

Knee Injuries: When to Choose Operative Management

The adolescent sports population is especially prone to knee ligament injuries with the increased specialized sport participation, overuse and suspected sedentary elementary years preceding highly active adolescent sports participation. The Center for Sports Medicine at Children's Mercy is one of the nation's leading sports medicine programs offering a comprehensive model of care from sideline trainers, to operative and non-operative treatment and return-to-play protocols.

Join Kevin H. Latz, MD, Chief, Section of Sports Medicine within the Division of Orthopaedic Surgery at Children's Mercy Kansas City as he gives an introduction to knee ligament injuries, including prevention, epidemiology and choosing operative or non-operative treatment.



Featured Speaker:

Kevin H. Latz, MD

Kevin H. Latz, MD, Chief, Section of Sports Medicine within the Division of Orthopaedic Surgery at Children's Mercy Kansas City, received his medical degree from the University of Texas Health Science Center in San Antonio, TX, completed a residency in Orthopaedic Surgery from the University of Kansas Medical Center in Kansas City, KS, and fellowships in Pediatric Orthopaedic Surgery at Hospital for Sick Children in Toronto, Ontario, Canada and Pediatric Sports Medicine at Children's Hospital, Harvard Medical School in Boston, MA.

[Learn more about Kevin H. Latz, MD](http://www.childrensmercy.org/findadoctor/details/1363)

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Transcription:

Dr. Michael Smith (Host): So, our topic today is "Knee Ligament Injuries: When to Choose Operative Management". My guest is Dr. Kevin Latz. He is the Chief Section of Sports Medicine with a Division of Orthopedic Surgery at Children's Mercy Kansas City. Dr. Latz, welcome to the show.

Dr. Kevin Latz (Guest): Thank you very much for having me.

Dr. Mike: So, let's do this, Dr. Latz. You know, there are a lot of general pediatricians and family physicians that listen to the show. Obviously, they see a lot of injuries, knee injuries, especially, every day, but maybe not understanding or remembering, I should say, the pathophysiology like you do. So, how about a quick little review of the different types of knee ligament injuries?

Dr. Latz: Absolutely. I'm glad to do this. So, certainly, I think when you're seeing an athlete or a patient for the first time, you need to think about what's going to be injured most commonly and so, if we see a patient in our emergency room or a clinic with a large knee effusion, really the differential diagnosis includes fracture, a patella dislocation, or a knee ligament injury, and of the knee ligament injuries, the most likely one to leave a large effusion is an ACL tear. And so, just knowing what happens commonly and having that quick, differential diagnosis in your mind, I think, is very helpful.

Dr. Mike: Are we seeing or is there an increase in these types of injuries in kids? Because I think there's

a theory out there, right, where a lot of kids today at the elementary school level aren't quite as active as we used to be, right? But, when they hit middle school, high school, they tend to become very active, so is that causing a problem? Are we seeing more injuries because we're so sedentary in elementary school, but all of a sudden we become real active at 13 or 14?

Dr. Latz: Well, there are certainly some knee problems that we see we think are activity related. I think the knee ligament injuries actually are . . . That's less proven. I think there is an increase in number of knee ligament injuries. I think some of that is an awareness, i.e. that an adolescent or even a pre-adolescent athlete can sustain a significant knee injury. I think the more widespread availability of MRIs also increases that. I think there's a very low threshold now to get MRIs and there's good and bad things about that, but one of the good things is that it'll quickly identify an ACL tear. I do think that certainly we know that women are more vulnerable than men to ACL injuries, and with Title IX, it's been quite a few years now, but with that advent and the blessing that comes with more female participation in sports, comes the curse of more knee ligament injuries, as well.

Dr. Mike: Right. So, let's talk a little bit, then, before we get into management and when, really, to choose operative management as the course of treatment, let's talk a little bit about prevention first. What are some of the things that you're doing at Children's Mercy looking at preventing these types of injuries?

Dr. Latz: Well, it's a lot of education and we do have knee ligament injury prevention programs, focused primarily on the ACL, but that would also include MCL and PCL injuries, as well. I think the big thing is just making athletes aware that the ACL is an emergency break. It really comes into play when you're fatigued, so aerobic conditioning as well as working on balance is just a huge key towards injury prevention.

