



SUPPLEMENTS EXPLAINED MASTERCLASS

MODULE 4

TRANSCRIPT

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Module 4: How to Make Your Supplements More Bioavailable with Joel Kahn, MD

Nathan Crane:

Welcome to Module 4 of the Supplements Explained Masterclass. I'm your host and natural health researcher, Nathan Crane. I'm very glad you're joining me and my guest experts for this important masterclass. In case you missed modules one through three, please make sure to go back and watch them. There's vitally important foundational information you need to learn that will tremendously save you a lot of time, money, and wasted energy on supplements you really don't need.

Nathan Crane:

With that said, I'm excited for this fourth module with Dr. Joel Kahn. As one of the world's top cardiologists, Dr. Kahn has treated thousands of acute heart attacks during his career. Even more, he's helped thousands of people prevent heart attacks and heart disease by teaching the most effective diet, supplementation, and lifestyle changes that lead to a healthy heart, immune system, and a long and vital healthy life.

Nathan Crane:

In this module, Dr. Kahn will be sharing with us the best supplements for helping support a healthy heart. So let's dive in.

Dr. Joel Kahn:

Hi, I'm Joel Kahn. I'm a medical doctor. I'm a triple board certified cardiologist with an active practice outside of Detroit, Michigan. I'm a clinical professor at our local medical school, and I am passionate about heart health. Our topic today is going to be about how to support your best heart health throughout your life, and focus today on supplements. What supplements, what vitamins, what minerals support good heart health? Why do we know this? How can you incorporate them to have optimal heart health? Something that all of us really should be working on constantly. What doses, which choices?

Dr. Joel Kahn:

Really one of the most important topics we can go over given that heart disease remains the number one risk of death in men and women across the world. So, I think we're going to really go from big picture down to some specifics to benefit you today. And thanks for tuning in.

Dr. Joel Kahn:

Let's just take a minute and give a brief overview what I've been doing with patients for over 30 years, which is identifying heart issues, if present, and then coming up with strategies, as natural as possible, to deal with them. So there's this big world of heart disease, and there's a fancy term for it, CVD. Cardiovascular disease. We're not going to go through all of them, but the big ones you should know about and ones that I deal with all the time are number one, high blood pressure, also known as hypertension. Actually, statistically, the number one cause of death in the world is diseases related to high blood pressure. It frustrates me that you don't know if you have it, unless you have a blood pressure cuff and check it, or go to a medical facility and get it checked. So please do both of those. But high blood pressure has certain solutions through the supplement world.

Dr. Joel Kahn:

A second, just global issue, is arteries getting clogged up. That's known as hardening of the arteries or the fancier word, atherosclerosis. Something that we're never born with but we start developing very often in our late teens, early 20s. And by the time we're in our late 40s, 50s, 60s, and certainly in the older years, that's where we begin to have chest pains, and strokes, and heart attacks, and bypass, and stents, and the risk of just dropping dead and an autopsy finding that a seemingly young body on the outside was very, very old on the inside. Something we have to do better with and we can do better with. We'll focus on how supplements can support atherosclerosis.

Dr. Joel Kahn:

And then there are a lot of people that have rhythm problems. It's a miracle, a hundred thousand times a day, our heartbeats in synchrony, but it can go out of rhythm and there's a variety of rhythms. Fortunately, a lot of them respond really well to vitamins, minerals, and certain supplements that have a lot of science behind them. So I've got lots that I do in my clinic that uses natural approaches to some of these big heart issues. Hopefully, you'll never have those problems, but you'll at least be informed about how to support your healthy heart for the rest of your life.

Dr. Joel Kahn:

So I trained as a traditional cardiologist and practiced crazy cardiology at three in the morning, treating heart attacks for years and years. But over a decade ago, I made a decision to go back to the university and get trained in what might be called holistic cardiology, or integrative natural cardiology. And the first thing I did was I wrote a book. The book is called *Your Whole Heart Solution*. It's available in paperback. I'm still proud of it and I believe it's still relevant. It goes through really from sleep to dental care, to diet, to supplements, to stress management, the whole approach that isn't really usually found in the cardiology office or even the standard doctor office. I encourage you that it's a resource I think could help you gain good insight against this big giant gorilla called heart disease risk.

