



FREQUENTLY ASKED QUESTIONS – ABOUT SCIENCE AND SEX

WomensSportsPolicy.org

Q15. Are advocacy groups correct when they say that there is no evidence that trans girls/women have an advantage over females in sport?

A15. No. They are wrong. Trans girls/women are biologically male. Consequently, unless they go on puberty blockers and then on gender affirming hormones before the onset of male puberty, they benefit from normal male sex development and differentiation. There is overwhelming evidence that individuals who are biologically male – however they identify – have an athletic advantage over individuals who are biologically female—however they identify. Gender identity has nothing to do with athletic ability. Additionally, there is [convincing evidence](#)¹ that, depending on the task, skill, sport, or event, trans women maintain male sex-linked (legacy) advantages even after a year on standard gender-affirming hormone treatment.

¹ (1) Roberts TA, Smalley J, Ahrendt D. Effect of gender affirming hormones on athletic performance in transwomen and transmen: implications for sporting organisations and legislators. Br J Sports Med. 2020. Epub 2020/12/09. (2) Hilton EN, Lundberg TR. Transgender Women in The Female Category of Sport: Perspectives on testosterone suppression and performance advantage. Sports Medicine. 2021;51:(in press) (PMID 33289906 and doi: 10.1007/s40279-020-01389-3). (3) Handelsman DJ, Hirschberg AL, Bermon S. Circulating Testosterone as the Hormonal Basis of Sex Differences in Athletic Performance. Endocr Rev. 2018;39(5):803-29. Epub 2018/07/17. See also (4) Gooren LJ, Bunck MC. Transsexuals and competitive sports. Eur J Endocrinol. 2004;151(4):425-9. (5) Wiik A, Lundberg TR, Rullman E, et al. Muscle Strength, Size, and Composition Following 12 Months of Gender-affirming Treatment in Transgender Individuals. J Clin Endocrinol Metab. 2020;105(3). Epub 2019/12/04.