THE CONCUSSION CLINIC

RETURN TO LEARN, WORK, PLAY AFTER A CONCUSSION

Intermountain
Logan Regional Orthopedics
and Sports Medicine

OFFICIAL MEDICAL PROVIDER

Sky View
High

Green Canyon
High

Utah State
University

Ridgeline
High

Mountain Crest
High
You have been diagnosed with a concussion. This plan is based on your symptoms and is designed to help speed your recovery and prevent further injury. **REST IS THE KEY.** You should not participate in any activities that risk a repeat concussion injury (sports, physical education classes, intramural sports, etc.) if you are still experiencing symptoms.

It is also important to limit activities that require a lot of thinking or concentrating (homework, computer work, texting, etc.) as these tasks can make your symptoms worse. If you no longer have any symptoms, and believe that your concentration and thinking are back to normal, talk with our clinic providers about the next steps in recovery before you resume athletics and full academic workload.

**RED FLAGS – CALL 911 EMERGENCY DEPARTMENT EVALUATION IF YOU EXPERIENCE ANY OF THE FOLLOWING:**

- Severe (10/10) Headaches
- Can’t recognize people or faces
- Seizures
- Repeated Vomiting
- Weakness/Numbness in arms or legs
- Slurred Speech
- Increased Confusion
- Other Emergent Symptoms

* Call or walk-in for an acute appointment with our Concussion Clinic for other worsening symptoms
**RETURNING TO DAILY ACTIVITY**

- You may be placed on Cognitive/Brain Rest and Physical Rest for the first 24-72 hours after your concussion.

- Get lots of rest. Be sure to get enough sleep (typically 7-8 hours) at night. Keep the same bedtimes on weekdays and weekends.

- Take daytime naps or rest breaks when you feel tired or fatigued, but avoid excessive daytime naps (which interferes with quality night-time sleep).

- Limit physical activity. Don’t begin any workouts, exercising, or physical training until we instruct you to.

- Limit activities that require a lot of thinking or concentrating (including school work).

- Limit screen time (phone, video games, computer). Avoid movies and TV for the first several days. Dim the brightness on your screens.

- Drink lots of fluids and eat a balanced diet (including 3 meals a day) to maintain appropriate blood sugar levels.

- As symptoms decrease you may begin gradual return to your daily activities. If symptoms worsen or return, lessen your activities. Avoiding crowded or busy areas may help this transition.

- Do not drink alcohol.

- Sexual activity will likely worsen symptoms and prolong recovery.

- Bright lights may worsen symptoms. (Wear sunglasses) Loud noises may worsen symptoms. (Use earplugs)

**RETURNING TO SCHOOL**

- **PACE YOURSELF!** Use cognitive pacing with schoolwork. Perform easier work first, and advance with more difficult material when able.

- You will need to take breaks while doing schoolwork. For example, you may only be able to perform 15 to 30 minutes of homework before needing a break for 15 to 60 minutes. This will improve as you recover.

- We encourage you to contact your academic advisor and instructors to let them know about your condition and progress. They can work with you to develop a plan for getting notes, and for delaying or getting extended assessment time on papers, quizzes, and graded reviews.
RETURN TO LEARN

CONCUSSION CARE PLAN

The return-to-learn program focuses on returning to full school participation and regular cognitive activity after a concussion injury. Return-to-learn guidelines assume that both physical and cognitive activities require the use of brain energy. After a patient has a concussion, the patient experiences a “brain energy crisis” in which brain energy is not available for physical or cognitive exertion.

The return-to-learn protocol allows the patient to heal during this energy crisis and prevents premature return to academic activities. It is important to watch for the behavioral and physical symptoms (listed on page 2) in patients with a concussion. These are all symptoms of a concussion. If the injured person’s symptoms increase in severity, last longer than three weeks, or if any new symptoms start, it will require a slower return-to-learn and additional medical attention.
After the diagnosis of a concussion by a medical provider, you will need to contact the student’s school counselor and ask them to help manage their return-to-learn. This person will work with the student as well as their teachers, parents, and medical staff to develop a customized plan. You must be in continual contact with the counselor as the student progresses through the return-to-learn stages.

