

Return to Cognitive Exertion Protocol

Objective of each stage	Stage 1 Restrictive cognitive activity Recovery	Stage 2 Gradual reintroduction of cognitive activity Add cognitive activity	Stage 3 Homework at home Increase cognitive stamina with self-paced school	Stage 4 School part-time Begin gradual return to school	Stage 5 Full days of school Work up to some full days at school	Stage 6 School full-time Resume full cognitive workload
Activities that should be avoided	<ul style="list-style-type: none"> • Schoolwork • Reading • Texting • Video games 	Avoid prolonged participation in the same type of activities found in Stage 1	Avoid prolonged participation in the same type of activities found in Stage 1	<ul style="list-style-type: none"> • Tests • Noisy locations • Carrying heavy backpacks 	<ul style="list-style-type: none"> • Compelling to attend a full week a class • More than one test per day 	Excessive use of stimulants <ul style="list-style-type: none"> • Caffeine • ADHD drugs (Ritalin, Adderall...)
Acceptable activities at each stage of rehabilitation	Cognitive rest at home	Adding cognitive activities <ul style="list-style-type: none"> • Start with 5-15 minutes at a time • Build to a 60 minute session without a break 	Adding homework <ul style="list-style-type: none"> • Start with 20 minute sessions • Build to the equivalent of half a school day (3-4 hours) 	Attend school with classroom accommodations only <ul style="list-style-type: none"> • Start with a half-day of school • Build to a full day of quieter classes Homework <ul style="list-style-type: none"> • Start with 15 minute blocks • Build to 1 hour of homework daily 	Tests <ul style="list-style-type: none"> • Allowing extra time to complete tests Homework <ul style="list-style-type: none"> • Ability to go beyond 1 hour as tolerated 	Catching up with homework and tests
Timeline	Symptom-free for 24 hours? Yes: Begin Stage 2 No: Continue resting	Tolerates cognitive activity for 1 hour without a break? Yes: Move to Stage 3 No: Return to Stage 1	Tolerates 3-4 hours of trial school schedule at home? Yes: Move to Stage 4 No: Return to Stage 2	Tolerates a full day of school with modifications? Yes: Move to Stage 5 No: Return to Stage 3	Tolerates a full school day and a normal work load? Yes: Move to Stage 6 No: Return to Stage 4	Tolerates full cognitive workload? Yes: Begin Return to Physical Exertion Protocol No: Return to Stage 5

Each Stage should last at least 24h. You may need to go back a stage more than once during the recovery process. Physical activity during Return to Cognitive Exertion Protocol is restricted to walking as tolerated.

Adapted from "Return to Learn Communication Tool" by BC Injury Research and Prevention Unit, Concussion Awareness Training Tool

Return to Physical Exertion Protocol

Objective of each stage	Stage 1 No activity	Stage 2 Light aerobic exercise	Stage 3 Sport-specific exercise	Stage 4 Non-contact training drills	Stage 5 Full-contact practice	Stage 6 Return to play
	Recovery	Increase heart rate (HR)	Addition of movement	Exercise, coordination and cognitive load	Restore confidence and assess functional skills by coaching staff	Assess the ability to compete by coaching staff
Activities that should be avoided	<ul style="list-style-type: none"> • Reading • Typing or texting • Television or Internet use • Playing video games • Riding roller coasters or ATVs 	<ul style="list-style-type: none"> • Intensity > 70% maximum HR • Resistance or weight training • Sport training drills 	<ul style="list-style-type: none"> • Activities involving head impacts <ul style="list-style-type: none"> - Heading a ball - Activities involving jarring motions - Hitting a baseball - High speed stops 	<ul style="list-style-type: none"> • Participating in any competitive activity • Activities involving body contact <ul style="list-style-type: none"> - Hockey/Football - Judo / wrestling - Boxing / MMA 	<ul style="list-style-type: none"> • Any competition involving body contact 	<ul style="list-style-type: none"> • Bad sportsmanship • Disrespecting the rules of the sport
Acceptable activities at each stage of rehabilitation	<ul style="list-style-type: none"> • Complete physical and cognitive rest • Listening to audiobook • Talking on telephone / cellphone 	<ul style="list-style-type: none"> • Progressively increase duration of aerobic workout to 20-30 minutes • Walking • Swimming • Stationary cycling 	<ul style="list-style-type: none"> • Progressively increase duration of workout to 60 minutes • Practice sport specific individual skills • Skating drills in hockey • Running drills in soccer • Shooting drills in basketball 	<ul style="list-style-type: none"> • Resume pre-injury duration of training • May start progressive resistance training • Progression to more complex training drills • Activities without any body contact <ul style="list-style-type: none"> - Zumba / aerobics - Badminton / tennis 	<ul style="list-style-type: none"> • Full participation/competition in non-contact sports • Full training / practices for contact sports 	<ul style="list-style-type: none"> • Full participation in contact sports
Timeline	<p>Symptom-free for 24 hours?</p> <p>Yes: Begin Stage 2</p> <p>No: Continue resting</p>	<p>Symptom-free for 24 hours?</p> <p>Yes: Move to Stage 3</p> <p>No: Return to Stage 1</p>	<p>Symptom-free for 24 hours?</p> <p>Yes: Move to Stage 4</p> <p>No: Return to Stage 2</p>	<p>Symptom-free for 24 hours?</p> <p>Yes: Move to Stage 5</p> <p>No: Return to Stage 3</p>	<p>Symptom-free for 24 hours?</p> <p>Yes: Move to Stage 6</p> <p>No: Return to Stage 4</p>	<p>Symptom-free for 24 hours?</p> <p>Yes: Allow continued participation in normal physical activities</p> <p>No: Return to Stage 5</p>

NB Department of Education requires medical clearance for ALL NB students before moving to Stage 5

Return to Cognitive Exertion Protocol should be completed before Return to Physical Exertion. Each stage should last at least 24h. If any symptoms recurs, the individual should rest until it resolves before trying again (24h to 48h at a minimum). You may need to move back a stage more than once during the recovery process.

Adapted from "Return to Play Communication Tool" by BC Injury Research and Prevention Unit, Concussion Awareness Training Tool