



FREQUENTLY ASKED QUESTIONS – ABOUT SCIENCE AND SEX

WomensSportsPolicy.org

Q27. What if any is the relationship between intersex and trans athletes?

A27. Intersex conditions result from differences in biological sex development. They are also known as differences of sex development or DSDs. There are many different intersex conditions, but those that are relevant for sport all involve biological males – individuals with an XY karyotype, testes, and testosterone levels in the male range – whose sex development was atypical in some respect. For example, their external genitalia might not be fully formed or their androgen receptors may be less than typically sensitive. Athletes with such intersex conditions may be raised as male or female. People who are transgender do not generally consider themselves to be intersex. The two are related in sport to the extent that they may both involve biological males with full or partial male advantage who seek eligibility to compete in girls'/women's sport.

The following table on the next page is illustrative. It is from an exhibit in the case brought by South African runner Caster Semenya against her international federation (the IAAF now World Athletics) at the Court of Arbitration for Sport (CAS) in Switzerland. In 2019, CAS upheld the federation's eligibility rules for the women's category. Those rules require affected athletes to verifiably reduce their testosterone levels to within the normal female range for a 12-month period before they can compete in that category. Switzerland's Supreme Court affirmed the CAS decision in 2020.

**COMPARING BIOLOGICAL SEX TRAITS
FOR PURPOSES OF GIRLS' AND WOMEN'S SPORT
(from IAAF Exhibit in Semenya and ASA v. IAAF)**

	Typical Male	Person with 5-ARD (not on hormones)	Person who is Transgender MTF (not on hormones)	Typical Female
Chromosomes	46 XY	46 XY	46 XY	46 XX
Gonads and Gametes	Testes & Sperm	Testes & Sperm	Testes & Sperm	Ovaries & Eggs
Endocrine system	Androgenic	Androgenic	Androgenic	Estrogenic
Sex hormones	Testosterone levels in male range	Testosterone levels in male range	Testosterone levels in male range	Testosterone levels in female range
Primary sex characteristics (develop in utero)	Testes, epididymis & vas deferens, prostate	Testes, epididymis & vas deferens, vestigial prostate	Testes, epididymis & vas deferens, prostate	Ovaries, fallopian tubes, uterus, vagina
Virilisation on puberty	Yes	Yes	Yes	No
Secondary sex characteristics (develop at puberty)	Male	Male	Male	Female
External genitalia	Penis, scrotum	Varies	Penis, scrotum	Clitoris, labia
Legal sex	Male	Varies	Varies	Female
Gender Identity	Male	Varies	Female	Female