



Model Policy: Eligibility for the Female Category in Competitive Sport

February 12, 2024

Women's Sports Policy Working Group and Champion Women
WomensSportsPolicy.org and ChampionWomen.org

This policy is offered as a template for sport governing organizations (national and international governing bodies, NCAA, high school, community organizations, etc.) that strive to ensure safety and fairness for female athletes in their sports; promote inclusion for all; and provide opportunities for males who identify as transgender and do not want to compete in the male category.¹

A WORD version you can modify to brand for your organization is available upon request.

For more detailed guidance, please [contact the authors](#).

¹ Thanks to Kim Jones of the [Independent Council on Women's Sports](#) and Linda Blade of the [International Consortium on Female Sport](#) for assistance in developing this model policy.



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Code of Conduct

A new or revised policy may not be needed if sporting events are already divided into two categories (female and male) and if existing policies – such as a code of conduct – require athletes not to misrepresent themselves. Typically, a code of conduct forbids athletes from claiming a false date of birth, claiming a false disability or degree of disability, or claiming a false club affiliation. If such a code of conduct exists and does not mention sex, a phrase along these lines can be added: “must not misrepresent one’s birth sex or biological sex.”

Example from Athletics Alberta: Athletes must “properly represent themselves and not attempt to participate in a competition for which they are not eligible by reason of age, biological sex classification, or other reason.”ⁱ

Registration forms can verify that athletes agree to this policy or a code of conduct by requiring them to check a box to swear that they have read the policy or code and agree to it. The registration form can include the entire policy or code along with a box to check to give athletes easy access to the eligibility rules.

The Policy

Overview: The only policy that ensures fair and safe training and competition for girls and women is one that establishes and maintains a female-only category. This is what the female category was created for and why it still exists: to provide a fair playing field for girls and women based on their uniquely female biology and physical capabilities.

Since sports are physical activities that are organized based on bodies, not beliefs or identities, the most fair and inclusive structure is the original design of almost all sports: a female category and a male category. Transgender athletes should always be welcome to participate – in the appropriate category.

Where possible, two modifications can be made to accommodate transgender athletes:



Rename the male category open or mixed. Open it to everyone so long as those athletes are otherwise eligible within the sport's overall rules (e.g., the appropriate



age and weight; not taking banned substances such as testosterone, etc.). Several organizations are experimenting with this terminology: one female-only category and a second category called open or mixed.



For certain individual sports or events in which competitors take turns – such as the high jump, the long jump, figure skating, and gymnastics – it may be feasible to conduct competitions in such a way that male athletes who identify as trans can compete “with women” but be scored separately. This should not be confused with opening the female category to males. The female category itself (including direct competitions and scoring based on females competing against females) must remain for females only. To some trans athletes, competing with women, during the women's event, might be preferable to competing in a male, open, or mixed grouping or time frame.

The principle here is that creative ways may be devised to accommodate male athletes who want to compete alongside women – so long as those accommodations do not diminish females' sport opportunities, placings, finals, podiums, prizes, or financial rewards, nor females' right to fair, safe, sex-separated sports experiences. (See Accommodations.)

Female Category: At every age group, weight class, and level of disability, eligibility for the female category will be limited to females. This includes all females, regardless of how they identify (as trans, nonbinary, gender fluid, or any other gender-identity term; see [Glossary](#)) so long as those athletes are otherwise eligible (e.g., not taking banned substances such as testosterone).

Male/Open/Mixed Category: At every age group, weight class, and level of disability, there will also be a male/open/mixed category. Athletes who do not meet the criteria for participation in female events or who simply prefer to compete in the male/open/mixed category may enter this category – with one restriction. This category includes males who identify as trans, nonbinary, gender fluid, or any related term who are otherwise eligible. It includes females without restriction in non-contact sports. In contact sports, females should be included so long as their participation does not lead to unacceptable physical risks.

