



**ELIGIBILITY REGULATIONS  
FOR THE FEMALE CLASSIFICATION  
(ATHLETES WITH DIFFERENCES OF SEX DEVELOPMENT)**

*(Version 3.1, approved by Council on 31 July 2024, effective immediately)*



## General Information

In the case of general queries regarding these DSD Regulations, please contact:

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These DSD Regulations refer to end notes that can be found at the back of the document or (in the electronic version) by hovering over the reference number in the text.

## 1. Introduction

- 1.1 World Athletics has adopted these Eligibility Regulations for the Female Classification (Athletes with Differences of Sex Development) (the “**DSD Regulations**”) to facilitate the participation of athletes with Differences of Sex Development in the sport of Athletics, in accordance with the following imperatives:
  - 1.1.1 World Athletics wants to give equal opportunities to all athletes to participate in and excel at the sport, and to provide them with fair and meaningful competition conditions, so that they are motivated to make the huge commitment and sacrifice required to excel in the sport, and so inspire new generations to join the sport and aspire to the same excellence.
  - 1.1.2 The substantial sex difference in sports performance that emerges from puberty onwards means that the only way to achieve the objectives set out above is to maintain separate classifications (competition categories) for male and female athletes. That difference is due to the physical advantages conferred on male athletes by the testes producing much higher levels of circulating testosterone than ovaries produce from puberty onwards in female athletes.<sup>1</sup>
  - 1.1.3 However, some individuals have congenital conditions that cause atypical sex development (known as “**Differences of Sex Development**”, or “**DSDs**”). In certain cases, this may lead to an individual being assigned at birth a legal sex of female and/or having a female gender identity, notwithstanding that the individual has fully functioning (internal) testes rather than ovaries.
  - 1.1.4 World Athletics recognises that individuals with DSDs may wish to compete in Athletics in a classification consistent with their legal sex/gender identity. World Athletics respects the dignity of all individuals, including individuals with DSDs. It also wishes the sport of Athletics to be as inclusive as possible, and to encourage and provide a clear path to participation in the sport for all. It therefore seeks to place conditions on such participation only to the extent necessary to deliver fair and meaningful competition conditions at the elite level of the sport.
  - 1.1.5 These DSD Regulations exist solely to achieve the objectives set out above. In no way are they intended as any kind of judgement on or questioning of the sex or the gender identity of any athlete. On the contrary, the dignity and privacy of athletes with DSDs must be respected and preserved, and therefore all cases arising under these DSD Regulations must be handled and resolved in a confidential manner, recognising the sensitive nature of such matters.
- 1.2 These DSD Regulations will come into effect as set out in DSD Regulation 12. They will be subject to periodic review, and may be amended following such review to take account of any new evidence and/or relevant scientific or medical developments.
- 1.3 Since these DSD Regulations apply globally, regulating the conditions for participation in competitions taking place around the world, insofar as is possible they are to be interpreted and applied not by reference to national or local laws, but rather as an independent and autonomous text, and in a manner that protects and advances the imperatives identified above. In the event that an issue arises that is not foreseen in these DSD Regulations, it will be addressed by World Athletics in the same manner.

- 1.4 The words and phrases used in these DSD Regulations that are defined terms (indicated by initial capital letters) have the meaning given to them in the Generally Applicable Definitions section of the World Athletics Book of Rules, or else (if not defined there) have the following meanings:

**"Applicable Persons"** has the meaning given to that term in the Integrity Code of Conduct.

**"Combined Events"** means the events identified as such in the Technical Rules.

**"Competition Rules"** means the rules of that name included in the World Athletics Book of Rules.

**"Differences of Sex Development"/"DSD"** has the meaning given to that term in DSD Regulation 1.1(D).

**"Disciplinary Officer"** has the meaning given to that term in the Disputes and Disciplinary Proceedings Rules.

**"DSD Eligibility Conditions"** has the meaning given to that term in DSD Regulation 3.2.

**"DSD Regulations"** has the meaning given to that term in DSD Regulation 1.1.

**"Expert Panel"** has the meaning given to that term in DSD Regulation 4.1.

**"Generally Applicable Definitions"** means the document of that name included in the World Athletics Book of Rules.

**"Medical Manager"** means a medically qualified person who is authorised by World Athletics to act on its behalf in matters arising under these DSD Regulations.