Dr. Joel Kahn:

One of the biggest topics in that book, *Your Whole Heart Solution*, it did become a national PBS show, it was a very fun thing to do, is diet, and stressed that we need to upgrade our diet. We need to look at our diet as the fuel that runs our body, as much as the gas and the oil that runs our car, or perhaps you have an electric car, the quality of the electricity that powers your car. It's the fuel and we need to upgrade it to the highest possible fuel, and certainly contain a lot of whole food plant choices.

Dr. Joel Kahn:

But even with that choice, we know that the nature of farming, even if you're farming in your own backyard, if you found a nice farmer's market or an organic farmer, there has really been a deterioration in soil quality and soil microbiome. We won't go into that. People need some supplementation. The majority of Americans are low in nutrients: omega-3 fatty acids, vitamin D, magnesium, zinc, calcium, other things that support our heart health, our immune health, our skin health. You want to be aware of that and that's where supplements come into my practice of state-of-the-art advanced preventive care, protective care, integrative care. Supplements are one of the foundations, along with sleep, and along with positive attitude, and along with fitness and all the things you'd expect a cardiologist to preach.

Dr. Joel Kahn:

So let's dive into a little bit, what are these vitamins, minerals, supplements that go beyond the diet? I do urge you to study a healthy diet, but go beyond the diet for optimal health. I want you to feel your best, maybe we can help you.

Dr. Joel Kahn:

I just get excited to talk about one supplement that you may not know a lot about, or maybe you've heard a little bit at the big box stores. That's where you're probably getting nutrition information, probably rarely at the doctor's office. That supplement unfortunately has a confusing name, coenzyme Q10. Short version and the version I usually use is CoQ10, C-O-Q-10. And there's another version of it, which is unfortunate, because it gets even more confusing called ubiquinol. I'm going to stick with CoQ10.

Dr. Joel Kahn:

So I learned in medical school nearly 40 years ago, that when we make energy, you want to feel good, you want to have energy, you want to exercise, you want your muscles to work optimally. And the heart is a muscle. To make that all happen, energy, muscle function, your cells have a portion called their mitochondria, the powerhouse, the energy, the battery of a cell. You've got trillions of cells in your body and you have to have CoQ10 to let your battery, your mitochondria, work optimally. You have to make energy. You have to have CoQ10.

Dr. Joel Kahn:

Well, it turns out we make CoQ10 in our body, but here's some facts you may not know. As you age, you make less CoQ10. Some people think part of the aging process is a progressive deficiency in CoQ10. The cutoff is usually about age 40. That's where we really start to see a drop in the ability to make CoQ10. Now CoQ10 is not easily found in foods. You'd have to navigate over to some very unusual foods like eating cow heart and I don't usually encourage my patients to source cow heart for CoQ10.

Dr. Joel Kahn:

So most people after age 40 are walking around progressively lower and lower in an energy vitamin that you really want in your body. CoQ10 is also a very powerful antioxidant. So you're breathing dirty air, you're in a room full of smoke, you're around car exhaust, you want an antioxidant system. CoQ10 is one of the most widely available antioxidants throughout the body until you start to lose it.

Dr. Joel Kahn:

Just finally, a lot of people, millions of people, take a cholesterol medicine we call statins. Lipitor, Crestor, atorvastatin, rosuvastatin, and some people need to take them. They block the body's ability to make CoQ10.

Dr. Joel Kahn:

So you're a 55 year old man or woman and you're feeling a little tired, I'm telling you're not making as much CoQ10 as when you were 35. If you're on Lipitor, Crestor, Zocor, the name brands, or the generic versions, you're not making anywhere near the amount of CoQ10 used to take. That's why you can boost, support, and re-energize literally your batteries in every cell in your body by adding in CoQ10.

Dr. Joel Kahn:

Now good news, CoQ10 is a very safe supplement. It's a very widely available supplement. It's a very heavily researched supplement that supports its use. Some of the research has been in neurologic brain diseases where they've used huge doses, three, four, five times what I use in my clinic and they found them to be safe. So I feel very comfortable offering a patient 100 milligrams, 200 milligrams, very commonly, 400 milligrams a day of coenzyme Q10. Usually in the capsule form. There are some liquid versions available. I think those are about the only two ways you'll see coenzyme Q10. Yeah, you want good quality. You want it to have the GMP certification. I have versions in my office that are vegan certified and in vegetarian capsules, happens to be my preference, but it is certainly a supplement I would support too.

