



Understanding Protein: Evidence-Based Answers for Health's Hottest Trend with Dr. Michael Ormsbee, PhD (ep – 89)

[00:00:04] **Dr. Ginger Hultin** Okay, Good Clean Nutrition fans, today is the day. You've seen it in the headlines, you've seen added to just about every product on the shelf. Today, we are sitting down and chatting all things protein. Every macro gets its moment. They're either the hero or the villain. We've watched that story play out with both carbs and fat and now protein. Rather than me going on a protein science ginger tangent, we are bringing back the expert of health and fitness, Dr. Michael Ormsbee. Mike is known for giving down to earth advice and walking the talk. And he's a professor and executive director of the Institute of Sports Sciences and Medicine at Florida State University. He has been researching protein for a long time and when he's not in the lab studying it, he's using it in his own training. Today, I am going to ask him every question you want answered, what protein actually does in your body, how much you need, when to eat it, and so much more. So if you're ready for some muscle gains and some intellectual gains, keep listening. Before we get started, I want to just tell you that I am genuinely glad you're here listening to this episode. Whenever a macronutrient or a broader health trend gets the spotlight, the information that starts flowing can be confusing, sometimes incorrect, and often overstated. And what we know is that we have to look at the science together. Think critically and find the right sources of information and the right source of protein that are actually going to help you reach your goals. Protein is genuinely great and we are about to unpack exactly why. But it's one piece of a much larger picture. Protein without carbohydrates and fiber or hydration or healthy fat is not doing its best work. There are no silver bullets in nutrition but there are absolutely ways to get the most out of the tools you have. And that's what today is all about. All right, first, I want to hear whether Dr. Ormsbee thinks the protein hype is actually justified. And then I want him to break down exactly how protein helps your muscles. Let's go. Dr. Ormsbee, welcome back to the podcast. Today, we are diving into one of the hottest conversations in nutrition right now and something you spend a lot of time researching, protein.

[00:02:45] **Dr. Mike Ormsbee** Protein has been a hot topic lately. I tell you, I get more calls and interviews about this in the last six months that I have in a long time.

[00:02:52] **Dr. Ginger Hultin** In your view, what is driving the protein obsession and is it justified?

[00:02:57] **Dr. Mike Ormsbee** I actually think it is justified. I think people are finally realizing how much it matters and how much muscle matters. There's such a big push where we're hearing more about muscle-centric health, something we've been researching and talking about for a long time and now it's just coming to fruition. We talk about it with aging, we talk about with metabolism. Social media has simply amplified the amount that we actually hear about it. Where it is getting a little bit strange is it's being added to a lot of foods that you would normally buy. That don't have it. And so that's what you see as the health halo. So people see protein, they think health, companies will get on that and say, this product now with protein or plus protein. And so it's probably driving sales because it has a health halo that people will now buy it simply because they think it's got protein in it. And sometimes you got to be pretty careful what you say, they may add protein, but it might be like a tiny little portion and not worth the extra dollars you're trying to spend on that.

[00:03:50] **Dr. Ginger Hultin** I think there is this baseline always of when we even talk about protein and making sure people know what it is, where it comes from, where you find it. So the basics are important. And what I'd love to hear from you is how does protein work in the body and what's its role in muscle maintenance and fat loss and body composition.

[00:04:08] **Dr. Mike Ormsbee** We talk about a lot that protein and muscle are sort of connected the way we think about it. But what we sometimes lose sight of is how many hormones are made of proteins and how many structures in our body are made of protein. Outside of muscle, there are other reasons between hormones and body tissues, but there's also things like recovery and supporting metabolism and satiation and fullness from having protein. It's also a critical recovery component that we've heard about before. There's certainly aspects of protein that we need to think about. And it's also structural. It builds other tissues in our body and we need to have it coming in. So improving body composition is one angle to it, but I think just maintaining life and health is another.

[00:04:47] **Dr. Ginger Hultin** It really is this backbone. I talk a lot about it in relation to the immune system. There's just so much beyond body composition and muscle, though it's also critical for those things.

