

# Concussion Treatment At Children's Mercy

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Concussion is a growing and publicized concern in Sports Medicine.

We know that children are much more vulnerable to concussion because their neurological system is still developing and their neck muscles are unable to absorb the blow.

These important and unique services offered at a Children's hospital used to treat concussions :

- trained to care for adolescents
- ability to identify risks for long-term return to play
- baseline testing, IMPACT Test, VSR Sport test
- vestibular therapy
- physical therapy

Unique approach to concussion treatment: a Comprehensive clinic. Our comprehensive clinic has experts in neurology, rehabilitation and sports med working together to treat concussions.

Greg Canty, MD is here to discuss how Children's Mercy works to treat concussions.



Featured Speaker:

**Greg Canty, MD**

Greg Canty, MD, is the Medical Director for the Center for Sports Medicine at Children's Mercy Kansas City. Dr. Canty specializes in acute and chronic sports injuries, sports-related concussions, sideline and event coverage, sports injury prevention, fracture care and emergency medicine. Dr. Canty is an Assistant Professor of Pediatrics at the University of Missouri-Kansas City School of Medicine.

**[Learn more about Greg Canty, MD](#)**

**[http://www.childrensmercy.org/Clinics and Services/Clinics and Departments/doc=3010](http://www.childrensmercy.org/Clinics_and_Services/Clinics_and_Departments/doc=3010)**

Transcription:

Dr. Michael Smith (Host): Welcome to *Transformational Pediatrics*. I'm Dr. Michael Smith and our topic is "Don't Let Concussions Give You a Headache." We are going to talk about pediatric concussions, specifically. My guest is Dr. Greg Canty. He's the Medical Director for the Center for Sports Medicine at Children's Mercy Kansas City. Dr. Canty specializes in acute and chronic sports injuries, sports injury prevention, fracture care and emergency medicine. Dr. Canty, welcome to the show.

Dr. Greg Canty (Guest): Thank you Dr. Smith. It's nice to be on the show.

Dr. Smith: So, you know, we are hearing more and more about sports injuries, specifically concussions, not even in just the pediatric population but all over the sports world. How significant of a problem is this in kids and why are we seeing such an increase today?

Dr. Canty: Well, I think a couple of things. I think most of the highlights and things we see on TV have been started by our concerns about former professional athletes and some of the issues that seem to have evolved from repetitive head trauma that, unfortunately, we probably ignored for decades. I think that's now translated down to the youth athlete. I mean, if you take a look at youth athletes, 30-45 million kids participate in some form of athletics. The healthcare that's available for those kids is ultimately different than what takes place at the professional level and so I think it is a rising concern and a really huge issue for young athletes. If you take a look at, and I'll use an NFL game for an example, if you take a look at an NFL game, there's about 27 healthcare providers on the field split up between the two teams. If you go to a high school game, there may be an athletic trainer and occasionally a physician in a football game. If you go to most youth sports, there's not anyone that's qualified to help take care of their healthcare needs. That's where I really think it's important for physicians, parents, coaches, families, everyone to be involved and aware of the signs and symptoms of concussion and what they should do if they suspect a young athlete has had a concussion.

Dr. Smith: Why are children more vulnerable to concussions than an adult?

Dr. Canty: I don't think that we know they are more vulnerable. I think they may participate in more activities that may lead to them hitting their head. I don't know that we have strong evidence that actually says that they're more vulnerable. We do know that—and we talked about numbers earlier-- probably some of the estimates we have are that back in 1999 or 2000 the CDC estimated there were about 300,000 concussions a year in sports. Then, they followed that up in about 2009 and 2010 and indicated then that there were well over 3.8 million. That's a tenfold increase. That's a huge increase. Most of that's probably been driven by recognition. We don't know for sure that there are any more concussions now than there were a decade ago but what we think we are doing a much better job of now is actually recognizing concussion and treating it appropriately. Nowadays we know that about 10% of all high school athletic injuries are the result of a concussion.

Dr. Smith: When we look at pediatric concussions, what are the possible acute and chronic effects that you worry about when you see a patient with concussion?