**"Relevant Athlete"** has the meaning given to that term in DSD Regulation 3.1.

**"Technical Rules"** means the rules of that name included in the World Athletics Book of Rules.

**"World Record"** has the meaning given to that term in the Competition Rules.

- 1.5 The Rules of Interpretation in the World Athletics Book of Rules apply to these DSD Regulations.

## 2. Eligibility

- 2.1 A Relevant Athlete who wishes to be eligible to compete in the female classification at a World Rankings Competition, and/or to have recognised any World Record performance in the female classification at a competition that is not a World Rankings Competition, agrees, as conditions to such eligibility:

2.1.1 to comply in full with these DSD Regulations;

2.1.2 to cooperate promptly and in good faith with the Medical Manager and the Expert Panel in the discharge of their respective responsibilities under these DSD Regulations, including:

- 2.1.2.1 providing all of the information and evidence they request to determine whether they are a Relevant Athlete and (if so) to assess their compliance and to monitor their continuing compliance with the DSD Eligibility Conditions, including submitting to testing in accordance with these DSD Regulations;
  - 2.1.2.2 ensuring that all information and evidence provided by them or on their behalf to the Medical Manager and/or the Expert Panel is accurate and complete, and that nothing relevant is withheld; and
  - 2.1.2.3 consenting to and ensuring the disclosure by their physician(s) to the Medical Manager and the Expert Panel of any information or evidence that the Expert Panel deems necessary to its assessment;
- 2.1.3 (to the fullest extent permitted and not contrary to applicable laws) to the collection, processing, disclosure and use of information (including their sensitive personal information) as required to implement and apply these DSD Regulations effectively and efficiently;
- 2.1.4 to challenge these DSD Regulations and/or to appeal decisions made under these DSD Regulations only as set out in DSD Regulation 7, and not to bring any proceedings in any court or other forum other than as prescribed in DSD Regulation 7; and
- 2.1.5 to provide written confirmation of their agreement with DSD Regulations 2.1.1 to 2.1.4 upon request by World Athletics. However, their agreement to these DSD Regulations will be assumed as an automatic consequence of their participation in Athletics and is effective and binding upon them whether or not confirmed in writing.
- 2.2 An Athlete may revoke at any time, without having to give reasons, the consent that they have granted further to DSD Regulation 2.1. In that event, the Athlete will be deemed to have withdrawn any claim to be eligible to compete in the female classification at a World Rankings Competition, and/or to be eligible to have recognised any World Record performance in the female classification at a competition that is not a World Rankings Competition.
- 2.3 Athletes, Athlete Representatives, Member Federations, Area Associations, Member Federation Officials, any other Applicable Person, and any other person who brings themselves under the jurisdiction of World Athletics by providing information to World Athletics pursuant to DSD Regulation 2.6:
  - 2.3.1 is bound by and must comply in full with these DSD Regulations, including in particular only providing accurate and complete information, and not providing any information in bad faith or for any improper purpose; and
  - 2.3.2 must cooperate promptly and in good faith with the Medical Manager and the Expert Panel in the discharge of their respective responsibilities under these DSD Regulations.
- 2.4 All cases arising under these DSD Regulations will be dealt with by the World Athletics Health and Science Department, rather than by the Member Federation of the Athlete concerned (or by any other body), unless the Medical Manager specifically asks for their assistance with respect to a particular case. Each Member Federation must cooperate with and support World Athletics promptly and fully in the application and enforcement of these DSD Regulations (including assisting upon request in respect of assessments and investigations conducted under these DSD Regulations), must observe strictly the confidentiality obligations set out below, and must ensure that any Athlete under its jurisdiction that is entered to compete in

the female classification at a World Rankings Competition is eligible to do so under these DSD Regulations.

