

Dr. Susan Mitchell (00:05.676)

You've dropped the weight, but now you're wondering how to keep your strength, your stamina and muscle. Is creatine the missing puzzle piece or just another supplement trend? Is it safe? Is it worth it? Can it help maintain your strength or is it a no-go with your current plan? Well, don't go anywhere. Let's cut through the noise with real science.

Dr. Susan Mitchell (00:31.894)

I'm bariatric dietician, Dr. Susan Mitchell. You're listening to the Bariatric Surgery Success podcast. I'm so glad you're here today. I hope you're having a great summer. It matters where you get your nutrition information. Here's what you need to know now. Let's get started. Joining me in the studio is bariatric sports dietician, Kim Tirapelle This is what I love about Kim.

Well, she took her passion for sports nutrition and her passion for bariatric nutrition, and she combined them together. She works with active bariatric individuals who have fitness goals, but don't know exactly how to adjust their nutrition to match their needs. Well, Kim knows how. As a certified specialist in sports dietetics, Kim works one-on-one with her clients to optimize nutrition, to meet exercise goals after weight loss surgery.

You can also listen to Kim on the Active Bariatric Nutrition podcast. Find all of Kim's contact information in the show notes. Hey Kim, welcome back to the podcast.

Kim Tirapelle, MS, RD, CSSD (01:36.997)

Thank you so much, I'm so happy to be here.

Dr. Susan Mitchell (01:39.69)

Well, I know this is a question we get a lot is all about creatine. So if you're losing weight fast after surgery, or you're on a GLP like a Ozempic you are likely losing muscle. So creatine, could it be a secret weapon, Kim? I want you to explain if you would what first of all, creatine people hear it, but they're thinking, you know, I don't know exactly what that is. I know it's a supplement, but explain it from it being found naturally in the body and as a supplement.

so we can get everybody on the same page.

Kim Tirapelle, MS, RD, CSSD (02:11.729)

Absolutely, sure. Yeah, absolutely. There's a lot of talk about creatine and we see it a lot and it's because it is a naturally occurring compound and it's made from amino acids in your body, glycine, arginine and methionine and it's stored in our muscles but also in smaller amounts in our brain and our heart and other tissues in our body. And we also get small amounts from foods like red meat and fish. Creatine is stored in the muscles as phosphocreatine and it helps your body to quickly make energy which is called ATP.

Dr. Susan Mitchell (02:15.533)

Yeah.

Kim Tirapelle, MS, RD, CSSD (02:41.315)

And ATP is the energy currency in the cell that allows us to produce force and have movement when we're moving our bodies. So it helps to fuel our body for about 10 to 15 seconds in duration, especially in high intensity movements. So it definitely is something that we want to have and it can help you if you are increasing your movement after surgery, for example.

Dr. Susan Mitchell (02:47.16)

Yeah.

Dr. Susan Mitchell (03:01.142)

Okay, so you just said it's found in red meat and in seafood and then also stored in the body. And so the body, think what's fascinating is make some creatine every single day up to about what a gram I think it is something one to two grams. So this is a question I want tied into this question that I had someone asked me recently. I'm taking a GLP-1 and I think this applies to bariatric surgery as well. And I've lost a lot of weight fast.

Kim Tirapelle, MS, RD, CSSD (03:13.103)

Yeah, one to two grams.

Dr. Susan Mitchell (03:28.622)

Should I take creatine and if so, why or why not?

Kim Tirapelle, MS, RD, CSSD (03:33.721)

It's a great question. So first I would say, as long as you are incorporating resistance training, because creatine alone is not going to help anyone to build muscle mass, for example, without that stimulants of that resistance training.

Dr. Susan Mitchell (03:45.08)

Okay, I want you to really hit that point hard again because I think there's a misunderstanding. Take creatine, build muscle.

Kim Tirapelle, MS, RD, CSSD (03:52.507)

Right, right. And that's exactly what people hear and they think, okay, what can I do? And it's not that it's, it certainly is going to be helpful, but it won't help alone. Creatine is going to help you to fuel muscle, but that is going to be when you are actually doing that consistent resistance training. And then of course there's the nutrition part that also helps to complement this whole process.

Dr. Susan Mitchell (04:14.254)

Yeah, okay. So, when you, what makes you determined? Let's say you're working with someone and they come to you, okay, should I take this? I see it. I friends that are taking it. What makes you determine whether someone is a candidate or not?