Disorders of Sex Development (DSD): At the risk of oversimplifying a complex biological phenomenon: In rare cases of athletes with disorders of sex development (sometimes called



intersex conditions), there are XY athletes who produce bioavailable (able to have an active effect) testosterone at male levels (7.7 – 29.4 n/ml); there are XX athletes who do not produce testosterone at male levels; and there are XY athletes who produce male levels of testosterone that is not bioavailable. Those XY athletes who produce bioavailable, male-levels of testosterone must be excluded from the female category. Those XX athletes who do not produce male-levels of testosterone and those XY athletes who have complete androgen insensitivity (CAIS) must be eligible to compete as females.ⁱⁱ (People with DSDs comprise [approximately .018 percent](#) of the population.)

Locker Rooms and Restrooms: Female athletes must be provided with female-only changing spaces and restroom facilities. Trans athletes can be accommodated with sex-neutral spaces if they do not want to use facilities that align with their biological sex.

Verification

Confirmation that an athlete qualifies for the female category will be accomplished by, depending on the competitive level of sport (age, regional or international, etc.):

- A copy of an athlete's original birth certificate; or
- In schools and other places that require pre-participation physicals, a physician's verification based on pre-season physicals;ⁱⁱⁱ ^{iv} or
- A signed statement (from the athlete or, in the case of youth, the athlete's guardian) that the athlete is not misrepresenting her or his sex; and, when applicable,
- The implementation of standard procedures that verify compliance with World Anti-Doping Agency and U.S. Anti-Doping Agency rules regarding performance-enhancing drugs.

A cheek swab may also be required, depending on the competitive level. Designed to ascertain a person's sex, this test was abandoned by the IOC because it had the unintended consequence of shocking athletes who believe they are female but, as it turns out, possess XY chromosomes and androgen insensitivity. Cheek swabs should be employed, and results reported, sensitively, with this possible outcome in mind.



Privacy

Sex verification should never involve physical or genital examinations or verbal challenges by school or other personnel.

Standard school forms from an athlete's physician that denote a person's sex have been completed for decades, with confidentiality already protected by federal law.^v

In all cases, females' right to safety, privacy, and dignity in single-sex changing spaces, showering, and toilet facilities must be protected.

Neither male nor female athletes should be asked or required to share hotel rooms or other overnight accommodations (such as bedrooms in private homes) with members of the other sex, regardless of how those people identify.

Regardless of competition category, transgender athletes should be provided with separate changing, showering, and toilet facilities if they feel uncomfortable in spaces designated for their sex.

Accommodations

Any new identity categories (such as transgender or nonbinary) that might be created to increase participation and accommodate transgender people risk discriminating against females by favoring males. Why? Because performance advantages exist independent of gender identity, so males who enter competitions in a new nonbinary or transgender category will still possess performance advantages over females and will have a greater chance to win.

Women must have equal athletic opportunities. Therefore, accommodations for males who identify as transgender, gender-fluid athletes, nonbinary athletes, and related categories^{vi} may be offered only so long as those accommodations do not diminish females' sport



opportunities, placings, finals, podiums, prizes, or financial rewards, nor females' right to fair, safe, sex-separated sports experiences. For example, if a nonbinary category is added and if any sort of awards or recognition are given, there should be two: one category for males who identify as nonbinary, and a second for females who identify as nonbinary. Otherwise, males will dominate the nonbinary category, thus proportionally reducing females' opportunities to compete fairly and win. Any records should be established only for immutable categories such as sex, age, disability.

In addition, if new trans or nonbinary categories are created, athletes should only be allowed to change identity categories only once every four years. This number of years is becoming somewhat of a trend among sport governing bodies that seek to allow trans-identified males to compete in either the women's category (which the Women's Sports Policy Working Group and Champion Women oppose) or in new trans/binary categories (which WSPWG and CW do not oppose so long as such categories do not favor men).

As of this writing, the [International Powerlifting Federation](#), [National Women's Soccer League](#), [International Skating Union](#), [U.S. Figure Skating](#), and [World Skate](#) restrict category-hopping to once every four years.