Returning to the classroom does not mean the student is symptom-free. Remember, return-to-learn is a gradual process that will take several days, or even weeks, to return to full academics (i.e. caught up with curriculum in all classes). The individualized return-to-learn program is done in several stages and must be monitored at each stage. You may find that certain activities trigger new symptoms or cause existing ones to get worse. In these cases, the student may need to be seen by medical personnel. Students with a concussion should be seen regularly in the Concussion Clinic.

Concussion and mild traumatic brain injury are covered under the Americans with Disabilities Act Amendments Act (ADAAA). Any action taken in this process must remain compliant with the ADAAA law.
RETURN-TO-LEARN STAGES

The duration of each stage should be specific to each individual patient and is based on the symptoms experienced by the student. Continue to monitor for concussion symptoms, even after the student has reached Stage Five. *Any return of symptoms should be referred to a medical professional.* For most students, concussion symptoms will subside and a full return to class with no modifications will *occur within three weeks.* For those students who continue to experience symptoms past the three-week period, there are multiple ways to make academic adjustments and accommodations. The student may need a change in schedule (e.g. drop a class); special arrangements may be required to allow for extended absences, quizzes and tests, term papers, and projects.

1st **STAGE: COGNITIVE REST**

*(typically same day of injury)*

Due to the energy crisis that occurs after a concussion, cognitive rest allows the brain to heal more quickly. While the patient is still experiencing symptoms without stressors or activity, they should remain at the cognitive rest stage. When the patient has no symptoms while resting, they will progress to the next stage. The patient should avoid:

- Classroom attendance
- Homework
- Reading
- Loud noise and bright lights
- “Screen time” (i.e. phone, computer, video game use)

2nd **STAGE: TRIAL OF COGNITIVE ACTIVITY**

*(return to homework)*

- Attempt cognitive activity such as homework or reading for 30 minutes, gradually increase time increments.

- Allow for approximately 15 minutes of rest in between each activity. If the patient develops symptoms after participating in activities, they should rest until symptoms subside.

- Once the student can complete approximately an hour of cognitive activity without the onset of concussion symptoms, they will progress to the next stage.
3rd

STAGE: RETURN TO CLASS
(with maximum modifications)

• Return to a partial day of classes.

• Avoid specific classes or activities that lead to the onset of symptoms (e.g., challenging classes, labs, excessive computer use).

• The student should not participate in physical education classes.

• The student should communicate to their academic advisors/instructors, when they are experiencing symptoms and ask to leave class or modify classes in order to minimize the experience of concussion symptoms.

• The student should not take quizzes or tests. Tests taken while concussed will not accurately represent their ability and knowledge.

• The student can begin to make up missed school work.

4th

STAGE: RETURN TO CLASS
(with minimum modifications)

• Increase class activities and duration.

• Begin to add back challenging classes and activities.

• Still may become occasionally symptomatic and may need breaks or modifications from classes as necessary.

• Once the student can complete one full day of classes without the onset of concussion symptoms, they will progress to the next stage.

5th

STAGE: FULL CLASS ATTENDANCE
(no modifications)

• The student returns to classes as usual, fully participating and taking all quizzes and tests in the original format.

• The student will continue to work with professors and teachers in order to ensure that any missed work is made up and they are caught up to the syllabus.
FOR INSTRUCTORS & PARENTS

POTENTIAL ACCOMMODATIONS FOR PROFESSORS, INSTRUCTORS AND PARENTS TO CONSIDER

General Academic Accommodations:
- Modify or cancel an assignment(s)
- Short in-class breaks
- Extended time on assignments or quizzes/tests
- Quieter/dimmer exam room
- Ability to record lectures or provide note takers
- Alternative forms of quizzes and tests (e.g., oral instead of written, paper instead of computer)
- Excused absences
- Schedule change
- Drop a class that induces concussion symptoms

SYMPTOM BASED ACCOMMODATIONS

HEADACHES
- Allow student to lay head on desk
- Allow frequent breaks
- Identify triggers that cause headaches to worsen

SENSITIVITY TO NOISE
- No PE, band, or chorus
- Avoid loud classes/labs
- Permit earplug use
- Avoid cafeteria; eat in a quiet setting
- Avoid attending athletic events, gymnasiums
- Allow student to leave / arrive from class early / late to avoid loud hallways
- Limit cell phone, head phone/ear phone use
SENSITIVITY TO LIGHT

