

## RISK FACTORS FOR MORE SEVERE INJURY

- Age > 60 years old
- Recurrent vomiting
- Loss of consciousness
- Severe mechanism of injury
- Severe/worsening headache
- Posttraumatic Amnesia
- Glasgow Coma Score < 15</li>
- Posttraumatic seizure
- Focal neurologic deficit
- Clinical suspicion for skull fracture

#### **EXERCISE - SLEEP - NUTRITION**

- Early cardio exercise (usually stationary bike or brisk walking/jogging) to support recovery for at least 20 minutes, 4x per week beginning the first week of recovery
- Sleep is likely to be disrupted during concussion recovery – advise sleep hygiene strategies
- Review appropriate hydration, proper nutrition, and avoidance of alcohol and excessive caffeine

#### **ANXIETY AND MOOD**

- Advise tracking mood to identify triggers
- Discuss that tasks may take longer than usual to complete during recovery
- Review relaxation strategies to reduce day-to-day stress and support a positive outlook

# ADULT MILD TBI GUIDELINES for clinicians

Stanford Brain Performance Center

#### **ASSESS**

**Assess symptoms** using validated symptom scales.

- Assess for concussion subtypes with cognitive, balance, and vestibulo-oculomotor testing
- Identify risk factors for poor prognosis

**Consider additional diagnoses** such as intoxication, hyperglycemia, dehydration, stroke etc.

#### COUNSEL

#### **Provide information:**

- Warning signs of more serious injury
- Typical recovery course and risk factors for poor prognosis
- Future injury prevention strategies
- The need for social and emotional support

**Offer clear instructions** on a return to activity customized to the patient's symptoms.

- Gradual return to physical and cognitive activity after 2-3 days of rest. Symptom exacerbation with physical activity is normal.
- No contact sports, risky activity, or driving until cleared for return by a physician.

#### REFER

### **Identify and tailor** treatment plans to address:

- Acutely worsening symptoms, considering neuroimaging
- Concussion subtypes (page 2)
- Appropriate referrals



# Stanford Brain Performance Center CONCUSSION SUBTYPE CLASSIFICATIONS

Subtype		Symptom	Therapeutic*
**	Vestibular	<ul><li>Dizziness</li><li>Head movements cause symptoms</li></ul>	<ul><li>Vestibular physical therapy</li></ul>
4	Ocular-motor	<ul> <li>Difficulty focusing on moving objects or objects moving closer</li> <li>Fatigue with reading</li> </ul>	Dynamic vision therapy
	Cognitive	<ul><li>Problems concentrating or remembering</li><li>Problems completing tasks</li></ul>	<ul><li>Cognitive-behavioral therapy</li><li>Neuropsychologist***</li></ul>
	Headache/Migraine	Light and/or noise sensitivity associated with Headaches	<ul> <li>Analgesia and avoidance of triggers</li> <li>Headache Clinic***</li> </ul>
	Anxiety/Mood	<ul> <li>Anxious and/or depressed</li> </ul>	<ul><li>Psychiatrist and counseling***</li></ul>
	Cervical Strain**	<ul> <li>Moving neck causes symptoms, neck pain, and/or headache</li> </ul>	• Neck physical therapy
	Sleep Disturbance **	<ul><li>Trouble going to sleep</li><li>Waking at night</li><li>Fatigue during the day</li></ul>	• Sleep Medicine Clinic***

- \*Early cardio exercise and sleep hygiene is recommended for the recovery of all subtypes
- \*\*Cervical strain and sleep disturbance are concussion-associated conditions
- \*\*\*Consider referral for severe or prolonged symptoms greater than 2-4 weeks

### **Stanford Concussion Clinic Locations**

Neuroscience Health Center 213 Quarry Road Palo Alto, CA 94304 Phone: (650) 723-6469

Lucile Packard Children's Hospital 321 Middlefield Road, Suite 225 Menlo Park, CA 94025 Phone: (650) 723-0991 Sports Medicine Clinic 450 Broadway Street Redwood City, CA 94063 Phone: (650) 723-5643

