Rebel Nutritionist: Episode 17 with Richard Bloomer Clearing Up The Confusion Around Supplements

MERYL: Hey everyone. And welcome back. I am Meryl Brandwein, your host. I'm a dietician and functional nutritionist who believes that food is medicine. And when we learn how to eat the right foods for our bodies, we can heal and return our body back to balance.

So today I have with me a kindred spirit who believes in the power of nutrition in achieving optimal health. Richard Bloomer is the chief chair of the department of health and sport sciences, and the Dean of the school of health studies at the university of Maine. He has a specific expertise in the area of **oxidative stress and antioxidant therapy**, as well as **the use of dietary ingredients to improve cardio-metabolic health**.

He has served as a consultant in a variety of to a new, a variety of nutritional supplement company. And has conducted significant research on the benefits of supplements in achieving better health. And he is here today to help us **clear up the confusion around supplements and nutrition** and help us **understand how we can use supplements to help really support our overall health**.

So welcome Dr. Bloomer. So let's start off with a little bit of background. Tell us how you got interested in the area of supplements, nutrition and.

RICHARD: Yeah. Great. Thanks Meryl. Appreciate the opportunity to talk with your audience today. So. I've been involved in various forms of sporting activity, exercise, bodybuilding, et cetera, for close to about 30 years now.

And I've used all manner of approaches from a nutritional perspective. Yeah, different sorts of diet protocols as well as dietary supplements that at one point I was probably a supplement junkie, tried all sorts of different things. And today I rely on just a few staples that we'll probably talk about a bit later, but I've been able to utilize really my personal interest in nutrition, Exercise and dietary supplements into a career. So I went through my master's or undergrad program initially in nutrition and wellness. And then my master's was in the study of exercise, physiology, exercise science, and my PhD work continued in the area, but really with a focus. Yeah. The topic of oxidative stress or free radical mediated tissue damage.

And with that, of course, we look at not only how does the tissue become damaged, but what do you do to help prevent some of that damage? And then of course, we looked at antioxidants and with the antioxidants, of course you get into them, the study of anti-inflammatory agents and all these other things that we know could have kind of a holistic impact on these outcome variables.

I've been involved in that sort of research line for probably about 15 to 20 years and a good majority of our work over that time has been involving nutrient ingestion, either whole food or isolated nutrients, nutraceuticals, dietary supplements in methods that help alleviate certain aspects of cardio metabolic disease individuals that may be prone to pre-diabetes or diabetes, insulin resistance.

As well as certain cardio-metabolic parameters. So thankfully I've been able to utilize my personal interest in nutrition, wellness trying to lead by example, but then take that into both a classroom and a research setting. And I've been in an administrative role now for several years as currently the Dean of the college of health sciences at the university of Memphis.

The role nutrition plays in our overall health

MERYL: Great. That's a lot of stuff. I love it. I love all that. So so to that end and, and you talked about your own interest in nutrition. What role do you think nutrition plays in our overall health? And, we've talked about this and I think that's pretty evident in terms of what you were saying, but also how do supplements fit in with someone trying to live a healthy lifestyle?

RICHARD: Hey, great question. So oftentimes people will come and ask Rick, what sort of dietary supplement do I need and does this work and I'll usually follow with the question. Well, what does your whole food nutrition program look like? And if their answer is, which is typical well it's pretty lousy and that's why I needed the supplement.

Or **what about your exercise protocol?** How many days a week are you training? What does that look like? Well, I don't have time to exercise. So what they're telling me is their diet is pretty poor and they're not exercising and don't really have the motivation to do so. Yeah. They're expecting me to give them a recommendation for a supplement.

That's going to fix everything. And the simple reality is that's not going to happen. That's not going to work. So we know **supplements as their name indicates are just that they're adjuncts to hopefully a well balanced, holistic approach** to. And that includes whole food nutrition as you're very well aware.

