

Q: Can the sex of an athlete affect the outcome of their recovery and/or their ability to return-to-play after sustaining a concussion?

A: “Sex differences in outcome following sports-related concussion,” a clinical article printed in the *Journal of Neurosurgery* (Vol. 102 / #5 / May, 2005), weighs the influence of the patient’s sex on neurocognitive performance and the symptoms reported following a sports related concussion.

The article states, “Based on object test findings, we assert that females do in fact experience more severe postconcussion symptoms than males and that poorer outcomes are not simply culturally based sex differences in reporting symptoms.”⁵

Female athletes had significantly more severe declines on ‘simple reaction time’ and ‘complex reaction time’ relative to preseason baseline levels and they reported more postconcussion symptoms compared with males. Furthermore, females were cognitively impaired approximately 1.7 times more often than males following concussion. Females experienced more objective and subjective adverse effects of concussion even after adjusting for the use of helmets for some groups of male athletes (for example, football).¹

As of 2005, recent data reports that female athletes make up 42% of the athlete population at the high school and college levels.⁴² In 1996 females athletes represented 39% of high school athletes, an eight-fold increase since 1971.¹⁷

No matter what sex the athlete is, each concussion must be managed individually and objectively based on the specific circumstances of the injury and the condition of the athlete. Although this study proves differences in concussion recovery between males and females, it should not be a “one-size-fits-all guideline” for making a return-to-play decision.