[00:04:58] **Dr. Mike Ormsbee** Without a doubt. I would say most people, when they are asking about it, are interested in the muscle side or body composition side. So we got into this field a long time ago. Some of my earliest work when I was an undergraduate and a master's student was looking at different protein intakes and different diet designs and lifestyle interventions. And one of the classic ones that we looked at was a program called Body for Life. It was really popular in the 90s and 2000s. And it was a strategy that for the first time in sort of the public eye. Really put forth a higher protein diet strategy and it also implemented things like high intensity interval training as opposed to just walking or jogging which was really popular up until that point. And so we were able to study that for the very first time to do like actual clinical research on that particular program and we compared it to the old school. This is like way back when with the original Food Guide Pyramid. And we were looking at that plus a walking program, which was basically movement, five days a week. That was where we got introduced to this. We were looking at a 40 percent protein diet, and that was way higher than what was typical. In this country, we normally have about a 15 percent protein in our diets. Now the range is 10 to 35 percent, so that's a big range. And in that range, we usually hit about 15 percent. So a lot of people would say, we eat plenty of protein. But we're actually eating at the very low end of recommendations because of that big range, 10 to 35 percent. So we looked at 40 percent. We did another study where we looked at 25 percent protein, and we had that combined with an exercise training program and all these different studies, and then we looked at body composition outcomes over time, particularly body fat loss and muscle gain, as well as some look at bone over time. And what we find consistently, and the other data supported as well, with a bump up in the protein intake, we have far more beneficial changes in body composition compared to traditional intake.

[00:06:55] **Dr. Ginger Hultin** I love being in this field for so long so that we can see the generational changes. I mean, comparing where we are now to the 90s is constantly fascinating to me. It's really cool that you all did that study.

[00:07:07] **Dr. Mike Ormsbee** That was led by Dr. Paul Arciero and I was working in his lab. A 40 percent and a high intensity training that included resistance training, which was critical to this. And by the way, both programs were supervised, overseen by registered dietitians and everything, and they all had success. Everybody improved. But the group who had higher protein and included resistance and some of the high intensity work had significantly better improvements than the other group.

[00:07:31] **Dr. Ginger Hultin** That's super helpful. And I think it's also something that is actionable.

[00:07:35] **Dr. Mike Ormsbee** One of my favorite studies, we split the group into two. One group had standard of care and one group had standards of care plus resistance training. Both groups got added protein. One group got resistance training, the other group to standard to care, which included a little bit of go in a room, move the chairs to the back, do some calisthenics, up and downs, walk around with it. And after 12 weeks of this particular study, both groups lost a tremendous amount of weight. But the biggest kicker was this, the group who did resistance training only lost four percent of their muscle. The group who did not do it, lost a quarter of the weight they lost was from muscle. Simply by adding the protein and resistance training and that finding alone was so huge. I wish every group would pick up on that with anybody trying to get massive amounts of weight loss has got to prioritize resistance training and protein for sure.

[00:08:33] **Dr. Ginger Hultin** I love that. It's one of my biggest recommendations for my post-bariatric folks. And then of course, all of us are working with folks on GLP-1 now. And those are some of my biggest recommendations. And you're just verifying that it's extremely evidence based.

[00:08:46] **Dr. Mike Ormsbee** It sure is. And people often view GLPs or bariatric as a shortcut, but I would say if you're in that lane, you have to be more focused, hyper focused on how you're going to fuel yourself and how you are going to train, or you will have problems on the back end in terms of extreme muscle loss, weight recidivism, or gaining it all back. And that's not a position that you wanna be in.

[00:09:10] **Dr. Ginger Hultin** All this being said, you and I are obsessed with personalization and that's very important to the conversation. But I think the number one question I get in all of this is, okay, but how much protein do I need? How do you approach this?

[00:09:23] **Dr. Mike Ormsbee** That's a really good question. Very recently, the RDA for protein has increased. It was 0.8 grams of protein per kilogram of body weight. And that was designed to be in a place where if you had that much protein, you would stave off disease, you would be fine. But people kept saying it's probably not optimal, but it is a dose that would prevent problems from occurring. And it also had a giant standard deviation on both sides. So you could even go below that and probably still be fine, but maybe not optimal. And so years and years go by, the data that we do or some other people who are giants in the protein space it finally moved up so I'm actually really happy with that change to that recommendation so it's bumped up now to 1.2 to 1.6 is really the range that's being recommended but for the audience the easiest thing to do

that I recommend is one gram per pound most people don't hit that and I'd rather you aim high, miss and then hit exactly what I want, the name at the target miss and below. And so for that reason, the people that we work with, we target a gram per pound, almost everybody misses by a little bit. And unless they're like, we've worked with bodybuilders, for example, where every morsel matters to that individual, there isn't really a need to go above that.