To allow athletes to change more frequently than that would risk making a mockery of fair competition, potentially igniting a free-for-all during which athletes register in an ever-changing series of categories depending on their odds for success.

In some cases, transgender athletes who are biologically male but want to compete alongside women may be accommodated within a competition that is restricted to female athletes. (See also [The Policy](#).)

IN A MASS-PARTICIPATION, MASS-START EVENT

When everyone starts together, finishers are scored separately by age, sex, and disability categories. If trans or nonbinary categories are approved, trans or nonbinary athletes could start alongside the women (and men) and be scored separately – so long as those accommodations do not diminish females' sport opportunities, placings, finals, podiums, prizes, or financial rewards, nor females' right to fair, safe, sex-separated sports experiences. If there is a nonbinary category, there must be one for females and one for males.



WHEN WOMEN'S AND MEN'S TEAMS COMPETE SIMULTANEOUSLY AT SAME MEET

If trans or nonbinary categories are approved, trans or nongender-conforming nonbinary athletes could start alongside the women (and men) or start with each other, in separate heats, and be scored separately – *so long as those accommodations do not diminish females' sport opportunities, placings, finals, podiums, prizes, or financial rewards, nor females' right to fair, safe, sex-separated sports experiences.* ^{vii}

Rationale

IN SPORTS, SEX MATTERS

Medical and scientific experts have always agreed: Males are inherently, immutably, physiologically different from females in ways that result in male athletic performance advantages over females. This is true at every age group. It remains true regardless of whether males identify as girls or women. It remains true even when males suppress their testosterone for any length of time. It remains true even when males undergo surgery to appear more feminine. The female category was created to exclude males because of those inherent performance advantages.

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While gender can change over time, biological sex cannot. Sex is immutable – and binary. People are either female or male. Even people with rare disorders of sex development, formerly called intersex conditions (.018 percent of the population) “don’t undermine the sex binary,” explains evolutionary biologist Colin Wright.^{viii}

Men have greater strength, size, speed, and muscle mass. Men have larger hearts, lungs, hands, feet, and skulls. Women have, on average, 30 percent greater body fat, and it is distributed differently than men’s body fat.^{ix} These enormous sex differences result in



performance advantages for men in almost every sport.^x At every age, “sex plays a significant role in determining elite performance and is the reason that athletes compete in separate male and female categories,” according to exercise physiologist Ross Tucker and neuroscientist Malcolm Collins.^{xi}

Male performance advantages are dramatically accentuated beginning with the onset of male puberty.^{xii} As a group, male bodies become faster, stronger, and more powerful than female bodies. The performance gap between male and female athletes that accelerates at puberty ranges from 8-20 percent, but up to 50 percent in some sports and events.^{xiii} These performance advantages cannot be erased via testosterone suppression.^{xiv xv}

PRE-PUBERTY ADVANTAGES

Even before puberty, males have testosterone-based advantages. Fitness data from over 85,000 children in Australia showed that, compared to nine-year-old females, nine-year-old males were 9.8 percent faster in sprints (running) and 16.6 percent faster in the mile run. They could jump 9.5 percent farther, could complete 33.3 percent more pushups in 30 seconds, and had a 13.8 percent stronger grip.^{xvi} These differences cannot be attributed to societal roles for these children. The gaps are present globally and are persistent over time.

Significant male advantage was also found in a study of Greek children pre-puberty. Compared with six-year-old females, six-year-old males completed 16.6 percent more shuttle runs in a given time and could jump almost ten percent farther from a standing position.^{xvii} A Danish study showed six- and seven-year-old males had a higher aerobic capacity (VO2max) than girls in the same age group.^{xviii}

A 2022 analysis of American swimming records showed that boys' records in the ten- and unders (nine- and ten-year-olds) average 0.57 seconds faster per 100 yards than girls' records. Boys' records average 3.01 seconds faster per 100 yards for the 12-and-under group and more than 4.5 seconds faster per 100 yards between the ages of 13 and 18. Jerry Giordano, an attorney who conducted the analysis, concluded that “about two-thirds of the eventual male-female differential in the performance of top swimmers emerges by the age of 12.”^{xix}

In other words, gaps between male and female performance appear well before puberty.

