A concussion is a mild traumatic brain injury (mTBI). A concussion is usually caused by a bump or jolt to the head. You can also get a concussion from falling or any impact that makes your head and brain move quickly back and forth. This impact or shaking can change how your brain normally works. It’s important to know that concussions can occur even when a child does not lose consciousness — only about 10 percent of kids actually do. A concussion is usually not life-threatening. Even so, its effects can be serious.

**Concussion signs and symptoms**

<table>
<thead>
<tr>
<th>Thinking/remembering</th>
<th>Physical</th>
<th>Emotional/mood</th>
<th>Sleep</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difficulty thinking clearly</td>
<td>Headache</td>
<td>Irritability</td>
<td>Sleeping more than usual</td>
</tr>
<tr>
<td>Feeling slowed down</td>
<td>Nausea or vomiting (early on)</td>
<td>Sadness</td>
<td>Sleeping less than usual</td>
</tr>
<tr>
<td>Difficulty concentrating</td>
<td>Sensitivity to noise or light</td>
<td>More emotional</td>
<td>Trouble falling asleep</td>
</tr>
<tr>
<td>Difficulty remembering new information</td>
<td>Feeling tired, having no energy</td>
<td>Nervousness or anxiety</td>
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</table>

Your child may have some of these symptoms right away. They may not have others for days or weeks after the injury, or until they go back to doing their everyday activities.

**What do I do if I think my child might have a sports-related concussion?**

1. **Remove the athlete from playing.** If an athlete gets a bump or blow to their head or body, look for concussion signs and symptoms. When in doubt, remove the athlete from playing.

2. **Make sure the athlete is seen by a doctor who knows about concussion.** Do not try to judge the injury yourself. Doctors have methods they use to assess the concussion severity.

3. **Don’t let the athlete play again until a doctor says they can.** Another concussion occurring before the brain recovers from the first can slow recovery or increase the likelihood of having long-term problems. A reoccurrence usually happens in a short time: hours, days or weeks. In rare cases, repeat concussions can lead to edema (brain swelling), permanent brain damage and even death.

In most cases, symptoms are mild and the best course is for the child to see their doctor as soon as possible. There are some symptoms that appear with a more serious injury to the brain.
Go to the emergency room if your child:
• Has a headache that gets worse and won’t go away
• Is weak, numb or losing coordination
• Is nauseous and vomiting
• Has slurred speech
• Looks very drowsy or won’t wake up
• Has one pupil (the black part in the middle of the eye) that is larger than the other
• Has convulsions or seizures (arms or legs are jerking uncontrollably)
• Has difficulty understanding directions
• Can’t recognize people or places
• Behaves unusually, seems confused, restless or agitated
• Loses consciousness, even for a short time
• Won’t stop crying and can’t be consoled
• Won’t nurse or eat

Recovering from a concussion
Resting is important! After a concussion, your child should rest for at least 24 hours. Healing takes time; they may need more rest than this.

Use these tips to help your child rest their brain and recover from concussion:
• Make sure they get enough rest. Keep them on a regular sleep schedule. No late nights or sleepovers, schoolwork, homework or use of technology (computers, tablets, TV, video games, cell phones and headphones) until cleared by their pediatrician.
• Limit loud noises and loud music (no headphones). No parties, concerts, pep rallies, etc.
• Do not allow your child to drive or work until cleared by their pediatrician.
• Make sure your child does not do anything involving high risk, speed or that might cause a blow to the head or body.
• Do not allow your child to be around bright lights.
• Give your child only drugs that are approved by their doctor. Don’t use aspirin or ibuprophfen for headaches. Only use acetaminophen (Tylenol).

Returning to school and sports
A child who has had a concussion should not return to school until their doctor says they can. Before returning to sports, your child should be completely free of symptoms and participating in school fully. Once cleared by their doctor, your child should return to activities gradually. It would be best to have a certified athletic trainer supervise your child during this time. If your child starts to show any signs the concussion has returned, the brain might not have healed yet. Have your child stop doing activities or reduce their school and homework load.

How long will signs and symptoms last?
With rest and gradual return to activity, symptoms should resolve within one to two weeks. If your child still has symptoms after two to three weeks, their doctor may refer them to a specialist, such as a neurologist, neuropsychologist, neurosurgeon, sports medicine doctor or rehabilitation specialist. Your doctor may also refer them to a concussion program, such as Legacy Health’s Concussion Services.

Information adapted from the Centers for Disease Control and Prevention website.

www.legacyhealth.org/concussion