



Return to learn guidelines

Stage of healing	Home activity	School activity	Physical activity
Stage 1 —Your child still has many symptoms and problems	<ul style="list-style-type: none"> • Complete rest in a quiet room • Allow as much sleep as possible • Limit things that require your child to think, focus, reason or remember • Remove any electronics and computers from your child's room • Remove any activity planners and "to-do" lists from your child's room • Give your child plenty of fluids to drink • Feed your child small, frequent meals during the day and at bedtime • Give your child plenty of carbohydrates to eat, such as whole grain breads and cereals, pasta and rice 	<ul style="list-style-type: none"> • Your child may not go to school. It is typical to rest for 24 to 48 hours and monitor if symptoms improve 	See Stage 1 in next chart
Stage 2 —Your child still has some symptoms and problems	<ul style="list-style-type: none"> • Stay in quiet rooms • Allow for enough sleep—at least eight hours • 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 one-hour brain break • Help your child to not stress over missed school work • Continue with fluids, small, frequent meals and carbohydrates, as in Stage 1 • As your child has less symptoms, begin adding homework in short sittings to avoid falling behind 	<ul style="list-style-type: none"> • Return to school for half days • Attend core classes only or have shortened class time • Rest in the nurse's office between classes and as needed • Your child may not take tests or quizzes • Use preprinted class notes • Complete short homework assignments—work 20 minutes at a time with rest breaks in between • Talk with the school nurse or teacher about academic accommodations from your doctor, and create a plan • Avoid very loud noises, like music and noise in cafeterias, at PE and at recess 	See Stage 2 in next chart
Stage 3 —Your child's symptoms and problems have gone away	<ul style="list-style-type: none"> • Slowly return to watching TV, playing video games and texting • Allow family interactions again • Continue with fluids, small, frequent meals and carbohydrates, as in Stage 1 	<ul style="list-style-type: none"> • Your child may gradually return to a full day of classes • He may need to schedule make-up work, tests and quizzes • He may take one test or quiz a day with extra time as needed, to complete • Tell the school nurse or teacher if any symptoms or problems return 	See Stages 2-4 in next chart
Stage 4 —Your child seems back to normal	<ul style="list-style-type: none"> • Your child may have near normal home and social interactions 	<ul style="list-style-type: none"> • Your child may begin to complete past assignments to catch up on school work 	See Stages 5 and 6 in next chart
Stage 5 —Your child may return to full activities	<ul style="list-style-type: none"> • Your child may return to normal home and school interactions after five days of no symptoms 	<ul style="list-style-type: none"> • Your child may return to normal school function without the need for extra accommodations or restrictions 	See stage 7 in next chart



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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.



Return to play and sports guidelines

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

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.

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