The pattern is even more dramatic in children competing in track. Every boys' USA Track & Field age-group national championship record is better than the girls' record. This is true



beginning with the youngest competitive age group (eight-and-under), with the gap growing dramatically during and after puberty.

According to Greg Brown, professor of Exercise Science at the University of Nebraska at Kearney, young boys tend to outperform girls in fitness tests measuring muscular strength, muscular endurance, running speed, aerobic fitness, ball throwing, and kicking distance. Girls tend to outperform boys in tests of flexibility.^{xx}

That said, sex segregation should not be required in *noncompetitive* situations pre-puberty – when the main emphasis should be on skill development and enjoyment. Young girls and boys can participate in myriad physical activities together so long as the activities do not present a physical danger to girls.

SEX SEGREGATION, CATEGORIES, AND FAIRNESS FOR WOMEN

For more than fifty years, since the passage of Title IX in 1972, the federal government has recognized the need for formal sex segregation in sport. The separate category for female athletes was legally established as an exception to discrimination law in recognition of the fact that **males and females are fundamentally, immutably, physically different in ways that matter in sports**. When Title IX passed in 1972, the term gender identity did not exist. The “on the basis of sex” phrase in the law was intended to apply to sex, not gender identity.^{xxi}

The purpose of the women’s sports category is to exclude men. This is common sense, based on obvious and proven biological differences between women and men.

The purpose of sport categories, broadly, based on sex, age, weight, and physical ability, is to group people based on physical characteristics. Inclusion-by-categorization is the foundational principle that enables the maximum number of athletes to participate, compete, win, and benefit from the myriad physical and mental health benefits of sports. If there were no categories, young, able-bodied men would win almost every athletic contest because they possess inherent, immutable physical advantages over other populations.

Categories achieve this goal of including otherwise-disadvantaged athletes by excluding people who would have an unfair advantage. We exclude adults from children’s competitions because we don’t want twenty-five-year-olds competing against ten-year-olds. Nor do we want the same twenty-five-year-old competing in the seventy-year-old category. Similarly, we exclude able-bodied athletes from the Paralympic Games because we don’t want able-bodied athletes competing against athletes with disabilities.



These categories and many others were created to include all sorts of people in athletic endeavors.

In the same way, we exclude men from women's competitions – except in recent years, when males who identify as transgender have been competing and often winning in the female category in myriad sports. These sports include but are not limited to swimming, cycling, running, tennis, rowing, powerlifting, lacrosse, field hockey, basketball, volleyball, fencing, surfing, skateboarding, pickleball and even disc golf. [For more examples of male victories in women's sports see this list](#). When a sport's policies allow men who identify as trans to compete in a contest against women, all the women in that contest are being discriminated against because they are being denied the right to a fair competition.

LOCKER ROOMS AND RESTROOMS

Women are vulnerable when undressing. Criminal laws have protected women from male voyeurism and exhibitionism for hundreds of years. Separating women and men in locker rooms remains a custom that female athletes have come to expect and rely upon. Parents, too, expect this common-sense segregation.

No parent wants their teenage daughter forced to change clothes in front of boys or men, regardless of those males' gender identity.

