Bryan Tompkins: I would say if you're ever on the fence to definitely seek care. If there's any question that this isn't just something simple, I think that alone is justification to get checked out by a specialist. I have no problem seeing something simple if it puts a parent's mind at ease that their kid's going to be all right.

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Donna Mazyck: Welcome to the NASN School Nurse chat podcast. I'm Donna Mazyck, Executive Director for the National Association of School Nurses. The focus of today's podcast is about summer safety and the importance of a supportive loop for injured students and families, primary care providers, and the pediatric orthopaedic specialists.

Donna Mazyck: We all know that participating in sports, or any recreational activity is important to living a healthy and physically active life. But as with any kind of physical activity, there runs the risk for injury.

Donna Mazyck: According to Shriner's Hospitals for Children, among public health and medical professionals, summer is known as trauma season because injuries increase dramatically among children during these months. Fractures are common in children, and represent a significant proportion of pediatric emergency department visits in the United States. Children between 10 and 14 years of age have the highest risk for fractures.

Donna Mazyck: As a school nurse, I saw students who were injured in an activity over the weekend, and they waited to see me at school on Monday morning, before seeking emergency or urgent care. This is a topic that's relevant, and we can learn more.

Donna Mazyck: Joining us for the podcast are Dr. Bryan Tompkins, a board certified orthopaedic Surgeon in Pediatric orthopaedic at Shriner's Hospitals for Children, Spokane, Washington. Bryan specializes in spinal deformity, general pediatric orthopedics, adolescent hip preservation, and pediatric sports medicine.

Donna Mazyck: And we also have Kae Bruch, a school nurse, and NASN for the Virginia Association of School Nurses. Kae continues to serve as the Virginia Association of School Nurse's liaison to the Virginia Emergency Medical System, EMS, for Children Committee, a sub-committee of the Virginia Governor's EMS Advisory Board, representing school nurses in injury prevention.

Donna Mazyck: Welcome, Bryan and Kae.

Bryan Tompkins: Thank you.

Kae Bruch: Thank you.

Donna Mazyck: Because children's bones are uniquely subject to growth plate fractures, it's important that broken bones in children are treated quickly and properly. According to the American Academy of orthopaedic Surgeons, approximately 15 to 30% of all children's childhood fractures are growth plate fractures. Shriner's Hospitals for Children and the National Association of School Nurses are working together to ensure students have the injury prevention, and safety information, they need to be safe and healthy.

Donna Mazyck: Bryan, I'd like to ask you, what are some of the most common summer time activities that can result in orthopedic injuries?

Bryan Tompkins: As we see the weather change we tend to get a big spike in the number of kids coming through our clinic, and most are just simply related to kids being outdoors more, as we transition from the cold winter months to the warm summer months. As kids get out of school, they spend more time on the playground, on their bikes, in the swimming pool, at the lake, at camp doing summer sports activities. And the combination of just being outdoors and being kids, we see more exposure to possible injuries.

Bryan Tompkins: And so, we see a lot more bumps, bruises, sprains, broken bones, and those kind of injuries, as they're outside more.

Donna Mazyck: And what are the symptoms of all those different injuries you mentioned that may indicate a child has a fracture, or a break?

Bryan Tompkins: You might see swelling in the involved limb. That indicates some type of underlying problem there. You might have a laceration, or bruising, but I think the most common one, particularly in the little kids, is just their inability to bear weight, or refusal to bear weight on that leg, or simply a limp that might come across.

Bryan Tompkins: Kids are pretty resilient, and so they often try to hide their injuries because they're motivation is to keep playing. So, if you see a kid that's withdrawing from something they really enjoy, that tends to be somewhat of a red flag for us, as orthopedic surgeons, that there's something more seriously going on there.

Donna Mazyck: Kae, because school nurses are advocating for students health and safety, and school nurses are the experts in pediatric health in schools, describe for us how school nurses have an impact on the health and safety of all students.

Kae Bruch: Well, on a regular basis school nurses are uniquely positioned to promote the safety and injury prevention aspect in the school, and in their own communities. We promote the safe play in the schools by working with our administrations, making sure that we're using age appropriate equipment, the impact absorbing ground cover, also, making sure that they actually have playground safety rules, and that the teachers and other staff members are providing proper supervision.

Kae Bruch: But we also share a lot of the prevention information and resources with our parents and the whole community. We do that through the school newsletters, the PTA, and we also use our school website, as well as, everyday conversations. Just talking with students about, "Oh. Well, let's make better choices next time. Make sure we follow the rules so we don't get hurt."

Kae Bruch: And working with parents and staff to kind of promote the idea of when you give a student a new toy, that it's not only age appropriate, but if it's something like a skateboard, or other things that have safety equipment that should go with them, that that is part of the gift as well.

Kae Bruch: So, we do try, and promote as much injury prevention information as we can. But also by linking on our websites information like they have on the Shriner's Hospital website. It's just one of the ways that we can help keep our students safe, and keep them in school, and ready to learn.

Donna Mazyck: Kae, how should school nurses assess a student who suffers a sports injury or a fracture at school?

Kae Bruch: Well, one of the initial things that we see when a student comes in is we look to see if they're guarding, or they're self-splinting. If they've injured their arm, and they're holding it close to their body, and supporting it with their other arm, that gives us some indication that it may be more than just a bruise, or a minor injury. So, we look for that guarding.