It includes regular structured exercise resistance, hopefully in cardiovascular, as well as physical activity, rest, sleep, relaxation. All those things together in my view will probably account for 95 plus percent of a person's physical success. I know supplements, I think, do play a role, but the idea that the supplement is going to fix everything is really not supported at all by the available evidence, whether it's scientific or anecdotal, so they certainly can help.

But they should be looked at as something that compliments. A really solid program to begin with and not make up for the lack there. Right.

MERYL: And, and yeah, I always say **you can't supplement away a poor diet**, right? You just can't diet or poor lifestyle. It just doesn't work. So, that's very well said.

And thank you for the clarification on that. So you know, the other thing, and, and I'm sure you can speak to, this is there's a ton of mixed messaging, right? About supplements. There are some people who disregard the fact that we need it because certain, maybe a healthcare worker or their doctor says they don't work.

They're unnecessary. The mixed messages. From some of the research that comes out right.

And we all know sometimes that's left to interpretation, which is not always so objective. And we live in a society where people go to medication first. So why really should supplementation be an essential part of how we look at achieving better health?

Why do we receive so many mixed messages about using supplements?

RICHARD: Yeah, that's a good question. And a complex question that we spend a whole lot of time talking about. You know, I've obviously worked with a lot of healthcare providers physicians, nurses, pharmacists, et cetera. Now, I would say for the most part most of those individuals would not be really enthusiastic about the use of dietary supplements with some exceptions prenatal vitamins, maybe coenzyme Q 10 for staff and users, things like that.

But a lot of that has to do with, I think the fact that one, the supplement industry is significantly different than the pharma industry in terms of what's necessary to go to market. The reality is really nothing is necessary to go to market. Clinical trials are not necessary simply you need to notify the FDA that we're about to bring our product to market.

And essentially that's all the FDA and FTC do have oversight, but it's, post-market oversight, not pre-market as would be the case in the pharma industry. So a lot of physicians, I think, are a little concerned about that, and I could understand that. A lot of the physicians and healthcare providers, frankly don't have much or any training with regards to nutrition as you're well aware and dietary supplements.

So it's not something they're that comfortable with. And therefore they're probably not going to want to recommend those particular products individually. Beyond that **there's a lot of hype in the industry and there's a lot of marketing claims that are shared, that we know cannot be substantiated or supported**, and people see those things and they believe that because a

handful of bad actors are doing things they shouldn't be doing that the whole industry has changed.

And one point I want to make is that's absolutely not the case. There are a lot of really strong, reputable companies that do the right thing that have great ingredients and great products that are well-researched. And we believe it could very much help individuals and the evidence would support that. And there's a wealth of scientific evidence to support various things.

But as an industry, there certainly are those products and those companies that we know probably won't yield anywhere near the effects that they're claiming. The marketing is really strong. They don't have the science to support it. I think that gives people generally a bad taste and they've been turned off to supplements as a whole because of this.

But make no mistake. There are a lot of supplements out there that can be very useful and helpful to a good number of individuals.

MERYL: Right. And I always say that's where we individualize programs and protocols. I mean, I think one of the things that I come up against oftentimes is a study comes out and one day vitamin D is good.

One day vitamin E is bad. One day fish oil is good. Fish oil is bad. You know, I spend half my time trying to reassure people that **these studies are not necessarily done the right way**.

They're done. Not always with the highest regard of integrity on, on products and whatnot, but at the end of the day, people don't know that we go back and look at the research and say, okay, well here, this is the story on that, but it's already out in the media, right.

And people are already now fearful that, oh, you know Vitamin E or selenium is going to increase my risk of prostate cancer, whatever that happens. That happens to be what the popular topic is of the day. So how, yeah. How do you talk to consumers? Like people are watching and say, well, you can't always trust what you read.

How can you help skeptical consumers navigate the supplement industry?

RICHARD: Well, I think a lot of that is, again, first of all, **in science, we always have what we were referred to as mixed results**. So I'll use a very popular supplement in the sports world, which is creatine. Monohydrate probably the most well-researched for or dietary supplement ingredient in the history of supplements with the possible exception of carbohydrate.

