr. Douglas Kalman** I know the rule of thumb sometimes is if you're north of Atlanta, when you're looking at latitude, that that you're at increased risk of vitamin D insufficiency to deficiency. We know there's a strong correlation in between the time of year when there's the lowest sunlight, the lowest vitamin D, and the highest amount of suicides. We also know vitamin D is not just a vitamin, it's a hormone. It's a steroid hormone that influences everything from mood states to other hormones, even far-reaching impacts that affect muscle strength. So we know that when older folks start to do resistance training, add vitamin D, that they get activities of daily living become easier and they get greater muscle tone, which means less falls, which means less injuries,

which means better quality of life. One of the things that I teach is vitamin D, it's the sun vitamin, you actually have to be exposed to it. So it's it's not uncommon to find people that have vitamin D levels below 50. Then I ask them, do you expose the sun? They're like, well, I they they wear long sleeve or they have sunblock on the majority of the time. Sunblock does what? It blocks UVA and UVB rays, so therefore pre-vitamin D can't be then eventually get turned on by a hormone in your kidneys to become vitamin D3. So there's a lot of things that impact vitamin D levels. Testing is well worthwhile. We can't just assume because a person looks okay that they're everything's normal on the inside.

[00:14:20] **Dr. Ginger Hultin** You've got to look at at what's actually going on inside. We were talking about cancer earlier. And because what you mentioned, we don't do high doses of vitamin C or other antioxidants during chemo or radiation. But I sometimes I get this blanket statement, like, well, don't do anything. But I'm like, well, this person is vitamin D deficient and there is some interesting research connecting vitamin D to cancer. Like, can we treat that? Or they're on this really high dose of steroids. Can we look at calcium? Or one thing that I think has amazing evidence is protein powder and protein supplements in my cancer folks. And those are all supplements that I would push back on anyone that says they're not. Like they're safe, and they help my patients, and they create much better quality of life.

[00:15:01] **Dr. Douglas Kalman** I will concur and say that was my experience also when I worked in oncology. Protein is always utilized. We know that, you know, if you're not eating and certainly if you're not getting adequate essential amino acids on a daily basis, you're gonna negatively impact your immune system. You're gonna negatively impact optimal production of neurotransmitters. And so that these play a role in helping not only longevity, but also quality of life, recovery and and so much more.

[00:15:31] **Dr. Ginger Hultin** For sure. And if you're going into any sort of surgery or anything, I really like the Orgain product line because it has both whey option and then it also has plant-based options. So depending on the individual needs of a person, there's so many ways that you can use either pre-made like shake products or the powder.

[00:15:47] **Dr. Douglas Kalman** I have a seven-year-old. So I look to boost his protein intake. The way that works for me, I'll drink a protein drink. He'll have a chocolate milk, but one which is higher in protein or the Orgain vanilla. We take the protein powder, and and for him, he likes it mixed into his ice cream, because he sees dad do it, and he's seen it every day of his life. And now he won't eat ice cream in the house without having at least a half a scoop to a scoop of protein added in. Even when we make homemade pancakes, I'll take some of

the protein powder and mix it into my ingredients that I'm making for the batter, so I can increase the protein content.

[00:16:24] **Dr. Ginger Hultin** I just wondered if there's anything after all we've discussed today that you wanted to mention as far as key considerations or takeaways for people learning about supplements with us.

[00:16:35] **Dr. Douglas Kalman** Well, first, thank you for having this platform and thank you for having me on. People can use as a resource the Journal of the International Society of Sports Nutrition. The ISSN also has an annual conference every June that's open to everybody. And I think just by continuing to listen to you and this podcast and all the great guests that you have, might be just the best way for everybody.

[00:16:57] **Dr. Ginger Hultin** From GLP-1s to prenatal needs to vegan diets, we covered a lot of ground this conversation. It all comes back to this: supplements are most effective when they're personalized and have their claims backed by research, testing, and appropriate certifications. A big thanks to Dr. Kalman for sharing his decades of insight and reminding us that while supplements can't replace a healthy diet, they can absolutely support it, especially when used thoughtfully. If you found this helpful, don't forget to rate and follow The Good Clean Nutrition Podcast. We'll see you next time.

Disclaimer: The material presented in this podcast, is not intended to be a substitute for professional medical advice, diagnosis, or treatment. You should seek the recommendation of a medical professional regarding a medical condition or treatment or before starting a new nutrition and/or health regimen.

Orgain, LLC is providing these episodes on an "as is" basis and makes no representations or warranties of any kind with respect to the podcast episodes. Orgain, LLC nor any of its directors, employees or other representatives will be liable for damages arising out of or in connection with the use of this document. This is a comprehensive limitation of liability that applies to all damages of any kind, including (without limitation) compensatory, direct, indirect or consequential damages, loss of data, income or profit, loss of or damage to property and claims of third parties.