Dr. Joel Kahn:

What do some patients report? "Doc, I feel more energetic." "I don't have those skips like I used to have." "Seems like my blood pressure's normalized a little bit." "My breath is better." "My athletic performance is better." These are what some people do report. It supports healthy cardiovascular function. So CoQ10's always an enthusiastic one for me to talk about.

Dr. Joel Kahn:

There are some food sources other than eating animal organs, but they have really small amounts of CoQ10 in them. So there's a lot of reasons to eat beans and peas and lentils, and greens and fruits, and the whole spectrum of healthy foods. But you're not going to really get your CoQ10 level up. I want to stress, CoQ10 is one of the nutrients that there's a blood test for. It's not expensive. It's actually widely available. It's very rarely drawn; in my practice it's routinely drawn. But if you want to know if your diet's giving you enough coenzyme Q10, go to one of the companies that lets you choose your own blood test and measure it, or ask your healthcare provider if they'll order for you at the local clinic or hospital. Find out. Maybe you're a person that's still is making a lot of CoQ10 or you are optimizing it through your diet. But odds are, certainly if you're on those cholesterol medications or if you're much over 40, you may benefit from supporting it.

Dr. Joel Kahn:

I'll point out one last study. There's a lot of vitamins and supplements and minerals we wish we had good research. CoQ10 isn't one of those. We have good research. There's studies in a serious condition called congestive heart failure, that if you have CoQ10 added, or you have a placebo added, your health flourishes with coenzyme Q10. These are called double blind randomized clinical trials. I think it's amazing. And there's even a beautiful series of studies in Sweden, that healthy people over 70 given coenzyme Q10 or placebo, have much better cardiac health over the next decade than those that are taking the placebo. So it's a scientifically proven cardiac support vitamin, with a lot of other benefits that just happen to come along.

Dr. Joel Kahn:

It's pretty hard to imagine you haven't heard a bit about magnesium. Magnesium is a mineral. We often call it mag or the two letters that it goes by MG in the elemental charts. Magnesium's found in the soil. It's incorporated into plants as their roots take up nutrients and build a plant. Unfortunately, magnesium is less abundant in the soil than it was a hundred years ago. Heavy, heavy use of nitrogen, pesticides, and fertilizers are part of that reason. Our soil quality, top soil, isn't as thick and rich as it used to be. So the bottom line is, our diet does not provide as much magnesium as it used to. Even 80 to 90 years ago,

the U.S. government estimated that the majority of Americans were deficient in magnesium, at a time that soil quality and concentration in fruits and vegetables was better than it is now. So it's pretty well considered a fact that the vast majority of Americans do not get enough magnesium in their diet. And it's coming from nuts, and seeds, and fruits and vegetable.

Dr. Joel Kahn:

Magnesium is used in 300 different chemical reactions throughout the body to efficiently complete the chemical reaction, to make a protein, to take a carbohydrate and make it and use it for energy, to support our immune system. So it's one of these magical, magical additions to your routine. And I will say magnesium's available in many ways. It's available topically as actually patches or sprays to rub onto muscles. It's available as liquids, it's available as powders, it's in capsules, it's in tablets. It's easy to find a good quality magnesium source and get it absorbed. Magnesium is safe. It doesn't store up in the body excessively. You'll notice a little bit of loose stool if you're taking too much magnesium and give you a little clue to back off.

Dr. Joel Kahn:

But magnesium is one of those one-stop wonders. You get a person not feeling good and you put them on a proper amount of magnesium, and they say, "Doc I'm not constipated anymore." And, "My headaches aren't as bad." And, "My periods aren't as painful." And, "Those little flutters I used to feel in my heart have diminished or gone away and breathing a little better." And, "I check my blood pressure and it seems to be a few points lower." These are some of the common things people experience by adding in... "My headaches are less frequent."

Dr. Joel Kahn:

So magnesium has one complex issue with it. When you buy magnesium, it's always two words, magnesium blank. So the most common magnesium you're going to buy at a big box store, it's called magnesium oxide. It has the advantage it's inexpensive. The disadvantage is it's poorly absorbed. If you don't get that magnesium into your body, it's not going to have a chance to help you in all the ways I said. Of course the topical magnesiums, rubbing them on your skin bypass the GI tract, but most magnesium taken is something you swallow. So magnesium oxide is not my favorite for the reasons of absorption. And it's easy to check. You do a blood level or what's called a red blood cell level of magnesium to know if you've restored it to a proper level.