- 2.5 A Member Federation may adopt its own regulations to determine the eligibility of athletes with DSDs to compete in the female classification in competitions taking place under its own jurisdiction that are not World Rankings Competitions. For the avoidance of doubt, however:
- 2.5.1 Nothing that the Member Federation does or does not do at national level will affect the eligibility of athletes with DSDs to compete in the female classification at World Rankings Competitions, or to have recognised any World Record performance in the female classification at a competition that is not a World Rankings Competition. That eligibility will instead be determined exclusively by reference to these DSD Regulations.
- 2.5.2 If a Member Federation decides to allow an athlete who is or may be a Relevant Athlete to compete in competitions under its jurisdiction in the female classification without having to meet the requirements of these DSD Regulations, World Athletics will not recognise the athlete's performances for purposes of World Records or World Rankings, and will list their results separately.
- 2.6 At the request of an Athlete whose case arises for investigation and/or assessment under these DSD Regulations, World Athletics will appoint an independent ombudsperson to help the Athlete to understand and address the requirements of the DSD Regulations, and will pay the costs charged by the ombudsperson for providing such assistance.
- 2.7 The dignity of every individual must be respected. All forms of abuse and/or harassment are prohibited. In particular (but without limitation):
- 2.7.1 Any person or entity that provides information to the Medical Manager and/or the Expert Panel for consideration under these DSD Regulations must:
- 2.7.1.1 ensure that the information is accurate and complete; and
- 2.7.1.2 not provide any information in bad faith, to harass, stigmatise or otherwise injure an athlete, or for any other improper purpose.
- 2.7.2 No stigmatisation or improper discrimination on grounds of gender identity will be tolerated. In particular, persecution of or campaigns against athletes simply on the basis that their appearance does not conform to gender stereotypes are unacceptable. Any such conduct will be considered a serious breach of these DSD Regulations and of the Integrity Code of Conduct, as will any breach of the confidentiality provisions set out below.
- 2.8 For purposes of these DSD Regulations, all measurements of serum testosterone must be conducted by means of liquid chromatography coupled with mass spectrometry.

### **3 Eligibility Conditions for Relevant Athletes**

3.1 A "**Relevant Athlete**" is an Athlete who meets each of the following three criteria:

- 3.1.1 they have one of the following DSDs:
- 3.1.1.1 5 $\alpha$ -reductase type 2 deficiency;

- 3.1.1.2 partial androgen insensitivity syndrome (aka PAIS);
- 3.1.1.3 17 $\beta$ -hydroxysteroid dehydrogenase type 3 (17 $\beta$ -HSD3) deficiency;
- 3.1.1.4 ovotesticular DSD; or
- 3.1.1.5 any other genetic disorder involving disordered gonadal steroidogenesis; and
- 3.1.2 as a result, they have a concentration of testosterone of 2.5 nmol/L or more in their serum; and
- 3.1.3 they have sufficient androgen sensitivity for that testosterone to have a material androgenising effect.<sup>2</sup>
- 3.2 To be eligible to compete in the female classification at a World Rankings Competition, and/or to have recognised any World Record performance in a competition that is not a World Rankings Competition, a Relevant Athlete must meet each of the following conditions (the "**DSD Eligibility Conditions**"):
  - 3.2.1 they must be recognised at law (for example, in a birth certificate or passport) either as female or as intersex;
  - 3.2.2 they must have continuously maintained the concentration of testosterone in their serum below 2.5 nmol/L<sup>3</sup> for a period of at least 24 months; and
  - 3.2.3 they must continue to maintain the concentration of testosterone in their serum below 2.5 nmol/L at all times (i.e., whether they are in competition or out of competition) for so long as they wish to retain eligibility to compete in the female classification at World Rankings Competitions and/or to have recognised any World Record performance in the female classification at a competition that is not a World Rankings Competition.
- 3.3 For the avoidance of doubt:
  - 3.3.1 No Athlete will be forced to undergo any medical assessment and/or treatment under these DSD Regulations. It is the Athlete's responsibility, in close consultation with their medical team, to decide whether or not to proceed with any assessment and/or treatment.
  - 3.3.2 There are no other special conditions (i.e., other than the DSD Eligibility Conditions) that a Relevant Athlete must satisfy in order to compete in the female classification at World Rankings Competitions and/or to have recognised any World Record performance in the female classification at competitions that are not World Rankings Competitions. In particular, surgical anatomical changes are not required in any circumstances.
  - 3.3.3 The DSD Eligibility Conditions set out in these DSD Regulations operate without prejudice to the other eligibility requirements that are applicable to all Athletes (DSD or otherwise) under the rules of World Athletics. Those other eligibility requirements must also be satisfied at all relevant times. In particular, nothing in these DSD Regulations is intended to undermine or affect in any way any of the requirements of the World Anti-Doping Code, of the WADA International Standards (including the International Standard for Therapeutic Use Exemptions), or of the World Athletics



