

COPING AFTER CONCUSSION



WHAT IS ACTIVE RECOVERY FOR CONCUSSION?

For the first few days after the injury, you manage a concussion by reducing both physical and thinking activities to give your child's brain a chance to recover. The main problem after concussion is a low brain-energy.

- **Physical activity:** Avoid activities that could result in another concussion, and limit activities that make concussion symptoms much worse.
- **Thinking activity:** Reduce screen time the first few days after the injury to give concussion symptoms a chance to decrease. This may involve staying home from school. However, getting back to usual routines – including school with academic support – 48 hours post-injury appears to be good timing for a return to academics.

WHEN CAN MY CHILD RETURN TO SCHOOL?

Each child's injury and recovery is different, but research evidence tells us that getting kids back to school with academic support within a few days helps with concussion recovery.

RETURN TO LEARN PLAN

Step 1: Reducing screen time. Immediately after a concussion, 48 hours of reduced screen time is recommended.

- This may also include no school and avoiding anything that makes concussion symptoms much worse, until symptoms start to improve.

Step 2: Return to school. After the initial 24 to 48 hours post-concussion – when initial concussion symptoms have improved, even if not yet completely resolved – it's time to return to thinking activities and school.

- During this period, your child may participate in thinking and screen activities that are modified so concussion symptoms are not made severely worse (i.e., symptoms may increase by 2 points on a 10-point pain scale before taking a break).
- Your child should take frequent breaks while doing any activities that cause symptoms to ensure the symptoms remain mild and don't become severe.
- Children may also return to school with extensive academic supports. For example, they may initially return to listen and just be present in school, without any required academic work, and advance from there.
- At first, your child can attempt small amounts of academic work at the amount your child's thinking energy level can manage and increase from there. **Remember: School with accommodations helps kids achieve a faster recovery. Concussion recovery goals come first, with academic goals to follow.**

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Step 3: Your child may start with a partial or full day of school, with breaks and accommodations. The goal is to work up to a full day in school as soon as possible, while carrying a partial school workload. Encourage your child to take multiple breaks and use accommodations as needed to stay in school the full day with a partial academic workload.

At this stage, examples of academic accommodations include:

- Excusing non-essential work
- No testing
- Providing pre-printed class notes and materials
- Extra time to complete any academic assignments
- Frequent breaks every few hours for mild concussion symptom exacerbation

Try to first work up to being in school full time, with only a partial school workload. Once your child is attending school full time with partial workload, they may gradually work up to a full workload, continuing with breaks as needed to manage symptoms.

Step 4: Once your child is back to a full school day with breaks as needed, the academic workload may increase gradually, including notetaking, homework assignments, and your child may begin to take quizzes and tests as their thinking energy level improves.

- During this time frame, students should not be unnecessarily penalized if grades are lower than usual (e.g., unlike grades before their concussion), and should be given opportunities to re-do or re-take any assignments or assessments as they are recovering.
- Over time, your child should be able to do more and more academic work with fewer breaks and fewer academic supports and return to a normal school workload with recovery.

WHEN CAN MY CHILD RETURN TO PHYSICAL ACTIVITY (PLAY AND CONTACT SPORTS)?

The research evidence tells us that individuals can promote recovery from a concussion by removing themselves (i.e., coming out of a game or sporting event) as soon as a concussion is suspected, and not returning to play that same day. Avoiding activities that place your child at risk for another concussion is recommended until your child recovers and is cleared by a medical provider to return to sports or athletic activities. When in doubt, ask your child's health provider.

Following a **Return to Activity/Play Plan** (such as the one on page 3) can help guide a child's recovery from a concussion to a safe return to activity and sports.

CALL 911 IF YOUR CHILD HAS ANY OF THE FOLLOWING SYMPTOMS:

- Seizures (twitching or jerking movement of parts of the body; may look stiff)
- Weakness or tingling in the arms or legs
- Cannot recognize people or places
- Confused, restless or agitated
- Impaired consciousness
- Difficult to arouse or unable to awaken
- Repeated vomiting
- Slurred speech
- Bloody or clear fluid from the nose or ears

ADDITIONAL RESOURCES

Brain Injury Association of Pennsylvania
www.biapa.org • 800-444-6443

Brain Injury Alliance of New Jersey
www.bianj.org • 732-783-6172

Brain Injury Association of Delaware
www.biaofde.org • 800-411-0505

BrainSTEPS: Brain Injury School Re-Entry Program
www.brainsteps.net • 724-944-6542

The U.S. Centers for Disease Control and Prevention – Concussion and Mild Traumatic Brain Injury
www.cdc.gov/traumaticbraininjury/index.html

RETURN TO PLAY PLAN

Step 1: Removal and relative rest. After sustaining a concussion, coming out from a game or event as soon as possible is recommended. Avoiding activities with risk for another concussion is recommended until your child has recovered and has been cleared to return to those risk activities by a medical professional trained in managing concussion. For the first few days after concussion, avoid any strenuous exertion that makes concussion symptoms worse (such as sport training).

Step 2: Return to physical activity. About 48 hours after the injury, it is time to think about beginning to return to some physical activity. Your child may begin to do light aerobic physical activity for short periods of time that does not make their concussion symptoms severely worse or has risk for another concussion, such as non-contact aerobic activity for a few minutes. Your child may do light aerobic activity even with concussion symptoms and may exercise until there is a mild increase in concussion symptoms before taking a break to permit symptoms to improve and repeat as tolerated. This is not formal sports training; it is “symptom-limited,” mild aerobic activity and exertion. Continue this level of physical activity daily and increase the length of activity as tolerated. Once the duration of aerobic activity has increased to 15-20 minutes, your child may begin to progress through the remainder of the Return to Play Plan.

Step 3: Advance physical activity. Once your child can tolerate light aerobic exercise, your child may increase the intensity of their workouts with some short-interval training and advance to sport-specific exercise. This includes higher intensity aerobic activity, such as running, biking, dribbling or throwing. Your child may also begin some bodyweight training such as squats, pushups, sit-ups and pull-ups. Activities that place your child at risk for a concussion should NOT be undertaken yet.

Step 4: Initiate sport-specific training.

Once moderate intensity aerobic exercise is well tolerated, your child may advance to higher intensity aerobic activity including intensity interval training, such as sprinting. Your child may also gradually increase weight training – start with lighter weights and higher repetitions, then increasing both as tolerated. Your child may also begin sport-specific drills and agility training. Your child may also advance to non-contact sport practices and scrimmages, as tolerated. Full contact/collision practices and games should continue to be avoided.

Step 5: Return to play. At this point, if your child can tolerate full non-contact physical activity without concussion symptoms, your child is ready to be cleared for full contact/collision practices and games by an appropriate medical provider. For all interscholastic sports, formal clearance by a trained physician/qualified medical provider is required by state law before your child can return to competitive play.

QUESTIONS ABOUT YOUR CHILD'S INJURY?

If you have questions about your child's injury, please call your child's primary care provider who can discuss concussion symptoms and help create a recovery plan for your child.

If you have additional questions after seeing your child's primary care provider, please call CHOP's Minds Matter Concussion Program at 215-590-6919.

For more information,
visit chop.edu/concussion