Men are far more likely than women to commit sexual assault, and all women understand this danger. Therefore, the presence of males can be inherently threatening, even traumatic, to women who are undressing or showering.^{xxii} Naked men also make women vulnerable. Exposing male genitalia typically constitutes a criminal act of indecent exposure or flashing.^{xxiii}

In particular, the presence of naked or near-naked men can feel threatening and traumatic to women who have already been harassed and/or sexually assaulted. Twenty-six percent of college-age women report having been sexually assaulted while attending college.^{xxiv}

Fears of locker-room assaults are not unfounded. **According to one recent investigation of complaints of sexual assaults, voyeurism, and harassment at public fitness centers and**



swimming pools in London, almost 90 percent of sexual offenses against females took place in unisex changing rooms.^{xxv}

Some world religions prohibit women from being in the same room with males – even when fully clothed. Men and women sit separately in Islamic, Sikh, Orthodox Jewish, Coptic Christian, Amish, and other worship centers. Enabling males who identify as transgender into intimate female spaces puts an enormous burden on these women; it is the women who must choose between their religious tenets and sports participation.








Excluding males who identify as transgender from women's locker rooms does not imply that being transgender makes an athlete inherently violent. **But in fact, a longitudinal, quantitative study by Swedish researchers found that post-operative males who identify as transgender had criminal-conviction rates that were comparable to male controls.**^{xxvi} In other words, gender reassignment did not decrease men's risk for criminal convictions.^{xxvii} ^{xxviii} Males who identify as transgender are not dangerous to females because of their gender identity; they are dangerous because they are male.

Sex-segregated changing spaces provide girls and women with protection from:

- ⊗ undressing and showering in front of males;
- ⊗ revealing intimate details such as when they are menstruating;
- ⊗ displaying vulnerable rituals such as when swimmers help each other squeeze into tight, competitive swimsuits;
- ⊗ seeing naked male bodies; and
- ⊗ hearing male commentary about their own naked bodies.



Glossary

-  **Category:** There are two sport categories – female and male – based on immutable biological differences. There is also a category for people with disabilities. This too is divided into male and female categories. Within these categories, there may be objective weight, age, geography, and other classifications. Categories such as those used in the Gay Games and Maccabiah Games – which are based on personal identities or beliefs rather than physical attributes – are sometimes called affinity categories.
-  **Disorders of Sex Development (DSD):** Also called intersex conditions, DSD is a set of developmental disorders that affect the reproductive system.^{xxix} People with DSD may have atypical genital development, for example, or an extra X or Y chromosome. DSDs represent “variation *within* each of the two sexes,” according to evolutionary biologist Colin Wright. “A person with Klinefelter syndrome (XXY), for example, isn’t a new sex in the same way that a person with Down syndrome (who has three instead of two copies of chromosome 21) isn’t a new species.”^{xxx}
-  **Female:** of or denoting the sex that can bear offspring or produce eggs, distinguished biologically by the production of [gametes \(ova\)](#) that can be [fertilized](#) by male gametes.^{xxxi}
-  **Females Who Identify as Transgender:** Usually this refers to females who wish to present themselves as boys or men. Some females who identify as transgender consider themselves gender fluid or nonbinary.
-  **Gender:** a set of cultural expectations regarding stereotypical attire, behavior, and appearance of boys/men or girls/women
-  **Gender Identity:** a psychological state or belief that includes “transwoman,” “transman,” “gender-fluid,” “nonbinary,” “transmasc,” “transfem,” and any other self-concept that people may adopt that does not correspond with their birth sex.
-  **Gender Fluid:** female or males who embrace a tendency to change from one gender identity to another over time.



- 🚫 **Gender Reassignment:** intervention by a medical practitioner to facilitate gender transitioning. The most common forms of medical treatment include hormone therapy and surgery.
- 🚫 **Gender Transitioning:** actions undertaken by an individual (or, if underage, by their legal guardian) to alter their appearance and physical characteristics to align with one's gender identity.
- 🚫 **Male:** of or denoting the sex that produces small, typically motile [gametes](#), especially [spermatozoa](#), with which a female may be fertilized or [inseminated](#) to produce offspring.^{xxxii}
- 🚫 **Males Who Identify as Transgender:** Usually this refers to males who wish to present themselves as girls or women. Some males who identify as transgender consider themselves “gender fluid” or “nonbinary.” (See Trans or Transgender Person below.)
- 🚫 **Nonbinary:** Females or males who identify as neither sex or both.
- 🚫 **Sex:** Natal or biological sex, which is immutable. Like all mammals, humans are divided into female or male based on their reproductive and biological functions.
- 🚫 **Sex-Segregated and Sex-Separated:** Separation according to sex, regardless of athletes' gender identity.
- 🚫 **Sporting Events:** Many sports have defined, separate tests for a variety of skills within the sport. Examples of swimming events include breaststroke, butterfly, and freestyle.
- 🚫 **Trans or Transgender Person:**^{xxxiii} A person who calls himself or herself trans or transgender. They may identify as the sex that they are not. They may identify as neither sex or both (nonbinary); tending to change from one gender identity to another over time (gender fluid); or they may adopt some other gender identity.



