

A Dark Room

CONCUSSIONS AND MENTAL HEALTH: A FACT SHEET FOR EDUCATORS



Concussions can have a significant impact on one's physical well-being and ability to think, leading to mental health disorders as well. Symptoms of these disorders are often invisible, making it more likely that they will go untreated. Individuals who have sustained a concussion face real and serious mental health risks. Arm your students with the facts so that they can take safety precautions, identify the warning signs of concussion, and get on the best treatment plan possible for a faster and fuller recovery.

We recommend that educators collaborate with a school counsellor or a local youth mental-health service provider to create a learning environment that is safe and respectful, ensuring that students are able to discuss concussions and mental health openly in the classroom.

PLAY IT SAFE

Almost one-third of people who have sustained a head injury later suffer from a major depressive episode.

What are the symptoms of a major depressive episode (MDE)?

- A low mood (for at least two weeks), making it difficult to function at school, at work or in a social setting
- Feelings of irritability, emptiness, worthlessness, fatigue
- Loss of interest or pleasure in activities one usually enjoys
- Trouble concentrating
- Weight changes
- Trouble sleeping
- Suicidal thoughts

Fast Facts on MDE and Concussion

- If you have suffered a head injury, you are more than twice as likely to suffer depression
- Most patients recover normal mental function within one year of a head injury
- Sometimes, depression can lead to suicidal thoughts
- The long-term risk of suicide for people who have suffered a concussion is three to four times higher than for those who haven't

One in three young athletes experience feelings of anxiety after a concussion.

What are the symptoms of an anxiety disorder?

- Excessive worrying and/or fear, making it difficult to function at school, at work or in a social setting
- Uneasiness
- Muscle tension
- Sweating
- Dizziness
- Shortness of breath

Fast Facts on Anxiety and Concussion

The most common post-concussion anxiety signs are: constant anxiety, fearfulness, intense worry, uneasiness, and withdrawal from friends and family.

Ontario high school students who reported a head injury also reported up to four times more drug use.

What are the symptoms of a substance use disorder?

- A drive to use substances such as prescription drugs, street drugs, and alcohol despite the negative consequences
- Trouble at school, at work or with friends because of alcohol and drugs
- Intense cravings for a substance
- Change in mood and behaviour when the substance is not taken
- Putting a lot of time and energy into getting and using the substance
- Failing to meet school or work responsibilities because of substance use
- Participating in risky activities while under the influence of the drug

Fast Facts on Substance Use Disorder

People who have suffered from a concussion are more likely to smoke cigarettes, drink alcohol, use marijuana, or abuse painkillers.

A Dark Room

CONCUSSIONS AND MENTAL HEALTH: A FACT SHEET FOR EDUCATORS



Getting the Help You Need for Mental Health Concerns after a Concussion

The stigma attached to mental health disorders, regardless of whether they're caused by concussion, can often create a desire to hide one's symptoms. It is important to be proactive and get proper medical advice if you are experiencing post-concussion symptoms.

Possible treatments:

- Learn about when it is considered safe to return to sports and school
- Devise a plan for rest, exercise and nutrition in order to accelerate the healing process
- See a professional for talk therapy. There are many different types of talk therapy that can help treat mental health symptoms, such as cognitive behavioural therapy, interpersonal therapy or group therapy
- See a professional about medication options that could help treat concussion symptoms