Dr. Joel Kahn:

So some of the more popular magnesium forms that are felt to be more efficient are magnesium glycinate, G-L-Y-C-I-N-A-T-E. Glycine is an amino acid. So it's a magnesium complex to a very healthy support amino acid. Magnesium taurate. Taurine an amino acid. The magnesium is complexed to an amino acid and you buy it in that way. Magnesium citrate is another popular one. All these seem to be much more readily absorbed.

Dr. Joel Kahn:

Generally an inexpensive supplement with so many benefits. In my field of heart disease, I often combine magnesium with a few other cardiac supplements. So CoQ10 and magnesium used in the same patient have really had powerful, beneficial health benefits at a reasonable cost and a very high safety profile in literally thousands of my patients. Save them from going on prescription drugs.

Dr. Joel Kahn:

Just everywhere you read omega-3 fatty acids, new science, it's good for your health. Sometimes there's a concern it's not so good for your health. What the heck are omega-3 fatty acids? Well actually the only fat you have to have to run your body in a healthy manner, the only fat is actually omega-3 fatty acids. You can read about olive oil and canola oil and coconut oil and butter and lard and all the other sources. You need omega-3 fatty acids for your brain health, your cardiovascular health, your joint health, your vision and there's only certain sources from the diet. The key factor there is we can't make omega-3 fatty acids: EPA, DHA, DPA. You've probably heard this alphabet soup. We cannot make them.

Dr. Joel Kahn:

So I always plead, teach your kids that they have to eat sources of omega-3 fat acids. In fact, growing kids need omega-3 for their brain growth probably more than adults need omega-3 fatty acids. So we're talking about cold water fish. Not all fish, cold water fish. I use this little memory called SMASH fish. Sardine, mackerel, and anchovy, herring, and salmon. The SMASH fish, cold water fish, oily fish, can have quite a bit of omega-3 fatty acids from the digestive system and the nature of the diet of a cold water fish.

Dr. Joel Kahn:

In my world of plant-based eating, we're talking about leafy greens, all the leafy greens. Arugula, kale, bok choy, salads. We're talking about nuts and seeds, but particularly walnuts. Walnuts are very rich as a precursor that gives you omega-3. My favorites are two tablespoons a day of ground flaxseed, chia seeds, hemp hearts. And even with all of that, I should give a shout out to spirulina and chlorella, which are actually food sources that are very rich in omega-3 fatty acids from the sea. Source a good brand. It's not really a vitamin it's a food, but it looks like a vitamin because they're little capsules or tablets.

Dr. Joel Kahn:

But even with all that, you do a blood test on a patient and they're low in omega-3. It has an impact on their immune health, potentially on their memory, on their brain fog, on their clarity. And ultimately, on their triglyceride levels, their LDL cholesterol levels. It seems to be even on the big picture of their cardiac health. So if you really want to know, measure your omega-3 fatty acid levels. You can arrange a lab to do it for you if you pay, you can ask your doctor to send your blood to Quest Lab, LabCorp, these are big widely available companies. Otherwise, just take a lot of foods and consider a good quality supplement.

Dr. Joel Kahn:

The last divide is, there's fish-based omega-3 fish oil capsules and liquids. And there are vegan sources. Some people just don't want to go down the fish route. If you go down the fish omega-3 supplement route, you really want high quality. It's called third party tested. You don't want to take a fish oil capsule that could be rich in mercury, or could have lots of organic pesticides like DDTs and BCPS and all this alphabet soup of industrial toxins. You can buy a good quality third party tested fish oil capsule, and you want to read the label carefully that it says all that.

Dr. Joel Kahn:

If you go over to the vegan brands, you don't have to worry as much. They're not from fish. They're not from contaminated waters. They're going to be concentrated sources, but the breakthrough in the last five to 10 years, a fairly high potency of plant-based omega-3 capsules has really been transformative.

You don't have to worry about the toxicity and you're getting really good amounts of the final product, the EPA, the DHA, but whatever you do, get enough of it for optimal cardiac health, immune health, brain health. You'll enjoy and flourish, I anticipate, based on my experience with my patients.

