

Announcer: [00:00:00] Welcome to the perioperative nutrition podcast, sharing knowledge with clinicians to ensure all patients are ready for surgery. This six episode series is sponsored by Abbot nutrition. Here's your host, Dr. Paul [Wishmeyer 00:00:15] of the Duke Clinical Research Institute.

Paul Wishmeyer: [00:00:14] My name is Paul [Wishmeyer 00:00:15] and I am a professor of Anesthesiology and Surgery here at Duke University. I am excited to be joined today by Kathryn Starr, Katie Starr, who is PhD Dietitian here at Duke. We're going to be talking to you about the essential role of the dietician and improving outcomes from surgery utilizing nutrition. Welcome, Katie. Maybe introduce yourself the way you would introduce yourself.

Katie Starr: [00:00:42]Yes.

Katie Starr: [00:00:43] Absolutely, thank you. Yes, my name is Katie Starr and I am currently working as a perioperative dietician. I work both on the Duke side and also at the VA. My background has mostly focused in geriatrics and older adults, but I do think the beauty of nutrition is that it encompasses all ages. I feel like Perioperative nutrition is going to cover pretty much all ages.

Paul Wishmeyer: [00:01:13] Absolutely. Absolutely. I had the pleasure of meeting you as you ... Told me about a project that you were doing looking at how we can improve perioperative outcomes with nutrition, I mentioned, before surgery. Tell me about that.

Katie Starr: [00:01:28] Absolutely. So, just to take a step back, what I was previously doing before coming into this realm was, I was looking at protein supplementation in older adults and how we could get them to lose weight but help maintain their lean mass. What we found was that utilizing protein, high quality protein which is any protein that comes from an animal source, if we can do that consistently throughout the day we actually can improve function and help maintain lean mass as we lose weight in these older adults. From there, what I did was I started thinking about our older surgical patient and how there really isn't a lot of clear guidelines on how we need to be treating our surgical patients before surgery and after surgery regarding nutrition. My current study, one I'm looking at, is doing protein supplementation 30 grams, three times a day, two weeks before surgery and then four weeks after surgery and looking at functional outcomes afterwards. The key behind that 30 grams is just that for older adults, they have a lower basal rate of muscle synthesis.

Paul Wishmeyer: [00:02:39] Anabolic resistance.

Katie Starr: [00:02:40] Anabolic resistance. Absolutely.

Paul Wishmeyer: [00:02:42] Great way to put it. Yeah.

Katie Starr: [00:02:43] And so they require about 30 grams of high quality protein to actually stimulate that muscle protein synthesis, or what I like to tell them, to make muscle. That's the goal behind the 30 grams, three times a day. Particularly, I'm looking in those who are malnourished but also those who are at nutritional risk. It's not just those who are malnourished that I'm going to be implementing this on.

Paul Wishmeyer: [00:03:05] Is it one kind of surgery? Is it broad surgery subtypes? Tell me about that.

Katie Starr: [00:03:10] Yes. It's going to be all abdominal surgeries. Anything that is an abdominal surgery, and obviously elective because we don't have that luxury for the emergent surgeries. That's what we're going to be looking at for right now.

Paul Wishmeyer: [00:03:23] That's great and I think it really brings to light, we know that malnutrition is a big problem in surgery. We know that we have data for when we address malnutrition in patients. We can change some of the infection and perhaps mortality outcomes even, possibly. Definitely infection and other clinical outcomes but the idea of changing peoples quality of life and function really is the holy grail of what we see the essential role of nutrition being because we know that patients, 40% of surgical patients, will have significant physical limitations after surgery. I think this is a really exciting concept. How are you measuring that? How are you looking at that question?

Katie Starr: [00:03:58] Absolutely. I do. I find that this is really so important. When we think about our older adults, many of them, their number one goal is to remain independent and being able to function. What we are specifically looking at is, I am using the short physical performance battery. The SPPB. This was developed in 1984 by Dr. [Guralnik 00:04:24] and it is a wonderful measure of lower leg extremity strength, ultimately. It's a combination of gait speed, chair stance and balance. It kind of gives us this nice composite of understanding of this individual's ability to be able to function, ultimately. What we're doing is, we're going to do that before surgery, day of surgery and then we'll look at that again four weeks after surgery.

