# ARESPORT-RELATED CONCUSSIONS DIFFERENT IN MALE AND FEMALE ATHLETES





Yes, evidence suggests that concussions in male and female athletes are not the same!

Compared to male athletes, female athletes often exhibit:



number of symptoms symptom severity recovery times



Return to play may take longer for female athletes after a concussion



### Did you know?

Girls are around

**2X** 

more likely to sustain
a concussion
(Kerr et al., 2019)
and have persistant
concussion
symptoms
compared to boys
(Zemek, 2021)



## → PRELIMINARY EVIDENCE SUGGESTS — THAT SEX-RELATED DIFFERENCES MAY BE DUE TO:



#### **Biomechanics**

Biomechanical differences (e.g., in the head neck-segment) may contribute to female athletes' increased risk of injury



#### **Brain anatomy**

Differences in brain anatomy (e.g., axon size) may contribute to female athletes' increased risk of injury



#### Hormone levels

Hormonal
differences between
male and female
athletes may
impact concussion
recovery

More research is needed to fully understand how and why concussions differ in male and female athletes.

A sex-specific approach to concussion management and prevention is needed!



Women are more likely to report a concussion than men, but **concussion reporting in both groups remains low.** Challenging "play through the pain" and "win at all cost" attitudes may encourage more athletes to report a suspected concussion.

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For more information visit sirc.ca/concussion o