Kim Tirapelle, MS, RD, CSSD (04:31.205)

Yeah, that's a great question. So first off, like I said, if they have goals of, you know, depends on what their goals are. So they're wanting to build muscle or preserve it because that's another I want to just add to when you said, why would you take it? It's going to be helpful in preserving and mitigating that loss when you're in a caloric deficit, for example, for people that have had bariatric surgery or using GLP-1 medications. So that's kind of also a little bit of the why. But certainly, because we're at that higher risk,

When I'm working with someone and they're like, hey, I want to build some muscle or I want to preserve that while I'm losing, I will say, OK, let's take a look at your nutrition first and making sure that we have that consistent routine in place of the resistance training. And then we'll look at supplementation, especially for people, for example, that are having lower overall intake or especially for vegans or vegetarians who don't eat animal products. They're not getting it in their diet at all.

Dr. Susan Mitchell (05:17.059)

Yeah.

Yeah. Right. Exactly. I think that's a great point to make. Go ahead. You're gonna say something else?

Kim Tirapelle, MS, RD, CSSD (05:26.427)

Yeah. No, that's all. It's just, think, I wanna just reiterate a lot in our conversation today that it's gonna help round out, but it's complimentary to that resistance training and your overall diet.

Dr. Susan Mitchell (05:37.75)

Yeah, complimentary, got to be a part of. So someone says, okay, good, I'm going to do this. And then they start looking at, my gosh, we've got creatine gummies, we've got powders, we've got everything you can think of. In fact, Consumer Labs that I'm sure you're familiar with, Consumer Labs is a company that really

looks at the science behind supplements and then they test a lot of products to see if these products actually contain what they say they contain. And they tested a bunch of products containing creatine and actually gummies, various other things. And what they found, no surprise, is that many products promise certain things and then don't contain them. So when you send someone out, the question's gonna be, well, what should I buy? There are so many products and many of them have way more than just

Creatine do they need that? What about all these added ingredients? Can't we just go with creatine monohydrate?

Kim Tirapelle, MS, RD, CSSD (06:35.493)

Yes, so creatine monohydrate is the gold standard. That's what you wanna look for. It's been studied extensively. In fact, creatine is one of the most studied, in fact, it is the most studied supplement in the world because it's been proven to be effective and safe and affordable. There are other forms that you'll see out there, creatine hydrochloride or buffered creatine or micronized creatine, but again, the research just suggests the straight monocreteine monohydrate and you want a product with minimal other ingredients added. So you should look on the back of the label,

First of all, try to pick things that are NSF certified for sport or informed sport labels. That means that it's third party tested and it includes what it says on the label. And you want to avoid products that have other things added like proprietary blends or added sugars, stimulants. Let's throw the whole kitchen sink in there. Let's add beta alanine, all these other things. No, just get the straight creatine monohydrate completely by itself.

Dr. Susan Mitchell (07:23.65)

Yeah, absolutely.

Dr. Susan Mitchell (07:30.69)

Because then if you do have a problem, side effect, you don't really know where the problem is coming from. It could be this plethora of things that have been adding that you don't even know what they are. And that puts you, I think people at a lot more risk than when you just have a clean supplement that you know what's in it and it has the NSF label on it or sort on it. I think that tells them a lot, don't you?

Kim Tirapelle, MS, RD, CSSD (07:54.145)

100%. Yeah, you just, unfortunately, it's easy to get kind of persuaded by influencers online or folks that are, know, here's my affiliate code, use this. Just because someone that you see online is selling a product, it doesn't mean necessarily that that company is a well-researched or NSF certified third-party tested company. So the best thing you can do is go to the website of the company, look online to see where it's manufactured, what are their practices, does it have that third-party testing certification before purchasing it.

Dr. Susan Mitchell (08:00.6)
yeah, for sure.

Dr. Susan Mitchell (08:22.222)
Totally agree. And then so here they are, they find what they want, they bring it in, and then they go, hmm, they look on the label, which will tell them maybe how much to take. But when you're advising, how much creatine should you take? And when should you take it?

Kim Tirapelle, MS, RD, CSSD (08:37.829)
Yeah, great question. So the research suggests a daily dose of three to five grams per day. So typically when you purchase the powdered version, for example, one serving, which is one scoop of the powder, will be five grams. So one scoop a day for the majority of the population is perfectly fine. The timing isn't critical. So the most important is the daily consistency of taking it, because the goal of it is to build up that storage of that phosphocreatine in your muscle tissue.

Dr. Susan Mitchell (08:46.637)
Yeah.