Paul Wishmeyer: [00:04:48] That's great. That's great. I think, it's really something we as caregivers have to focus on. You know, we can do these big operations and we can do these fancy care paradigms for our patients with all the technology we have but the question I always ask my residents is, "Are we creating survivors with this or are we creating victims?" I think what really is great about the work you're doing is, it really focuses on the fundamental question of "How do we get people their lives back?" I think that's really exciting. You're right, I think the fact that older adults do need more protein is really essential and I think, not a concept a lot of people grasp.

Katie Starr: [00:05:23] Absolutely. I think that all ages, we do know. As you said, there's a decline in function after surgery. We have that surgical stressor and we see the breakdown of protein. We see the catabolic results and so I think for all of us,

we need to think about function at any age. Particularly, for our older adults because we know as they get older they're losing that lean muscle mass anyway and then to top it all off we're going to add this surgical stress that's going to also stimulate even more catabolic effects that are going to result ultimately in loss of lean mass. Anything we can do to try to help preserve that, I think it's important to not only preserve it at the back end of surgery but also on the front end and try to get them metabolically prepared for surgery before we bring them into this. Sometimes, this is kind of novel. Having the RD sit at the table and discuss this. What I've found is, once you can explain to the team the importance of this, I think people start to really understand, "Wow, we really can do things before surgery and maybe we do even need to delay surgery a couple of weeks so that we can optimize this individual so that these outcomes are going to be better."

Paul Wishmeyer: [00:06:37] Yeah, I think that's a really good point that the essential role of the dietician really needs to be essential, I think is the best way to put it. We know that less than one in four U.S. medical schools teach any clinical nutrition to physicians so this is not something any of us are trained to do so how do you see moving forward as we really try to focus on preoperative preparation and postoperative recovery of the patient, the role of the dietician being key to our success in this area?

Katie Starr: [00:07:05] I think it's a very exciting time for dieticians right now because I think that we're starting to really turn a page with understanding the definite need of nutrition as an important component of successful surgery. Where I hope to see is that the R.D. is consulted at pre-op. There's a nutrition assessment that's done, we determine if they're at nutritional risk and then we start to do an intervention. We start to intervene so that we can really help optimize this person. Again, any age. I think that that's so important and some of the things that we forget because most of the time, in most hospital settings, an individual is not going to be assessed for nutritional status until they're admitted. That's too late. It's just too late. I think the more we can show that there is a serious need for these dieticians and how we can also really help the outcomes and really help these individuals improve faster, reduce length of stay, reduce readmission rates, I think that there is going to be a greater desire to have that RD called to the table and be part of the preoperative assessment.

Paul Wishmeyer: [00:08:20] I think one of the challenges that I've heard people say they face is getting an RD on the team. How do you get the RD to the table? How do you get them involved and maybe talk about how you see that happening and how you think you can best get an RD involved and maybe your experience doing that?

Katie Starr: [00:08:41] I am a little rare because I am a researcher.

Paul Wishmeyer: [00:08:46] Sure, yeah.

Katie Starr: [00:08:47] My opportunity came with, we have a perioperative optimization of senior health clinic that really focuses on optimizing our older adults. I got

pulled into this because of the fact that we were really trying to create this multidisciplinary team to really look at every single component from nutrition, PT, Occupational Health, Psychology, Anesthesia, Surgery, and the Geriatrician. That was how I really got, I guess, brought into this amazing, amazing, multidisciplinary team. I realize that that is not how it's going to work for every group.

Katie Starr: [00:09:26] What I would like to see and what I hope to see is that, I hope to see two things. I hope to see that RD's actually really do step up and start to take a little bit more initiation of wanting to be a part of the surgical team. As an RD it's not always easy to talk to surgeons and we know this but I think that there's definitely a place that is ... There's time. This is the time to be able to do it. That is one of the one things that I think for the RD. We have to start to really take on this role that we can do this. We can help improve perioperative nutrition and perioperative outcomes and we can help improve the patient and the whole experience. That's kind of number one.

