

# Subaxial cervical AO Spine Injury Score

see also [AOSpine subaxial cervical spine injury classification system](#)

An A0 injury was assigned an injury score of 0, A1 a score of 1, and A2 a score of 2. Given the significant increase in severity, A3 was given a score of 4. Based on equal severity assessment, A4 and B1 were both assigned a score of 5. B2 and B3 injuries were assigned a score of 6. Unstable C-type injuries were given a score of 7. Stable F1 injuries were assigned a score of 2, with a 2-point increase for F2 injuries. Likewise, F3 injuries received a score of 5, whereas more unstable F4 injuries a score of 7. Neurologic status severity rating scores increased stepwise, with scores of 0 for N0, 1 for N1, and 2 for N2. Consistent with the Thoracolumbar AO Spine Injury Score, N3 (incomplete) and N4 (complete) injuries were given a score of 4. Finally, case-specific modifiers M1 (PLC injury) received a score of 1, while M2 (critical disc herniation) and M3 (spine stiffening disease) received a score of 4 <sup>1)</sup>

Nineteen patients (age 17-79 years) sustained cervical injury from high-energy breaking waves while in shallow beach water. Six patients dived into a wave; 6 patients were struck by a large wave while standing upright; and 7 tumbled in the waves while engaged in nonspecified recreational activity. All 7 patients with [subaxial cervical AO Spine Injury Score](#) (AO-SIS) >10 had cervical spine injury with cord signal change and required operative management. Diving mechanism, AO-SIS >10, and cord signal change all predicted significant disability or death at 12 months ( $P < 0.01$ ). The present study and 7 additional studies reporting on 534 patients (mean age, 45.4 years) were analyzed. Within the reported literature, most patients (94.2%) sustained a spinal cord injury. On long-term follow-up, an estimated 64.8% of patients had permanent neurologic injury and 12.5% had permanent quadriplegia.

Griep et al. offer the first description of cervical injuries sustained in water-related recreational activity using the AO-SIS. The morphology of injuries varied significantly and seemed to depend on body position and wave kinetic energy. Patients presenting with cervical injury in this setting and yielding AO-SIS >10 are likely to have poor functional recovery <sup>2)</sup>.

<sup>1)</sup>

Canseco JA, Schroeder GD, Paziuk TM, Karamian BA, Kandziora F, Vialle EN, Oner FC, Schnake KJ, Dvorak MF, Chapman JR, Benneker LM, Rajasekaran S, Kepler CK, Vaccaro AR. The Subaxial Cervical AO Spine Injury Score. *Global Spine J.* 2022 Jul;12(6):1066-1073. doi: 10.1177/2192568220974339. Epub 2020 Dec 11. PMID: 33302725; PMCID: PMC9210250.

<sup>2)</sup>

Griep DW, De la Garza Ramos R, Lee J, Miller A, Prasad M, Gelfand Y, Cardozo-Stolberg S, Murthy SG. Beach Breaking Waves and Related Cervical Spine Injuries: A Level One Trauma Center Experience and Systematic Review. *World Neurosurg.* 2022 Apr;160:e471-e480. doi: 10.1016/j.wneu.2022.01.055. Epub 2022 Jan 21. PMID: 35074543.

Last  
update: subaxial\_cervical\_ao\_spine\_injury\_score [https://neurosurgerywiki.com/wiki/doku.php?id=subaxial\\_cervical\\_ao\\_spine\\_injury\\_score](https://neurosurgerywiki.com/wiki/doku.php?id=subaxial_cervical_ao_spine_injury_score)  
2024/06/07 02:50

From:  
<https://neurosurgerywiki.com/wiki/> - **Neurosurgery Wiki**

Permanent link:  
[https://neurosurgerywiki.com/wiki/doku.php?id=subaxial\\_cervical\\_ao\\_spine\\_injury\\_score](https://neurosurgerywiki.com/wiki/doku.php?id=subaxial_cervical_ao_spine_injury_score)

Last update: **2024/06/07 02:50**