Thousands of studies done in creating a good number of those studies would support creatine's efficacy to improve high intensity short duration, first activity. But certainly there are studies that don't support it for whatever reason, maybe different subject population, different design, different doses, different delivery, different outcome, variable, whatever it may be.

So if you look at the totality of research, you're probably going to note that a good majority of studies support that particular ingredient. Well, there are some studies that don't support that ingredient, essentially no result different than a placebo. So if a person is not biased, they should present both sides of the story, both cases.

And then allow the consumer to draw their conclusion, but oftentimes people have an agenda and a plan and they will cherry pick different studies to support their position and then say, see,

there's no effect. When in fact, the consumer is never going to go look at the literature in its totality and draw their own conclusion.

They're just looking at what this person says, and if they say it with confidence and boldly sounds good. The person's probably going to listen. That happens all the time. We know that happens all the time. And it's a little bit unfortunate because the consumer or the end-user of course just hears that story.

And then **they're confused because one person says one thing, one person says another**. So there's always mixed results. You mentioned the vitamin E case. And it's interesting. I remember years ago there was a study using vitamin E and they came out and said it didn't aid individuals with cardiovascular disease.

But they ended up using people with severe and advanced cardiovascular disease and they use 400 IUs of synthetic vitamin E, which you know, is not nearly well absorbed as compared to the natural form. And only 400, I think for eight weeks and they concluded it didn't improve overall outcomes.

And I think their outcome was the hard end point of death. Now, with something like that and that design, you might say there's zero chance that vitamin E would have any effect. At that, especially at such a low dose and advanced cardiovascular disease. **So sometimes these studies are difficult to interpret.**

You really need an expert to look at the design and the interpretation, the results, the conclusion in order to draw a really firm conclusion. And then even with that, you may have 10 different scientists and you get five people that conclude one thing and five that conclude

something else. I know that's of no reassurance to the listeners, but **the reality is you need to be cautious.**

You need to do your own homework. You need to investigate things on your own. And ideally, always go back to the original science and not someone's interpretation of that particular scientific study.

MERYL: Right. I mean, and that's a good point. I think that the issue is, and right. You know, those of us that are in the industry, I think we love, that's what I always say to my clients.

You're trusting me because I'm going back and doing the research and looking at this because I don't even know that probably most people, people intelligent or otherwise really understanding even what they're looking at and what they're looking for. And I always say, when someone comes in and I'm like, well, why are you on this supplement?

And they said, well, my cousin's sister's brother is on it. And I'm like, okay, you take financial advice from your cousin system, sister's brother who didn't have a degree or, or a good financial planner sort of certification behind them. So I think that it does, it becomes this, this free for all in the supplement world.

How can we add supplementation if we're on medication

So to that end people let's say who are on medication, right. How can we fit in supplementation with, with people that are already, let's say on medication? I know it's so general, right? But I, well, Brian says people who are trying to get off, maybe two separate questions, but people who are on it and how do we work that.

And getting, helping people get off medications, let's say, and, and sort of weaning off. And, and obviously we can't, we're not allowed to, as you know, I'm not certainly allowed to say, well, go off your standard medication. Right. We can't do that. But I think for people who are saying, well, I'm on XYZ medication, is it possible for me to get off and do something a little more natural at some point?

Plan is likely going to yield much greater success. At that end, if they had, let's say someone was using Metformin they're diabetic. And they're thinking I'd love to have my glucose in that a hundred to 110 range versus my normal fasting of, 170 to 190.

Is there any way for that to happen? Now you can look at things like cinnamon extract and some other dietary supplements that we know have some effect, we've studied some of these things. So I know they do have some effect, but it's not nearly as robust as the effect that we would see if a person said I'm going to get rid of my typical Western diet.

And my fast food shelflife diet, and I'm going to embark on this sort of purify, clean eating high fiber, low GI particular diet plan. And over time, I'm going to see my fasting glucose be lower.

