

Concussion Return-to-Work Considerations for Employees who are Blind or Visually Impaired

Preamble:

This document is designed to provide additional information and considerations for the concussion management of employees who are blind or visually impaired. This is meant to be used alongside generic concussion Return-to-Work protocols and is not meant to be used individually.

Introduction:

Reduced visual functioning is a common characteristic of concussion. The related symptoms such as blurred vision, sensitivity to light, and visual fatigue can be induced by typical work activities, such as reading, playing sports, using a computer, or working under overhead lighting.

Concussion symptoms can be more challenging to recognize in employees with visual impairments. In the case of an employee with low vision, a small to moderate fluctuation in visual functioning may easily go unnoticed. For an employee who is blind, changes in visual functioning do not apply, potentially making concussion symptoms challenging to identify.

A qualified Orientation and Mobility Specialist (COMS) can help identify any post-concussion changes in functioning. In the case of employees with low vision, a functional vision assessment (FVA) completed by a Certified Assistive Technology Instructional Specialist (CATIS), a Certified Low Vision Therapist (CLVT), or a Certified Vision Rehabilitation Therapist (CVRT) can identify the degree of changes to an employee's functional vision, particularly if a previous assessment could be used for baseline comparison. An updated ophthalmology report would also be helpful. If the employee works with a COMS, an updated COMS assessment can provide evidence of changes to the employee's gait, balance, route memory and general travel confidence. Importantly, this evaluation can inform the team about changes in the employee's proficiency for independent travel as compared to pre-concussion assessments.

Employees who are blind may display symptoms including emotional and behavioural changes, a decline in mental health, and irregular sleep patterns. They may also experience physical symptoms such as dizziness, disorientation, nausea, and headache. In some cases, it may be difficult to discriminate between the student's concussion symptoms and some features of their individual sensory profile. The COMS and other certified vision specialists can help clarify such differences.

If you work with an employee who is visually impaired and who has sustained a concussion, it is important to remember that their symptoms might not be entirely obvious or visible to others. The employee's COMS is trained to assess functional vision, spatial awareness, and mobility. Data from their assessments will help to inform the process of safely returning to full activities.

Return-to-Work Strategy with Possible Modifications for Employees who are Blind or Visually Impaired

Stage	Aim	Activity	Goal of Each Step	Possible Modifications
1	Initial cognitive and physical rest	After being diagnosed with a concussion, start with a short period of rest for 24 to 48 hours. Stay at home in a relaxing environment. Try simple activities such as drawing or listening to quiet music.	Gradual return to typical activities	<p>Routine check-in</p> <p>Lighting considerations: Avoid bright lights and glare, wear a hat and sunglasses</p> <p>Acoustic considerations: Noise-cancelling headphones, be in a calm space</p>
2	Light cognitive and physical activity	Add light activities, as long as they don't make your symptoms worse. Try simple chores at home, going for short walks, reading, and using a screened device, such as a computer or tablet, for short periods. Be sure to take breaks and try to maintain a regular sleep schedule.	Increase tolerance to cognitive work	<p>Lighting considerations: Avoid bright lighting and glare, wear a hat and sunglasses</p> <p>Technology considerations: Adjusting screen brightness, blue light, font size, reverse polarity (contrast)</p> <p>Print considerations: Increased font size, magnification, and reverse polarity (contrast)</p> <p>Avoid overstimulating environments (busy crowds, uneven terrain)</p> <p>Use of a sighted/human guide or cane</p>
3	Prepare to return to work	Add more cognitive activity, and for longer periods of time, as tolerated. Continue building up your physical activity, such as running regular errands, gardening, jogging and light exercise. You can try your work commute to see how it	Increase tolerance to cognitive work specific to occupation	<p>Orientation and Mobility considerations: Work closely with an orientation and mobility specialist to ensure safety review</p> <p>Technology considerations:</p>

		<p>makes you feel. Contact your workplace to develop your individual, gradual return to work plan. The plan should consider the number of days and hours you will work, your workload, and your work environment (such as lighting and noise).</p>		<p>Adjusting screen brightness, blue light, font size, reverse polarity (contrast)</p> <p>Print considerations: Increased font size, magnification, and reverse polarity (contrast)</p> <p>Use of a sighted/human guide or cane</p> <p>If glare is an issue, try different glare lenses</p> <p>Acoustic considerations: option to use noise canceling headphones, calm space option, breaks</p> <p>Lighting considerations: Avoid bright lighting and glare, wear a hat and sunglasses</p>
4	<p>Reduced working hours with accommodations</p>	<p>Begin your return to work based on your plan. Use the accommodations you need, such as a quiet work station and regular breaks. Gradually increase working hours as long as your symptoms do not return or get worse.</p>	<p>Increase work activities</p>	<p>Health and wellness considerations: Routine check-in, support system in place, sleep management</p> <p>Provide an alternative quiet individual or collaborative workspace</p> <p>Print and Technology considerations: Increase font size, adjusting screen brightness, blue light, font size, reverse polarity (contrast)</p> <p>Self-advocacy considerations: Encourage individual to explain their symptoms and</p>