[00:10:41] **Dr. Ginger Hultin** There's some caveats, things that come to mind. What if your body size is large that could inflate for anyone that has issues like CKD, kidney failure type of situation, then we get into protein restriction.

[00:10:52] **Dr. Mike Ormsbee** And it's really fascinating because the newest papers on the chronic kidney disease and all those other areas are not impeded by higher protein intake. I would suspect that will change in the next 10 years.

[00:11:02] **Dr. Ginger Hultin** Yeah, it's a good point and I think there's a lot of evidence showing, and I don't want to get too far into the weeds with kidney disease, but we do phosphorus and potassium restriction and protein restriction when actually we're showing over time that we might not need to be doing those, which are very challenging for people's lives at the level that we've been doing it.

[00:11:20] **Dr. Mike Ormsbee** Yeah. And I love that about science. Isn't that what's awesome? I love that in nutrition, performance nutrition, and various parts of physiology in general, the stuff I taught 10 years ago, I had to change. And so we are not in a dead science that keeps evolving and changing. And, I hate it when people say the scientists are all wrong, blah, blah. I'm like, it's a scientific process. You have the best evidence, you follow that until you get better evidence and you continue on the line. And for me, that's the way that protein is going in these different areas. Now I will say that I work with healthy people and I work with athletes. And so the recommendations that we started with are in that space. But I think even in the clinical that some of those clinical researchers and clinical dietitians may change things in the future but at the moment, yeah, talk to your professional for sure.

[00:12:04] **Dr. Ginger Hultin** The messaging that we were giving 10, 20, even five years ago changes. And instead of being frustrated, I can't trust this, it's always changing. I love your reframe of this is science. We're learning more all the time and we are going to update our recommendations based on that. I did want to pick your brain on a couple of nuances of protein. Thoughts, high level on plant-based versus animal-based, supplements versus food. How do you approach those things?

[00:12:30] **Dr. Mike Ormsbee** Gosh, depends what outcome you're looking at, but every single thing basically says you can use any source you like, as long as you get the dose that you need. The biggest caveat to that, in terms of like plant-based versus dairy, animal-based products, can potentially be, for some individuals, the amount of calories you would need to eat with a solely plant-based protein to get the same amount of, calories you'd have to eat from plant-base foods to get to the amount of protein that you'd need, whereas sometimes you can eat fewer calories to get a nice bolus of protein from the animal or dairy-based products. With that said, there are so many solutions to that. One being really smart and knowledgeable about how you stack your proteins if you're a plant-based person or a vegetarian or vegan. And then you can now use supplements like you mentioned. So what's better one or the other? Well, we actually studied this. We gave one group all food-based proteins and then the other one had their proteins from supplements. And we measured this over a course of time and there was no difference between the two. Your body gets the protein, it's the protein. I will say, we like to chew and mastication is a thing. We wanna be able to do that. And there's usually other nutrients in real foods, which is why we take a foods first approach, but not always.

[00:13:44] **Dr. Ginger Hultin** I work in cancer care specifically, and there's some very high protein needs in that group. And it's really hard for some of my clients to get where they need to go, especially if their appetite has taken a hit without some kind of supplementation. And I love protein drinks because they move through your digestive tract easily, they're easy to digest, and they're like grab and go very simple.

[00:14:03] **Dr. Mike Ormsbee** That's the biggest point is convenience. A lot of people are like, I don't want to drink that. I'm like, that's fine. You can totally do this without supplements. However, for me, the convenience factor is huge. And so every day I'll be having at least one or two of those because it's just part of my lifestyle. It helps me meet my goals. That's just the structure that I have. But if you don't like that, it's no problem. It's just far less convenient.