We've seen this in a lot of our studies, both in humans, as well as animals. And you can see some significant improvements in glucose regulation and insulin sensitivity with diet alone in a matter of early weeks for that matter.

But I haven't seen the same sort of effect with the dietary supplement. So I would say the whole food nutrition and the physical activity and exercise is likely going to yield a much greater improvement. That will allow a person to have that conversation with their pharmacist, with their doctor about modifying the medication.

Certainly we'd never want to say, Hey, use this product instead of that pharmaceutical agent, that wouldn't be a wise thing for us to do. You want to have that conversation with the physicians. Now, some patients will say I had the conversation with my doctor, he or she had no idea what I was talking about.

And I've heard that a lot. You know, sometimes I think we need to give them a little bit of a break because they're not trained in this area, just like they wouldn't come to me and ask me questions about a certain medication that they're using, because I'm not really trained in that area. So we need to cut them a little bit of slack and hopefully they're wise enough to say, you know what, I'm going to recommend Meryl as a consultant because I know she's familiar with that.

Or. A good RD or somebody that has an understanding of how to manipulate some of these variables. So I could consider possibly titrating the dosage down, or maybe eventually going off the particular medication, but we've seen some of that over time. Yeah. Specific usually to the metabolic drugs, the antidiabetic drugs, things of that nature that people have either lowered the insulin dose and, or maybe come off some of the oral hypoglycemic agents.

And that's a good point too, to bring up because if people are using these things and then they start a supplement regimen or an exercise regimen or a diet regimen, they really need to be talking with their physician pharmacist about this because chances are, they may need to alter the medication usage.

Otherwise they may get into a situation where they really don't feel too good.

MERYL: Yeah. And that's something that I talk to them about a lot as well, and interesting, going back to Most conventional practitioners are not trained in this. I always say this stuff is not necessarily in their toolbox.

And I, but you know, the hard thing is, I've actually had clients come back to me and say, well, my doctor said that changing my diet will really help. And I've had that on so many occasions, whether it's someone who's. It can be someone with a type two diabetes. I've seen it with people with cardiovascular disease.

Oh, no. Changing your diet is not really going to help your lipid profile or even cancer, right? Like I've got people coming in with cancer, I don't know, don't change your diet because you know, the chemo or whatever. And that's not necessarily on the supplement line, but in terms of, I don't know how they say that.

We know it. We know it works.

RICHARD: I mean, we know it works and it works really well. And it actually works really quickly. We've done a series of studies with a fasting protocol referred to as the Daniel fast and literally in a three-week period, we see changes and lifted parameters that parallel those of first-generation statins.

So it's not uncommon to see a 20 to 25% reduction in total and LDL cholesterol in three weeks time, just by changing from a Western diet to a, which amounts to essentially a very pure vegan based diet. So to suggest that diet doesn't quote unquote work is just unfounded.

MERYL: I agree. I spent a lot of time telling certain people that, but yeah.

So the other question I have, I guess, around, and you alluded to it earlier, but around supplementation is being that it's not regulated. And those of us that are, you know Suggesting supplements and suggesting it from reputable companies that have good efficacy and data behind it. Speak to the fact I've got clients when we test them and do their nutrient profile they come in and say, oh, well, I've been on this B vitamin and I've been on that antioxidant.

And then we test them and they come up deficient and and they're like, what, how could I be deficient? And there's, there's a lot of ways we can be deficient, but I think it, and some of it speaks to like, I'll look at their, their supplement. I'm like, well, the form of the vitamin is not the form that we wanted it in.

So like you mentioned something about the synthetic vitamin E can you speak to. Why people may not see the results they want, if they're just pulling something off of a shelf without getting the recommendation of a qualified healthcare professional.

The perils of regulation in the dietary supplement industry

RICHARD: Sure. So that industry, the dietary supplement industry as you know, is a multi-billion dollar per year industry and has grown significantly over the past. You know, a couple of decades. There are so many products that are flooding the market. And again, you can go to market and I could develop a product today and within a couple of weeks or a couple of months, get it manufactured and start selling it. The only thing needed to be done would be to notify the FDA that we're planning to go to market with this particular product.