Appendix: A Selection of Stellar Sports Organization Policies

As of February 2024, this model policy is essentially aligned with several national and world governing bodies, including but not limited to Athletics Alberta, USA Powerlifting, World Boxing Council, World Rugby, and others, which are summarized and linked below for easy reference and comparisons.

Other international and U.S. policies are available on the Women's Sports Policy website .



Athletics (Track & Field)

[Athletics Alberta](#)

Policy summary: Only females can compete with females.

Policy basis: Must be female from birth

Policy updated: 2019



Boxing

[World Boxing Council](#)

Policy summary: Only females can compete with females due to safety concerns. Plans to create trans category.

Policy basis: Must be female from birth

Policy updated: 2023



Powerlifting

[USA Powerlifting](#)

Policy summary: Only females can compete with females.

Policy basis: Must be female from birth

Policy updated: 2023



Rugby

[World Rugby](#)

Policy summary: Only females can compete with females “because of the size, force- and power-producing advantages conferred by testosterone during puberty and adolescence, and the resultant player welfare risks this creates.”

Policy basis: Must be female from birth

Policy updated: 2020



The Women's Sports Policy Working Group and Champion Women

THE WOMEN'S SPORTS POLICY WORKING GROUP is a bipartisan think tank composed of champion athletes, advocates, attorneys, and coaches who have dedicated much of their careers to promoting sex equity in sport. The WSPWG is dedicated to affirming and strengthening girls' and women's legal right to separate, single-sex sports competitions. We encourage any equitable and inclusive accommodations for males who identify as women; gender-fluid athletes; and nonbinary athletes so long as those accommodations do not diminish females' opportunities, financial rewards, nor females' right to fair, safe, separate sports experiences.