Kim Tirapelle, MS, RD, CSSD (09:06.511)
via the supplementation. So the timing of it, whether you take it pre-workout or post-workout, isn't as important as making sure you're just taking it each day consistently.

Dr. Susan Mitchell (09:16.27)
And do you see it, I remember there was a study out, and I think it was in nutrients, the journal Nutrient, some time back, might have been a meta-analysis, meaning they look at a lot of different studies, and what they found was that it may have a good role in preventing sarcopenia. And if you look at bariatric surgery, to me, this is a place that we can run into sarcopenia if we have a reduced protein intake and we don't get it up there and get it consistent. Have you seen it beneficial?

Kim Tirapelle, MS, RD, CSSD (09:35.013)
Thank

Dr. Susan Mitchell (09:46.254)
in that role, mainly just because you're meeting, you're helping with the muscle.

Kim Tirapelle, MS, RD, CSSD (09:52.304)
Yeah, so it has been, there's research looking at that specifically right now, especially in the elderly population. How does creatine help with preventing sarcopenia, which is basically muscle wasting, so muscle loss. So again, as a compliment to making sure we're doing that resistance training, which is the stimulus for the muscle, as well as then looking at our protein intake and our overall calorie intake to pair with the creatine, yes, those things working together are what can help to prevent that sarcopenia from occurring.

Dr. Susan Mitchell (10:20.312)
So I'm thinking of a question that would might get tossed to us right now. And it might be, you know, I'm not physically able to strength train or I don't really know how to strength train because I've never lifted weight. So if someone's in that category, Kim, and they're thinking, I don't really do that. What about how simple, simply can someone start such as the use of the rubber bands, for example, you know, the different strength or levels of

resistance in the rubber bands. What do you say when someone's saying, I just don't know where to start? How do you start them?

Kim Tirapelle, MS, RD, CSSD (10:50.042)
Absolutely.

Kim Tirapelle, MS, RD, CSSD (10:54.565)
Yeah. Chair exercises, whether that's using bands as a resistance or anything that you can find that can basically just provide a load, which is a stimulus to help with resistance that you're pushing or pulling against. Any movement from where you're at starting, like I said, if you can start in the chair, you can, a pool is okay as well. If you can move in a pool, especially as we're in the summer heat, that all provides resistance. so wherever you are that you can start, anything is better than nothing. So I would say start there.

Dr. Susan Mitchell (11:16.782)
Yeah.

Kim Tirapelle, MS, RD, CSSD (11:23.899)
But yes, bands are great. folks get kind of pushed away from the small dumbbells. It doesn't matter. Any resistance wherever you can start is good.

Dr. Susan Mitchell (11:31.598)
Yeah, I totally agree with that. Just starting small and building up because I always laugh and say, you know, Rome wasn't built in a day. And so we have to remember that our body is the very same way. And it is okay to give yourself permission to start if you've never done it before and to slowly build. That's what it's all about. I know I think someone's going to say to and I would want to know this. Okay, how long how long does it take to see the results?

Kim Tirapelle, MS, RD, CSSD (11:42.267)
Yes.

Kim Tirapelle, MS, RD, CSSD (11:59.803)
Great question. So it takes about 28 days for the muscle tissue to be fully saturated when you're taking that supplement of creatine. So generally speaking, after that month, you're really gonna see hopefully some increases in power output. And ideally over time, that lean muscle mass will, again, paired with your resistance training and your diet, you'll see those gains as well. So it does take about 28 days with that supplementation to really fully saturate the tissues and start to see the benefits.

Dr. Susan Mitchell (12:27.564)
It really reminds me of the 28 days or 30 days that we talk about too. Anytime that you're trying to make a tweak to your lifestyle, a change in life, it takes time. And if you allow yourself a good month, you start to see that habit or that change become a habit in your lifestyle. It's kind of what this reminds me of, right? It's not just an overnight, boom, here we are, but something that takes time and work. Okay, so.

Kim Tirapelle, MS, RD, CSSD (12:36.913)
Yep. Yes.

Kim Tirapelle, MS, RD, CSSD (12:51.377)
That's right. Absolutely.

Dr. Susan Mitchell (12:54.794)
I always have to look at the flip side because I want us as scientists, as dieticians to have people consider before they do something. Who should not take it? What are the contraindications? Meaning, you know, what is it going to interact with or what certain

diseases might it be a problem with? Because for example, I think of people with bipolar disease, and we do see this in bariatric surgery some that I have read where that might make

Kim Tirapelle, MS, RD, CSSD (13:06.939)
Yeah.