[00:14:26] **Dr. Ginger Hultin** Yeah, we just have to plan it out a little bit more. I feel the same way. I'm very pro plant and animal combination. There's not just one way that's right for each person, but there's a lot of different ways to get where you wanna go protein wise. This episode is brought to you by Orgain. I'm always looking for protein sources that are nutritionally well-balanced. And right now, Orgain has new ones at Costco that are worth knowing about. Try their new 30 gram A2 ultra-filtered protein milkshake. Why A2 milk? Well, most milk that people drink comes from cows that produce both A1 and A2 beta-casein protein. When A1 protein is digested, it may release more of a peptide. Associated with digestive discomfort, A2 milk comes from cows that

produce only A2 beta-casein protein. When A2 protein is digested, it releases less of the peptide associated with digestive discomfort. So, for a lot of folks, A2 milk is simply easier on the stomach. With 30 grams of protein, two grams of sugar, and only 160 calories, it's a great choice on the go. Available now for a limited time at Costco in creamy chocolate. Check them out at [Costco.com](https://www.costco.com). So there you have it, the protein hype justified. What I love most about this conversation so far is that we have moved well past the idea that protein is just about building muscle. From hormone production to metabolism to recovery, protein shows up in more places than most people realize. The research is hard to argue with. So if you know you may need to increase your protein intake, how do you do that in a marketplace that has taken full advantage of this trend? Well, that's exactly where I wanna go next. Let's look at some nutrition news. Protein is now basically its own market. Projections show the global high-protein food market will reach nearly 117 billion dollars by 2034. And consumer behavior is reflecting that. 61 percent of Americans reported increasing their protein intake in 2024, up from just 48 percent in 2019. With that demand comes a wave of new products hitting the shelves with quote unquote added protein on the label. But as Mike pointed out earlier, this is what we call a health halo and it's worth understanding. A 2024 study found that consumers perceive protein-labeled cereals as healthier and more nutritious than their original versions, even when the nutritional profile wasn't meaningfully better. And in some cases, the protein version actually contained more sugar, sodium, and calories to improve taste. A separate 2024 study out of Spain found something similar. After analyzing over 4,000 processed foods, they found that products with protein claims were frequently high in sodium, fat, and sweeteners despite being perceived as the healthier choice. Now, I'm not sharing this to stress you out, of course. I'm sharing it as a practical reminder. Yes, look at the protein on the label, I always do. But also look at other aspects of the label and the ingredients. Okay, with that industry deep dive behind us, let's get back to Mike. Next up, we are talking protein timing and how to think about tracking your intake day to day. I'm interested in your research on the timing of protein. In episode one, we talked a lot about protein before bed, but how does that look like in someone's day?

[00:18:34] **Dr. Mike Ormsbee** Several studies have looked at this and how they space protein over the day. For example, there was a big thing for years and years, which was like, oh, you gotta eat six times a day. Make sure you're eating regularly because each meal will stoke your metabolism. By and large, that has been dismissed after more and more data has come out. And so in general, we just have to figure out what the total daily targets are and make sure we hit them in a 24-hour period. But once you get that dialed in, then I move to phase two. Let's start thinking about timing. Does that do much? It won't do nearly as much as hitting your total daily targets. But once you do dialed in, that's when I do

like to have the frequency. Personally, that's how I enjoy eating. Now I have lots of colleagues, friends, clients, everybody who says, I don't like to wake up and eat. I don't like to eat till noon. I like to intermittent fast and hold calories till a different portion. I say, if that's the lifestyle you like, fine. Let's just make sure we're not going backwards anywhere. So if you're having a long fasting period for some reason, let's think about one why. Is this sustainable? Is it helping you meet your calorie? Can you still hit your protein needs? Are you able to train hard enough based on when you're training in that timeframe? If you can check those boxes, you'll be just fine. In that way, it is individualized choices. But I would say that the literature in terms of protein and protein timing does seem to favor a little bit extra benefit if you can have several protein boluses rather than one giant one to get all of your protein. Just from an absorption standpoint, you can absorb a ton of protein at once. Now there's studies over 100 grams at once, which we used to think was impossible. So you can handle it, but it's like, just because you can, should you? Some of the other data, if I were to think about compiling it all into one compact sentence, it would be protein three to five times a day, hitting 20 to 40 grams each time.