Dr. Mike: Yes, so when we finally have that diagnosis, right, so we have that large effusion, we think it's a ligamentous injury, we confirm it on MRI. So, now, we're standing at that fork in the road, right? So, are we going to watch and wait? Are we going to be more aggressive, maybe operative care? Walk us down your thought process when you come to that fork in the road and how, ultimately, do you chose operative management?

Dr. Latz: Right. Well, it's, unfortunately, a conversation that I have nearly every day. I think the first thing I tell parents and patients, for that matter, is that an ACL tear does not necessarily mandate surgery. It really is based on the goals and aspirations of that athlete. It really is a shared decision. I think my role is to educate and provide options and I really think that physiotherapist plays a huge role in that education process as well. If I've got a younger athlete, I might be more apt to steer them towards surgery. In other words, they're pre-adolescent, because I think the demands they put on their knees, not necessarily in formal sports, but just day-to-day activities might be greater, and so it's one of those unique situations where, with our younger patients, we might be a little bit more aggressive in steering them towards surgery, but really feel very strongly to share decision, a very tailored decision, toward that individual athlete and family.

Dr. Mike: So, comparing an adolescent to an adult, are there differences in outcomes if you have to go to surgery?

Dr. Latz: You know, I think the true adolescent that we're seeing, the high school aged athlete, those are typically, unless you're talking about a professional athlete, that's a 15-year-old high school football/soccer player, is frankly, just going to be a more fit, toned individual than a 35-year-old recreational athlete. So, I think the blessing here is when I get those patients in the operating room, their pre-hab; i.e. the work that they've got in, put in to get their knee ready for surgery, if you will, is going to be much more effective and they're really going to have a knee that looks and feels very good before we hit the operating room; whereas, the person who's working and doing rehab on the side, often just has a real struggle getting to the point to where we think their knee is ready for surgery.

Dr. Mike: Let's go back to the prevention question again. So, when you look at the different athletes coming out of high school with these types of injuries, is there one sport over another that you see more and more causing these injuries? That's a good question, right? Because that might become an important thing for those coaches to maybe have some education on how they might be able to prevent that. Do you see a difference between soccer players and football players, for instance, with these types of injury?

Dr. Latz: I do. The typical patient, probably 75% of my ACL reconstruction patients are females involved in high school or collegiate basketball and soccer. There's a number of NCAA and high school surveillance studies looking at that that really point to the male athlete that gets injured is more likely going to be a football player and the female athlete is going to be a basketball player or soccer player.

Dr. Mike: So, keeping that in mind, do you have any advice for a teenage girl who's a soccer player? What's the best thing she can do to protect her knees? Are there certain stretches, certain things that you would recommend? Because, obviously, as we all know, prevention is the best way to go, right? What do you teach?

Dr. Latz: Absolutely. Well, so we teach them that, again, you just can't say enough aerobic fitness part of things. They've really got to be out there, and can't be competing when they're fatigued. They've really got to have great aerobic fitness and both their coach and the player need to be aware of that. I think there are clearly some movement patterns that put a patient at risk, and so a simple what's called a "box jump" where they jump off a two-foot box in your clinic and land and then go to jump again, there's got to be a distraction moment there where they're not focusing on how they're landing, but they're focusing on showing you how high they can jump. If that patient lands with their knees going inward, or if in a course of a series of single leg jumps across my clinic, if they have no balance, i.e. no eccentric control, that's really a red flag and really an athlete that you want to get working either with a physiotherapist or an athletic trainer or even just with a motivated set of parents to work on those proper landing mechanics.

Dr. Mike: Yes. That's really interesting and that's important. I'm sure a lot of the coaches know that and I'm sure they're trying to recognize that as well, so that's an interesting way to identify who might be more at risk for the injuries, that's interesting. Well, Dr. Latz, this is a very interesting topic for me, I really thank you for the work that you're doing at Children's Mercy and for coming on this show today. You're listening to Transformational Pediatrics with Children's Mercy Kansas City. For more information, you go to www.childrensmercy.org. That's www.childrensmercy.org. I'm Dr. Mike Smith. Thanks for listening.

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