- Allow student to wear sunglasses
- Move student to area with low-lighting, dim lights
- Avoid sitting in direct sunlight
- Avoid bright projector/computer screen

SLEEP DIFFICILITIES

- Allow late start to school
- Allow frequent rest breaks

VISUAL PROBLEMS

- Limit computer use
- Reduce/shorten reading assignments
- Record lectures or use auditory learning apps
- Allow for more listening and discussion vs. reading
- Increase font size on computer/projection screen
- Limit texting/video games
- Limit watching TV close up or from a distance
- Seat student closer to the center of the room (for blurry vision)

CONCENTRATION/ MEMORY PROBLEMS

- Place main focus on essential academic content/concepts
- Postpone major tests or participation in standardized testing
- Allow extra time for assignments, quizzes, tests, projects
- Modify class assignments and homework
- Limit to one exam per day
- Consider use of pre-printed notes, note taker, or reader for oral test taking

DIZZINESS/ LIGHT HEADEDNESS

- Allow student to leave class early to avoid crowded hallways
- Provide an escort
- Allow student to put head on desk
RETURN-TO-PLAY

EXERCISE CHALLENGE

• Each Stage is a SEPARATE DAY
• If you can get through a stage without symptoms, then advance to the next stage on the next day. If not, then repeat the previous stage until symptom-free.
• Concussion symptoms can worsen with poor sleep, loud noises, hot weather, and too much physical activity

STAGE 1 — REST / NO PHYSICAL ACTIVITY

“SLEEP IS MEDICINE FOR THE BRAIN!”
Activities of daily living
Sunglasses for light sensitivity
Quiet (may be sensitive to loud noises)
Limit studying/reading (10-15 minutes, then a break)

STAGE 2 — LIGHT ACTIVITY

Extended sleep in morning
Attend Academics as tolerated
Walk to activities (15-20 minutes max)
Studying (30-45 minutes, then break)

STAGE 3 — MODERATE ACTIVITY

Light Calisthenics (rest 30 secs in between each)
• Body Squats x 10 reps x 2 sets
• Pull-ups (reps as able) or 30 sec plank
• Push-ups x 10 reps x 2 sets
• Sit-ups/crunches x 15 reps x 2 sets

Jogging x 10 minutes (50-60% intensity)
OR walk-jog activity x 20 minutes (i.e. 1 minute walk/1 minute jog, repeat for 20 minutes)
STAGE 4 — HEAVY ACTIVITY
Calisthenics x 10 minutes
(rest for 20 seconds in between each set)
- Body Squats x 10 reps x 2 sets
- Jumping Jacks x 25 reps x 2 sets
- Push-ups x 15-20 reps x 2 sets
- Pull-ups x max x 2 sets
- Sit-ups/crunches x 20 reps x 2 sets
Running x 15 minutes (60-70% intensity)

STAGE 5 — FULL ACTIVITY/ NO CONTACT
Heavy calisthenics x 15 mins, work-out intensity
Do 2 rounds of:
- Burpees x 10
- Jumping Jacks x 25
- Alternating lunges x 10 each leg
- Bear Crawl x 20 yards
- Pull-ups x max
- Sit-ups x 15
- Push-ups x 15
- Squats x 15
- 1 minute break (rest)
Running x 10 minutes/rest 3 minutes
Interval Sprints (80% intensity x 40 yards, rest 45 seconds, repeat 5 times)

STAGE 6 — RETURN TO FULL UNRESTRICTED ACTIVITY
Non-contact Sport specific activities
Needs Medical Doctor clearance to be released for unrestricted activity. Contact the Concussion Clinic to set up appointment for clearance
Top left to right: Bradley Budge, OD; Liz Galvan; Darren Campbell, MD; Audrey Hivner, SLP; Jeremy Willey, ATC-L

Bottom left to right: Ben Owens, OT; Andrew Cobabe, AU.D; Ken Weigand PsyD; Rich Hall, ATC-L

Not all caregivers pictured are employed by Intermountain Healthcare.