Dr. Susan Mitchell (13:24.046)
mania worse. What are you seeing?

Kim Tirapelle, MS, RD, CSSD (13:27.215)
So in general, so first off, I'll say, of course, before starting any supplement, as we always tell our folks, make sure you speak to your health care provider about it. Generally, creatine is safe. However, for someone that has a history of kidney disease, you definitely would want to speak to your health care provider before beginning creatine. Also, any medications like NSAIDs that might impact kidney function, metabolism, or antibiotics that might impact kidney function. We want to make sure before we start creatine that we talk to our doctor.

Dr. Susan Mitchell (13:39.949)
Yes.

Kim Tirapelle, MS, RD, CSSD (13:56.867)
about it first.

Dr. Susan Mitchell (13:58.21)
Are there any herbals, any supplements? Because people don't necessarily think of an herbal or a supplement as a medication, but I'm gonna tell you that just because it's not a prescription doesn't mean that it doesn't have changes in the body or cause side effects. Are there any that you're aware of that we should know of or consider if we're thinking about taking this?

Kim Tirapelle, MS, RD, CSSD (14:21.167)
So there's been some back and forth on caffeine and creatine's interaction with each other. And of course, a lot of folks will add the creatine powder into their coffee in the morning, right? Because it's an easy way to get it in, start the day. However, the research has kind of gone back and forth on it in terms of their impacts on each other. what some research has suggested in high doses of caffeine may blunt the impacts of creatine. And so.

Dr. Susan Mitchell (14:45.72)
Yeah

Kim Tirapelle, MS, RD, CSSD (14:48.207)
Because it's kind of gone back and forth, when someone asks me, I'll just say, you know, if possible, try to separate caffeine and creatine by one or two hours. So for example, you like to get up and have your coffee before your workout, go for it. And then as we talked about earlier, you can take creatine anytime. It's not a specific time you have to take creatine in the day to see the benefits. So you can take it post-workout or any time later in the day thereafter. So I would advise you, if you can, try to separate caffeine and creatine by about one to two hours, just to make sure we're maximizing both, because they're both have.

ergogenic impacts obviously in our body.

Dr. Susan Mitchell (15:19.372)
Yeah, and I agree with that because I saw some other literature doing some research on not just kidney disease, but on Parkinson's disease and that there was thought that caffeine and creatine together could actually make Parkinson's worse. So they did stipulate separating just

like you have. So I do think there are cases where, just like you said, it's just smarter to take them apart from one another. Okay, some people complain that it has a bitter taste.

Kim Tirapelle, MS, RD, CSSD (15:26.097)
you

Kim Tirapelle, MS, RD, CSSD (15:42.341)
Yeah. Yep, absolutely.

Dr. Susan Mitchell (15:48.236)
What recommendations do you, what do you say? First, what say you on that? And then what do you say to do?

Kim Tirapelle, MS, RD, CSSD (15:51.377)
Yeah, so I, you know, yeah, you know, I've tried a variety of different options. I use only the powders and I haven't really found them to have a bitter taste probably because I do mix them in with other things. So generally creatine monohydrate is flavorless but it can have a little bit of a gritty texture. So what I have found is that it dissolves better in warm fluids. So I actually mix mine in with decaffeinated herbal tea.

later in the day. Sometimes I'll mix them in with my protein shake or smoothie. I've mixed it into my oats in the morning, the powder. And so I have found that when I mix it in with other things and make sure it's dissolved well, primarily better in the warmer fluids, I don't tend to notice it at all. So those are really the recommendations I would provide.

Dr. Susan Mitchell (16:37.334)
Yeah, like this. When you're thinking about it long term, what do the studies say? Is there a length of time that someone should take it and then stop or does that concern you at all?

Kim Tirapelle, MS, RD, CSSD (16:49.871)
Yeah. So, you know, when I used to teach sports nutrition about 10, 15 years ago, we usually told folks to cycle off, but the recent research does not suggest it needs to be cycled off. So again, we talked about taking that for the 28 days consistently to make sure that we fully saturate. And then for maintenance levels, you can actually take it ongoing indefinitely.

Unless something changes in your medical history or there's something going on with kidney function that we need to address, that would merely be, you or other medications that might start down the road. That would be a time to revisit if this is still a safe option. But in general, they have not recommended now that you have to cycle off. You can actually take it for the long term.

Dr. Susan Mitchell (17:19.405)
Yeah.