Anti-Doping Rules. Nothing in these DSD Regulations permits, excuses or justifies non-compliance with any of those requirements.

- 3.4 A Relevant Athlete who does not meet the DSD Eligibility Conditions (and any Athlete who is asked by the World Athletics Medical Manager to submit to assessment under these DSD Regulations but fails or refuses to do so) will not be eligible to compete in the female classification at World Rankings Competitions or to have recognised any World Record performance in the female classification at competitions that are not World Rankings Competitions. However, that athlete will be eligible to compete:
- 3.4.1 in the female classification at competitions that are not World Ranking Competitions, if the competition organiser’s rules so permit;
  - 3.4.2 in the male classification at all World Ranking Competitions; and/or
  - 3.4.3 in any applicable open or mixed classification that may be offered at any World Ranking Competition.

#### **4 Assessment of Cases**

- 4.1 World Athletics’ CEO (or their nominee) will appoint a pool of independent medical experts from which a suitably qualified panel of experts (the “**Expert Panel**”) may be formed to review cases arising under these DSD Regulations. They will also designate one of those experts to act as chair and to select the Expert Panel for each case. The chair and other independent medical experts appointed by World Athletics to this pool as of the date of entry into force of these DSD Regulations are identified in Appendix 1.
- 4.2 The Expert Panel may make such enquiries or investigations as it considers necessary to carry out its assessments accurately and effectively, including requesting further information from the Athlete or the Athlete’s physicians and/or obtaining additional expert opinion(s). The Athlete is responsible for ensuring that the information provided is accurate and complete, and that nothing relevant to the Expert Panel’s assessment of the case is withheld. The Athlete must also provide the appropriate consents and waivers (in a form satisfactory to the Medical Manager) to enable the athlete’s physicians to disclose to the Medical Manager and the Expert Panel any information that the Expert Panel deems necessary to its assessment.

#### **4A. Opening a case**

- 4.3 An Athlete who is or believes that they may be a Relevant Athlete, and who wishes to be eligible to compete in the female classification at World Rankings Competitions and/or to have recognised any World Record performance in the female classification at other competitions:
- 4.3.1 must notify the World Athletics Medical Manager and request assessment of their case in accordance with these DSD Regulations; and
  - 4.3.2 must provide a comprehensive medical history.

The Medical Manager will communicate with the Athlete and/or the Athlete’s physicians to remedy any obvious deficiencies in the file before progressing the matter.