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End Notes

- ⁱ Athletics Alberta Code of Conduct and Ethics, accessed January 29, 2024, at <https://athleticsalberta.com/wp-content/uploads/Code-of-Conduct-and-Ethics-New-2019.pdf>
- ⁱⁱ DSDs also take the form of chromosomal anomalies such as XXY, but the relevant factors are whether a Y chromosome is present, and whether androgen is bioavailable.
- ⁱⁱⁱ Sex verification can involve a physician's record of a girl's first period. For an example of a typical "Cleared for Athlete Participation" form, see <https://www-pvhs.stjohns.k12.fl.us/wp-content/uploads/sites/2/2016/07/Athletic-Participation-Forms.pdf>
- ^{iv} The Pre-season Physical Evaluation (PPE) is acknowledged as the current [standard of care](#) by the American Academy of Family Physicians, American Academy of Pediatrics, American College of Sports Medicine, American Medical Society for Sports Medicine, American Orthopaedic Society for Sports Medicine, and the American Osteopathic Academy of Sports. The [History Form](#) (also available [here in Spanish](#)), already routinely completed by the student or guardian, includes sex at birth and gender identity questions.
- ^v For an example of a typical "Cleared for Athlete Participation" form, see [https://downloads.aap.org/AAP/PDF/PPE-History-Form-\(English\)-rev.pdf](https://downloads.aap.org/AAP/PDF/PPE-History-Form-(English)-rev.pdf). "This form should be placed into the athlete's medical file and should not be shared with schools or sports organizations. The Medical Eligibility Form is the only form that should be submitted to a school or sports organization."
- ^{vi} Categories (such as those used in the Gay Games and Maccabiah Games) based on personal identities or beliefs rather than physical attributes are sometimes called affinity categories.
- ^{vii} This should not be permitted in events with finish lines, nor in events such as pole vault or weightlifting in which competitors are gradually eliminated as the event becomes more challenging – since the potential first-place finish of the trans athlete would diminish female winners' experience of winning.
- ^{viii} "An organism's sex is defined by the type of gamete (sperm or ova) it has the function of producing. Males have the function of producing sperm, or small gametes; females, ova, or large ones. Because there is no third gamete type, there are only two sexes." Colin Wright, "A Biologist Explains Why Sex Is Binary," [Wall Street Journal](#), April 9, 2023; <https://www.wsj.com/articles/a-biologist-explains-why-sex-is-binary-gender-male-female-intersex-medical-supreme-court-ketanji-brown-jackson-licia-thomas-3d22237e>
- ^{ix} Emma Hilton and Tommy Lundberg, "Transgender Women in The Female Category of Sport: Perspectives on testosterone suppression and performance advantage." *Sports Medicine*. 2021;51: (PMID 33289906 and doi: 10.1007/s40279-020-01389-3). This 2021 research is one of the most cited ever in academic literature. It definitively establishes that no amount of testosterone reduction can make male competition in women's categories fair or equal for girls and women, even when the athlete has been on testosterone blockers for many years.
- ^x Some equestrian, auto-racing, sailing, and ocean swimming events offer rare exceptions to the rule.
- ^{xi} Ross Tucker and Malcolm Collins, "What makes champions? A review of the relative contribution of genes and training to sporting success," *Br J Sports Med* 2012;46:555–561. doi:10.1136/bjsports-2011-090548, April 25, 2012.
- ^{xii} Handelsman DJ, Hirschberg AL, Berman S. Circulating Testosterone as the Hormonal Basis of Sex Differences in Athletic Performance. *Endocr Rev*. 2018;39(5):803-29, July 17, 2018.
- ^{xiii} Clark RV, Wald JA, Swerdloff RS, Wang C, Wu FCW, Bowers LD, Matsumoto AM 2019 Large divergence in testosterone concentrations between men and women: Frame of reference for elite athletes in sex- specific competition in sports, a narrative review. *Clin Endocrinol (Oxf)* 90:15-22.
- ^{xiv} Transwomen maintain physiological, sex-linked (legacy) advantages even after multiple years on gender-affirming hormone treatment such as testosterone-suppression drugs. For example, hormone treatments do not affect height.
- ^{xv} Hilton EN, Lundberg TR. Transgender Women in The Female Category of Sport: Perspectives on testosterone suppression and performance advantage. *Sports Medicine*. 2021;51: (PMID 33289906 and doi: 10.1007/s40279-020-01389-3).
- ^{xvi} "Boys demonstrate, on the average, greater strength than girls at all ages. Sex differences throughout childhood are consistent, although small." – Human Growth, Frank Falkner et al., 1978, P. 286.



^{xvii} Tambalis KD, Panagiotakos DB, Psarra G, et al. Physical fitness normative values for 6–18-year-old Greek boys and girls, using the empirical distribution and the lambda, mu, and sigma statistical method. *Eur J Sport Sci*. 2016;16(6):736–46, cited in Hilton EN, Lundberg TR. Transgender Women in The Female Category of Sport: Perspectives on testosterone suppression and performance advantage. *Sports Medicine*. 2021;51: (PMID 33289906 and doi: 10.1007/s40279-020-01389-3).

^{xviii} Eiberg S, Hasselstrom H, Grønfeldt V, et al. Maximum oxygen uptake and objectively measured physical activity in Danish children 6–7 years of age: the Copenhagen school child intervention study. *Br J Sports Med*. 2005;39(10):725–30, cited in Hilton EN, Lundberg TR. Transgender Women in The Female Category of Sport: Perspectives on testosterone suppression and performance advantage. *Sports Medicine*. 2021;51: (PMID 33289906 and doi: 10.1007/s40279-020-01389-3).

