

Cheap Nursing CEUs

Identifying and Managing Concussions

1. When educating a 17-year-old athlete and his caregiver about what a concussion is, which description best reflects the current evidence-based definition?

- A. A concussion is a type of traumatic brain injury caused by a bump, blow, or jolt to the head or body that makes the brain move rapidly within the skull, leading to chemical changes and mechanical damage to brain cells.
 - B. A concussion is a scalp injury in which blood collects under the skin and causes a visible bruise but no change in brain function.
 - C. A concussion is a brief electrical misfiring in the brain that causes seizures without any underlying structural or chemical changes.
 - D. A concussion is a fracture of one or more skull bones that always produces visible bleeding and loss of consciousness.
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2. A nurse is teaching colleagues about the acute pathophysiology that follows a concussion. Which explanation best describes the neurometabolic cascade after the initial mechanical force?

- A. The primary event is vasospasm that completely shuts down glutamate signaling, preserving mitochondria and preventing significant metabolic disturbance.
 - B. Mechanical stretching of neurons causes an immediate increase in GABA and rapid restoration of ionic balance, so most brains return to metabolic homeostasis within a few hours.
 - C. Shearing of neuronal membranes leads to an influx of sodium and calcium and efflux of potassium, triggering excessive glutamate release, disruption of the glutamate–GABA balance, mitochondrial dysfunction, and an energy crisis in neurons that can last 5–10 days.
 - D. Localized calcium depletion and enhanced astrocytic uptake of glutamate produce a transient hypermetabolism that resolves within 24 hours without affecting neuronal function.
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3. A patient presents with persistent irritability, headaches, "brain fog," difficulty concentrating, and sleep disturbance several days after a concussion. The nurse explains that these symptoms are often associated with dysfunction in which brain structure?

- A. Amygdala, which is involved in emotional and cognitive processing and is linked to symptoms such as irritability, headaches, brain fog, and sleep disturbances after concussion.
 - B. Cerebellum, which primarily coordinates voluntary movement and balance and is not typically linked to irritability or emotional changes.
 - C. Broca's area, which mainly governs speech motor control and language production rather than mood and arousal.
 - D. Primary visual cortex in the occipital lobe, which would be expected to produce isolated visual field defects rather than broad emotional and cognitive changes.
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4. A parent asks, "What grade of concussion did my child have?" Which response by the nurse best reflects current evidence-based practice on concussion classification?

- A. We no longer use a Grade I–III system. Concussions are considered present or not, and we individualize care based on each person's specific symptoms and recovery course rather than a numerical grade.
 - B. All concussions are now considered Grade I because they are classified as mild traumatic brain injuries, so grading no longer affects management.
 - C. Concussions are strictly categorized as mild, moderate, or severe at the time of injury, and this early grade accurately predicts how long recovery will take.
 - D. Grading has been replaced by symptom counting, so we assign a grade based on how many different symptoms your child reports on the first day.
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5. Researchers have identified concussion subtypes using EEG data. How can these EEG-based subtypes most usefully inform clinical management?

- A. They allow clinicians to diagnose concussion solely from EEG without needing a history or physical examination, replacing traditional assessment methods.
 - B. They can reveal patterns such as frontal connectivity abnormalities linked to higher depression risk or hippocampal involvement linked to post-traumatic stress risk, helping clinicians anticipate complications and tailor follow-up and interventions.
 - C. They provide a reliable way to determine, on the day of injury, exactly how many weeks each patient will need before returning safely to full contact sports.
 - D. They confirm that symptom reports alone are sufficient for subtyping, showing no meaningful relationship between EEG findings and underlying pathophysiology.
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6. During a pre-participation sports physical, which adolescent should the nurse recognize as having the highest baseline risk for sustaining a concussion based on known risk factors?

- A. A 15-year-old boy who swims competitively in non-contact events and has never missed practice due to injury.
 - B. A 17-year-old boy who runs cross-country and has no history of head injury.
 - C. A 16-year-old girl who plays competitive soccer and previously had a concussion the year before.
 - D. A 16-year-old girl who participates only in low-impact yoga classes and has no medical history.
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7. A community coach asks how to reduce the risk of sport-related concussions in a youth tackle football league. Which recommendation is most consistent with the evidence presented in the course?

- A. Discourage players from reporting vague symptoms like headache or dizziness so they do not lose playing time unnecessarily.
- B. Increase full-contact scrimmages early in the season so players can "toughen up" and adapt to repeated head impacts more quickly.

