## Concussion in Alaska: Long-Term Symptoms and Risks

A concussion is a type of traumatic brain injury (TBI) caused by a bump, blow, or jolt to the head or body that causes the brain to move rapidly back and forth. This movement can stretch and damage brain cells in a way that disrupts normal brain function. Symptoms may include changes in thinking, mood, physical abilities, or sleep, and may not appear right away.

Most people recover within a month, but some experience longer-lasting symptoms or serious complications, especially if the concussion is not identified or managed properly. Early recognition and care can improve recovery and reduce the risk of future problems.



## The Importance of Early Care & Treatment

When concussion recovery is delayed or not prioritized, the effects can become long-term and life-altering. What may start as mild or manageable symptoms can develop into chronic challenges with thinking, emotions, and daily functioning.

Understanding the risks of untreated or poorly managed concussion highlights how important it is to take each step in the recovery process seriously.

Early attention and follow-up care give the best chance for healing and help prevent more serious complications down the road.

# Persistent Post-Concussion Symptoms (PPCS) or Post-Concussion Syndrome (PCS)

Between 10-30% of concussion patients suffer with symptoms persisting beyond one or two months. When this occurs, the patient may be diagnosed with PPCS or PCS.<sup>1</sup>

### **Mental Health Conditions**

- Up to 1 in 5 individuals experience mental health symptoms within 6 months following a concussion.<sup>2</sup>
- Among adults with no history of depression, the risk of developing it rises to 40% after injury. For those with a history of depression, the risk increases to 60-70%.<sup>3</sup>
- Youth with a history of concussions are 40% more likely to develop mental health complications.<sup>2</sup>

## Postural Orthostatic Tachycardia Syndrome (POTS)

POTS is a chronic condition where the nervous system doesn't properly regulate heart rate and blood pressure, often causing dizziness, fatigue, and lightheadedness when standing. Research suggests that 3% to 11% of patients experience Orthostatic Tachycardia after a concussion, though exact numbers for POTS can vary.<sup>4</sup>

## **Neuroendocrine Dysfunction**

Concussions can damage the pituitary gland, causing neuroendocrine disorders that lead to hormonal imbalances. These may not appear until months or years later and cause physical, cognitive, and emotional symptoms that overlap with other acute and chronic symptoms.<sup>5</sup>

## **Chronic Traumatic Encephalopathy (CTE)**

CTE is a degenerative brain disease found in athletes, military veterans, and others with a history of repetitive brain trauma. CTE is caused in part by repeated traumatic brain injuries, which include concussions and **non-concussive** impacts. This does not mean a handful of concussions, in the absence of other hits to the head, puts you at risk for CTE; most people diagnosed with CTE suffered hundreds or thousands of head impacts over the course of many years.

Maintaining a hopeful outlook can make a difference during recovery. When symptoms feel overwhelming, remember that support is available and you are not alone.

The resources below can help connect you with the support you need.

## **Support & Resources**

Concussion Legacy Foundation (CLF) HelpLine Alaska

Resource facilitation and peer support: <a href="CLFHelpLineAK.org">CLFHelpLineAK.org</a>

#### Alaska TBI Resource Locator

TBI clinic and provider directory: TBIHelpAK.com

#### Alaska Traumatic and Acquired Brain Injury (TABI) Program

Resource facilitation and peer support: (907) 269-3666

#### Alaska 211

Statewide helpline and directory connecting Alaskans to essential health and social services: call 211

#### Alaska Native Tribal Health Consortium

Telehealth services, behavioral health resources, caregiver support, education, and community wellness programs: 907-563-2662

#### References

- 1. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6306025/
- 2. https://www.nih.gov/news-events/news-releases/mental-health-disorders-common-following-mild-head-injury
- 3. https://med.uth.edu/psychiatry/2023/05/16/post-concussive-depression-its-real-its-serious-and-it-happens-a-lot/
- 4. https://pmc.ncbi.nlm.nih.gov/articles/PMC9136088/
- 5. https://link.springer.com/article/10.1007/s11910-023-01263-5





