

DEFINITION OF CONCUSSION OR MILD TRAUMATIC BRAIN INJURY

The technical definition of a concussion, or a mild traumatic brain injury (mTBI) vary.

The NCAA Sports Medicine Handbook defines it as “a complex pathophysiological process affecting the brain, induced by traumatic biomechanical forces.”

The American Congress of Rehabilitation Medicine, in 1993 published one of the first definition of mTBI as a “traumatically induced psychological disruption of brain function, as manifested by at least one of the following:

1. any period of loss of consciousness;
2. any period of loss of memory for events immediately before or after the accident;
3. any alteration in mental state at the time of the accident (eg, feeling dazed, disoriented, or confused); and
4. focal neurological deficit(s) that may or may not be transient; but where the severity of the injury does not exceed the following:
 - loss of consciousness of approximately 30 minutes or less;
 - after 30 minutes, an initial Glasgow Coma Scale (GCS) of 13–15; and
 - posttraumatic amnesia (PTA) not greater than 24 hours.”

The Centers for Disease Control and Prevention in a report to congress defined mTBI as

[A]n injury to the head as a result of blunt trauma or acceleration or deceleration forces that result in one or more of the following conditions:

Any period of observed or self-reported:

- Transient confusion, disorientation, or impaired consciousness;
- Dysfunction of memory around the time of injury
- Loss of consciousness lasting less than thirty minutes.

Observed signs of neurological or neuropsychological dysfunction, such as:

- Seizures acutely following injury to the head;
- Among infants and very young children: irritability, lethargy, or vomiting following head injury;
- Symptoms among older children and adults such as headache, dizziness, irritability, fatigue or poor concentration, when identified soon after injury, can be used to support the diagnosis of mild TBI, but cannot be used to make the diagnosis in the absence of loss of consciousness or altered consciousness.

CAUSES OF CONCUSSIONS/mTBI

Concussions may occur as a result of a direct blow to the head, or after a blow elsewhere that is transmitted to the head.

SYMPTOMS OF CONCUSSIONS/mTBI

There are many signs and symptoms of a concussion, including but not limited to headaches, dizziness, and loss of consciousness (which only occurs in about 10% of concussions)¹.

In addition, there are several symptoms of concussion that are non-specific to concussion, such as nausea, vomiting and headache which are a common presentation of acute gastroenteritis, and dizziness which is a common symptom of acute cardiac compromise. Some symptoms also overlap with other disorders such as sleep disturbances, depression and attention deficit disorder ADD, thus it is helpful to determine whether these symptoms were present prior to the injury.

Symptoms generally fall into one of the following categories, and are additional evidence that a mild traumatic brain injury has occurred:

1. physical symptoms of brain injury (eg, nausea, vomiting, dizziness, headache, blurred vision, sleep disturbance, quickness to fatigue, lethargy, or other sensory loss) that cannot be accounted for by peripheral injury or other causes;
2. cognitive deficits (eg, involving attention, concentration, perception, memory, speech/language, or executive functions) that cannot be completely accounted for by emotional state or other causes; and
3. behavioral change(s) and/or alterations in degree of emotional responsiveness (eg, irritability, quickness to anger, disinhibition, or emotional lability) that cannot be accounted for by a psychological reaction to

CAUSES OF ACTION INVOLVING CONCUSSIONS/mTBI

Negligence

A negligence action may arise in an automobile accident, slip and fall accidents, or sports injuries. Plaintiff must prove duty, breach of duty, injury resulting from that breach, and damages that are proximately caused by the breach. Am. Jur. 2d, Negligence §§ 71 to 131.

Cerny v. Cedar Bluffs Junior/Senior Pub. Sch., 628 N.W.2d 697 (Neb. 2001), a high school football player brought a negligence claim alleging he sustained injuries as a result of the school and his coach's negligence in not identifying and treating his alleged head injury. Coach was held to the standard of a reasonable state-endorsed football coach.

Medical Malpractice

A medical malpractice claim may be brought against a physician or health care provider in situation involving concussions and head injuries. The elements of a medical

¹ Kimberly Harmon et al., *American Medical Society for Sports Medicine Position Statement: Concussion in Sport*, 23 Clinical J. Sport Med. 1, 3 (Jan. 2013).

malpractice claim is 1) the existence of a legal duty (i.e. physician-patient relationship), 2) breach of that duty and 3) the breach being the proximate cause of an injury, which 4) results in damages. (cite)

Gregory v. Corland Mem. Hosp., 802 N.Y.S.2d 579 (N.Y. App. Div. September 30, 2005), parent sued hospital and physician for failing to properly diagnose and treat their child. Court found that while defendants were negligent in failing to accurately diagnose the child, their failure was the proximate cause of the injuries.

Products Liability

Claims of products liability involving concussions or head injuries are brought against manufacturers of athletic equipment, seat belts and air bags.

Brown v. Borruso, 238 A.D.2d 884 (N.Y.A.D. 4 Dept. Apr. 25, 1997), injured motorist brought a claim for defective seat belt locking mechanism in a case in which the seat belt was secured before the accident, but was not secured after the accident, and the motorist suffered a head injury in the accident.

Riddell, Inc. v. Schutt Sports, Inc., 724 F.Supp2d 963 (W.D. Wis. 2010), where one helmet manufacturer filed suit against another helmet manufacturer claiming infringement of its jaw flap patents, false advertisement, trade libel and product disparagement.

Chandler v. Gene Messer Ford, Inc., 81 S.W.3d 49 (Tex. App. 2002), action against automobile dealer for misrepresentation, alleging salesperson told Plaintiff's vehicle with dual air bags was safer for children than competitors vehicle with only a side air bag, where child sustained a head injury.

Workers Compensation

If an employee sustains a concussion in a work-related injury, worker's compensation benefits may be available.

