

Study finds revised concussion guidelines shorten duration of symptoms

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The adoption of recommended changes in concussion management led to a reduction in the length of symptoms among 11- to 18-year-old athletes with first-time, sports-related concussions, according to new research in the *Journal of Osteopathic Medicine*. These outcomes support the widespread adoption of the [updated concussion guidelines](#).

Researchers conducted a retrospective review of the medical records of athletes who sustained a concussion between 2016 and 2018 and were treated by a physician who used the revised approach to [concussion management](#). They then compared the data with a previously published data set from athletes who sustained a concussion between 2011 and 2013 and whose physicians followed older guidelines for concussion management. A total of 110 male and 72 [female athletes](#) met the study's [eligibility criteria](#).

The recommended changes in care include advocating for early activity, recognizing pre-existing conditions, and educating athletes about concussion recovery. Following implementation of the guidelines at the clinic, athletes of both genders experienced a significantly shorter median duration of concussion symptoms. Male athletes reported a duration of symptoms that dropped from 11 days to 5 days, while female athletes' symptom duration dropped from 28 to 7 days.

Active rest

"The most significant change in care involved a shift from strict rest or cocoon therapy to a return to low-intensity physical or cognitive activity after 24 to 48 hours," said the study's lead researcher, John Neidecker, DO, a sports concussion specialist in Raleigh, North Carolina. "Our results show active rest dramatically improved recovery times among young athletes with first-time concussions."

Active rest involves light movement that has no risk of head trauma. Patients should gradually increase their level of physical and mental activity under the guidance of a physician.

Pre-existing conditions

When comparing the 2011-2013 and 2016-2018 [data sets](#), researchers found a higher incidence of pre-existing problems for patients in the newer data set, which suggests that better identification of these conditions led to improved patient outcomes.

"If diagnosis of a pre-existing condition has never been given, patients cannot be expected to report one during our concussion assessment," said Dr. Neidecker. "This is especially true in the adolescent age group, as some may have a condition that they are not aware of yet. This makes screening for preexisting conditions more complex, yet even more essential for this age group."

For example, motion sickness from car rides or intolerance to 3-D movies could indicate a pre-existing vision disorder that was previously undiagnosed. Asking parents about preinjury personality and demeanor may uncover pre-existing anxiety, which can also impact recovery.

"This more individualized, osteopathic approach in screening the athletes' past medical history helped us identify health issues that may have been overlooked in the past," said Dr. Neidecker. "By focusing on

the diagnosis and treatment of pre-existing health conditions, we can more effectively tailor treatment."

Catastrophizing the injury

In the 2011-2013 data set, concussion knowledge was significantly less, and physician counseling often had a much more cautious or, at times, ominous tone, according to Dr. Neidecker. Following the revised guidelines, physicians in the clinic adopted a more optimistic outlook when speaking with patients. This adjustment in communication may have contributed to patients reporting fewer [concussion](#) symptoms at an earlier date.

"Simply put, making clinic visits more positive and less anxiety-provoking supports patient recovery," said Dr. Neidecker. "Whereas catastrophizing an event, particularly with an adolescent population, may exacerbate symptoms."

Early patient counseling and education about concussions and the typical course of [symptom](#) resolution may mitigate unnecessary worry. This counseling may be even more critical to patients with pre-existing anxiety.

More information: *Journal of Osteopathic Medicine*, [DOI: 10.1515/jom-2020-0106](#)

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