

# Head back safely to school sports with this expert advice

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Sure, the end of summer vacation makes many kids groan. But many will also be cheering the return of fall sports. That's a good thing, experts say.

Exercise habits form early and pay off for life, said Dr. Benjamin Levine, director of the Institute for Exercise and Environmental Medicine at Texas Health Presbyterian Hospital in Dallas. For kids to see that payoff, though, he said exercise "has to become part of your personal hygiene, like brushing your teeth, taking a shower or changing your underwear."

Competing as part of a school activity can be a great way to instill the exercise habit. But parents and coaches know it's not as simple as handing a student a football, pompom or clarinet and saying, "Go play." So, we asked experts for advice on keeping things as safe and healthy as possible. Here's what they said.

## **Take that sports physical seriously**

Many families deal with pre-participation medical exams by dashing into an urgent care clinic or getting a quick check at school. Resist that temptation if you can, said Dr. Neeru Jayanthi, co-director of the Youth Sports Medicine program at Emory Healthcare in Atlanta.

It should be a consultation with your "medical home," such as a pediatrician or family doctor, said Jayanthi, who is team physician for several [high school](#), college and professional teams.

A school-based exam might make sense in under-resourced areas with no other option, he said. But important discussions about heart health, menstrual cycles or other personal issues are best handled in a physician's office with someone your family knows and trusts, not during a rushed interview in a small room at school, he said.

Dr. Alyssa Vermeulen, a pediatric cardiologist at C.S. Mott Children's Hospital in Ann Arbor, Michigan, agreed that sports screenings should be done by someone who knows the student's family history and can make a referral to a specialist if needed.

## **Heart concerns? Don't panic ...**

In the wake of high-profile incidents with the NFL's Damar Hamlin and college basketball's Bronny James, many parents and coaches might be worried about cardiac arrest, when the heart suddenly stops.

Expert consensus is to be aware but not worried. "These are very, very rare and unusual circumstances," said Levine, who also is a professor of medicine and cardiology at UT Southwestern Medical Center.

Levine helped write a scientific statement from the American Heart Association and American College of Cardiology that recommends a 14-point screening questionnaire to evaluate high school athletes' heart risks. Athletes with positive findings should be referred for further evaluation and testing. The AHA and ACC do not endorse a mandatory electrocardiogram (also known as an ECG or EKG) for everyone, though.

The idea of universal EKGs has advocates, but Levine said mass testing of symptomless athletes can "hurt more people than we will help."

First, he said, the tests are prone to false positives, which can alarm parents needlessly and put [young people](#) at risk "of being exposed to unnecessary testing and unnecessary procedures that don't save lives" while preventing them from playing.

At the same time, Levine said, EKGs can miss problems that actually lead to cardiac arrest.

Parents and coaches do need to ask young athletes about symptoms such as lightheadedness, heart palpitations, chest pain and shortness of breath, Levine said. A video series he helped create for the University Interscholastic League, or UIL, in Texas can help student-athletes understand what those symptoms look like. Parents also should watch for signs their children are struggling on the field or falling behind in drills they once kept up with.

If a student does need an EKG, Vermeulen said the person reading it should have pediatric expertise. "There's a lot of changes that happen during growth and development that can be normal in kids' EKGs that would strike an adult cardiologist as abnormalities," she said.

### **... but be prepared**

In the event of a cardiac arrest, fast action with CPR and an automated external defibrillator can save a life.

"It is so critical to ensure that your school, or wherever you're exercising, has access to an AED and a clear emergency action plan that is regularly practiced," Levine said. If he were a parent worried about cardiac arrest, he said "the single most important thing" would be to ask the head athletic trainer or athletic director, "Where's your AED? And do all the coaches know where it is?"

When Hamlin collapsed after making a tackle during "Monday Night Football" on Jan. 2, emergency medical personnel immediately began CPR and used a defibrillator. The Buffalo Bills safety announced in April that his [cardiac arrest](#) was caused by commotio cordis, a rare event caused by a blow to the chest.

Vermeulen works with Project ADAM, an organization that assists schools in establishing cardiac emergency response plans. She likens

such preparedness to a tornado drill: Disaster is unlikely, but everyone needs to know what to do in one. She said parents also could take a CPR class and learn how to use an AED themselves.

Hamlin, meanwhile, is working with the AHA on a new initiative to teach people about CPR and AED use, and to assist communities, schools and youth sports organizations in putting cardiac emergency response plans in place.

## **When the heat is on**

They're called fall sports, but the temperature feels like summer for much of the nation. So, heat protection is important for any outdoor activity—including marching band. A 2021 study in the *Journal of Athletic Training* found that during rehearsals and performances, band members' core body temperatures rose to levels similar to what would be expected in a football player or cross-country runner.

"I think the most important thing to know is that heat acclimatization saves lives," said Levine, who has worked with elite athletes from around the world. "The worst thing that you could possibly do is on the first day of football practice, take a kid who's not been outside and make him do wind sprints in 90-degree weather. It's always the first day of practice that we have catastrophic heat injuries."

Water breaks are important, he said—not just to prevent dehydration, but to provide an opportunity for the muscles to cool down. "Muscles generate a huge amount of heat when you're doing high-intensity exercise," Levine said. "And in hot weather, you cannot get rid of it."

Jayanthi said protection against heat illness and death involves three simple things: a thorough sports physical, so a physician can spot conditions that could put a young athlete at risk; coaches and athletic

trainers who are trained to look for warning signs of heat illness; and an emergency action plan, which means fast access to rapid cooling with ice or a tub.

Organizations such as the National Athletic Trainers' Association and the UIL have additional guidance. "Heat-related catastrophic deaths are almost 100% preventable," Jayanthi said.

## **Beware what they eat**

Vermeulen said that this time of year, her office gets many referrals from students with concerns that end up being related to hydration or nutrition. One problem that's cropping up: trendy pre-workout powders, which often are laced with caffeine and other ingredients that can cause reactions that mimic symptoms of cardiac stress.

Sports provide a good opportunity to talk about healthy eating and the problems with a typical teen's fast-food diet, she said. "Trying to instill those good nutrition habits early on, especially for student-athletes, is really important."

## **Keep sports fun**

Children can't reap the benefits of sports if they're overpressured and burn out, Vermeulen said. Sports should be "about finding something they really enjoy doing, so that they can have something they can continue for the rest of their lives," she said.

Levine agreed. "Let the kid dictate how intense they want to be," he said. "Make the training load appropriate."

Jayanthi said coaches and parents can help by being aware of how young

bodies develop and the biological limits associated with that.

Overall, he said, school sports are "an excellent way to keep your child healthy." If parents get their children properly screened and ensure that their team has access to an athletic trainer; that the staff has planned for medical emergencies; and that coaches are thinking about the athlete beyond just the sport they coach, "then I think most other things will work out."

"Except I can't guarantee a win," Jayanthi added. "That's out of my scope."

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