

Stockholm CT score

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New [Traumatic brain injury CT Classifications](#) have emerged, including the [Stockholm CT score](#) in 2010 ¹⁾ and the [Helsinki CT score](#) in 2014 ²⁾.

The Stockholm CT score uses [midline shift](#) as a continuous variable (as compared to the Marshall computed tomography classification's and Rotterdam CT score's threshold of ≥ 5 mm) and has a separate scoring for tSAH ³⁾. It is also the only scoring system that takes diffuse axonal injury (DAI) visible on CT into consideration ⁴⁾. Moreover, the Stockholm CT score remains the only scoring system that is based on many features of CT scans examined prospectively using an extended protocol, to identify information content. The Helsinki CT score is based on components from both the Marshall computed tomography classification and Rotterdam CT score, but additionally focuses more on the types of intracranial injuries present ⁵⁾. Thus, the Stockholm and Helsinki CT scoring systems more comprehensively analyze different components of the admission CT scan, and have both been shown to be better outcome predictors than the Marshall computed tomography classification and Rotterdam CT score ^{6) 7)}.

The Stockholm and Helsinki CT scores provide more information on the damage sustained, and give a more accurate outcome prediction, than earlier classification systems. The strong independent predictive value of tSAH may reflect an underrated component of TBI pathophysiology. A change to these newer CT scoring systems may be warranted ⁸⁾.

Marshall [head computed tomography](#) (CT) classification for [traumatic brain injury](#) is widely used as a predictor of outcome. However, this grading system lacks the following variables, which are found to be useful predictors: subarachnoid/intraventricular hemorrhage, extradural hematoma, and extent of basal cistern compression. A new classification called the [Rotterdam CT score](#), incorporating the above variables, was proposed later.

Both Marshall and [Rotterdam CT score](#) are good in predicting early mortality after moderate and severe TBI ⁹⁾.

As the Rotterdam system also includes additional variables like subarachnoid hemorrhage, it may be preferable, particularly in patients with diffuse injury ¹⁰⁾.

Use of the novel Helsinki CT score improved outcome prediction accuracy, and the Helsinki CT score is a feasible alternative to the Rotterdam and Marshall CT systems. External validation of the Helsinki CT score is advocated to show generalizability ¹¹⁾.

1) , 3) , 4) , 6)

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