- C. Limit the number of contact practices, strictly enforce rules against hitting another player in the head or using the head to make contact, and support players who report concussion symptoms and need to sit out.
 - D. Rely primarily on improved conditioning and weight training to prevent concussions without changing practice structure or contact rules.
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8. A caregiver says, "His first concussion got better in a week, so this one should be the same, right?" Which response best reflects how nurses should counsel about recovery patterns?

- A. Because he recovered quickly from his first concussion, this one is guaranteed to resolve in the same time frame or faster.
 - B. Recovery is influenced by many complex factors, and no two concussions are exactly the same, so his prior experience does not reliably predict how quickly he will recover this time.
 - C. The time course of recovery is determined primarily by the mechanism of injury, so similar injuries always produce similar recovery durations.
 - D. Once someone has had one concussion, all subsequent concussions follow a standardized recovery timeline that can be predicted within a day or two.
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9. A teen is evaluated in the emergency department 24 hours after a concussion. Which symptom would most strongly indicate the need for urgent escalation of care rather than routine outpatient follow-up?

- A. Difficulty concentrating on homework but no change in orientation or behavior.
 - B. Persistent mild headache that improves with rest and over-the-counter analgesics.
 - C. New onset of slurred speech and increasing confusion compared with the initial exam.
 - D. Increased sensitivity to light and noise without any motor or level-of-consciousness changes.
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10. Why is identifying concussion symptoms particularly challenging in very young children such as toddlers and infants?

- A. Computed tomography is contraindicated in this age group, making it impossible to distinguish concussion from normal developmental variability.
 - B. They rarely sustain concussions, so most assessment tools are intentionally designed only for school-aged children and adolescents.
 - C. They cannot reliably verbalize symptoms, undergo rapid developmental changes, may have limited cooperation, and often lack age-appropriate, validated assessment tools, so clinicians must rely heavily on behavioral changes and caregiver reports.
 - D. Their brains are fully mature structurally, so they tend to show either no symptoms or immediate coma, making subtle symptom identification unnecessary.
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11. Using the Canadian CT Head Rule, which adult patient after minor head trauma most clearly meets criteria for a head CT to evaluate for possible neurosurgical injury?

- A. A 25-year-old with a brief loss of consciousness, now GCS 15, no vomiting, and a normal neurologic exam after being struck by a soccer ball.

- B. A 70-year-old with a Glasgow Coma Scale score of 15 two hours after injury who has had two episodes of vomiting and a minor fall down six stairs.
 - C. A 30-year-old who reports a mild headache after bumping his head on a cabinet but denies amnesia, vomiting, or loss of consciousness.
 - D. A 40-year-old with transient dizziness after a low-speed rear-end motor vehicle collision and no current neurologic deficits.
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12. A parent asks why their child with a suspected concussion is not getting an MRI. Which explanation best reflects the role of imaging in concussion care?

- A. Concussions are diagnosed clinically from history and exam; CT may be used to rule out emergencies like skull fracture or hemorrhage when risk factors are present, but MRI is not routinely needed for diagnosis and is generally reserved for atypical or prolonged recoveries or for research.
 - B. MRI is the preferred test to confirm every concussion, but we delay it for at least a month so the brain has time to heal on its own.
 - C. CT and MRI are interchangeable for concussion, and we avoid imaging entirely because it has no role in identifying serious complications.
 - D. MRI is the standard tool to grade concussions from I to III and to decide when an athlete can safely return to play.
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13. An athletic trainer is using the SCAT6 on the sideline after a football player is hit. Which statement about the SCAT6 should guide how the trainer interprets the results?

- A. SCAT6 is a definitive diagnostic test that can replace the clinical exam and fully determine whether a concussion has occurred.
 - B. SCAT6 is a multimodal sideline assessment used within the first 72 hours (and up to 7 days) after a sports-related head injury to aid evaluation, but it is not a stand-alone diagnostic tool and should not be used by itself to clear an athlete to return to play.
 - C. SCAT6 is designed to be valid only when used more than two weeks after injury and is primarily a rehabilitation outcome measure.
 - D. SCAT6 results alone dictate immediate return-to-play decisions if the athlete scores within normal limits, regardless of symptom reports.
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14. A sports medicine provider sees an athlete 10 days after a concussion with ongoing symptoms. How is the SCAT6 most appropriately used in this context?

