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MADISON NEUROLOGY LLC

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Neurology Care 7 days a Week. Because Your Brain Matters.

Traumatic Brain Injury and Concussion

Patient education guide · Brain & Spine Injury and Other · Madison Neurology LLC

What is it?

A concussion is a mild traumatic brain injury — a functional disturbance of the brain caused by a blow or jolt to the head or body, causing symptoms such as headache, fogginess, dizziness, and nausea. Most concussions resolve fully within days to weeks. Moderate-severe TBI involves structural injury (bruising, bleeding) with longer recovery. Persistent symptoms beyond a month define 'post-concussion syndrome' and are treatable.

How does it happen?

Falls (especially in older adults), motor vehicle collisions, sports injuries, and assaults are the leading causes. The brain shifts within the skull, stretching nerve fibers and triggering a temporary metabolic disturbance — no structural damage is seen on standard scans after concussion, which is normal and expected.

Common symptoms

- Headache, pressure, and fogginess
- Dizziness, balance problems, nausea
- Sensitivity to light and noise; blurred vision
- Difficulty concentrating, memory lapses, slowed thinking
- Sleep changes, irritability, anxiety or low mood; fatigue

How is it diagnosed?

Diagnosis is clinical, from the mechanism and symptoms. CT is used selectively to rule out bleeding after significant injuries (per validated rules); standard MRI is usually normal after concussion. Red flags — worsening headache, repeated vomiting, increasing confusion, weakness, unequal pupils, seizure — mandate emergency evaluation. After moderate-severe TBI, imaging and

neuropsychological testing map the injury.

How is it treated?

Current concussion care emphasizes relative rest for 24-48 hours, then gradual, guided return to activity — prolonged strict rest ('cocooning') actually delays recovery. Sub-symptom-threshold aerobic exercise speeds recovery in persistent cases. Targeted treatments address specific persistent symptoms: headache management, vestibular therapy for dizziness, vision therapy, cognitive rehabilitation, and mood treatment. Sleep normalization is foundational. Moderate-severe TBI involves acute neurosurgical care followed by structured rehabilitation.

What does the future hold?

Most concussions resolve fully within 2-4 weeks (a bit longer in adolescents). Persistent post-concussion symptoms respond to targeted treatment and usually resolve over months. Moderate-severe TBI recovery continues for 1-2 years or more, with rehabilitation driving major gains. Protection against repeat injury matters — a second concussion before recovery is riskier.

Questions patients commonly ask

Q: My CT was normal — so nothing is wrong?

A: Concussion is a functional disturbance, not structural damage; normal scans are expected and good news — symptoms are real regardless and guide treatment.

Q: Should I rest in a dark room until I'm better?

A: No — 24-48 hours of relative rest, then gradual activity below symptom threshold; prolonged isolation slows recovery.

Q: When can I return to sports or work?

A: Through a graded return-to-activity protocol — symptom-limited progression over days to weeks, cleared by your clinician.

National support groups & resources

- **Brain Injury Association of America** — biausa.org — 1-800-444-6443
- **American Academy of Neurology — Brain & Life patient resources** — brainandlife.org
- **Centers for Disease Control and Prevention** — cdc.gov

(Organization contact details were current at the time of compilation; please verify online.)

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