

Analysis of Abstracts for Systematic Review on Convergence Insufficiency After Traumatic Brain Injury

Eligibility Criteria:

1. Design: Studies of any type (e.g., case study, cohort, review) (note: case studies are excluded based on additional considerations)
2. Population: Adult humans with or without pre-existing illness.
3. Exposure: TBI of any severity (i.e., mild/concussion, moderate, severe).
4. Control: Any or none.
5. Outcome: CI using any diagnostic criteria.
6. Language: No language restrictions will be used.
7. Date: No date restrictions will be used.
8. Publication Status: No restrictions on peer review or publication status will be placed (e.g., posters/abstracts will be included).

Additional Considerations:

- Cannot use case studies.
- Cannot use studies with sample populations consisting only of people with vision disorders.
- Need a general TBI population with a portion of those who have convergence insufficiency represented to determine prevalence.

Title: AAN Sports Concussion Conference

Source: Neurology

Inclusion/Exclusion: Exclusion: Focus on post-concussive population with vision disorders.

Title: Intracranial compliance concepts and assessment of traumatic brain injury: A scoping review

Source: Critical Care Medicine

Inclusion/Exclusion: Exclusion: Does not focus on CI or general TBI population.

Title: Effects of brain contusion on mild traumatic brain-injured patients

Source: International Journal of Neuroscience

Inclusion/Exclusion: Exclusion: Does not mention CI or general TBI population.

Title: Effect of oculomotor rehabilitation on vergence responsivity in mild traumatic brain injury (mTBI)

Source: Investigative Ophthalmology and Visual Science

Inclusion/Exclusion: Inclusion: mTBI patients, assesses CI, significant findings relevant to CI.

Title: Oculomotor vision rehabilitation in mild traumatic brain injury: Effect on the visual evoked potential (VEP) and visual Attentional (VAT) Responsivity

Source: Investigative Ophthalmology and Visual Science

Inclusion/Exclusion: Exclusion: Focuses on oculomotor and attentional improvements, not specifically on CI.

Title: Outcomes of vision therapy for TBI patients treated by a single optometrist: A retrospective review of 145 patients

Source: Klinische Monatsblätter für Augenheilkunde

Inclusion/Exclusion: Inclusion: Involves TBI patients, assesses CI, significant findings relevant to CI.

Title: TBI ADAPTER: Traumatic brain injury assessment diagnosis advocacy prevention and treatment from the emergency room - A prospective observational study

Source: Brain Injury

Inclusion/Exclusion: Inclusion: General TBI population, includes visuoculomotor testing relevant to CI, comprehensive data on TBI patients.

Title: Acquired dysautonomia may explain ocular motor symptoms and findings in post-concussion syndrome

Source: Investigative Ophthalmology and Visual Science

Inclusion/Exclusion: Inclusion: Cohort of TBI patients, assesses vision symptoms including CI and ocular motor dysfunction.

Title: 4-aminopyridine for post-concussion symptoms

Source: Journal of Neuropsychiatry and Clinical Neurosciences

Inclusion/Exclusion: Exclusion: Case study, not a general TBI population.

Title: Abnormal vergence eye movements in patients with somatic tinnitus

Source: Neuro-Ophthalmology

Inclusion/Exclusion: Exclusion: Focuses on patients with somatic tinnitus, not a general TBI population.

Title: Recovery of fusional convergence and binocular vision in brain damaged patients after training

Source: Klinische Monatsblätter für Augenheilkunde

Inclusion/Exclusion: Inclusion: Cohort of brain-damaged patients, including TBI, assesses outcomes relevant to CI.

Title: Accommodation and convergence palsy caused by lesions in the bilateral rostral superior colliculus

Source: American Journal of Ophthalmology

Inclusion/Exclusion: Exclusion: Case report, not a general TBI population.

Title: The post-concussion syndrome: Influence on binocular function

Source: Journal of AAPOS

Inclusion/Exclusion: Inclusion: Cohort of TBI patients with post-concussion symptoms, assesses binocular function, specifically looks at CI.

Title: Wayfinding and path integration deficits detected using a virtual reality mobile app in patients with traumatic brain injury

Source: PLoS ONE

Inclusion/Exclusion: Exclusion: Focuses on spatial navigation deficits and wayfinding abilities, not on CI.

Title: Ophthalmic Manifestations, Evaluation, and Guidelines for Testing of concussion

Source: Open Ophthalmology Journal

Inclusion/Exclusion: Inclusion: Discusses visual deficits in TBI patients, including CI, presents methods for detecting and tracking these deficits.

Title: Effect of oculomotor rehabilitation on accommodative responsivity in mild traumatic brain injury

Source: Journal of Rehabilitation Research and Development

Inclusion/Exclusion: Inclusion: Cohort of TBI patients, assesses accommodative responsivity, significant findings relevant to CI.

Title: Veterans with Traumatic brain injury-related Ocular injury and vision Dysfunction: Recommendations for Rehabilitation

Source: Optometry and Vision Science

Inclusion/Exclusion: Inclusion: Large cohort of TBI patients, assesses vision dysfunctions relevant to CI, discusses recommendations for vision rehabilitation.

Title: Pathway of care for visual and vestibular rehabilitation after mild traumatic brain injury: a critical review

Source: Brain Injury

Inclusion/Exclusion: Inclusion: Discusses pathway to care for visual and vestibular rehabilitation in mTBI patients, highlights lack of standardized pathways, need for more clinical trials.