#### **4B. Investigations**

- 4.4 A Member Federation must promptly advise the Medical Manager of any relevant information derived from a reliable source that indicates that an Athlete under its jurisdiction is or may be a Relevant Athlete (such as the results of analysis of the Athlete's samples for other purposes that indicate that the concentration of the Athlete's circulating endogenous testosterone is above the normal female range). The Medical Manager will investigate and progress such cases as they see fit.
- 4.5 In addition, provided they are acting in good faith and on reasonable grounds based on information derived from reliable sources (such as the Athlete, the team doctor of the Member Federation to which the Athlete is affiliated, results from a routine pre-participation health examination, and/or information/data (including but not limited to testosterone levels in serum and/or urine) obtained from the collection and analysis of samples for anti-doping purposes), the Medical Manager may investigate whether an Athlete who is competing or is or may be entered to compete in the female classification at a World Rankings Competition may be a Relevant Athlete whose case requires assessment under these DSD Regulations.
- 4.6 Wherever the Medical Manager opens a case (whether under DSD Regulation 4.3, DSD Regulation 4.4, or DSD Regulation 4.5), the Athlete in question must cooperate fully and in good faith with the investigation by the Medical Manager and any subsequent assessment by the Expert Panel, including by providing a comprehensive medical history, providing serum and/or urine samples upon request for analysis, and/or submitting to medical examination. Where such cooperation is not provided, or where otherwise necessary to safeguard the fairness and/or integrity of competition, World Athletics may provisionally suspend the Athlete from competing in World Rankings Competitions, and from being eligible to have recognised any World Record performance in any competition that is not a World Rankings Competition, pending resolution of the matter. Where such provisional suspension is imposed, all reasonable endeavours must be used to complete the investigation and assessment as expeditiously as possible. Any such provisional suspension may be appealed in accordance with DSD Regulation 6.2.1.
- 4.7 Where the Medical Manager concludes following an investigation that an Athlete is or may be a Relevant Athlete to whom these DSD Regulations apply, and the Athlete wishes to be eligible to compete in the female classification at World Rankings Competitions and/or to have recognised any World Record performance in the female classification at other competitions, the Medical Manager will invite the Athlete to provide the information set out in DSD Regulation 4.3 so that their case may be assessed.

#### **4C. Expert Panel assessment**

- 4.8 In cases where it is not clear whether the Athlete is a Relevant Athlete, the case will be assessed in accordance with the guidelines set out in Appendix 2.
- 4.9 Where the Expert Panel is required to decide whether or not an Athlete is a Relevant Athlete, it may make such enquiries or investigations as it considers necessary to carry out the assessment accurately and effectively, including requesting further information from the Athlete or the Athlete's physician and/or obtaining additional expert opinion(s). Once the assessment of whether or not the Athlete is a Relevant Athlete is complete, the Expert Panel will send its decision (with reasons) in writing to the Medical Manager, who will forward it to the Athlete (with a copy to the Athlete's physician and the Athlete ombudsperson, if any).
- 4.10 Where the Athlete accepts or the Expert Panel decides that the Athlete is a Relevant Athlete, the Athlete:

- 4.10.1 must give the Medical Manager at least two weeks' prior notice of the commencement of the 24-month testosterone suppression period mentioned in DSD Regulation 3.2.2;
- 4.10.2 must give the Medical Manager (or the Medical Manager's specified delegate) advance notice of their whereabouts throughout that 24-month period, in the manner and by the means specified by the Medical Manager or their delegate (which may involve, for example, providing the Medical Manager or their delegate with the same whereabouts information as the Athlete files under applicable anti-doping rules), so that the Medical Manager may locate the Athlete for the purposes of sample collection without advance notice at any point during that 24-month period;
- 4.10.3 must provide samples on demand to a service provider engaged by the Medical Manager, in accordance with sample collection procedures prescribed by the Medical Manager to safeguard the identity and integrity of the samples;
- 4.10.4 consents to the Medical Manager having those samples analysed to assess the Athlete's compliance with the requirements of DSD Regulation 3.2.2; and
- 4.10.5 agrees to advise the Medical Manager of the results of analysis of samples collected from the Athlete under applicable anti-doping rules during the 24-month period (or, if they do not have that information, agrees to do everything in their power to ensure that the person holding that information provides it to the Medical Manager).
- 4.11 The Medical Manager will provide the Expert Panel with details of the steps that the Medical Manager proposes to take to monitor the levels of testosterone in the Relevant Athlete's serum during the 24-month period, and will amend those proposed steps as necessary to address any comments made by the Expert Panel.
- 4.12 Towards the end of the 24-month period, the Medical Manager will again forward the Relevant Athlete's file to the Expert Panel, together with the evidence collected of the levels of testosterone in the Relevant Athlete's serum during the 24-month period, so that the Expert Panel may determine whether the Relevant Athlete has complied with the requirements of DSD Regulation 3.2.2.
- 4.13 Once the assessment of whether or not the Relevant Athlete has complied with the requirements of DSD Regulation 3.2.2 is complete, the Expert Panel will send its decision (with reasons) in writing to the Medical Manager, who will forward it to the Athlete (with a copy to the Athlete's physician and the Athlete ombudsperson, if any).
- 4.14 The Expert Panel's decisions pursuant to DSD Regulation 4.8 and DSD Regulation 4.12 will be final and binding on all parties. They may only be challenged by way of appeal in accordance with DSD Regulation 7.
- 4.15 DSD Regulations 4.10 to 4.14 (inclusive) also apply to transitional cases falling within DSD Regulation 12.2.1, save that the relevant period for assessment in those cases will not be 24 months but rather 6 months.