[00:20:18] **Dr. Ginger Hultin** That's a really nice snapshot that I think is very actionable. One mistake that I see people making is really focusing whether it's protein or other nutrients on one food or one meal. We have got to look at the entire day because one fruit or one meal doesn't give me the whole snapshot. So looking at the bigger picture I think it's the first place I usually work on with people.

[00:20:39] **Dr. Mike Ormsbee** I agree starting at that point is really actionable. And the other thing that really could be concerning with just one giant meal is that sometimes nutrients will compete for absorption. And so if you just have everything at once, maybe you're excluding something. You don't even know you're excluded at that particular point, especially if you're also stacking vitamins or minerals that are in a pill form, what are you doing and how much are you taking and what point?

[00:21:03] **Dr. Ginger Hultin** I talk to people about that a lot and there's a lot of strategy there. I'm interested in your thoughts on someone that wants to be more intentional about protein but doesn't want to be obsessive. And I work with a lot of people that have disordered eating patterns, eating disorders and are being overly obsessive and wanna be perfect. Sometimes I have people track food for certain reasons. Often I have them stop tracking. I want them to not track as much. How do you ride that line with technology or tracking and protein?

[00:21:32] **Dr. Mike Ormsbee** The way that we approach that is we have to get to know what the person is thinking on the other end when you're talking to

them. So some people can handle it, some can't. We start with an education-based approach typically. We would orient people to what are good protein choices to be trying to make. And then we try to take a simplest approach like in your typical breakfast, tell me what you have. And then, we'll say, okay, where would these fit in? Would they fit in? We try to take an additive approach where, what can I add to your diet that will improve it, rather than what can I subtract? And that removes a lot of barriers for some folks, but I get it, I don't want to think about protein anymore. And so we do our best and it's not always a win, but we try to figure out what's sustainable, what can they add to their program. We try to use the tech to snapshot, like I need to record a little bit of data so I know how much protein you're eating, how many calories you're eating, but maybe we just do two or three days. And then we don't have you do it again for weeks and weeks. And then we'd spot check back in again, and we try to make it low barrier. So some folks can take a picture of their food and send it, which is a little bit easier for them. And some people don't like that. They'd rather actually enter the data into whatever app we're using or write it down on a piece of paper. So we have to see what the person's capable of doing, where their mindset is with how they use technology or not. And then frankly, if I'm thinking or suspecting any kind of eating disorder, I refer to a professional. While I love protein, the biggest dial mover is the exercise. That's what's moving the needle. And the protein bit just adds a little bit more muscle growth and then these other things like adding protein will add a little more, not a ton, a little bit more to your muscle mass, muscle quality, et cetera.

[00:23:14] **Dr. Ginger Hultin** One of my favorite clients from years ago, when I first met him, he was like, okay, like how can I fit fitness in? It's really hard. I have little kids. I have this big job and we kept working together and he had this shift. And he said, all of a sudden, I started not trying to figure out how fitness fits in, but I would choose my fitness and then wrap the rest of my day around it. And it changed his life. And he just became so passionate about I'm gonna do fitness every day. I just have to make it my priority. And he was one of my favorite folks. And I just loved that mental emotional shift of prioritization.

[00:23:46] **Dr. Mike Ormsbee** Yeah, I love it.

[00:23:48] **Dr. Ginger Hultin** Thanks for all your expertise today. I am so obsessed with this conversation. I learned so much. So there you have it. You know a whole lot more now about health's hottest macronutrient. I hope that knowledge feels useful because that's always the goal here. Think of this episode as your protein benchmark. You now know what it does roughly how much you need and when it matters the most. If you want to dial that in further, that's when working with a registered dietician can genuinely be a game changer. If someone in your life asks you whether the protein trend is worth

paying attention to, please share what you learned from us today. Whether the conversation is about protein or any other health trend, spreading the science matters. And as new trends emerge, you know this is the place where we'll be breaking them down together with evidence and nuance. If you loved this episode, please leave us a review and let us know what topics you want to hear about next. We read all of them. Thanks for listening to The Good Clean Nutrition podcast. See you in the next one.

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