



Online Learning for Students with Concussion - 2020

Schools in Colorado & Pennsylvania who have trained **Return to Learn Concussion Management Teams** under the BrainSTEPS Program are in the best position to support students with concussion, regardless if students are in brick & mortar school buildings or taking online classes.

Because students with concussion may have difficulty with some aspects of online learning, BrainSTEPS developed a list of academic adjustments that can be used for students with concussion who are participating in remote online learning during the pandemic.

During online learning students with concussion may have difficulty with:

- *Visual scanning* - Searching/scanning for visual information
- *Visual attention* - Mentally focusing on what is on the screen
- *Visual memory* – Difficulty recognizing, encoding, recalling visual information
- *Cognitive fatigue* - a decrease in cognitive energy that occurs from focusing on sustained cognitive demands (e.g., schoolwork, learning), independent of sleepiness.

BrainSTEPS suggested academic adjustments that may help alleviate common concussion symptoms when participating in online learning

**colored font below is clickable*

- Discourage student from doing online learning on a smart phone – the screen is too small and can cause eye fatigue and cognitive fatigue. Encourage use of laptop or computer screen (use largest screen available)
- Adjust computer display
 - Increase font size (large print is defined as 16 -to 18-point bold type, depending on the typeface used)
 - Adjust screen settings to enlarge entire screen
 - Dim screen brightness
 - Encourage student to try out alternative screen colors
 - Contrast desktop screen from light to dark
- Computer blue light blocking glasses may help reduce eye fatigue
- Reduce screen glare (encourage student to sit away from windows, bright lights)

- **Text-to-speech** -for a student who may find reading too taxing they can have books or documents read aloud. Examples include:
 - [Snap and Read](#)
 - Audio Books: [Audible](#), [Scribd](#)
 - Reads other types of documents- [NaturalReader](#), [Voice Dream Reader](#)
- **Speech-to-text** - Speech recognition software that will turn a student’s speech into text on the computer screen.
 - Siri’s dictation feature offers real-time speech-to-text conversion, recording the words you say as typed text on Apple products.
 - [Mac Speech to Text](#) (Apple products)
 - [Dragon](#)
 - [Google Docs Speech to Text/Voice Typing](#) on Chrome browser
- Scanners with [Optical Character Recognition \(OCR\)](#) software which converts print-to-speech output
- Have student use word prediction software that predicts words while the student is typing such as:
 - [Co:Writer](#)
 - [TypeIt4Me](#) (Macs only)
- Cue student to take short “eye breaks” from computer screen (e.g., focus on something across the room to give eyes a rest, close eyes for a short period of time)
- Schedule longer “brain breaks” from the computer throughout day
- Reduce visual clutter on the screen pages to reduce visual overload
 - [Immersive Reader](#)
 - [Safari Reader](#) on the Safari browser
 - [Mercury Reader](#) extension on Chrome browser
- For students with visual field neglect, provide cues to scan entire screen for content.
- Use headings for any content changes on the screen
- A teacher can read exams to the student via [Zoom](#) or other online platform. **Zoom is currently offering free subscriptions for all K-12 public schools.**
- Clock apps can be used to build in breaks, chunk reading, break up screen time, etc.
- Record online session content so student can review
- Use concept mapping software – to help the student organize thoughts, get started on a writing assignment, plan a project
- Provide extended time for projects and assignments
- Offer “office hours” via Zoom, etc.
- Offer online tutoring
- Encourage sticking to a daily schedule

- Discourage student naps – it is important to remain on a normal sleep schedule to reduce symptoms
- Provide checklists that break down tasks, classwork, homework, key learning content to alleviate difficulty keeping up during online learning
- Offer a *touch-base teacher school counselor, social worker* or school psychologist for emotional support - online learning can cause the student with concussion to experience additional anxiety and/or depression due to the social isolation coupled with symptoms
- Encourage use of noise blocking headphones when doing schoolwork at home if there are other siblings/parents in the same room or within close vicinity
- Use Tables and Frames online sparingly

Additional assistive technology found on all mobile device smart phones (iPhone, Android, etc.):

1. https://www.understood.org/en/school-learning/assistive-technology/assistive-technologies-basics/assistive-technology-thats-built-into-mobile-devices?_ul=1*598qj*domain_userid*YW1wLXpvQ1XVXdfTmVJdFV3TDV1NTISbFE.
2. <https://www.youtube.com/watch?v=-gTn4Q-9Lk8&feature=youtu.be>

**Please Note: Specific programs listed are provided as possible resources. The BrainSTEPS program has not individually vetted and does not endorse any specific programs listed.*

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