Kae Bruch: And then, we move on to actually assessing for any deformity, contusions, any swelling. And we check for tenderness, and also, point tenderness. If they can point exactly where it's hurting, and it's not just a generalized sensation, then sometimes that increases our suspicion. And we also check for the pulse, movement, and sensation to make sure none of that's compromised.

Kae Bruch: We look for any potential complications. If we feel there's a possibility that a fracture might be towards a joint, or near the bone end, that's going to kind of raise more red flags that it could involve the growth plate. So, we, usually, are in a position to be able to stabilize and splint possible fractures, and orthopedic injuries.

Kae Bruch: We'll notify the parent and give them the information about the injury, as well as letting them know the importance of getting the appropriate care. And we refer them on to Urgent Care. Sometimes they will actually call their Primary Care Provider, and they can advise them if they can see them in their office, if x-rays might be indicated, or if they should go on to Urgent Care facility.

Kae Bruch: When it's more severe and possibly an open fracture, or involving the joint, there are times that we'll actually stabilize the injury, and then call for EMS to provide additional care and transport.

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Donna Mazyck: Bryan, I'd like to come back to you and ask, how do you know if a family member should seek specialized treatment for their child's injury?

Bryan Tompkins: The vast majority of injuries that we see in school aged children are pretty simple and get better on their own, and can be treated, either by the school nurse, or the primary physicians.

Bryan Tompkins: However, the more complex injuries that involves breaks around the growth plates, or more high energy type fractures and sprains, or ligament tears like an ACL, those are the ones that often need more specialized care, as many of them often need operative care. They need more than just simple splinting or casting. I would say that if it's an obvious deformity, or there's an open laceration, those need to be treated right away, and those need to be referred on to either Urgent Care, or an Emergency Room, which will either stabilize the fracture, the injury, and seek a specialist opinion on what needs to be done next.

Bryan Tompkins: I think the subtleties come out when you have a kid that's limping a little bit. Is this a bruise? Or, is there something more serious ... Is there a more serious problem underlying? And I think those, it's not much of an urgency. They can be rested, and immobilized, and splinted.

Bryan Tompkins: And if they don't improve over the next few days, those need to seek treatment. And often, that starts with your primary care physician, who evaluates them, gets x-rays, and then refers them onto a specialist like myself, which really focus on injuries that may involve consequences of growth as the kids finish up through middle school and high school.

Bryan Tompkins: As we know, kid injuries are very different than adult injuries. They often involve the growth areas of the bones, or issues that can result in problems with growth, if not addressed at that time of injury, or shortly thereafter.

Bryan Tompkins: And so, treatment that might be the same in an adult, is not necessarily what we would do in a growing ten-year-old, let's say. And that's where docs like at the Shriner's Hospitals come in. We're the experts at treating these kind of conditions, and understand the consequences of how they relate through the entire childhood growth.

Donna Mazyck: Kae, I'd like to find out from you, how can school nurses help with healing and comfort in that time period that that student who's had the sports injury, or the fracture, is waiting to get to wherever they'll go for their health?

Kae Bruch: We work by helping keep them calm. Talking to them about what we're doing, explain, "Right now. We're holding it still. We don't want it to move around because that can make it hurt more." But also, that helps minimize the damage that can be caused. If they continue to move it, and it is fractured, then that can cause more tissue damage and make it harder on them.

Kae Bruch: We also help by talking to the parent and explaining to them, if it's what appears to be a simple, or less severe fracture, then we can talk to the parent about, "Call the primary care provider and see if they want to see them, or they may tell you to go on to Urgent Care or the Emergency Room."

Kae Bruch: But our main focus at that time is keeping the student calm and letting the teachers move the other students away, so that we can just focus on taking care of that student and meeting their needs during that time.

Kae Bruch: And then, there's also when we have the transition after they've gone through the sport's injury, or fracture, and then they come back to school, that transition time, we work with the parents, as well as the physicians and teachers to make sure that we're meeting their needs when they come back to school, so that if they need to elevate their fractured arm or leg. We'll have extra support on their desk if they fractured their arm. We'll have those things in place so that they can still be able to be present and learning, but we can still meet their needs in recovery.

Donna Mazyck: Bryan, I have a final question for you. And we understand from what you've explained, what Kae has explained, that they're not all the injuries that specialized pediatric orthopedic care, but those that do really need that care. Are there any tips that you can give to school nurses to share with family members when they're on the fence of do we go deeper into care, or do we stay at home and try to tough it out?

Bryan Tompkins: I would say if you're ever on the fence, to definitely seek care. If there's any question that this isn't just something simple, I think that alone is justification to get checked out by a specialist. I have no problem seeing something simple if it puts a parents mind at ease, that their kids going to be all right, and doesn't need any more. I'd rather err on the side of caution.

Donna Mazyck: Thank you so much. We appreciate that. Thank you Dr. Bryan Tompkins, and school nurse, Kae Bruch, for being our guest for this NASN School Nurse chat podcast.

Bryan Tompkins: Thank you.

Kae Bruch: Thank you.

Donna Mazyck: To ensure students have the prevention and safety information they need to reduce the risk of childhood injuries please visit shrinershospitalsforchildren.org/NASN to order free materials to share with your students.

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