



# GENETIC SEX TESTING IN WOMEN'S SPORT: WHAT ATHLETES NEED TO KNOW

## WHAT IS GENETIC TESTING?

A genetic sex test analyzes an individual's blood or saliva to assess whether the Y sex chromosome is present. Currently, this is done by looking for what is known as the sex-determining region Y (SRY) gene.

## WHAT IS THE SRY GENE, AND DOES IT INDICATE A PERSON'S SEX?

The SRY gene is usually found on the Y chromosome and is associated with the development of testes. Testes then produce hormones, such as testosterone. This series of events often leads to an individual with the SRY gene being assigned the male sex category at birth. On its own, however, the SRY gene does not determine sex. The functioning of the SRY gene and the development of testes rely on a cascade of interacting genes rather than a single determining factor. Some individuals have genetic variations that impact the functioning of the SRY gene, with consequences for the development of testes and how the cells in their body respond to testosterone. These individuals may be assigned the female sex category at birth without knowing that they have the SRY gene. In summary, testing for the SRY gene may reveal whether the gene is present, but it does not indicate a person's sex.

## WHO IS REQUIRED TO UNDERGO GENETIC SEX TESTING?

All women and girls seeking to compete in international events in swimming, athletics, boxing, skiing and snowboarding are required to undergo mandatory genetic sex testing, in accordance with the rules of their respective International Federation. In addition, beginning with the 2028 Olympic Games, all women and girls seeking to compete at the Olympic Games, Youth Olympic Games, or another event organized by the International Olympic Committee (IOC) will be subject to the same requirement. Athletes on a development pathway to compete internationally in one of the above sports or at an IOC event may also be required to undergo mandatory genetic sex testing. Finally, mandatory genetic sex

testing may be adopted by other International Federations for their own competitions based on new guidance from the IOC.

## WHAT HAPPENS IF A TEST INDICATES THAT I HAVE THE SRY GENE?

If you undergo the genetic test and it indicates that you have the SRY gene, then you will be ineligible to compete in the women's category, unless you can demonstrate that your cells do not respond to testosterone due to complete androgen insensitivity syndrome or another genetic variation.

While genetic sequencing tests exist to identify an individual's insensitivity to testosterone, such tests are very expensive and may not be available in all areas of the world. As a result, if a test indicates that you have the SRY gene, you may need to undergo clinical examinations to determine whether you are insensitive to testosterone. These examinations can involve measurements of your clitoris, breast development, symmetry of external genitalia, and pattern of pubic hair, as well as the touching of your genitalia.



## **WHAT IS THE SCIENCE BEHIND MANDATORY GENETIC SEX TESTING IN SPORT?**

Every eligibility rule in sport should have a robust scientific justification. No published research exists to show that women or girls with the SRY gene have a competitive advantage over other women. Women and girls who test positive for the SRY gene may therefore be unjustly excluded from sport. Similarly, there is no scientific consensus about the relationship between the amount of testosterone produced by an athlete's body and sport performance. This is particularly true in the case of athletes with intersex variations, about whom no published, independent research exists. In the case of transgender athletes, research is extremely limited with no clear consensus about their athletic capabilities following gender affirming care. Therefore, requiring women athletes with the SRY gene to be insensitive to testosterone to compete in women's sport is not justified by scientific evidence.

## **WHY SHOULD I BE CONCERNED?**

In most countries, genetic testing is subject to strong ethical guidelines and laws and can only be conducted if it meets the following criteria: there is a clear medical purpose, an individual has provided free and informed consent, and the individual's genetic data can be kept private. This is because the result of a genetic test can be life changing for an individual. Mandatory genetic sex testing in sport operates outside of these standards, making it a practice that is highly unusual, ethically questionable, and illegal in some countries.

The use of genetic sex testing to determine eligibility in sport does not have a medical purpose. Athletes also do not freely consent to genetic sex testing, as they are forced to take the test if they want to continue competing in the women's category. In addition, neither the IOC nor International Federations can ensure that athletes are provided with access to qualified genetic counsellors to understand the risks of taking the test or with mental health support following a positive test result. It is also unclear how sport organizations will collect and maintain the confidentiality of athletes' genetic and related personal data. This is a significant concern, given the high risk of stigmatization and harassment for women and girls found to have the SRY gene. These ethical and legal concerns may be heightened for child athletes due to their young age and level of maturity.

## **IF THE WOMEN'S CATEGORY NEEDS ELIGIBILITY RULES, ISN'T MAKING ALL WOMEN AND GIRLS UNDERGO GENETIC SEX TESTING THE FAIREST OPTION?**

No. There is no robust scientific evidence to justify this form of testing. The testing occurs under circumstances that are unethical and, in some cases, illegal and therefore may negatively impact all women and girls in sport.

## **I'M NOT YET COMPETING AT THE INTERNATIONAL LEVEL. WILL THIS TEST AFFECT ME?**

At a minimum, mandatory genetic testing is required to compete in the women's category at IOC events and at events governed by the rules of an International Federation that has adopted genetic sex testing. However, National Federations may decide to introduce testing for lower-level events based on guidance from their International Federation and the IOC, or at their own initiative. You should review the rules of your National Federation to obtain more information.

## **WHAT RIGHTS DO I HAVE TO CHALLENGE GENETIC SEX TESTING?**

Whether you have the SRY gene or not, genetic sex testing infringes several human rights protected under international, regional, and national laws, including the right to participate in sport without discrimination, the right to make decisions about your own body, and the right to privacy.

Your legal options to challenge genetic sex testing may differ based on several factors, such as where you live and the location of the sport organization that is requiring you to take the test. Your options may include making a complaint to a regulator, bringing a legal proceeding to a court or a human rights tribunal, or requesting arbitration at the Sport Dispute Resolution Centre of Canada or the Court of Arbitration for Sport. There are experts who can help you navigate your options.

You can pursue these legal options if you have been asked to take a genetic sex test or have already taken the test.

## **WHO CAN I CONTACT FOR SUPPORT?**

You can contact an athlete association or a legal professional for support.

To contact the Canadian Olympic Committee's Athletes' Commission, please send an email to [athletescommission@olympic.ca](mailto:athletescommission@olympic.ca)

To contact AthletesCAN, please send an email to [info@athletescan.ca](mailto:info@athletescan.ca)