

## Concussion guidelines for your child's return to school, bookwork and studies

Stage of healing	Home activity	School activity	Physical activity
<b>Stage 1—</b> Your child still has many symptoms and problems	<ul style="list-style-type: none"> <li>– Complete rest in a quiet room.</li> <li>– Allow as much sleep as possible.</li> <li>– Limit things that require your child to think, focus, reason or remember.</li> <li>– Remove any electronics and computers from your child's room.</li> <li>– Remove any activity planners and "to-do" lists from your child's room.</li> <li>– Give your child plenty of fluids to drink.</li> <li>– Feed small, frequent meals during the day and at bedtime.</li> <li>– Give your child plenty of carbohydrates to eat, such as whole grain breads and cereals, pasta and rice.</li> </ul>	<ul style="list-style-type: none"> <li>– Your child may not go to school.</li> </ul>	See Stage 1 in next chart
<b>Stage 2—</b> Your child still has some symptoms and problems	<ul style="list-style-type: none"> <li>– Stay in quiet rooms.</li> <li>– Allow as much sleep as possible.</li> <li>– Allow your child to use TV, video games, texting, social media and email for a short time—fewer than two hours a day. For example, he might have 20 minutes of brain work followed by a two-hour brain break.</li> <li>– Help your child to not stress over missed school work.</li> <li>– Continue with fluids, small, frequent meals and carbohydrates, as in Stage 1.</li> </ul>	<ul style="list-style-type: none"> <li>– Your child may return to school for half days.</li> <li>– Attend core classes only or have shortened class time.</li> <li>– Rest in nurse's office between classes and as needed.</li> <li>– Your child may not take tests or quizzes.</li> <li>– Use preprinted class notes.</li> <li>– Complete short homework assignments—work 20 minutes at a time with rest breaks in between.</li> <li>– Talk with school nurse or teacher about academic accommodations from your doctor.</li> </ul>	See Stage 2 in next chart
<b>Stage 3—</b> Your child's symptoms and problems have gone away	<ul style="list-style-type: none"> <li>– Slowly return to watching TV, playing video games and texting.</li> <li>– Allow family interactions again.</li> <li>– Continue with fluids, small, frequent meals and carbohydrates, as in Stage 1.</li> </ul>	<ul style="list-style-type: none"> <li>– Your child may return to a full day of classes.</li> <li>– He may have a <b>gradual</b> return to classwork, including make-up work, tests and quizzes.</li> <li>– May take one test or quiz a day with extra time as needed, to complete.</li> <li>– Tell the teacher or school nurse if any symptoms or problems return.</li> </ul>	See Stages 2-4 in next chart
<b>Stage 4—</b> Your child seems back to normal	<ul style="list-style-type: none"> <li>– Your child may have normal home and social interactions.</li> </ul>	<ul style="list-style-type: none"> <li>– Your child may have normal school work and studies.</li> </ul>	See Stages 5-7 in next chart