				<p>recommended adaptations, self-awareness of limits</p> <p>Lighting considerations: Wearing a hat, sunglasses</p> <p>Acoustic considerations: Option to wear noise-canceling headphones</p>
5	Regular working hours with accommodations	Gradually decrease accommodations as tolerated. Be aware of how much energy you have left after the work day for household and social activities.	Increase work to full hours	<p>Health and wellness considerations: Routine check-in, support system in place, sleep management</p> <p>Provide an alternative quiet individual or collaborative workspace</p> <p>Print and Technology considerations: Increase font size, adjusting screen brightness, blue light, font size, reverse polarity (contrast)</p> <p>Self-advocacy considerations: Encourage individual to explain their symptoms and recommended adaptations, self-awareness of limits</p> <p>Lighting considerations: Option to wear a hat, sunglasses, avoid bright lights or glare as needed</p> <p>Acoustic considerations: Option to wear noise-cancelling headphones, calm space option, breaks as needed</p>

6	Return to work	Full return to your regular work schedule without accommodations	Return to full work activities and catch up on missed work responsibilities	
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Return to Work Stages from Parachute, 2017 and CATT, 2020

Notes:

Everyone experiences concussion differently and recovery is not linear. This guideline works to provide guidance for those returning to sports after sustaining a concussion. Every athlete will need a unique amount of time and accommodations to recover. Make note that individuals may not make it all the way to stage 6, as some may experience persistent symptoms that require accommodations or modifications to their work and/or daily lives indefinitely.

List of possible accommodations:

Workplace Considerations:

- Include the employee in a smaller working group with more controlled interactions
- Provide an alternative quiet individual or collaborative workspace
- Consider peer/co-worker support for maintaining a connection to the workplace community.

Lighting and glare considerations:

- Wearing a hat
- placement away from bright light or window
- options to move around indoor and outdoor spaces to access materials

Task-focus considerations:

- Reduced intensity and duration of task, breaking down task into smaller chunks

Acoustic considerations:

- Noise cancelling headphones, breaks, calm space option

Activity Considerations:

- Allow for alternative activity (work on individual or small group projects, reduced complexity, or allow for self-selected project)

Print Considerations:

- Adaptations to print (increased print-size, increased contrast, increased magnification)

Technology considerations:

- Screen brightness
- screen reader
- reducing blue light on computer
- text-to-speech, volume
- speed
- verbosity
- increase contrast (reverse polarity)
- accessibility settings on devices

Environmental considerations:

- May need to temporarily avoid workplace/meetings that trigger sensory overload

Executive Functioning considerations:

- Support with activities that require planning
- time management and organization (use of planner for scheduling)
- use of executive functioning adaptations (Ready-Do-Done)

Spatial Body Awareness considerations:

- Use of mindfulness techniques to reduce anxiety and increase self-awareness (deep breathing, 54321 grounding)

Map considerations/Orientation and Mobility considerations:

- Use tactile maps in place of technology
- Decrease length of lesson time and increase frequency of work day
- Create a backup plan for when an employee is experiencing anxiety and/or difficulty during independent travel.
- O&M Instruction to review routes, street crossings, intersections, use of transit systems and safety considerations.

Self-Advocacy considerations:

- Have the employee be able to explain the residual effects of concussion and what may help.

Health considerations:

- Having a support system in place to help with emotional health and wellness. (counsellor, specific therapy, concussion management team)

Pacing and Expectations considerations:

- Consider expectations and create healthy, realistic expectations with employee
- appropriate pacing for participation in work activities

Appendix:

“*Certified Assistive Technology Instructional Specialist (CATIS)*” - a highly trained expert who specializes in working with individuals who are blind, visually impaired or who have functional visual limitations, and empowers them to achieve their life goals for education, employment, avocation, and independence through the use of assistive technology. (ACVREP)

“*Certified Low Vision Therapist (CLVT)*” – uses functional vision evaluation instruments to assess visual acuity, visual fields, contrast sensitivity function, color vision, stereopsis, visual perceptual and visual motor functioning, literacy skills in reading and writing, etc. as they relate to vision impairment and disability. The CLVT also evaluates work history, educational performance, ADL and IADL performance, use of technology, quality of life and aspects of psychosocial and cognitive function. (ACVREP)

“*Certified Orientation and Mobility Specialist (COMS)*” – teaches visually impaired individuals to utilize their remaining senses to determine their position within their environment and to negotiate safe movement from one place to another. (ACVREP)

“*Certified Vision Rehabilitation Therapist (CVRT)*” - instruct persons with vision impairments in the use of compensatory skills and assistive technology that will enable them to live safe, productive, and interdependent lives. Vision rehabilitation therapists work in areas that enhance vocational opportunities, independent living, and the educational development of persons with vision loss, and may include working in center based or itinerant settings. (ACVREP)

References:

Academy for Certification of Vision Rehabilitation & Education Professionals (ACVREP).
(2020). Certification Applications. <https://www.acvrep.org/certifications>

BC Injury Research and Prevention Unit. (2020). Concussion Awareness Training Tool.
www.cattonline.com

Canadian Guideline on Concussion in Sport. Parachute (2017). www.parachute.ca