



The Unnecessary Use of Gender Verification in Sport

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The opinions expressed are those of the author. They do not necessarily correspond to the CRDSC position on any of the issues.

Early Days of Gender Testing in Sport

Gender testing dates back to as early as 1900, the year women were finally permitted to participate in the Olympics and included various combinations of "nude parades" in front of doctors, evaluations of genitalia and hair patterns, and buccal smear tests. After severe criticism, the International Olympic Committee (IOC) abandoned mandatory sex testing of female athletes during the 2000 Olympic Games in Sydney. Similarly, the International Association of Athletics Federations (IAAF) did not require compulsory gender testing, but instead, athletes and teams could bring "gender issues" to the attention of authorities.

The Legal Challenges

The IAAF received substantial backlash with their handling of Caster Semanya's case following the 2009 World Championships, prompting a re-evaluation of its policies surrounding gender verification. In May 2011, the IAAF released the *Regulations Governing Eligibility of Females with Hyperandrogenism to Compete in Women's Competition* (the "**2011 Hyperandrogenism Regulations**"). These new regulations aimed



to create a framework for responding to situations wherein an athlete's gender was questioned, focusing on women with hyperandrogenism - a medical condition resulting in naturally elevated androgen levels. Under these new policies, females already diagnosed with hyperandrogenism were required to notify the IAAF. Further, the IAAF Medical Manager was also permitted to investigate a female athlete if he had "reasonable grounds" to believe that an athlete had hyperandrogenism. A female athlete under question was only allowed to return to competition if she had testosterone levels below the normal male range (less than 10nmol/L) or if she had an androgen resistance that resulted in her gaining no competitive advantage from having elevated androgen levels. Lowering testosterone levels would require either taking anti-androgen drugs or undergoing surgical intervention.

In 2015, the Court of Arbitration for Sport (CAS) suspended the *2011 Hyperandrogenism Regulations* for two years after a legal challenge was brought by Indian sprinter Dutee Chand, who was subjected to examinations when concerns were raised about her eligibility to compete as a female. The CAS ruled that the IAAF failed to establish that the *2011 Hyperandrogenism Regulations* were necessary for maintaining fairness in female athletics. Further, the CAS ruled that there was lack of scientific evidence supporting the claim that female athletes with hyperandrogenism derived a significant performance advantage. The IAAF was given a two-year window to present further evidence to support their claims.

Rather than provide new evidence, the IAAF replaced the 2011 regulations with its new *2018 Eligibility Regulations*. Abandoning the term "hyperandrogenism", these new



regulations are instead directed at any female athlete who has a “difference of sexual development” (“DSD”) resulting in testosterone levels greater than 5nmol/L, a lower threshold than the 10nmol/L in the *2011 Hyperandrogenism Regulations*. While the *2011 Hyperandrogenism Regulations* applied to all athletics events, the new rules only apply to “middle distance” track events where the IAAF claims that performance enhancing benefits of elevated testosterone are most prominently found, including the 400m, hurdles, 800m, 1500m, one mile, and combined events.

If a female athlete wishes to compete, she must be recognized at law as either female or intersex, reduce her testosterone level below 5nmol/L for a period of six months, and maintain her testosterone level below 5nmol/L for as long as she wishes to compete. If a female athlete does not wish to lower her testosterone, she has three options: (1) compete in the restricted events, but not at an international level, (2) compete in the male classification, (3) compete in the intersex classification, if available.

The *2018 Eligibility Regulations* have not yet come into effect because of a legal challenge brought by Caster Semanya in June 2018. Semanya and her lawyers argue that the regulations are irrational, unjustifiable, and violate the IAAF Constitution, the Olympic Charter, the laws of Monaco, and universally recognized human rights.

The Main Weaknesses of the IAAF Arguments

A. Elevated testosterone does not provide female athletes with an advantage

The *2011 Hyperandrogenism Regulations* and the *2018 Eligibility Regulations* are both premised on the notion that higher than “normal” testosterone levels give female athletes significant performance advantages. Drawing on studies that demonstrate an



ergogenic advantage greater than 9% for athletes with testosterone levels in the male range as compared to those in the “normal” female range, the IAAF claims that female athletes with testosterone levels greater than 5nmol/L should lower their testosterone levels to be in the “normal” female range.

While higher levels of testosterone can help individuals increase their muscle mass and strength and increase oxygen transfer and uptake, there is no evidence to show that athletes with higher levels of endogenous testosterone perform significantly better than those with lower levels. The claim that elevated levels of natural testosterone give female athletes an advantage is further undermined by the fact that the majority of studies on the correlation between testosterone and athletics have been conducted on men. A study conducted by MacLean et al. found that elevated androgen levels impact women differently than men and that androgens were not required for peak muscle mass in females. The impact of androgens on a person’s body varies significantly from person to person and using testosterone as a measure of athletic ability is meaningless.