- A. As a replacement for all neuropsychological testing, because its scores can fully characterize the athlete's cognitive status.
 - B. As an emergency department triage tool to decide which patients need an immediate CT scan and neurosurgical consultation.
 - C. As an office-based, structured assessment (available for adults and children) that helps evaluate persistent post-concussion problems and provides stepwise guidance for returning to school and sports activities.
 - D. As a sideline screening checklist that must be completed within the first 24 hours or it becomes invalid.
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15. A 17-year-old is two days post-concussion and asks how much rest is needed. Which guidance is most consistent with evidence-based recommendations in this course?

- A. Stay in a dark, quiet room and completely avoid all physical and cognitive activity until absolutely all symptoms have disappeared for at least four weeks.
 - B. Have 1–2 days of relative physical and cognitive rest, then gradually resume light activities such as short walks and simple tasks, increasing intensity stepwise about every 24 hours as long as symptoms do not significantly worsen.
 - C. Return to full schoolwork, video gaming, and sports as soon as he feels bored, even if symptoms briefly worsen, to speed brain adaptation.
 - D. Avoid any physical activity indefinitely because even mild aerobic exercise has been shown to delay neurological recovery after concussion.
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16. A patient has persistent dizziness and visual tracking problems several weeks after a concussion, while another patient has primarily mood disturbance and anxiety. Which management approach best reflects the targeted therapy strategy described in the content?

- A. Treat both patients with opioids as first-line therapy to control discomfort, even if this may mask changes in cognition or mental status.
 - B. Prescribe high-dose sedatives for both patients to suppress central nervous system activity and allow uniform brain healing.
 - C. Refer the patient with dizziness and visual problems for vestibular or vision therapy and consider cognitive-behavioral therapy for the patient with mood and anxiety symptoms.
 - D. Avoid any referrals until six months have passed, because most targeted therapies have no role in concussion-related symptoms.
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17. Which description best characterizes post-concussion syndrome as presented in this course?

- A. Any headache that occurs within 24 hours of a concussion, regardless of whether other symptoms are present or how long they last.
 - B. A condition in which concussion-related physical, cognitive, behavioral, or emotional symptoms persist beyond the usual recovery period—often defined as more than three weeks by ICD-10, or at least three months of cognitive deficits plus multiple qualifying symptoms by DSM-IV.
 - C. A syndrome that develops only after severe traumatic brain injury with documented intracranial hemorrhage on imaging.
 - D. A complication whose likelihood is directly proportional to the initial concussion grade and reliably predicted by the GCS score alone.
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18. A high school athlete asks why he cannot return to play while still having concussion symptoms. Which explanation about second impact syndrome is most accurate?

- A. Second impact syndrome refers to a minor extension of the original concussion that causes only transient dizziness but no long-term risk.

- B. If another head injury occurs before the brain has fully recovered, metabolic abnormalities can make it extremely vulnerable, leading to rapid brain swelling, critically increased intracranial pressure, herniation, and death within minutes.
 - C. It occurs only when athletes lose consciousness with the first concussion, so persistent symptoms without loss of consciousness are not concerning.
 - D. Its risk is eliminated as long as the athlete wears a helmet, so symptom status is less important than equipment use when deciding to return to play.
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19. When educating a retired boxer about chronic traumatic encephalopathy (CTE), which statement should the nurse include?

- A. CTE occurs exclusively in individuals with documented brain hemorrhage and does not affect athletes who have experienced only mild head impacts.
 - B. CTE is an acute, reversible complication that appears days after a single concussion and resolves completely with rest and hydration.
 - C. CTE can be reliably ruled out by a normal head CT in midlife, so no further monitoring is needed once imaging is normal.
 - D. CTE is a progressive neurodegenerative condition linked to repeated head trauma and subconcussive blows, characterized by abnormal tau protein deposition and associated with cognitive decline, mood and behavior changes, and eventual severe impairment; it can currently be definitively diagnosed only after death.
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20. A nurse is preparing discharge teaching for a teenager with a concussion. Which education priority best combines symptom management, activity guidance, and safety to reduce complications?

- A. Explain common symptoms to expect; emphasize 1–2 days of rest followed by a gradual return to school and light activity; instruct him to stop any activity that worsens symptoms; review red-flag signs that require immediate medical attention; and stress avoiding another head injury until fully recovered.
 - B. Advise him to resume normal school, sports, and screen time the same week as the injury, as long as symptoms are tolerable with pain medication.
 - C. Recommend strict bed rest in a dark room for at least a month and avoidance of all social contact to prevent symptom triggering.
 - D. Focus primarily on helmet selection, as equipment choice is sufficient to prevent most post-concussion complications regardless of activity level or symptom course.
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