## Concussion guidelines for your child's return to sports, play and activities

Stage of healing	Activity allowed	Examples of sports	Examples of other activities	Goal
1	<ul style="list-style-type: none"> <li>No activity</li> <li>Complete cognitive and physical rest</li> </ul>	<ul style="list-style-type: none"> <li>Complete physical rest</li> </ul>	<ul style="list-style-type: none"> <li>Quiet time with rest</li> <li>Avoid groups, videos, reading, computers, video games, cell phones, and noisy places</li> </ul>	<ul style="list-style-type: none"> <li>Brain rest and healing</li> <li>Become free of symptoms</li> </ul>
2	<ul style="list-style-type: none"> <li>Light aerobic activity</li> </ul>	<ul style="list-style-type: none"> <li>10 to 15 minutes of walking or stationary bike</li> <li>Light sweat on the brow</li> <li>Slight increase in breathing rate</li> </ul>	<ul style="list-style-type: none"> <li>Walk in park or neighborhood</li> <li>Avoid group activities</li> </ul>	<ul style="list-style-type: none"> <li>Increase heart rate to 30-40% at most</li> </ul>
3	<ul style="list-style-type: none"> <li>Moderate aerobic activity</li> <li>Light resistance training</li> </ul>	<ul style="list-style-type: none"> <li>20 to 30 minutes of jogging or stationary bike</li> <li>Arm curls, shoulder raises, leg lifts with weights that can be comfortably lifted</li> <li>One set of 10 repetitions for each activity</li> </ul>	<ul style="list-style-type: none"> <li>Supervised play</li> <li>Low risk activities, such as dribbling a ball, playing catch, changing directions, jumping, side-to-side slides, chasing a ball or catching a ball on the run</li> </ul>	<ul style="list-style-type: none"> <li>Increase heart rate to 40-60% at most</li> <li>Add resistance</li> <li>Use eyes to track objects</li> </ul>
4	<ul style="list-style-type: none"> <li>Intense aerobic activity</li> <li>Moderate resistance training</li> <li>Sport-specific exercise</li> </ul>	<ul style="list-style-type: none"> <li>40 to 60 minutes of running or stationary bike</li> <li>Same resistance exercises with weight for three sets of 10 reps</li> <li>Pre-competition warm-up such as passing a soccer ball, throwing a football or doing ladder drills</li> </ul>	<ul style="list-style-type: none"> <li>Supervised play</li> <li>Moderate-risk activities, such as balance and agility drills</li> <li>No head contact activities</li> <li>Can sweat and breathe heavy</li> </ul>	<ul style="list-style-type: none"> <li>Increase heart rate to 60-80% at most</li> <li>Increase resistance</li> <li>Mimic the sport</li> </ul>
5	<ul style="list-style-type: none"> <li>Controlled-contact training drills</li> </ul>	<ul style="list-style-type: none"> <li>60 to 90 minutes of time on the field, court or mat for specific drills</li> <li>Take part in normal practice session</li> <li>Contact that is normally part of the sport—only use items that “do not hit back” such as a sled in football</li> <li>Recheck for symptoms or problems often</li> </ul>	<ul style="list-style-type: none"> <li>Free play</li> <li>Run and jump, as able</li> <li>Full return to physical education (PE)</li> <li>Recheck for symptoms or problems often</li> </ul>	<ul style="list-style-type: none"> <li>Mimic the sport or free play without the risk of head injury</li> </ul>
6	<ul style="list-style-type: none"> <li>Full-contact practice</li> </ul>	<ul style="list-style-type: none"> <li>After OK from the doctor, may take part in normal training activities</li> </ul>	<ul style="list-style-type: none"> <li>With parent or adult supervision, may take part in normal activities</li> </ul>	<ul style="list-style-type: none"> <li>Build confidence</li> <li>Assess skills</li> </ul>
7	<ul style="list-style-type: none"> <li>Return to play</li> </ul>	<ul style="list-style-type: none"> <li>Normal game play</li> </ul>	<ul style="list-style-type: none"> <li>Normal playtime and activities</li> </ul>	<ul style="list-style-type: none"> <li>No restrictions</li> </ul>

Maximum heart rate is determined by subtracting the athlete's age from 220 and multiplying by the percentage. For example:

- Your target or ideal heart rate for exercise during Stage 2 is usually 30 to 40 percent of your maximum heart rate.
- To find your maximum heart rate, subtract your age from 220.
- If you are 15 years old, subtract 15 from 220 = 205. Next, multiply that number by 30 and 40 percent. This will give you a target heart rate for exercise in Stage 2.
- 205 times 30 percent = 62 beats a minute. 205 times 40 percent = 82 beats a minute.
- This means that your target heart range for exercise in Stage 2 is between 62 and 82 beats a minute.

- Allow 24 hours between each activity stage in the chart. **This means that it will take at least seven days to return to full activity.**
- For your child to move from one stage to the next, he must be able to do an activity at 100 percent without symptoms or problems for 24 hours.
- If any symptoms return, it means his brain is not ready for the next stage and he should drop back to the previous stage.
- Once your child has no symptoms again for 24 hours, he can try the activities in that stage again.

Concussion Program adapted from the Zurich Concussion Conference November 2008, *Br J Sports Med* 2009; 43:i76-i84.

*This is general information and is not specific medical advice. Always consult with a doctor or healthcare provider if you have any questions or concerns about the health of a child.*



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