



# Fact Sheet Summarizing VA/DoD Evidence Based Clinical Practice Guideline for Management of Concussion/Mild Traumatic Brain Injury – 2009

This fact sheet summarizes the evidence based recommendations presented in the VA/DoD clinical practice guideline regarding management of concussion/mild traumatic brain injury.

The full guideline is available at: [http://www.healthquality.va.gov/Rehabilitation\\_of\\_Concussion\\_mTBI.asp](http://www.healthquality.va.gov/Rehabilitation_of_Concussion_mTBI.asp)

<b>EARLY EDUCATION</b>	
<b>Strongly recommended</b>	Patients who sustain a concussion/mTBI should be provided with information and education about concussion/mTBI symptoms and recovery patterns as soon as possible after the injury. Education should be provided in printed material combined with verbal review and consist of: <ul style="list-style-type: none"> <li>• Symptoms and expected outcome <b>(A)</b>.</li> <li>• Normalizing symptoms (education that current symptoms are expected and common after injury event) <b>(A)</b>.</li> <li>• Reassurance about expected positive recovery <b>(A)</b>.</li> </ul>
<b>Recommended</b>	Patients who sustain a concussion/mTBI should be provided with information and education about concussion/mTBI symptoms and recovery patterns as soon as possible after the injury. Education should be provided in printed material combined with verbal review and consist of: <ul style="list-style-type: none"> <li>• Techniques to manage stress (e.g., sleep education, relaxation techniques, minimize consumption of alcohol, caffeine and other stimulants) <b>(B)</b>.</li> </ul>
<b>Recommended</b>	Patients should be provided with written contact information and be advised to contact their healthcare provider for follow-up if their condition deteriorates or if symptoms persist for more than 4-6 weeks <b>(B)</b> .
<b>PATIENT PERCEPTION OF SYMPTOMS</b>	
<b>No recommendation for or against</b>	Self-reported symptomatology is an appropriate assessment of the patient’s condition in concussion/mTBI when the history is consistent with having sustained an injury event and having a subsequent alteration in consciousness <b>(C)</b> .
<b>COGNITIVE SYMPTOMS</b>	
<b>Strongly recommended</b>	All individuals who sustain a concussion/mTBI should be provided with information and education about concussion/mTBI symptoms and recovery patterns as soon as possible after the injury <b>(A)</b> .
<b>Recommended</b>	If a pre-injury neurocognitive baseline was established in an individual case, then a post injury comparison may be completed by a psychologist but should be determined using reliable tools and test-retest stability should be ensured <b>(B)</b> .
<b>No recommendation for or against</b>	A patient sustaining a concussion/mTBI should be evaluated for cognitive difficulties using a focused clinical interview <b>(C)</b> .
<b>Not recommended as routine intervention</b>	Comprehensive neuropsychological/cognitive testing is not recommended during the first 30 days post injury <b>(D)</b> .
<b>BEHAVIORAL SYMPTOMS</b>	
<b>Strongly recommended</b>	Treatment of psychiatric/behavioral symptoms following concussion/mTBI should be based upon individual factors and nature and severity of symptom presentation and include psychotherapeutic treatment <b>(A)</b> .
<b>Insufficient evidence to make a recommendation</b>	Treatment of psychiatric/behavioral symptoms following concussion/mTBI should be based upon individual factors and nature and severity of symptom presentation and include pharmacological treatment <b>(I)</b> .
<b>Insufficient evidence to make a recommendation</b>	Individuals who sustain a concussion/mTBI and present with anxiety symptoms and/or irritability should be provided reassurance regarding recovery and offered a several week trial of pharmacologic agents <b>(I)</b> .