Katie Starr: [00:10:11] Number two, I think, really getting the medical field and surgeons, anesthesiologists, to understand that the nutrition is the expert. That is so important of these individuals to be a part of this. I think that there are still a lot of issues with how are they going to bill, there's always that issue. I think that's something that we really need to get everybody on board, including our people who are doing the billing. We need to get everybody on board to really have a conversation on how this can really improve outcomes. I'm really hoping that with my study and the other studies that are going on, we can truly show this. That we can truly show, we can reduce length of stay, we can improve function. Really try to help the RD ultimately be able to join the team. That's what I'm really hoping for.

Paul Wishmeyer: [00:11:03] I think these optimization clinics like the one you're participating in and the one that we're working on in our [POET 00:11:10] clinics that we've talked about, maybe are ways in too for dietitians to play integral roles because they have to play integral roles because you're the ones with the training. I think we as physicians need to embrace that role and whether it's us paying for you to be there, the hospital paying for you to be there and us lobbying for you to be able to bill to be there because you play an essential role with training that none of us have. I think, it seems as though your experience has been a good one, obviously. I think a unique one. I think if you had words beyond what you've said to dietitians about how to get involved, I think your words would carry a lot of weight. I don't know if there's other things that you would say to dietitians to say, "This is your chance to get involved." But I think that's what we want.

Katie Starr: [00:11:59] Yeah. No. Absolutely. I love how you said this is the marathon. That's exactly what I tell my patients. It's a short duration and I think for many people, changing a big change, a big lifestyle change, it's just sometimes too hard to grasp but when you can condense that down to a small portion of time and tell them this is the time we're focusing on, we want to get you into the best possible condition you can be in. I'm like, "It's your Olympic event. We're

training for it." Then I'm like, "We're going to keep training afterwards." It's kind of a wonderful way, I think, as me as an RD, I feel like I'm actually making a difference.

Paul Wishmeyer: [00:12:38] That's great.

Katie Starr: [00:12:40] I think that's really important because I think sometimes, clinical dieticians, we don't get to see the patient over time either and we don't always know if our words are resonating. I really do feel like these individuals are coming in for surgery and they want this surgery or they have to have this surgery. They're much more willing to make these changes. They really do hang on every single word that we say and they, I think for me what I really try to do is put it in the simplest of terms that we have to have this energy to be able to heal. We have to have this energy to be able to combat this stressor. Surgery is a stress. For that, I feel like, it really does kind of sink into them and say, "Okay, I can do this. I can do this for this amount of time and I can do this for this amount of time after surgery." I just feel like, I leave my clinic daily going, "I feel like I've made a difference." For me, I think that's a big deal. I think that is a big deal for most dieticians.

Katie Starr: [00:13:41] I would say that I honestly, never imagined myself in this realm but I love this realm. I love the surgical world. I think that this is such a great place for dieticians and research has been done in the past with nutrition and it just kind of stopped. I feel like now, it's pouring in. I think now is just one of the best opportunities. Now is the time for us to get involved and to really promote ourselves and to really kind of team up with someone who you know is in surgery or is in anesthesia and say, "Is there any way that I could help develop some of these preoperative care guides?"

Katie Starr: [00:14:25] I think for us in the academy and ASPEN, we really need to start promoting clear guidelines for nutrition and surgery and I think with ERAS we're doing that but even just a little bit more specific guidelines on how we can truly promote the best nutritional outcomes. I think there is still a little bit of ... Not as much clarity as I would like. Maybe for some of the other dieticians who can't really see, "Okay, what exactly am I supposed to do?" Part of what I'm doing is I'm hoping that I can try to help develop or help develop these clinical guidelines so that we really do know some clear and specific things we can say to our patients to help them have the best outcomes. That's definitely something as an RD to another RD, I would definitely recommend, is trying to find someone that you can ask or talk to about the surgery component and see where you can fit in. It may take a little bit more stepping out of your comfort zone but I promise you, I feel like surgeons, I feel like anesthesiologists are really on board for this. I think that they're wanting to figure this out too.

