



## Upcoming Events:

### EMSC Advisory Council Meeting

October 31st at 1:00 PM

5800 W. 10th St, Little Rock, AR 72204

Room 801

### Fire/EMS Expo

March 13th-16th

Rogers Convention Center

Rogers, AR

Emergency Medical Services for Children attended simulation training in Waco, Texas. This training will allow EMSC to travel to EMS services and hospitals in Arkansas and conduct pediatric simulation scenarios with our new Advanced HAL Pediatric Manikin. The scenario possibilities are endless. Simulations allow EMS providers to get hands on with a pediatric patient from start to finish and practice pediatric skills. If this is something you or your service is interested in, please contact Kellie Tolliver at [kellie.tolliver@arkansas.gov](mailto:kellie.tolliver@arkansas.gov)

EMSC will be attending the Fire/EMS Expo in Rogers, AR in March 2024. If you have not registered yet, please register. There are a lot great presentations this year. There are plenty of classes and presentations for EMT's, AEMT's, Paramedics, Fire/Rescue, and law enforcement.

**Arkansas Children's Hospital and EMSC will be moving away from the monthly Pediatric Vodcasts and switching to monthly podcasts that will be accessible from Apple, Google, and YouTube. Please subscribe to the Arkansas Children's Hospital podcast channel, "Better Today, Healthier Tomorrow" to receive notifications about new podcasts being available. EMSC will still be sending out reminders for the podcasts. The decision was made to move away from Zoom to make the podcasts more accessible to providers and give the providers an opportunity to listen to the podcast anywhere and any time. We will still be providing CEU hours to the pre-hospital providers once they listen to the podcast. There will be an introduction podcast posted, please listen to it for more information and how to obtain the CEU hours.**



# Peds Pearls Topic

## When in Doubt... Sit 'em Out: Pediatric Concussions

Kids love to play. As they get older, involvement in organized sporting activities is a common step in their growth and development. Participation in sporting activities, at all levels, provides much needed exercise and socialization as well as physical and mental challenges. But unfortunately, these activities also provide many opportunities for injuries. One type of injury, particularly common in contact sports, is the concussion. A concussion is a form of mild traumatic brain injury (MTBI) that affects the brain's cognitive and physical functions; it is caused by a direct or indirect blow to the head or upper torso.

The evaluation for a possible concussion should include both physical and cognitive assessment elements and is the KEY to determining whether or not the player should be removed from the game. Common practice used to be to merely “shake it off” when a possible concussion was sustained, but current best practice is simply, “When in doubt, sit them out.” A comprehensive evaluation should be conducted in an Emergency Department or a physician’s office and should focus on both physical and cognitive symptoms. Additionally, any sleep or emotional changes that might occur should be identified and noted.

**Physical Assessment:** In addition to your normal assessments for head injuries, specific steps to look for a possible concussion include:

- Level of consciousness changes
- Neck Pain
- Balance Problems
- Dizziness
- Visual Disturbances
- Hearing and/or light sensitivity
- Headaches
- Unstable or unsteady gait

TABLE 1: TYPICAL SYMPTOMS AND SIGNS OF CONCUSSION

Typical symptoms	Typical signs
■ Headache	■ Loss of (or altered) consciousness
■ Dizziness	■ Poor coordination or balance
■ Nausea	■ Convulsive convulsion or impact seizure
■ Loss of balance	■ Unsteady gait
■ Confusion	■ Slow to answer questions or directions
■ Lack of awareness	■ Easily distracted or poor concentration of time period
■ Feeling stunned or dazed	■ Displaying inappropriate emotions
■ Seeing stars or flashing lights	■ Vomiting
■ Ringing in the ears	■ Vacant or glassy eyed
■ Double vision	■ Slurred speech
■ Amnesia	■ Personality changes
	■ Inappropriate behaviour
	■ Significantly decreased playing ability!

PRODUCED BY  
[www.sportCX.net](http://www.sportCX.net)

It is important to note that a loss of consciousness occurs in less than 10% of concussed patients and is not an indication of concussion severity. Concussions cannot be diagnosed through the use of X-rays, CT scans, or MRIs since they are functional, not structural injuries.



Scott DeBoer RN, MSN, CPEN, CEN, CFRN, CCRN, EMT-P  
Founder of Pedi-Ed-Trics Emergency Medical Solutions, LLC

**Cognitive Assessment:** Ask questions to test memory and cognitive functions such as:

- How do you feel?
- What team were you playing against?
- Who scored last?
- What day of the week is it?
- What month is it?
- Can you name the months of the year in reverse order? (if age appropriate)

**Sleep Assessment:** Is the person drowsy? Is he/she sleeping more (or less) than normal? Is he/she having difficulty falling asleep?

**Emotional Assessment:** Be alert or emotional changes. Is he/she more irritable or nervous than usual? Do you notice unexpected sadness or giddiness? Is he/she more emotional than normal?

**Treatment:** In the pre-hospital setting, treat possible concussions according the local EMS protocols. After a physician evaluation, commonly recommended treatments involve some sort of cognitive “brain” rest and physical :body” rest until the symptoms have fully resolved. As the patient remains symptom free, we would expect a gradually increasing program of physical activities under the guidance of a qualified athletic trainer or physician.

**Equipment Concerns:** Visit your local schools to identify the types of protective sports equipment that are used and what steps are necessary to remove that equipment (especially for airway access and spinal cord precautions). It is not uncommon for schools and community programs to have multiple types of equipment with different methods of removal.

All 50 states have concussion laws in place. Most laws require that the patient be evaluated by a physician trained in sports medicine/concussion management before returning to play. The patients should be told to expect they will not be returning to the activity anytime soon (especially during the same game or practice session). There is absolutely no return to play on the same day!

Symptoms usually resolve within 7-10 days. However, patients with more severe concussions or with a history of previous concussion may remain symptomatic for many months. Additionally, younger children’s brains are still developing and often take longer to recover from a concussion.

### **Final Thoughts:**

An injury which might produce a concussion should never be referred to as “getting your bell rung” or “just a ding, so walk it off.” Concussions are mild TRAUMATIC brain injuries and we must take them seriously.

**Please follow your local EMS protocols when treating a pediatric concussion. However, EMS providers who encounter a pediatric patient with a suspected concussion should be an advocate for that patient and not let the patient return to the game until he/she is evaluated by a physician.**