Dr. Joel Kahn:

One of the most interesting chemicals in the body, literally could talk for hours, is called nitric oxide. Usually abbreviated, NO, and I'm pretty sure there was a book called *Say Yes to No, Say Yes to No*. Written by a Nobel Prize winner. Well, why a Nobel Prize winner? Because there was a real hunt in the 1970s and early 1980s, what chemical does there seem to be in the body that causes arteries to be healthy? Arteries to relax naturally? Normal blood pressure, excellent sexual function? And ultimately that chemical was found and it was called NO or nitric oxide. And in 1998, three famous researchers were given the Nobel Prize in Medicine.

Dr. Joel Kahn:

It turns out that we make nitric oxide in two different ways, both of which can be supported by healthy supplements. Our blood vessels make nitric oxide. It's sort of cool. Our blood vessels need nitric oxide to work well, to be relaxed, to have lots of blood flow when we exercise, have sexual relationships, just to exist with a normal blood pressure. Our blood vessels make a lot of nitric oxide if we don't smoke, we don't eat lots of processed foods, we don't decimate our body with poor lifestyle choices. But we also have to give our body what it needs so our blood vessels make nitric oxide. There's a compound called L-arginine. It's in foods. There's a compound called citrulline, it's in foods. But you can also obtain good quality supplements that provide you with nitric oxide. That's one way to enjoy nitric oxide, NO.

Dr. Joel Kahn:

The other way that's been discovered more recently since the Nobel Prize is when we eat healthy foods rich in something called dietary nitrates. You eat leafy greens. You've got a bowl of an arugula salad and you take your time and chew it. You actually release a compound, gets digested, gets in your blood. That helps you make more nitric oxide. That's a different pathway than the one that won the Nobel Prize in Medicine.

Dr. Joel Kahn:

So you've probably heard of athletes taking beet juice, beet root powders, red spinach powders, leafy green salads. All this is to support the second route. The bottom line is, get a lot of NO. Make NO. Make NO. Make NO. And you'll be saying "Yes, yes, yes. I'm happy. I'm healthy. My blood pressure's good. My sexual function's good. My blood vessels are healthy." And there are supplements that combine, as I mentioned already, L-arginine, these are amino acids, L-citrulline. If you're not getting enough from your diet, you supplement it. These very often are powders, though they'll also be found in capsules and tablets, but the quantity that you may have to take favors the idea of a scooper and a powder.

Dr. Joel Kahn:

Beet root powders. I really like red spinach powders. They are available and can be sourced. And then you want to get it from food too. Right now, we're recording this during summertime. A little tip, watermelon is a great source to produce nitric oxide in your body. Actually the white rind of a watermelon. Don't throw that all away, scrape it out a little bit, has a lot of citrulline. It's a really great source of helping you make nitric oxide.

Dr. Joel Kahn:

Well, we've had an opportunity to share my passion about optimal heart health as a cardiologist who's been in the trenches for over three decades, and we've talked about probably the key supplements that can support a healthy diet, healthy lifestyle. CoQ10, magnesium, omega-3 fatty acids, different sources, nitric oxide, different sources.

Dr. Joel Kahn:

Just give a shout out to a couple others. I use in my clinic all the time a combination of vitamin D with vitamin K2. Vitamin K2 is really an infrequently discussed vitamin. It's very important in optimal bone health. But it turns out there's certain enzyme pathways in the body that have to have vitamin K2. You can source it from some foods like a little bean from Japan called natto. But really efficiently, you want to look for either a multivitamin, multimineral, or a dedicated supplement that has perhaps 100 micrograms a day of vitamin K2. And very commonly, it's in the vitamin D. So in my clinic, you'll see a vitamin D3 with vitamin K2 together, because that promotes good cardiovascular health, good bone health, probably both of them support good immune health. So I want to give a shout out to one we didn't discuss, vitamin K2.

Dr. Joel Kahn:

And again, in the big picture, you can have a plan to just sneak on by through life, just skating away, or you can really shoot for optimal health, really set the goal high. I want to wake up and feel good every day. I want to wake up and have a naturally good blood pressure. I want to maintain my sexual health for a long period. I don't want to see a cardiologist because I'm having chest discomfort, shortness of breath, blacking out. Do the lifestyle piece, but study the supplements for optimal health. See how you can bring your health to its peak. Either by the way you feel, or actually confirming it by certain blood tests and cardiac testing. And I think you'll find that this short little discussion is a stepping stone to learn a whole lot more about just enjoying a life of a strong, healthy heart, as a real basis for a great life.