Concussion guidelines for your child’s return to school, book work and studies

<table>
<thead>
<tr>
<th>Stage of healing</th>
<th>Home activity</th>
<th>School activity</th>
<th>Physical activity</th>
</tr>
</thead>
</table>
| **Stage 1** — your child still has many symptoms and problems | – 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  
– Give your child plenty of carbohydrates to eat, such as whole grain breads and cereals, pasta and rice | – No school | See Stage 1 in next chart |
| **Stage 2** — your child still has some symptoms and problems | – Quiet room  
– Allow as much sleep as possible  
– Allow your child to use TV, video games, texting, tweeting and email for a short time—less than 2 hours a day  
– Help your child to not stress over missed school work  
– Continue with fluids and carbohydrates as in Stage 1 | – May return to school for one-half day  
– Attend core classes only  
– Attend shortened class time  
– Rest in nurse’s office between classes and as needed  
– No tests or quizzes  
– Use preprinted class notes  
– Short homework assignments—work 20 minutes at a time with rest breaks in between  
– Talk with school nurse or teacher about a 504 plan to help to make sure special needs are met during his school day | See Stage 2 in next chart |
| **Stage 3** — your child’s symptoms and problems have gone away | – Slowly return to watching TV, playing video games and texting  
– Allow more active family interactions | – Full day of classes  
– **Gradual** return to class work, including make-up work, tests, quizzes  
– May take one test or quiz a day with extra time as needed to complete  
– Tell the teacher or school nurse if any symptoms or problems return | See Stages 2-4 in next chart |
| **Stage 4** — your child seems back to normal | – Normal home and social interactions | – Normal school work and studies | See Stages 5-7 in next chart |

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.

choa.org/concussion
## Concussion guidelines for your child’s return to sports, play and activities

<table>
<thead>
<tr>
<th>Stage of healing</th>
<th>Activity allowed</th>
<th>Examples of sports</th>
<th>Examples of other activities</th>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>– No activity</td>
<td>– Complete physical rest</td>
<td>– Quiet time with rest – Avoid groups, videos, reading, computers, video games, cell phones, noisy places</td>
<td>– Brain rest and healing – Become free of symptoms</td>
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<tr>
<td></td>
<td>– Complete cognitive and physical rest</td>
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<tr>
<td>2</td>
<td>– Light aerobic activity</td>
<td>– 10-15 minutes of walking or stationary bike – Light sweat on the brow – Slight increase in breathing rate</td>
<td>– Walk in park or neighborhood – Avoid group activities</td>
<td>– Increase heart rate to 30-40 percent max</td>
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<tr>
<td>3</td>
<td>– Moderate aerobic activity – Light resistance training</td>
<td>– 20-30 minutes of jogging or stationary bike – Arm curls, shoulder raises, leg lifts with weights that can be comfortably lifted – One set of 10 repetitions for each activity</td>
<td>– 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</td>
<td>– Increase heart rate to 40-60 percent max – Add resistance – Use eyes to track objects</td>
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<tr>
<td>4</td>
<td>– Intense aerobic activity – Moderate resistance training – Sport-specific exercise</td>
<td>– 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</td>
<td>– Supervised play – Moderate-risk activities—no head contact activities, such as balance and agility drills – Can sweat and breathe heavy</td>
<td>– Increase heart rate to 60-80 percent max – Increase resistance – Mimic the sport</td>
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<td>5</td>
<td>– Controlled-contact training drills</td>
<td>– 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</td>
<td>– Free play – Run and jump as able – Full return to physical education (PE) – Recheck for symptoms or problems often</td>
<td>– Mimic the sport or free play without the risk of head injury</td>
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<tr>
<td>6</td>
<td>– Full-contact practice</td>
<td>– After OK from the doctor, may take part in normal training activities</td>
<td>– With parent or adult supervision, may take part in normal activities</td>
<td>– Build confidence – Assess skills</td>
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<tr>
<td>7</td>
<td>– Return to play</td>
<td>– Normal game play</td>
<td>– Normal playtime and activities</td>
<td>– No restrictions</td>
</tr>
</tbody>
</table>

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.
- Once your child has no symptoms again for 24 hours, he can try the activities in that stage again.


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