And then we start selling it now. They will have oversight, FDA and FTC on the claims that are being made. Does the label match the ingredients, things of that nature, adverse events they can step in at any time, once the product's on market, if necessary and either pull product from the market, make adjustments or make suggestions for adjustments or mandates, et cetera.

So there is definitely oversight. A lot of people say, well, they're on totally. Unregular. That's absolutely not true. **They're regulated, but not nearly to the same degree as would be a pharmaceutical agent.** Now, when consumers are looking for products, ideally they would probably want to look for, let's say it's a multivitamin multimineral or a stand-alone B complex or something like that.

There's an organization out there called **the United States pharmacopoeia or USP**. And a lot of people, they did a push last year to try to get people to understand what USP means and what they are is essentially an organization that will come here. And they will do almost what amounts to **an audit of that particular product**, how it's being manufactured, the ingredients coming in on the raw material side, investigating the ingredients, the finished product, the label doesn't match, which actually what is actually in the product is safe.

Oh, the claims, all that sort of stuff. **And if they pass that stamp USP, the logo will be on that bottle.** And there's a few different products of course, out there that have that. So people
probably are familiar with them. That would be one kind of assurance that, Hey, this is probably
a pretty decent product.

I can probably trust the, if there, if the label claims 500 milligrams of vitamin C per tab, there's probably about 500 milligrams of vitamin C in that tablet. Now, if they're going to the store and they're buying one, get three free. I'd be a little bit concerned about the quality, the margin just wouldn't be there for a company, obviously they sell it that way, but things like USP, I think gives some reassurance that this product is pretty decent, you can go to the company's website.

If they've, if they have published research that they've actually done on their product. I think that's a really good sign. Not many companies do, but some do. But things like that I think are helpful if it's a sport product, which a lot of your listeners perhaps are using a sport based product, they're either themselves or they have individuals they know who are participating in sport.

I'd always look for something either caledl **informed choice or informed sport or that NSF certification for sport**. And what that does is again, kind of like an auditing body. **They will confirm that there's nothing in that product that would be contained on the banned substance list.** So let's say you're a college athlete and you're thinking of using product X, but you really don't know if it's allowed to be used.

Well, if you used it and then were tested and you tested positive for a banned substance. Then you're not going to be playing and you risk losing a scholarship and all that sort of thing. So it's really important to make certain that the products that you're using are number one of good quality. And then number two, that they're safe and they don't have anything in them that would ban you from particular competition.

Richard's opinion on protein powder

MERYL: Right, that's a great point. So along those lines, like you said to the sport thing everybody's now having these protein powders, right? Everything's on a protein powder kit, we'll have a protein powder. You know, most people don't know, you can only assimilate so much protein in a sitting anyway somewhere between 17 to 20 grams per time that you're consuming.

Yeah. Can you speak to when, when a product says, oh, there's 40 something grams of protein in here you know, how accurate do you feel that is? And, and what is your take on the sort of that boom in protein powder production?

RICHARD: Sure. Yeah. And there sure are a lot of different types of protein out there.

In terms of the quantity and how that matches the label. There's a company consumer labs that has done a lot of analyses on this. And you know, sometimes you get a scoop and it says it's supposed to be 24 grams. And the meaning is probably 22.5. You know, the range may be 22 to 24, 25, so it's pretty darn close.

And then I've seen some other reports that are pretty, pretty far away from what the stated label claim is. Again, I think we want to go with a reputable company, a company that is well-established in the industry, a company that people are familiar with that are selling a product for what we would expect to pay for a quality protein, which is probably in that 12 to \$13 per pound range.

So if you're getting a two pound container of protein and you're paying \$11 for it, Unless it's some sort of great sale. It's probably not of great quality. So you're probably looking at spending 25, 30 bucks on a couple of pounds. If you get a five pound container, maybe it's 55, \$60 as generally what I end up spending on a good quality, let's say whey isolate or blend or something like that.