^{xix} Jerry Giordano, "The Boy-Girl Difference in Swimming Records," *Ricochet*, June 25, 2022.

^{xx} Greg Brown, "[Are There Sex-Based Differences in Athletic Performance Before Puberty?](https://onlinelibrary.wiley.com/doi/10.1002/ejsc.12075)" *Reality's Last Stand*, August 31, 2023; Gregory A. Brown, Brandon S. Shaw, Ina Shaw, "Sex-based differences in track running distances of 100, 200, 400, 800, and 1500m in the 8 and under and 9–10-year-old age groups," *European Journal of Sport Science*, Open Access, February 5, 2024

: <https://onlinelibrary.wiley.com/doi/10.1002/ejsc.12075>

^{xxi} Title IX: "No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance."

^{xxii} Statistics on male violence against women remain stubbornly high. According to the FBI, Males are responsible for 97% of murder and non-negligent manslaughter, 96.8% of rapes, 96% of pedophilia cases. See "FBI Crime in the United States 2018." According to RAINN, 9 out of every 10 victims of rape are female.

^{xxiii} Statistics on male violence against women remain stubbornly high. According to the FBI, Males are responsible for 97% of murder and non-negligent manslaughter, 96.8% of rapes, 96% of pedophilia cases. See "FBI Crime in the United States 2018." According to RAINN, 9 out of every 10 victims of rape are female.

^{xxiv} Most trans-identified males do not undergo genital surgery. According to three recent studies, only between four and sixteen percent of transgender people undergo genital surgery. Annys Sinn, 6 key takeaways from the Post-KFF survey of transgender Americans, *Washington Post*, March 23, 2023; Ian T. Nolan, Christopher J. Kuhner and Geolani W. Dy, "[Demographic and Temporal Trends in Transgender Identities and Gender Affirming Surgery](#)," *Translational Andrology and Urology*, June 2019, pp. 184–190.

^{xxv} David Cantor et. al., Association of American Universities, "Report on the AAU Campus Climate Survey on Sexual Assault and Misconduct," 2019. "According to a recent survey of nearly 182,000 students, 26% of female college and graduate students report nonconsensual sexual contact by physical force or an inability to consent since enrolling in the school."

^{xxvi} Andrew Gilligan, *The Sunday Times*, "Unisex Changing Rooms Put Women in Danger," September 2, 2018, available at: <https://www.thetimes.co.uk/article/unisex-changing-rooms-put-women-in-danger-8lwbp8kqk>

^{xxvii} The study used the term male-to-female transsexuals rather than more modern terms: transwomen or trans-identified males.

^{xxviii} The study also compared conviction rates of post-op trans-identified males to those of women to test whether trans-identified males successfully became similar to women in that way. They did not. Their rates of conviction, like men's overall rates of conviction, remained significantly higher than women's.

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^{xxx} Colin Wright, "[Understanding the Sex Binary](#)," *City Journal*, March 2023.

^{xxxi} [Oxford Languages Dictionary](#)

^{xxxii} [Oxford Languages Dictionary](#)

^{xxxiii} Transgender does not mean transsexual. According to recent research by the [Washington Post and the Kaiser Family Foundation](#), 62 percent of trans adults identify as "trans, gender non-conforming" or "trans, nonbinary," while only 33 percent identify as a "trans man" or "trans woman." Just 31 percent have used hormone treatments puberty-blocking hormones, and only 16 percent have undergone surgery to change their physical appearance. This survey was conducted on adults; one can reasonably assume that schoolchildren and college students are even less likely to have used medication or undergone surgery. Therefore, most trans-identified males (at least 84 percent) who seek to compete against female athletes have not had surgery, and at least 69 percent have not taken any related medications.

