

# Biomarkers to assess degree of brain injury in postconcussion syndrome

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A new study published online by *JAMA Neurology* included 16 professional Swedish hockey players and examined whether persistent symptoms after mild traumatic brain injury were associated with brain injury as evaluated by cerebrospinal fluid biomarkers for axonal damage and other aspects of central nervous system injury.

The [hockey players](#) had prolonged postconcussion symptoms for more than three months, according to the article by Kaj Blennow, M.D., Ph.D., of the Sahlgrenska University Hospital, Sweden, and coauthors. The study also included 15 neurologically healthy control patients.

Authors reported increased cerebrospinal fluid neurofilament light protein and reduced amyloid  $\beta$  levels in hockey players with repeated mild [traumatic brain injury](#) and PCS [postconcussion syndrome], findings that suggest evidence of white matter injury and amyloid deposition.

"Measurement of these biomarkers may be an objective tool to assess the degree of central nervous system injury in individuals with PCS and to distinguish individuals who are at risk of developing [chronic traumatic encephalopathy](#)," the report concludes.

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