Beyond the IAAF’s erroneous conclusions derived from these studies, the data itself has also been deemed by experts to be riddled with accounting errors and susceptible to possible bias as they were conducted by IAAF’s own in-house researchers. For example, these studies used “phantom times” that were not in original IAAF competition results, along with results from athletes that have now been disqualified for doping, thereby skewing the results. Clearly, there is lack of evidence to support the notion that naturally elevated levels of testosterone confer a significant advantage on female athletes.



In short, the IAAF oversimplifies the complex functioning of the human body to justify its regulations.

B. Sport is not a level playing field

In addition, the *2018 Eligibility Regulations* use “fairness” and the need to create a “level playing field” as a justification for placing restrictions on female athletes with DSDs. The IAAF claims that this fairness starts at the division between male and female athletes because of the significant advantages that men have in size, strength, and power. However, critics believe that creating a level playing field amongst elite athletes is a “futile endeavour”.

Many elite athletes have biological advantages, and yet evade policing by sports organizers. Many swimmers have a longer than average wingspan, and runners and cyclists have genetic variations that give them superior aerobic capacity and resistance to fatigue, but sports organizers fail to test athletes for these performance-enhancing biological variations. The IAAF justifies their differential treatment of female athletes with DSDs by drawing on the scientifically flawed argument that no other biological trait gives female athletes as large of a performance advantage.

While elevating testosterone levels by injecting hormones to gain a competitive advantage would certainly offend the ideas of “fairness”, women with DSDs have not undertaken practices to obtain any such advantage. The IAAF’s attempt to create a level playing field is incongruous with the reality of competitive sports and does not justify the harm imposed on female athletes who are born with a rare but natural condition.



The detrimental effect on female athletes

The IAAF's current gender verification framework produces three types of harm: psychological, physiological and financial. The psychological harm stems from the fact that singling out a female athlete for a gender test may reveal information to the woman about her body that she was previously unaware of. Having her gender identity questioned can be a humiliating and possibly psychologically harmful experience for the athlete.

On the surface, the *2018 Eligibility Regulations* seemingly avoid perpetrating physiological harm by stating that no athlete will be forced to undergo surgery or anatomical changes, such as a gonadectomy, to reduce testosterone levels. However, hormonal interventions used to lower testosterone levels can have dangerous side effects on the human body. Anti-androgens have side effects such as the disruption of carbohydrate metabolism, diuretic effects that cause excessive thirst, urination and electrolyte imbalances, headaches, and fatigue - all of which would be extremely detrimental to an elite female athlete.

Finally, the *2018 Eligibility Regulations* also impose a heavy financial burden on female athletes with DSDs. While the IAAF will pay the costs of an initial assessment and diagnosis of the athlete, the athlete herself must pay the costs of her personal physician and any treatment that the physician prescribes. Therefore, the *2018 Eligibility Regulations* impose unnecessary psychological, physical and financial harms on female athletes with DSDs.

Gender-based discrimination

If the IAAF and other sports organizations wish to continue questioning the gender of female athletes, the same policies should apply to male athletes as well. Arguing that



gender testing should be implemented to preserve “fairness” in sport and then only applying these policies to female athletes is in itself unfair and discriminatory. Sports organizers have never considered what genetic advantages might make a male athlete superior to his competitors and give him an “unfair advantage.” Biological advantages should be treated equally in both men and women’s athletics. Elite male athletes continue to enjoy competing in sport without being subject to scrutiny about their gender and it is time that sports organizers treat elite female athletes the same.

Conclusion

For over fifty years, female athletes have been subject to gender testing while their male counterparts remain unscathed. Elite female athletes such as Semenya and Chand should not be forced to undergo unnecessary medical intervention and humiliation in order to fit into the IAAF’s mould of a “normal” woman. The IAAF’s justifications for the *2018 Eligibility Regulations* rest on faulty logic and poor science, as their attempt to create a level playing field simply cannot be realized in elite sport. Finally, the *2018 Eligibility Regulations* subject women to severe psychological, physical, and financial harms. To ensure that women in athletics no longer must endure invasive and demeaning experiences, women with DSDs and all athletes with other naturally occurring differences should not be forced to undergo extraneous and potentially harmful medical interventions to have the right to compete. It is time that the media, the public, and sport officials rise to rectify this situation.

To read the full version of this article:

http://www.crdsc-sdrcc.ca/eng/documents/The_Unnecessary_Use_of_Gender_Verification_in_Sport_EN_full_version.pdf