As far as. The utility of protein powder. I personally find it to be very useful, especially for people who are very busy and like to have a lot of meal replacement drinks for their food, as opposed to whole food meals. Now, if I had time, cause I'll eat about five or so meals a day.

And if I had time to sit down to a boneless skinless chicken breast grill, steamed broccoli, and a small, baked potato.

Every few hours, that's great. That's good quality food, but the reality is most of us don't have that luxury. You may do that once or twice a day, lunch or dinner, but I think if you're really busy and you accept the idea that, Hey, I want to be eating smaller, frequent nutrient balanced meals throughout the day.

And I want to blend a couple of pieces of fruit, fresh or flash frozen. I want a 20 gram scoop of protein powder mixed with some soy milk or almond milk. And so ice cubes have blended up and I love the way it tastes. And it's costing me about a dollar 50 and it's a great meal. That comes to probably 300 calories.

Hey, that's a good approach. I like that approach. I've used it with many people that I've worked with that are very busy professionals and they've had really good success with that. I do it myself, probably three of these a day along with a couple of whole food meals and it works really well.

So if you're using it for that, I think that makes really good sense if you're of the mindset that I need to dump in protein powder, two scoops and water many times a day, because I'm not getting enough protein to, to grow or to fuel my body. That's probably not appropriate or necessary. Unless now there are cases where you get a younger person that's really in the initial stages of training.

The reality is some of these people use a lot of bodybuilding drugs. And if you're talking about that sort of population, they probably can get away with and do need the additional protein. But

you know, the average person that's going to the gym a few days a week that you know, is already well-established in their fitness regimen, et cetera.

They don't have massive tissue damage happening. You know, dumping in 300 grams of protein a day is certainly not necessary for normal growth.

MERYL: Great. Great point. I love that. Thank you. So you know, along the line, so in our office, we offer a lot of supplements that basically help support the immune system.

Can supplements boost immune function?

And we've got different packages to that end, especially now. Given the current pandemic. So what's your take on whether the supplements can boost immune function or support, maybe not boost, but but support immune function and prevent in the prevention sort of process of, of something like a COVID you know, can you speak to that a little.

RICHARD: Sure. I mean, you can look at your, your usual suspects your high dose vitamin C zinc, now more recently with COVID there's been a lot of discussion about D3 in most individuals, certainly. And in Florida, maybe not as much, but I bet there still are a number of people who are D3 deficient.

Yeah. We lather up with the 50 SPF sunscreen, and you know, we're really not getting. What we once were. So I think things like that certainly can help. You can look at things like pre probiotics and certain sorts of forms of fiber that tends to improve overall gut health. We know that those things can help.

We've been working with an ingredient known as **MSM** or **methylsulfonylmethane**, and we do show that that has some regulatory effect on immune system. So when not necessarily boosting immunity at rest, but when the body's presented with an immune challenge, we use LPs in an in cell culture system.

But when it's presented with a challenge, it could better withstand that challenge, which is essentially what we'd be dealing with with a virus as an example. So I think there is some benefit of certain dietary stuff. But again, we first want to look at a whole food approach. We want to look at regular structured exercise because we know people who regularly exercise have better immune ability.

So I think all those things coupled together are important, but **certainly dietary supplements** and in some cases can help. Right.

MERYL: Right. And so anything else let's say, I know you mentioned a couple of the key players, but anything else let's say foundationally that you can think of, that you would say.

I call it like **a nutrition insurance policy** telling anybody these, these particular things, what, what is in your arsenal of, okay. You know, everybody needs

RICHARD: I use the same exact term a cheap insurance policy good quality multivitamin multimineral can't for a couple of cents a day.

people say, well, you're just urinating out what you don't need. That's true. And I'm okay with that but maybe I'm retaining some of what I might need, especially if you're really pushing yourself with physical activity exercise. **Good multivitamin multimineral vitamin D three**.