Paul Wishmeyer: [00:15:35] I agree. I think that we're in a unique time in the world of this care where people are receptive. People realizing in value based care that we can't just think people can walk into the operating room and we just hope for the best when we know there's things that we can do at a time like you've

described. We can optimize approach, we can optimize nutritional status. Maybe we can do exercise things eventually and combine that with our nutrition. I think all of us dream of that day.

Katie Starr: [00:16:04] Yes.

Paul Wishmeyer: [00:16:05] As well where-

Katie Starr: [00:16:06] Yes.

Paul Wishmeyer: [00:16:07] You and I have talked about some of these opportunities. I think you're right, we continue to need better guidelines. I think we've tried to begin to attack that problem with the POQI guidelines, the Perioperative Quality Institute guidelines from the American Society for Enhanced Recovery that have been published actually this month in print, in June, 2018, they'll be published and are online available and ready in Anesthesia & Analgesia, the journal.

Paul Wishmeyer: [00:16:32] You and I are both working on a ASPEN guideline right now where we're looking at the best practices for nutrition in ERAS care as well and so I think, hopefully like you said, we'll have better and more guidelines for dieticians and for clinicians in general to know what best practice is and where the gaps in research are that you're trying to fill and that I think all of us are trying to fill. Maybe also then promote, like you've said, we have a lot of data for some of these things already that we don't do. Maybe we can push that forward as well.

Katie Starr: [00:17:03] I will say too that I ... When I came into our clinic and sitting around a table of surgeons, anesthesiologists, geriatricians, it is a little bit intimidating at first. One of the things that I really did was, I made sure that I really did try to know as much as of ... As much information as I could in regards to what can we do before surgery, utilizing nutrition. That is one of the other things that I would recommend for RD's. Really do some of your homework so that when you do sit around a table and a surgeon asks you, "Why do you think... How are we going to actually impact their nutritional status in pre-op?" You can actually answer them by saying that there has been evidence that show that we can utilize oral nutritional supplementation and have improvements in nutritional status within seven to fourteen days. Having just little bit of data points like that can really go a long way. A lot of our other providers, they're not experts in nutrition. Really being able to just help guide them can really be beneficial and they'll start turning to you and asking you questions. You become a very integral part of the team, very important part of the team. That's something else that I've learned.

Katie Starr: [00:18:27] I try to come in there with all my ammo that I can and I try to make sure that I'm really prepared so that I can make sure that I can help change their point of views too, sometimes, when they think that there's nothing that nutrition can do to help improve outcomes when we only have two weeks

before surgery. There is something that we can do. That really has changed my experience in our clinic too.

Paul Wishmeyer: [00:18:52] That's great. I think, yeah. There's a really bright future with the data that we have and the data we will have to arm dieticians in this really, like you said, a very bright future for the role of the dietitian being essential. That no patient, perhaps, should ever have surgery without having a nutritional evaluation, at least elective surgery. If they have nutrition risk, there's no patient that has surgery without seeing a dietician. Without having their nutrition optimized. I think you really are the example, perhaps, the example other dieticians can look to and I would encourage all of them to reach out to you if ...

Katie Starr: [00:19:29] Please.

Paul Wishmeyer: [00:19:30] As well to be an example of how this can be done. I think, in closing, it is an exciting time I would say. Sounds like you agree, to be a dietician in this field. Like you said, in surgery and any final thoughts for the people out there that you'd want to leave them with?

Katie Starr: [00:19:47] You know, just that, I think ... Sometimes you really do have to understand that we are very, very important people that can really help improve a lot of our ... Help improve the health of our patients. I think just remembering that, just remembering that being a part of a team is an amazing opportunity and to really try to figure out how you can get involved as an RD I think is just the best way to really help promote this area.

Paul Wishmeyer: [00:20:17] Amen. I agree. I think dieticians out there should know, you are essential pieces and parts of the care of a patient having surgery and the care of the patient after surgery. We hope you will all play a bigger and bigger role for all of us.

Katie Starr: [00:20:33] Yes. Thank you.

Paul Wishmeyer: [00:20:34] Thank you, Katie. That was great.

Katie Starr: [00:20:35] Thank you so much.

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