<b>DIZZINESS AND DISEQUILIBRIUM</b>	
<b>Recommended</b>	Cognitive distractions or performance of dual tasks are sensitive provocative tests for detection of imbalance and coordination deficits in the acute stage of concussion/mTBI <b>(B)</b> .
<b>No recommendation for or against</b>	Some evidence suggests that vestibular rehabilitation may improve post-traumatic dizziness symptoms <b>(C)</b> .
<b>PERSISTENT COGNITIVE DIFFICULTIES (&gt;4 weeks)</b>	
<b>Recommended</b>	Patients who have cognitive symptoms that do not resolve or have been refractory to treatment should be considered for referral for neuropsychological assessment. The evaluation may consist in clarifying appropriate treatment options based on individual patient characteristics and conditions <b>(B)</b> .
<b>No recommendation for or against</b>	Neuropsychological testing should only be conducted with reliable and standardized tools by trained evaluators, under controlled conditions, and findings interpreted by trained clinicians <b>(C)</b> .
<b>No recommendation for or against</b>	Individuals who present with memory, attention, and/or executive function problems which did not respond to initial treatment (e.g., reassurance, sleep education, or pain management) may be considered for referral to cognitive rehabilitation therapists with expertise in TBI rehabilitation (e.g., speech and language pathology, neuropsychology, or occupational therapy) for compensatory training <b>(C)</b> and/or instruction and practice on use of external memory aids such as a PDA <b>(C)</b> .
<b>PERSISTENT BEHAVIORAL SYMPTOMS (&gt;4 weeks)</b>	
<b>Strongly recommended</b>	Treatment of psychiatric/behavioral symptoms following concussion/mTBI beyond the acute phase should still be based upon individual factors and nature and severity of symptom presentation and include psychotherapeutic treatment <b>(A)</b> .
<b>Insufficient evidence to make a recommendation</b>	Treatment of psychiatric/behavioral symptoms following concussion/mTBI beyond the acute phase should still be based upon individual factors and nature and severity of symptom presentation and include pharmacological treatment <b>(I)</b> .
<b>PHYSICAL REHABILITATION</b>	
<b>Recommended</b>	There is no contraindication for return to aerobic, fitness and therapeutic activities after concussion/mTBI. Non-contact, aerobic and recreational activities should be encouraged <u>within the limits of the patient's symptoms</u> to improve physical, cognitive and behavioral complaints and symptoms after concussion/mTBI <b>(B)</b> .
<b>LABORATORY TESTS</b>	
<b>Insufficient evidence to make a recommendation</b>	There is insufficient evidence to support the use of serum biomarkers for concussion/mTBI in clinical practice <b>(I)</b> .
<b>MULTIPLE CONCUSSIONS</b>	
<b>Insufficient evidence to make a recommendation</b>	The management of a patient who has sustained multiple concussions should be similar to the management for a single concussion/mTBI <b>(I)</b> .
<b>Insufficient evidence to make a recommendation</b>	The patient with multiple concussions and his/her family should be educated to create a positive expectation of recovery <b>(I)</b> .

## U.S. Preventive Services Task Force Grade Definitions

<b>Level of Evidence</b>	<b>Recommendation</b>	<b>Description</b>
<b>A</b>	Strong recommendation that the clinicians provide the intervention to eligible patients	Good evidence was found that the intervention improves important health outcomes and concludes that benefits substantially outweigh harm
<b>B</b>	A recommendation that clinicians provide the service to eligible patients	At least fair evidence was found that the intervention improves health outcomes and concludes that benefits outweigh harm
<b>C</b>	No recommendation for or against the routine provision of the intervention	At least fair evidence was found that the intervention can improve health outcomes, but concludes that the balance of benefits and harms is too close to justify a general recommendation
<b>D</b>	Recommendation is made against routinely providing the intervention to patients	At least fair evidence was found that the intervention is ineffective or that harms outweigh benefits
<b>I</b>	Evidence is insufficient to recommend for or against routinely providing the intervention	Evidence that the intervention is effective is lacking, of poor quality, or conflicting, and the balance of benefits and harms cannot be determined