I think most people could benefit from probably a thousand or so. A couple of thousand, I use the unless it's in the multi at a high dose certainly fish oil. And I would say EPA and DHA in particular, probably on the order of a gram to two grams of EPA combined DHA per day. And remember, that's just, I know you know this, but perhaps your listeners don't EPA and DHA is just one component of fish oil.

I personally like the liquid fish oil. As opposed to the tablet and I just pour it into some of these shakes that I mentioned, or sometimes oatmeal and stir that in, and it's less expensive and you can get a little bit higher, higher dosage as well, and it's flavored So it doesn't taste like fish obviously, but for me, those are kind of foundations and then of course, I go with the protein powder as well, but depending on the person.

Some people I know have issues with eye Health. I'd like to go with a lutein zeaxanthin or something like that. Some people using Statins they'd like to go with a coenzyme Q 10, or ubiquinol reduced co Q 10. So there's a lot of things I think that could be helpful. But boy, if you looked at all the literature and you looked at products that showed some benefit, you could be taking 50 things, right?

So there has to be a line drawn somewhere it's there. So what you think is beneficial in terms of a cost benefit ratio, right.

MERYL: And, and I tell you, I, yes, I have had people walk in on 50 supplements a day. I'm like, okay, we have got to reduce this down and make this more efficacious. Cause I don't even know that what you're taking is even working at the right level.

Right. And that's where we do hope that they go see a Credentialed practitioner and getting quality supplements. So, but let's say for people listening who may not have access to someone who can like myself or, or you're sitting where you're at, where you're actually trying to evaluate.

What their diet is giving them what their current status is. And without putting you on the spot, do you feel comfortable with any particular companies that you may say I'm not going to don't go buy, buy one, get one, right.

Or get three free. But anything, any, anything that stands out, any company that stands out that really is superior, that a consumer can go get and know and trust.

Which companies would you recommend

RICHARD: Yeah, well, I mean, from a multivitamin multimineral or general vitamin mineral perspective, I like Nature's Made. They are USP on many of their products, not all because each product has to be evaluated, et cetera, but I know I've used them for many years and that's pretty commonly available at most stores and pretty reasonably priced.

Protein wise, I have used for years, Optimum Nutrition. I think they make a really good, a whey isolate protein. Pretty reasonably priced. There are tons of proteins out there, but the issue with the protein is, again, what is the blend? And frankly, what is the taste? I've had some products that nutritionally are really good.

But you try to drink it, especially if you just put it in water by itself, either it doesn't go into solution. It's like drinking clumps of a flower or the taste is pretty bad. So I generally don't like

that. And the product from optimum seems to blend really well, even with a spoon, if you want to stir it in, it goes into solution pretty well.

But those are some common things. If you're going with something like a coenzyme Q 10, we always want to go with ubiquinol. Which is reduced coenzyme Q 10. The absorption is significantly better than traditional co Q. But boy, there sure are a lot of things out there. I would just encourage someone to do their homework, evaluate the company, talk to hopefully someone that is in the know.

And that's the tough thing as an RD, as a, as a dietician, we have an undergrad dietetics program and a granting program in clinical nutrition. Our students get very, very little information about dietary supplements because the accrediting agency doesn't mandate that happens, you know? So it is difficult.

You can't just assume that every RD knows about supplements or every pharmacist knows because the simple reality is most of them know almost nothing of value of dietary supplements. And it's important to, for the consumer to do some homework and then find someone like yourself. Who can honestly sit down with and share what they're doing, what their goals are, and you can try to shepherd them through that process with some degree of confidence, right?

Yeah,

MERYL: it's true. I mean, we got out of school and I remember someone said. I think it was actually, my mother-in-law at one point said, well after she was talking to me about vitamins

and this is me newly out of school before I got into the whole functional realm. And I'm like, you don't need supplements.

