

Kennedy Krieger Institute

Concussion Update

From the experts at the Concussion Clinic at Kennedy Krieger Institute

Until very recently, there has been little research to guide concussion management in children. The standard concussion treatment protocol was for physical and cognitive rest until acute concussion symptoms resolved. Growing research from prominent experts indicates that restricting return to cognitive and physical activities until acute symptom resolution may prolong symptoms.

As a result, many experts in concussion management now recommend that everyday activity be resumed, as tolerated, within the **first few days** after injury.

It is still believed that in the first day or two following a concussion, reducing stimulation or getting additional sleep can help with symptom management.

There is little evidence, however, that participating in cognitive activities (e.g., reading, watching TV, playing video games, texting, attending school) will prolong concussion-related symptoms. In fact, results of a recent randomized controlled trial of adolescents with concussion revealed that strict cognitive rest of 5 days offered no added benefit over a 1-2 day period of rest (Thomas et al., *Pediatrics*, 2015).

Based on results of this study and our experience, most patients should be able to return to school within a few days of experiencing a concussion, but they may require additional, temporary accommodations while recovering.

These temporary accommodations may include:

- A modified school day
- Rest breaks
- Being excused from non-essential assignments
- Extended deadlines
- Extra assistance to remain organized
- Reduction in overall homework load
- Delay in standardized and classroom tests

Available evidence also suggests that gradually resuming physical activity can begin as soon as it is tolerated. It will not slow recovery, provided there is no increased risk of re-injury. In fact, in a recent large, observational study that including over 2000 children and adolescents, (Grool et al., *JAMA*, 2016), participating in any physical activity within 7 days after injury was associated with reduced risk of post-concussive symptoms at 28 days post-injury (relative to no physical activity at all) even after controlling for other factors associated with prolonged post-concussion symptoms. These findings strongly suggest that an **earlier return to non-contact physical activity** may help symptoms resolve.

We are dedicated to continuing to adapt post-concussion recommendations to align with findings such as from these important studies.. We know that these changing recommendations will be confusing for some families, teachers, and coaches who may not be aware of the latest research. We will work with individual schools and teams and conduct outreach on a broader level to help explain the changing nature of concussion management in order to streamline return of youth to their typical activities.

For more information about the Concussion Clinic, visit [KennedyKrieger.org/Concussion](https://www.kennedykrieger.org/Concussion).

To make an appointment, call 443-923-9400.



Kennedy Krieger Institute
UNLOCKING POTENTIAL