Dr. Canty: The acute effects are, if I see somebody in the van or on the sideline or right after in the clinic, the big things we typically see are immediate onset of a headache. Oftentimes, the patients will have dizziness, oftentimes they will have nausea. Some of the classic things we used to relate to concussion, like loss of consciousness, we now know is quite rare. Less than 10% of people that have a concussion ever lose consciousness. So, it's a very poor predictor of an injury. The biggest things to look for, though, are really headache, dizziness, nausea, oftentimes sensitivity to light and noise. Those are some of the biggest things we see right up front. More of the chronic changes we see are sometimes the struggles people may have either academically or struggles with chronic headaches. I think some of the chronic things we are still exploring in the healthcare field, we are learning more and more about what might be related to these repetitive head injuries but I think there's still a lot to be determined there. It's just, what are some of the long-term concerns or implications following head injuries?

Dr. Smith: So, Dr. Canty, in your expert opinion, when is it appropriate for a general pediatrician to treat a child with a concussion and when should they send the child to a comprehensive clinic like at Children's Mercy?

Dr. Canty: I think a lot of it has to do with the general pediatrician's comfort level managing concussion. I think with the explosion or epidemic of concussion over the last decade a lot more CME education has been provided to help out pediatricians because I think there aren't enough pure, what we might say "concussion specialists" around the country to take care of this explosion of injuries. I think most general pediatricians do a very good job of managing concussion. I think that if they are managing concussion, have a good grasp and understanding of how both to recognize and then help support families through that, typically, 2-4 week recovery process, that most pediatricians do an excellent job of that. But, if anywhere along the path they either feel uncomfortable or don't feel like their knowledge about concussion is up to what they would expect or feel comfortable with, then they should definitely seek out more sub-specialty care by a more comprehensive concussion center.

Dr. Smith: So, speaking of a comprehensive clinic like Children's Mercy, why don't you tell us about the unique services offered at Children's Mercy and maybe even give us an example of the type of workup that you would do with a patient.

Dr. Canty: Sure. Great, great. Great question. I think when you talk about a more complex or comprehensive concussion center like we're able to offer it, includes a number of specialists. For us here at Children's Mercy, we have a growing number of sports medicine physicians that are all well-versed in the management of concussion. We now have four sports medicine physicians. We also have a team of neurologists that have, some of them, a unique interest in managing concussion and head injury. We also have a neuropsychologist and we have a number of what are called "vestibular physical therapists" which help patients to overcome some of the problems that arise from dizziness, vertigo, problems with their visual fields. All of us working together to really try to figure out just how do we make sure we properly recognize concussion and then how do we help support those athletes as they try to recover afterwards. We are also blessed to have a number of athletic trainers who are actually out in the schools, out in the communities which are an extremely valuable resource.

Dr. Smith: How many patients are you guys treating on a yearly basis with concussion at Children's Mercy?

Dr. Canty: I think on an annual basis, I have to admit that I don't have those numbers right in front of me as to how many we all see as a group but I know that number continues to grow. Unfortunately, in Kansas City, we've had a number of high profile kind of head injuries involved in sports over the last few years which has one, both been a proponent for increased education out in the community. But, I think when you take a look at seasons, obviously, we know the contact sports seasons or collision sports which is football, my schedule will have a number of concussions on it every single day starting in two weeks at the start of football season here in the Midwest and will continue on throughout the school sports season. I think if you carry that across all of our providers, those numbers have easily gone up ten-fold over the past few years with the start of our sports medicine program. Typical evaluation with these folks involves kind of a physician visit. Oftentimes, they come in to get seen by one of our physicians. They may or may not have some additional testing or tools that we have available to us here. We have resources available for computerized neurocognitive testing. Sometimes people know that better as a company called "ImPACT" that provides a computerized test that may be performed for some patients. They receive a thorough neurological exam. They also may get seen by one of our vestibular therapists or a physical therapist, depending on what their symptoms allow. And, if they're

not resolving or they're not improving as we would anticipate, then oftentimes, we bring in a multi-disciplinary team consisting both those neurologists, also a neuropsychologist and, occasionally, a rehabilitation physician, if necessary. All those resources are available and part of our both sports and comprehensive concussion care that we have available here at Children's Mercy.

Dr. Smith: Dr. Canty, I want to thank you for coming on and also just thank you for the work that you're doing. I know that it's very important and thanks for all that you're accomplishing at Children's Mercy. You're listening to *Transformational Pediatrics* with Children's Mercy Kansas City. For more information you can go to [childrensmercy.org](http://childrensmercy.org). That's [childrensmercy.org](http://childrensmercy.org). I'm Dr. Michael Smith. Have a great day.

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