

# Concussions

## *Return-to-play*

The patient may begin the return to play protocol under the recommendations of his/her health care provider. The athlete should be within each stage for at least 24 hours before moving to the next level. If symptoms occur, the athlete should drop back to the previous level and complete that level after a 24-hour rest period.

Stage	Description	Functional exercise or activity	Objective	Recommended tests before advancing to next stage
1	No structured physical or cognitive activity	<ul style="list-style-type: none"> <li>Only basic activities of daily living (ADLs)</li> <li>When indicated, complete cognitive rest followed by gradual return to school or work</li> </ul>	Rest and recovery, avoidance of overexertion	<ul style="list-style-type: none"> <li>Symptom checklist</li> <li>Computer-based testing</li> </ul>
2	Light aerobic physical activity	<ul style="list-style-type: none"> <li>Non-impact aerobic activity (swimming, stationary biking) at &lt;70% estimated maximum heart rate for up to 30 minutes as symptoms allow</li> </ul>	Increase heart rate, maintain condition, assess tolerance of activity	<ul style="list-style-type: none"> <li>Symptom checklist</li> </ul>
3	Moderate aerobic physical activity and non-contact training drills at half speed	<ul style="list-style-type: none"> <li>Non-contact sport specific drills at reduced speed</li> <li>Aerobic activity at 70 to 85% max heart rate; light weight training at &lt;50% previous max)</li> </ul>	Begin assimilation into team dynamics, introduce more motion and non-impact jarring activities	<ul style="list-style-type: none"> <li>Symptom checklist</li> </ul>
4	Non-contact training drills at full speed	<ul style="list-style-type: none"> <li>Non-contact drills</li> <li>Aerobic activity at max capacity including sprints; normal weight lifting</li> </ul>	Ensure tolerance of all regular activities short of physical contact	<ul style="list-style-type: none"> <li>Symptom checklist</li> <li>Computer-based testing</li> </ul>
5	Full contact practice	<ul style="list-style-type: none"> <li>Full contact practice</li> </ul>	Ensure tolerance of all regular activities short of physical contact	<ul style="list-style-type: none"> <li>Symptom checklist</li> </ul>
6	Return to play	<ul style="list-style-type: none"> <li>Regular game competition</li> </ul>		

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## Return-to-learn

Every student's recovery from concussion is different. The five progressive stages are meant to give the school and medical provider general guidance to assisting the student's gradual return. The stages are not to be viewed as absolute for every student to progress through if their symptoms do not warrant it. What is important is to strike a balance between providing the student with the necessary supports for symptom relief while progressing to their normal school schedule. Students with faster recoveries may skip a stage or two.

Stage	Description	Activity level	Criteria to move to next stage
0	No return; at home	<ul style="list-style-type: none"> <li>Day 1: maintain low- level cognitive and physical activity. No prolonged concentration.</li> <li>Cognitive readiness challenge: as symptoms improve, try reading or math challenge tasks for 10 to 30 minutes; assess for symptom increase</li> </ul>	Move to stage 1 if: <ul style="list-style-type: none"> <li>Student can sustain concentration for 30 minutes before significant symptom exacerbation, and</li> <li>Symptoms reduce or disappear with cognitive rest breaks allowing return to activity.</li> </ul>
1	Return to school, partial day (1 to 3 hours)	<ul style="list-style-type: none"> <li>Attend 1 to 3 classes, intersperse rest breaks</li> <li>No tests or homework</li> <li>Minimal expectations for productivity</li> </ul>	Move to stage 2 if: <ul style="list-style-type: none"> <li>Symptoms status improving, and</li> <li>Tolerates 4 to 5 hours of activity-rest cycles, and</li> <li>2 to 3 cognitive rest breaks built into school day.</li> </ul>
2	Full day, maximal supports (required throughout the day)	<ul style="list-style-type: none"> <li>Attend most classes, with 2 to 3 rest breaks (20 to 30 minutes), no tests</li> <li>Minimal homework, less than 60 minutes</li> <li>Minimal-to-moderate expectations for productivity</li> <li>Light aerobic exercise in gym if no worsening symptoms</li> </ul>	Move to stage 3 if: <ul style="list-style-type: none"> <li>Symptom number and severity improving, and</li> <li>Needs 1 to 2 cognitive rest breaks built into school day.</li> </ul>
3	Return to full day, moderate supports (provided in response to symptoms during day)	<ul style="list-style-type: none"> <li>Attend all classes with 1 to 2 cognitive rest breaks (20 to 30 minutes); begin quizzes</li> <li>Moderate homework, 60 to 90 minutes</li> <li>Moderate expectations for productivity</li> <li>Design schedule for make-up homework</li> <li>Gym class as indicated by your health care provider</li> </ul>	Move to stage 4 if: <ul style="list-style-type: none"> <li>Continued symptom improvement, and</li> <li>Needs no more than 1 cognitive rest break per day.</li> </ul>
4	Return to full day, minimal supports (monitor final recovery)	<ul style="list-style-type: none"> <li>Attend all classes with up to 1 rest break (20 to 30 minutes); begin modified tests (breaks, extra time)</li> <li>90+ minutes for homework</li> <li>Ease into band and choir</li> <li>Moderate to maximum for expectations for productivity</li> <li>Gym class as indicated by your health care provider</li> </ul>	Move to stage 5 if: <ul style="list-style-type: none"> <li>No active symptoms, and</li> <li>No exertional effects across the full school day.</li> </ul>
5	Full return, no supports needed	<ul style="list-style-type: none"> <li>Full class schedule, no rest breaks</li> <li>Maximum expectations for productivity</li> <li>Full band, choir and gym participation</li> <li>Begin to address make-up work</li> </ul>	N/A

Call the Prevea Concussion Clinic if you have any questions.

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[prevea.com/concussions](http://prevea.com/concussions)

