Athlete

- Imrecoxib attenuates osteoarthritis by modulating synovial macrophage polarization through inactivating COX-2/PGE2 signaling pathway
- A Novel Therapeutic Strategy for Ameliorating Hyperglycemia-Induced Liver Injury via Overexpression of the Carboxyl Terminus of HSP70-Interacting Protein in Wharton's Jelly Mesenchymal Stem Cells
- Biological role and clinicopathological significance of leucine-rich α-2 glycoprotein 1 in the glioblastoma microenvironment
- Analysis of the interaction between sleep quantity and sex in neurocognitive performance testing for sports-related concussion
- Hounsfield unit measurements to predict odontoid fracture union in elderly patients: post-hoc subgroup analysis from an international prospective comparative study
- Cervical Disc Replacement in Athletes: A Modified Delphi Consensus Survey of Expert Opinion
- Regulation of Nrf2/GPX4 Signaling Pathway by Hyperbaric Oxygen Protects Against Depressive Behavior and Cognitive Impairment in a Spinal Cord Injury Rat Model
- An 18-Year Study of Changes in Neurocognitive Function and Associations with Repetitive Head Trauma among Former Collegiate American Football Players: A Case Series

Sports Concussion Assessment Tool 5 (SCAT5) is a standardized concussion assessment, available as a pdf or online , used by healthcare providers when a concussion is suspected in athletes ages 12 and older.

Neck pain in a concussion population is an emerging area of study that has been shown to have a negative influence on recovery. This effect has not yet been studied in collegiate athletes.

Hypothesis: New or worsened neck pain is common after a concussion (>30%), negatively influences recovery, and is associated with patient sex and level of contact in sport.

Study design: Cohort study; Level of evidence, 2.

Methods: Varsity-level athletes from 29 National Collegiate Athletic Association member institutions as well as nonvarsity sport athletes at military service academies were eligible for enrollment. Participants completed a preseason baseline assessment and follow-up assessments at 6 and 24 to 48 hours after a concussion, when they were symptom-free, and when they returned to unrestricted play. Data collection occurred between January 2014 and September 2018.

Results: A total of 2163 injuries were studied. New or worsened neck pain was reported with 47.0% of injuries. New or worsened neck pain was associated with patient sex (higher in female athletes), an altered mental status after the injury, the mechanism of injury, and what the athlete collided with. The presence of new/worsened neck pain was associated with delayed recovery. Those with new or worsened neck pain had 11.1 days of symptoms versus 8.8 days in those without ($P < .001$). They were also less likely to have a resolution of self-reported symptoms in ≤7 days ($P < .001$). However, the mean duration of the return-to-play protocol was not significantly different for those with new or worsened neck pain (7.5 ± 7.7 days) than those without (7.4 ± 8.3 days) ($P = .592$).

This novel study shows that neck pain was common in collegiate athletes sustaining a concussion, was influenced by many factors, and negatively affected recovery. [1)]

The purpose of a study of Yamashita et al. was to determine the frequency of nonspecific low back pain (NSLBP) in adolescent athletes diagnosed by general orthopedic surgeons and by spine surgeons.

A total of 69 adolescent athletes consulted our sports spine clinic to seek a second opinion for low back pain. Data on age, sex, type of sport played, the previous diagnosis made by general orthopedic surgeons, and the final diagnosis made by spine surgeons were collected retrospectively from medical records.

The frequency of NSLBP diagnosed by general orthopedic surgeons was 18.9% and decreased to 1.4% after careful imaging and functional nerve block examination by spine surgeons. The final diagnoses made by spine surgeons for those patients previously diagnosed as having NSLBP by general orthopedic surgeons were as follows: early-stage lumbar spondylolysis, discogenic low back pain, facet joint arthritis, lumbar disc herniation, and lumbar apophyseal ring fracture.

In adolescent athletes, the rate of NSLBP diagnosed by general orthopedic surgeons decreased markedly when the diagnosis was made by spine surgeons. A thorough medical interview, careful physical examination, appropriate diagnostic imaging, and selective nerve block examination can effectively identify the cause of low back pain [2].

1)
King JA, Nelson LD, Cheever K, Brett B, Gliedt J, Szabo A, Dong H, Huber DL, Broglio SP, McAllister TW, McCrea M, Pasquina P, Feigenbaum LA, Hoy A, Mihalik JP, Duma SM, Buckley T, Kelly LA, Miles C, Goldman JT, Benjamin HJ, Master CL, Ortega J, Kontos A, Clugston JR, Cameron KL, Kaminski TW, Chrisman SP, Eckner JT, Port N, McGinty G. The Prevalence and Influence of New or Worsened Neck Pain After a Sport-Related Concussion in Collegiate Athletes: A Study From the CARE Consortium. Am J Sports Med. 2024 May 14:3635465241247212. doi: 10.1177/03635465241247212. Epub ahead of print. PMID: 38742422.
2)
Yamashita K, Sakai T, Takata Y, Tezuka F, Manabe H, Morimoto M, Kinoshita Y, Yonezu H, Chikawa T, Mase Y, Sairyo K. Low Back Pain in Adolescent Athletes: Comparison of Diagnoses Made by General Orthopedic Surgeons and Spine Surgeons. Int J Spine Surg. 2019 Apr 30;13(2):178-185. doi: 10.14444/6024. eCollection 2019 Apr. PubMed PMID: 31131218; PubMed Central PMCID: PMC6510183.