

**Melanie Cole, MS (Host):** Welcome to the podcast series from the specialists at Penn Medicine. I'm Melanie Cole, and joining me today is Dr. John Vasudevan. He's Director of the Penn Medicine Running and Endurance Sports Program, and an Associate Professor of Clinical Physical Medicine and Rehabilitation at Penn Medicine. And he's here to highlight for us the Penn Running and Endurance Sports Program.

Dr. Vasudevan, it's a pleasure to have you join us today. So tell us about the Penn Running and Endurance Sports Program. What makes it unique when it comes to treating runners and other endurance athletes?

**John Vasudevan, MD, CAQSM:** Well, first of all, thank you for having me. It's a pleasure and privilege to be here.

What I'm hoping to discuss a little bit today is what the Running and Endurance Sports Program at Penn Medicine has to offer that is unique, and directed towards athletes in our area or region, that can best take care of this certain population of endurance athletes.

If you're a runner or any type of athlete, if you're a swimmer, if you're a cyclist, or regardless of your sport, you're going to run into injury at some point. Some of these injuries are ones that are just nagging, sometimes can stop you in your tracks. There are more than enough qualified physicians in this area that can treat injuries, but what I want to understand better is helping someone achieve a goal. Sometimes people get so focused on treating that knee that hurts, that we lose sight of what we would do if that knee wasn't hurting. So I put together a group of physicians, physical therapists, and many other different specialists who speak the language of the sport and understand what they're trying to achieve.

**Host:** I love that you used the term speak the language of the sport because that really is true. I'd like you to speak about some of the conditions that the Penn Running Program team evaluate and treat. You mentioned knees, but of course runners have all sorts of issues.

**John Vasudevan, MD, CAQSM:** Absolutely. We treat a wide variety of conditions, mostly involving joints and tendons. So when it comes to runners, obviously hip, knee, and ankle joint issues are big. And depending on the age, that could be something like a meniscus tear or a labral tear. It could be something as advanced as osteoarthritis at a certain age. When it comes to tendon issues, oftentimes that can involve gluteal tendinopathy, patellar tendinopathy, Achilles.

And not forgetting that sometimes swimmers and cyclists, can also run into injuries, as well as runners just in their cross-training, involving things like the shoulder joint, rotator cuff, and tendon issues of the elbows, like lateral or medial epicondylitis.

So those are some of the conditions, but one thing I learned in medical school is that the knee bone's connected to the hip bone is connected to the backbone. So sometimes people come in with one achy joint, but you realize it is the consequence of a movement pattern that we need to improve in order to take care not only that pain, but prevent others from coming.

**Host:** I'm glad you brought up cross training because that does help with some of the injuries that we see in the field, and especially with such dedicated athletes as runners are. Can you walk us through the process that patients go through when they're evaluated, diagnosed, treated by the Penn Running Program? Tell us a little bit about your program and the multidisciplinary approach.

**John Vasudevan, MD, CAQSM:** When you first engage with the Penn Running and Endurance Sports Program, it's going to feel at first like a typical doctor's office. You're going to come in, you're going to fill out your paperwork, I take your history, examine you, and so on. Take a look at any kind of imaging or other diagnostic workup you have, or perform some at that time, like a simple x-ray.

But what then is atypical and maybe additive is depending on what you present with, we may have you run on a treadmill. We may examine your footwear or have a discussion of that. Things like orthoses, that you would use in those footwear, or braces that you may have tried. And then really delve a little bit further into what is your training program, because the treatment that a patient would need, can vary depending on whether they're trying to do a couch to 5k, whether they're trying to finish their first half marathon or whether they're trying to qualify for the Boston Marathon. So having a little bit of added time to discuss what their training goals and current program are.

And then what happens is we'll take all of that and then start coming up with a plan and identify what other disciplines need to be involved. Most commonly that'll be physical therapy, but part of this program is understanding that sometimes it's more than just the mechanical, sometimes it's dietary and nutrition related. So we have registered dietitians who are focused on sports nutrition, in particular. We have sports psychologists. Sometimes half the barrier is not just physically your discomfort, but sort of the challenge mentally,

of kind of wrapping your head around how this injury's getting in the way of things.

And sometimes it does require surgical care. Most runners, cyclists, swimmers, fortunately don't require that. But sometimes it's about identifying when the potential risks of surgery are outweighed by the benefit in the long term.

**Host:** For other providers, Doctor, what makes someone a good candidate for the Penn Running and Endurance Sports Program?

**John Vasudevan, MD, CAQSM:** The best kind of candidates are fitness oriented, but it's really about what you want to get accomplished.

I love seeing a patient who has a goal in mind. So I always try to relay back to my referring physicians-what the goal is because I think it makes such a big difference. I'll take anything, from beginning to the high level elite, as long as they have that goal in mind, because sometimes it's really just about establishing a pattern of fitness. Sometimes someone's already been there and they just want to enhance their performance to meet that goal.

**Host:** When do you feel it's important that they refer their patients? When is it you'd like them to look into the program and say to their patients, this is the time?

**John Vasudevan, MD, CAQSM:** In an ideal situation, any runner, any cyclist or swimmer that comes in and says, you know, "Hey, I've got some pain" and they fall into that category of "this is the type of sport that's important to me and this is how it's interfering with me." If that patient is saying "physical therapy is not working, I'm not getting to my goal," then try to contact me so I can get them in.

The other thing too is part of the reason I enjoy working with endurance athletes and part of the reason why some of my orthopedic colleagues may not find it as fun is because a lot of times there isn't something broken that needs fixing. So if you're a primary care and you're like, you know, everything seems to look normal, yet they're having trouble, that's a good candidate to send my way.

**Host:** Beautifully put. That really is the crux of a program like this. As we are wrapping up, Doctor, tell other providers what you'd like them to know about where you see this going. I mean, endurance runners have always been the ones that we look to for some of our research on heart disease and muscle memory

and all of these things. Tell us what you see for the future and why you think this is such an important program.

**John Vasudevan, MD, CAQSM:** The goal of this program is to learn how we can best standardize assessments between physical therapists and physicians. How we can best communicate, and come up with something that is applicable, that could be copied or reproduced, across the country in a way that makes sure that we are getting the best treatments and the best clinical outcomes based on what the injury is and that person's training level. And what it also goes to is how can we best utilize resources.

Oftentimes people say, there is no particular injury. It's just something that causes pain. And I want to make sure that we are highlighting the best way to treat someone using the most appropriate resources. **But** we have to be able to demonstrate that by creating these clinical pathways and then learning from them and studying them moving forward.

**Host:** What an educational episode. This was so informative. Dr. Vasudevan, and thank you so much for joining us today and sharing your incredible expertise with other providers. To refer your patient to Dr. Vasudevan at Penn Medicine, please call our 24/7 provider only line at 877-937-PENN, or you can submit your referral via our secure online referral form by visiting our website at [pennmedicine.org/referyourpatient](https://pennmedicine.org/referyourpatient).

That concludes this episode from the specialists at Penn Medicine. Please always remember to subscribe, rate, and review this podcast and all the other Penn Medicine podcasts. I'm Melanie Cole. Thanks so much for joining us today.