

HOT Evidence

Cognitive Interventions for Adults With Traumatic Brain Injury

Why This Matters

- ▶ **Occupational performance deficits** associated with **cognitive impairment** are **common following traumatic brain injury (TBI)**.
- ▶ Across the range of mild to severe TBI the most frequently occurring cognitive impairments are in information **processing speed, memory, and executive functions**.
- ▶ **Severity of occupational performance deficits** following TBI are associated with both **time since injury and injury severity**.

Improving Cognition

Evidence-Based Interventions

Cognitive Remediation

Intervention

Outcome



Self-awareness training (group or virtual reality-based)

Self-awareness and executive function



Problem-solving training, or cognitive behavioral therapy plus computer-based cognitive rehabilitation

Improve symptoms and increase attention



Virtual reality alone or in combination with traditional intervention

Executive functions, pre-driving skills, memory, word fluency, life satisfaction



Long duration cognitive computer training and T'ai Chi

Physical functioning

Strategy Training

Intervention

Outcome



Technology for strategy training

Improved sleep, achievement of functional goals, and reduction in memory failures (mild TBI)



Error-based learning for task/habit training

Self-awareness and behavioral competence (severe TBI)



Habit-based errorless learning

Improving functional performance (severe memory impairments)



Automated prompting systems

Successful performance of morning routines and cooking tasks

Find the Evidence

Visit <https://research.ota.org/ajot> to review the **Systematic Review Briefs** on this topic