Dr. Susan Mitchell (17:28.462)
Okay, so let's look at any, you were always hearing, well, I think one of the things that we often hear about supplements that makes me roll my eyes is when you start to hear that this supplement can do this, this, this, this, and this, it's like, well, why do you need food? Because this supplement is gonna do it all, right? So what do you see in terms of benefits beyond muscle mass with creatine? Do you think there are any? I know there are studies being done on the heart, cognitive, on the brain. What are you seeing?

Kim Tirapelle, MS, RD, CSSD (17:36.625)
.

Kim Tirapelle, MS, RD, CSSD (17:44.069)
Right.

Kim Tirapelle, MS, RD, CSSD (17:58.489)
Yeah, I mean, it's exciting. It's such an exciting area because creatine's really being studied, yeah, across the lifespan and in so many different populations and for different impacts on the body. So definitely it has, they're looking at how it impacts cognitive functions. So particularly mental fatigue, memory, brain fog, they've suggested that, especially when you're in a sleep deficit, that creatine actually can help to kind of make it, basically have better reaction time.

Dr. Susan Mitchell (18:02.049)
It is.

Kim Tirapelle, MS, RD, CSSD (18:27.409)
So they've looked at folks in the field, in our service providers. They've looked at actually sleep deprivation and how creatine can actually help improve cognitive function. Neurological health, so it may support brain energy metabolism, especially under that stress or caloric restriction. And then bone health. There's been some research that has suggested that it can help with improving bone density, but the dosage for that is it's...

looks like it needs to be higher for that as well as for the brain health. And so they're still looking at the research as to what's the dosage that might impact bone density, for example. Right.

Dr. Susan Mitchell (19:01.068)
Yeah, I agree. I don't think we have answers on that yet either, but we have studies going on and that's fascinating. Okay, someone asked me, they said, all right, I've actually gained a pound or two of weight with my creatine. Why is this happening to me? That's not supposed to happen. Would you address the water retention, you know, that affects that can push your weight up for maybe usually a short amount of time.

Kim Tirapelle, MS, RD, CSSD (19:19.088)
Yeah.

Kim Tirapelle, MS, RD, CSSD (19:24.901)
Yes, it is a short amount of time. And that's because when we supplement with creatine that is drawn into the cell, it also draws water into the cell as well. So that can impact them when you get on the scale and you see that. And that I would say, again, if you're lifting with taking the creatine, you can see the number going on the scale too, just because of inflammation in the body from healing from a workout, for example. So there's lots of reasons that that can happen. But when we speak specifically on the creatine, it can just be for a short amount of time. We do see some increase in water retention in the muscle.

But again, that shows that you are a responder and that that is a good thing because that it's hydrating the muscle tissue and it's actually helping to reduce inflammation and improve your recovery. That hydration in the muscle is actually really helpful. So it's a good sign.

Dr. Susan Mitchell (20:08.556)
And it doesn't mean that you stop drinking water either because it's really just because you're retaining a little fluid doesn't mean you stop drinking water because water intake with creatine is so, so important.

Kim Tirapelle, MS, RD, CSSD (20:11.382)

No.

Kim Tirapelle, MS, RD, CSSD (20:20.517)
Very important, I totally agree with you.

Dr. Susan Mitchell (20:22.954)
Okay, as we wrap up, what's the most important takeaway about creatin that you want everyone to hear?

Kim Tirapelle, MS, RD, CSSD (20:32.815)
Yeah, well first I would say again, if you are wanting to preserve and or gain or build muscle and strength, it absolutely is a very, very well studied supplement, but you do need to have implemented a consistent resistance training routine. And of course, look at your overall nutrition, protein intake, your calories, et cetera.

but it is a very well studied supplement. It's not just for folks though that are looking to gain muscle. It can also be for folks that are, you know, looking for those cognitive benefits too, as we learn more about it. So it's a very well studied supplement, but just make sure that it's part of an overall routine of that resistance training and nutrition as well.

Dr. Susan Mitchell (21:07.171)
Yeah.

thank you, Kim, for coming on the podcast. You always have such good, realistic information. I appreciate your time.

Kim Tirapelle, MS, RD, CSSD (21:17.403)
Thank you so much for having me. love talking to you as well.

Dr. Susan Mitchell (21:20.216)
Well, you heard creatine is not a magic pill, but certainly if you're post-op or using a GLP-1, you don't have any medical issues such as kidney problems or Parkinson's disease. It just might be that muscle saving, energy lifting ally that you're looking for. It is like that little secret weapon, but again, as Kim said, use wisely and be sure and discuss it with your bariatric dietician and care team because you are worth it.