However, where an employee suffers multiple concussions, it may be difficult to prove that the cumulative damage is caused by the work-related injury. For example, professional athletes claiming workers compensation have difficulty proving that the cumulative damage is caused by past repeated concussions and not from other factors. See *Michell L. Modery, Injury Time-Out Justifying Worker's Compensation Awards to Retired Athletes With Concussion-Caused Dementia*, 84 Temp. L. Rev. 247 (Fall 2011)

DEFENSE INVOLVING CONCUSSIONS/mTBI

Comparative Fault/Contributory Negligence

Contributory negligence and comparative negligence/fault are affirmative defenses a defendant must plead.

In jurisdiction where contributory negligence is still recognize, a plaintiff may be barred from recovering any damages.

Under comparative fault, a percentage of negligence is attributed to each party whose negligence was the proximate cause of Plaintiff's damages, including the Plaintiff.

Assumption of the Risk

A plaintiff who voluntarily consents, either expressly or impliedly, cannot later recover damages incurred from exposure to that risk. To prevail, defendant must show that (1) plaintiff had actual knowledge of the danger; (2) plaintiff understood and appreciated the risks associated with the danger; and (2) plaintiff voluntarily exposed him or herself to that danger.

Roberts v. Boys and Girls Republic, Inc., 51 A.D. 3d 246 (N.Y.A.D. 1 Dept Jan 08, 2008), court found that bystander assumed the risk of being struck by a baseball bat when she voluntarily entered on an on-deck area where players swung bats during warm ups.

Malingering

Malingering occurs when a Plaintiff deliberately invents or exaggerates symptoms for gain. See Diagnostic & Statistical Manual of Mental Disorders (4th ed. 1994) (defining malingering as the intentional production of grossly exaggerated physical or psychological symptoms, motivated by external incentives.)

Release

A release, or waiver of liability, exempts or releases a person from liability.

This document is typical in athletic activities. A typical release provides that in consideration for being permitted to participate in the sports activity on the premises, the participant will release, waive, discharge and covenant not to sue.

EVIDENTIARY ISSUES CONCERNING CONCUSSIONS

Admissibility of Medical Evidence

Admissibility of medical evidence in an action involving a concussion or head injury turn on several considerations, such as whether the evidence is relevant, material, competent, or has proper foundation.

Expert Testimony

Expert medical testimony must be scientifically reliable. Testimony of physician that customer's fall caused post-concussion syndrome was scientifically reliable even though physician last examined the customer almost 10 years before trial. *Sears Roebuck and Co. v. Manuilove*, 742 N.E.2d 453 (Ind. 2011).

Expert medical testimony must also be relevant. Testimony as to the symptoms of post-concussion syndrome was found to be irrelevant in an action for wrongful death. *Hogsed v. Ray*, 88 N.C. App. 673, 364 S.E.2d 688 (1988).

Diagnostic Tools

In a litigation involving concussions the most common scientific diagnostic tools used are CT scans and MRIs. However, there are several advanced scanning techniques one might use, including diffusion tensor imaging, single photon emission computed tomography and functional magnetic-resonance imaging for early detection of mTBI.

But the most persuasive evidence will probably come from “before” and “after” fact witnesses, who can speak to the changes in the victim.

Other Evidentiary Consideration

Statute of limitations may be a concern where there is a lapse between the concussion/head injury and diagnosis. Worker’s compensation claim was denied after claimant filed claim ten years after traumatic brain injury because the employer did not have actual knowledge of the claimants alleged traumatic brain injury within the statute of limitations. *Weikle v. Southland Corp.*, No. 1346-02-3, 2003 WL 943054 (Va. Ct. App. March 11, 2003).

DAMAGES

With respect to damages for head injury and conclusions, there is a definite correlation between the amount of special damages, such as medical expenses and loss earning, and the award for pain and suffering. Am. Jur. 2d, Damages §§ 244, 245.

Damage award of \$5,750, for victim who sustained some bruising on forehead, a mild cerebral concussion and injury to neck and lower back with a recovery time of less than one month. Award was made up of \$3,000 in general damages, \$450 in lost earnings and \$2,300 in medical and car rental expenses. *Marks v. Louisiana Farm Bureau Casualty Ins. Co.*, 556 So.2d 949 (La. Ct. App. 1986).

Damages include: pain and suffering, past and future medical expenses, lost earnings, and loss of earning capacity.

TRENDS

Forty-nine states and the District of Columbia have enacted strong youth sports concussion safety laws since May 2009, all modeled on Washington State's groundbreaking Zackery Lystedt Law

The key provisions of the Zackery Lystedt Law are as follows:

- **Guidelines/education:** Calls for school districts board of directors and state interscholastic activities association to develop concussion guidelines and educational programs.
- **Mandatory consent:** Requires youth athletes and a parent and/or guardian sign and return a concussion and head injury information sheet on a yearly basis before the athlete's first practice or being allowed to compete;

- **Immediate removal if concussion suspected:** Youth athletes suspected of having sustained a concussion in a practice or game must be immediately removed from competition; and
- **Written clearance before return to play:** Youth athletes who have been taken out of a game because of a suspected concussion are not allowed to return to play until after:
 - **being evaluated** by a health care provider with specific training in the evaluation and management of concussions *and*
 - receiving **written clearance to return to play** from that health care provider (this does not strictly bar same day return to play).
- **Legal immunity:** A school district complying with the law is immune from liability for injury or death of an athlete participating in a private, non-profit youth sports program due to action or inaction of persons employed by or under contract with the sports program if:
 - the action or inaction occurs on school property
 - the nonprofit provides proof of insurance, and
 - the nonprofit provides a statement of compliance with the policies for management of concussion and head injury in youth sports.

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