A Dark Room

CONCUSSIONS AND MENTAL HEALTH: A FACT SHEET FOR EDUCATORS



REFERENCES

- Fralick, M., Thiruchelvam, D., Tien, H.C., & Redelmeier, D.A. (2016). Risk of suicide after a concussion. *Canadian Medical Association Journal*. DOI:10.1503/cmaj.150790
- Hwang, S.W., Colantonio, A., Chiu, S., Tolomiczenko, G., Kiss, A., Cowan, L., Redelmeier, D.A., & Levinson, W. (2008). The effect of traumatic brain injury on the health of homeless people. *Canadian Medical Association Journal*, 179(8), 779-784.
- Ilie, G., Boak, A., Adlaf, E.M., Asbridge, M., & Cusimano, M.D. (2013). Prevalence and correlates of traumatic brain injuries among adolescents. *JAMA*, 309 (24), 2550-2552.
- Ilie, G., Adlaf, E.M., Mann, R.E., Ialomiteanu, A., Hamilton, H., Rehm, J., Ashbridge, M. & Cusimano, M.D. (2014). Associations between a history of traumatic brain injuries and current cigarette smoking, cannabis use, nonmedical opioid use, and elevated psychological distress in a population sample of Canadian adults. *Journal of Neurotrauma*, 32(14), 1130-1134.
- Ilie, G., Vingilis, E.R., Mann, R.E., Hamilton, H., Toplak, M., Adlaf, E.M., Kolla, N., Ialomiteanu, A., van der Mass, M., Asbridge, M., Vingilis-Jaremko, L., Rehm, J., & Cusimano, M.D. (2015). The association between traumatic brain injury and ADHD in a Canadian adult sample. *Journal of Psychiatric Research*, 69, 174-179.
- Ilie, G., Mann, R.E., Hamilton, H., Adlaf, E.M., Boak, A., Asbridge, M., Rehm, J., & Cusimano, M.D. (2015). Substance use and related harms among adolescents with and without traumatic brain injury. *Journal of Head Trauma Rehabilitation*, 30, 293-301.
- Jorge, R.E., Robinson, R.G., Moser, D., Tatenos, A., Crespo-Facorro, B., & Arndt, S. (2004). Major depression following traumatic brain injury. *Archives of General Psychiatry*, 61, 42-50.
- Konigs, M., Heij, H.A., Sluijs, J.A., Vermeulen, R.J., Goslings, J.C., Luitse, J.S., Poll-The, B.T., Beelen, A., van der Wees, M., Kemps, R.J., Catsman-Berrevoets, C.E., & Oosterlaan, J. (2015). *Pediatric traumatic brain injury and attention deficit*. *Pediatrics*, 136, 534-541.
- Losoi, H., Silverberg, N.D., Wäljas, M., Turunen, S., Rosti-Otajärvi, E., Helminen, M., Luoto, T.M., Julkunen, J., Ohman, J., & Iverson, G.L. (2015). Recovery from mild traumatic brain injury in previously healthy adults. *Journal of Neurotrauma*. DOI: 10.1089/neu.2015.4070
- Miller, S.C., Baktash, S.H., Webb, T.S., Whitehead, C.R., Maynard, C., Wells, T.S., Otte, C.N., & Gore, R.K. (2013). Risk for addiction-related disorders following mild traumatic brain injury in a large cohort of active-duty U.S. airmen. *American Journal of Psychiatry*, 170, 383-390.
- Rao, V., Lyketsos, C. (2002). Psychiatric aspects of traumatic brain injury. *Psychiatric Clinics of North America*, 25, 43-69.
- Silver, J.M., Kramer, R., Greenwald, S., & Weissman, M. (2001). The association between head injuries and psychiatric disorders: Findings from the New Haven NIMH Epidemiologic Catchment Area Study. *Brain Injury*, 15, 935-945.
- Teasdale, J., & Engberg, A.W. (2001). Suicide after traumatic brain injury: a population study. *Journal of Neurology, Neurosurgery, and Psychiatry*, 71, 436-440.
- van der Horn, H.J., Spikman, J.M., Jacobs, B., & van der Naalt, J. (2013). Postconcussive complaints, anxiety, and depression related to vocational outcome in minor to severe traumatic brain injury. *Archives of Physical Medicine and Rehabilitation*, 94(5), 867-874.
- Wasserman, L., Shaw, T., Vu, M., Ko, C., Bollegala, D., & Bhalerao, S. (2008). An overview of traumatic brain injury and suicide. *Brain Injury*, 22, 811-819.
- Yang, J., Peek-Asa, C., Covassin, T., & Torner, J.C. (2015). Post-concussion symptoms of depression and anxiety in Division I collegiate athletes. *Developmental Neuropsychology*, 40(1), 18-23.

CREDITS

Alice Treen, MSc
Michael Vu, MSc
Ryan Todd, MD
Michael D. Cusimano, MD, MHPE, FRCSC, PhD
Shree Bhalerao, MD, FRCPC