

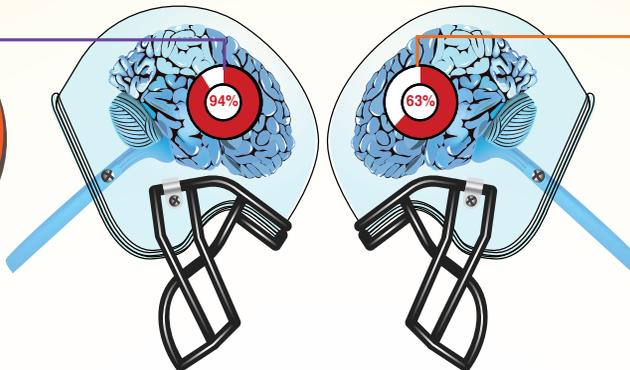
# Post-traumatic HEADACHE

Each year in the United States about 44 million youth and 170 million adults participate in organized sports

Concussion can occur at any age, with any gender, and in any sport

Although most symptoms resolve in 1-2 weeks, symptoms may persist for weeks, months, or years in some individuals

**94%**  
of concussed athletes will experience post-traumatic headache

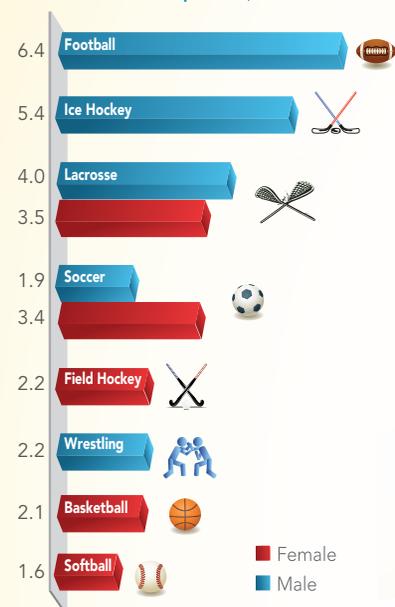


**63%**  
of post-traumatic headaches have the same features as MIGRAINE

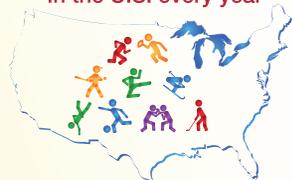
Post-traumatic headache is the most common symptom of concussion and it can delay the return to sports, school, and work in some individuals

Headache specialists are uniquely trained to address post-traumatic headache

## Concussion rate per 10,000 Athletic Exposures:



**1.7 - 3.8 Million**  
Sports-related concussions occur  
In the U.S. every year



This is likely a significant underestimate since up to 50% of athletes do not report and/or recognize symptoms of concussion, nor does it take into account asymptomatic or subclinical concussive brain injury.

Pre-existing **MIGRAINE** is a risk factor for concussion and post-traumatic headache

Post-traumatic **HEADACHE** following concussion should be treated early and aggressively

Migraine is a risk factor for prolonged recovery

A progressively worsening headache after concussion warrants prompt medical evaluation

62% of post-traumatic headaches persist beyond 3 months

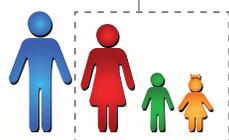
Early referral to a headache specialist may decrease the likelihood of transformation to chronic headache



**WHAT A HEADACHE SPECIALIST CAN DO**

Over 36 Million people in the U.S. suffer from migraine or related headache disorders. A headache specialist is well equipped to differentiate headache and associated symptoms as a primary headache disorder versus symptoms of concussion. They can also rule out more serious causes of headache after concussion that may go undetected with routine imaging.

Females and adolescents are at greater risk of developing post-traumatic headache



For equivalent sports, females have a 70% higher rate of concussion

After a concussion, symptom severity is typically higher in females

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### References

- Lucas S, et al. A prospective study of prevalence and characterization of headache following mild traumatic brain injury. *Cephalalgia*. 2014;34(2):93-102.
- Selbert T. Sports concussion and associated post-traumatic headache. *Headache* 2013; 53: 726-736.
- Mihalik JP, et al. Recovery of posttraumatic migraine characteristics in patients after mild traumatic brain injury. *Am J Sports Med*. 2013;41(7):1490-6.
- Lucas S, et al. Characterization of headache after traumatic brain injury. *Cephalalgia*. 2012;32(8):600-6.
- Marar M, et al. Epidemiology of concussions among United States high school athletes in 20 sports. *Am J Sports Med* 2012; 40: 747-755.
- Blume HK, et al. Headache after pediatric traumatic brain injury: a cohort study. *Pediatrics* 2012;129:1-9.
- Daneshvar DH, et al. The epidemiology of sports-related concussion. *Clin Sports Med*. 2011;30:1-17.
- Kutcher JS, Edner JT. At risk populations in sports-related concussion. *Curr Sports Med Rep*. 2010;9(1):16-20.
- Gordon KE, et al. Is migraine a risk factor for the development of concussion? *Br J Sports Med*. 2006; 40(2):184-185.
- Langlois JA, et al. The epidemiology and impact of traumatic brain injury: A brief overview. *J Head Trauma Rehabil*. 2006;21:375-378.
- Rapaport A, et al. Analgesic rebound headache in clinical practice: Data from a physician survey. *Headache* 1996;36:14-

A list of United Council of Neurologic Specialties Diplomates Certified in Headache Medicine is available here:  
[www.ucns.org/globals/axon/assets/10300.pdf](http://www.ucns.org/globals/axon/assets/10300.pdf)



Scan the QR code for more information from the American Headache Society post-traumatic special interest section