Those things don't work. Right. That training like fastforward, 30 years later. And I'm like, it does make a difference. So using the right tools and the right toolbox, I often say. And yeah, it's, it's been, yeah, it took me years and years of education and really going back in terms of understanding.

Well, well, how do these things work as you know, really? Why do we need them? How do you know? We, we all know with this point, we cannot get everything we need from our diets. It would be great if we could. And that's why we always say you need to use these things to a healthy whole food diet.

But it's not something that is just taken lightly. And I know I'm going to take this, this, and this, and not think that it has synergistic or other effects in the body so that you know, is a great point.

RICHARD: That's true. And the other thing too is real quickly. If people are, we talked about the medication, don't dismiss the idea that some supplements can interact in a negative manner with certain medications.

It's always important. If you're planning to start a supplement program to talk with your physician, And frankly your pharmacist, but he, or she may know just as much or more about those interactions and let that person know that, Hey, I'm thinking of doing this. Is that a problem at all? Because there certainly could be some interactions that are negative, and we

want to make sure that those people are aware of that before a person just randomly starts taking a variety of supplements.

MERYL: Right, right. I think that's great. So before we close, because I'm sure we could talk for hours about this. Anything else that you want us to know or that we need to know about optimal health and supplement?

Create a whole plan and make sure it's realistic

PICHARD: Well, I think as we mentioned earlier, we just want to make sure that it's a complete plan. And I always tell people you don't get into great shape or great health by accident. It just doesn't happen. You know, most everyone would love to be in great physical health and great physical shape, et cetera, but it does require.

And it does require a plan of action. So I always encourage people to put down on paper what you plan to do from a dietary perspective and exercise perspective and a supplement perspective. And then look back and say, is this reasonable with my lifestyle? Because I can write. And I'm sure you have great programs that I know of that someone would just follow it.

They would have tremendous results, but they look at it and say, well, **based on my lifestyle, I** can't even come close to following that. That it's better just to just throw that away and start from scratch. Try to determine, **Hey, what's realistic.** So if I'm working with a nurse and she's going to be in the hospital and she doesn't have time to sit down two or three times a day to eat, because she's running from one place to the other, we need to look at an alternative.

And sometimes that alternative would be, Hey, you're going to make three meal replacements, blender drinks. Oh, it's in yogurt, soy milk, protein powder and fruit. And you're going to pour them in. And you're going to put it in the refrigerator at work, and you're going to run by when you have two minutes, drink it down and then you're onto the next patient.

Hey, that's a good way to get things done. So I think people need to be realistic and develop a plan of action, knowing that it's really not that difficult. It really isn't. Once you **develop a plan** and you figure out how to embed it into your lifestyle I've been doing things pretty similarly.

Twenty-five years. And it works really well. If you, if you put in some effort and some forethought,

MERYL: I couldn't have said it better myself. I always say, people say, well, what's that one thing that you would say that how do you keep yourself up? I said, consistency, I'm really terribly consistent.

And you know, and the other piece I always tell people when they are sitting in front of me. We have to come up with a way to, they say, well, what do you do? I'm like, well, it's not what I do. I said, it has to be realistic and sustainable. And, if you know, you're going to follow something that is about deprivation and starvation, and that's not in your realm of reality or sustainability, then it won't be successful.

So I love that you mention that because it isn't, it's, it's not about how quick you can get there.

How long can you sustain it? And that is the health and the wellness and the longevity. I think that we're all really striving for. So

I mean, and this has been invaluable, I think.

I'm sure people will have more questions. So I don't know if you're open to taking questions

when we get them or, well we'll do another one of these, and you're not doing individual

consulting or anything like that right now. Right? You're you're busy enough with your,

RICHARD: yeah. I stopped. I stopped doing that a lot of years ago. The consulting now is

usually with companies most, most of the time in the supplement industry.

MERYL: Great. Well, I love it while your knowledge is just wonderful and I appreciate you

sharing it and thank you so much for indulging us.

RICHARD: You're welcome. Thanks for having me have a great day.

MERYL: All right. You too.