

Testosterone regulations in sport: CAS rejects Caster Semenya's IAAF appeal

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Key issues:

- On 30 April 2019, the Court of Arbitration for Sport rejected Caster Semenya's appeal against new testosterone regulations implemented by the International Association of Athletics Federations.
- The findings of CAS ultimately affirmed the use of testosterone testing as a valid method of classifying female competitors.
- The decision of CAS sets a precedent that potentially justifies the use of testosterone testing for this purpose.

On 30 April 2019, the Court of Arbitration for Sport (**CAS**) rejected [Caster Semenya's](#) appeal against new testosterone regulations implemented by the International Association of Athletics Federations (**IAAF**). The findings of CAS ultimately affirmed the use of testosterone testing as a valid method of classifying female competitors.

As a result of these findings, two-time Olympic and three-time world Champion Semenya will be unable to continue participating in middle distance events unless she chemically alters her hormone levels or competes in the male division.

The regulation of testosterone levels in sport is a highly controversial proposal, seen by some as an imperfect yet practical approach to the classification of male and female competitors. Other commentators oppose the use of testosterone testing for this purpose, on the basis that the practice is discriminatory and not scientifically justified.

IAAF rule change

In April 2018, the IAAF released new eligibility regulations for female classification. These were scheduled to take effect from 1 November 2018.

Under the new regulations, an athlete who meets the [following criteria](#) will not be eligible to compete in any track events over distances between 400 metres and one mile:

- a. has a relevant disorder of sexual development (DSD);
- b. has circulating testosterone levels of 5 nmol/L or more; and
- c. has sufficient androgen sensitivity for those testosterone levels to have a material effect.

For reference, the upper limit of ordinary circulating testosterone levels in females is 2.7 nmol/L.

In order for an athlete such as Semenya to be eligible under these classifications, she would be required to chemically reduce her testosterone levels to below the threshold for a period of 6 months, and then continuously for as long as she wishes to compete¹. Alternatively, she could compete in the male division or in events of greater than 1 mile, such as the 3000 or 5000 metre races.

In [October 2018](#), a stay on the implementation of the regulations was instigated by the IAAF, in response to proceedings instigated by Caster Semenya and Athletics South Africa.

Semenya's appeal

Caster Semenya and Athletics South Africa filed requests for arbitration against the IAAF in the CAS, requesting that the regulations be declared invalid and void. It was [submitted](#) that the regulations were “discriminatory, unnecessary, unreliable and disproportionate”. In response, the [IAAF argued](#) that the regulations were a “justified and proportionate means of ensuring consistent treatment, and preserving fair and meaningful competition within the female classification”.

Although Semenya's submissions to the CAS were not made publicly available, the media reported extensively on statements made by her legal team. As the statements below illustrate, the focus of the media's attention has been on the potentially discriminatory and unfair nature of the IAAF regulations.

- *“Caster Semenya contends that the Regulations are objectionable on numerous grounds, including that they compel women with no prior health complaints to undergo medical interventions to lower their testosterone levels.”²*
- *“Ms Semenya believes that she and other women affected by the regulations should be permitted to compete in the female category without discrimination, and celebrated for their natural talents as are all other athletes with genetic variations.”³*
- *“Women with differences in sexual development have genetic differences that are no different than other genetic variations that are celebrated in sport. She asks that she be respected and treated as any other athlete. Her genetic gift should be celebrated, not discriminated against.”⁴*

Prior to the CAS decision, the body of scientific evidence regarding the efficacy of testosterone testing, was mixed. The two seminal studies on the competitive advantages associated with higher testosterone levels are the GH-2000 and the Daegu study. Although the interpretation of these studies is controversial, neither established a direct material correlation between female competitors with higher natural testosterone levels and improved athletic performance.

Findings of the CAS

The [CAS dismissed the requests for arbitration](#), effectively rejecting Semenya's appeal against the IAAF regulations. The Court ruled by majority that:

1. the regulations are discriminatory, as they impose differential treatment based on protected characteristics;
2. however, such discrimination is a “necessary, reasonable and proportionate means of achieving the legitimate objective of ensuring fair competition in female athletics in certain events”.

The decision of the CAS turned on expert evidence indicating that androgen sensitive female athletes with certain DSDs enjoy significant performance advantages over other female athletes, attributable largely to higher levels of circulating testosterone. It was established that the regulations were designed to protect individuals from having to compete against athletes possessing physical attributes that create significant performance advantages, such that fair competition is a practical impossibility. The [Court has stated](#) that the “imperfect alignment between nature, law and identity is what gives rise to the conundrum at the heart of this case”.

The CAS expressed concerns about fair implementation of the regulations, identifying that the potential side effects of hormonal treatment could lead to a practical difficulty in complying with the regulations. The Court also noted a lack of evidence justifying the inclusion of 1500 metre and 1 mile as restricted events under the regulations. However, the decision was restricted to determining the

validity of the regulations, as a result of the structure of the arbitration.

Semenya and Athletics South Africa may appeal the decision to the Swiss Federal Tribunal.

Broader implications of testosterone regulations

With the general repudiation of chromosome testing as a method for defining male and female competitors⁵, many sporting organisations are searching for new classification mechanisms. The decision of CAS sets a precedent that potentially justifies the use of testosterone testing for this purpose.

Regulation of testosterone levels in female athletes does not only impact those competitors with disorders of sexual development, it also has implications for transgender athletes wishing to compete in female divisions. In Australia, we have seen the example of transgender athlete Hannah Mouncey and controversy regarding her [eligibility to compete in the AFL Women's league](#). Mouncey was initially considered eligible on the basis that she had maintained testosterone levels of below 10 nmol/L for a period of 12 months prior to competing. This is twice the allowable testosterone level under the IAAF regulations.

If you have concerns about how testosterone regulations may affect you, your sporting organisation or the Australian sports sector in general, please contact a member of our [Leisure, Sport and Entertainment](#) team.

1. IAAF, *Eligibility Regulations for the Female Classification* (2018) section 2.3.

2. Gregory Nott, *Norton Rose Fulbright advises Olympic champion Caster Semenya to challenge IAAF rules as discriminatory* (18 June 2018) Norton Rose Fulbright <<https://www.nortonrosefulbright.com/en/news/115e61b6/norton-rose-fulbright-advises-olympic-champion-caster-semenya-to-challenge-iaaf-rules-as-discrimina>>.

3. Matt Slater, *Caster Semenya's lawyers claim IAAF testosterone limit is 'flawed and hurtful'* (19 February 2019) The Independent <<https://www.independent.co.uk/sport/general/athletics/caster-semenya-trial-case-testosterone-limit-iaaf-a8786401.html>>

4. Sean Ingle, *Caster Semenya is 'unquestionably a woman', say her lawyers* (15 February 2019) The Guardian <<https://www.theguardian.com/sport/2019/feb/14/caster-semenya-unquestionably-a-woman-lawyers>>

5. Wood and Stanton, 'Testosterone and Sport: Current Perspectives' (2012) 61(1) *Hormones and Behavior* 147

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