## **5 Continuing Compliance**

- 5.1 A Relevant Athlete will be solely responsible for complying with DSD Regulation 3.2.3 by maintaining the concentration of testosterone in their serum at less than 2.5 nmol/L for as long as they wish to be eligible to compete in the female classification at World Rankings

Competitions and/or to have recognised any World Record performance in the female classification at any competition that is not a World Rankings Competition.

5.2 The Expert Panel may specify particular means of demonstrating such continuing compliance. In any event, the Relevant Athlete must produce, on request, evidence satisfactory to the Medical Manager of such continuing compliance. In particular, the Medical Manager:

5.2.1 may require the Relevant Athlete to provide ongoing evidence of the concentration of testosterone in their serum, such as laboratory reports obtained by their personal physician of the results of analysis of samples collected periodically from the Relevant Athlete;

5.2.2 may monitor the concentration of testosterone in the Relevant Athlete's serum, including by having samples collected from the Relevant Athlete and analysed for relevant evidence;

5.2.3 may consult with the chair of the Expert Panel at any stage during this process as the Medical Manager considers necessary; and

5.2.4 may, if circumstances warrant, refer the Relevant Athlete back to the Expert Panel for further assessment.

5.3 To facilitate the Medical Manager's monitoring of their testosterone levels under DSD Regulation 5.2, the Relevant Athlete:

5.3.1 must give the Medical Manager advance notice of their whereabouts, in the manner and by the means specified by the Medical Manager (which may involve, for example, providing the Medical Manager with the same whereabouts information as the Relevant Athlete files under applicable anti-doping rules), so that the Medical Manager may locate the Relevant Athlete for purposes of sample collection at any time without having to give advance notice;

5.3.2 must submit to collection of samples of their serum and/or urine on demand by a service provider engaged by the Medical Manager, in accordance with sample collection procedures prescribed by the Medical Manager to safeguard the identity and integrity of the samples;

5.3.3 consents to the Medical Manager having those samples analysed to assess the Athlete's compliance with the requirements of these DSD Regulations; and

5.3.4 agrees to advise the Medical Manager of the results of analysis of samples collected from them under applicable anti-doping rules (or, if they do not have that information, agrees to request that the person holding that information provide it to the Medical Manager, and to do everything in their power to ensure such provision) for purposes of assessing their compliance with the requirements of these DSD Regulations.

5.4 If the Relevant Athlete:

5.4.1 refuses or fails without compelling justification to comply with one or more of the requirements of DSD Regulation 5.3; or

5.4.2 is found (whether by sample analysis or otherwise) to have failed to keep the concentration of testosterone in their serum below 2.5 nmol/L;

then (subject always to DSD Regulation 5.5):

5.4.2.1 where World Athletics' CEO considers it necessary to do so in order to maintain the integrity of competition results, they may disqualify the individual results obtained by the Relevant Athlete at World Rankings Competitions and/or other competitions, with all resulting consequences, including forfeiture of any medals, ranking points, prize money, records (including World Records), and other items awarded to the Relevant Athlete based on those results;

5.4.2.2 where the Relevant Athlete is able to satisfy the Expert Panel on the balance of probabilities that their failure to keep the concentration of testosterone in their serum below 2.5 nmol/L was unintentional, the Relevant Athlete will be ineligible to compete in the female classification in World Rankings Competitions or to have recognised any World Record performance in the female classification in a competition that is not a World Rankings Competition for such period (if any) as the Expert Panel shall consider necessary to protect fair competition in the female classification; and

5.4.2.3 where the Relevant Athlete is not able to satisfy the Expert Panel on the balance of probabilities that their failure to keep the concentration of testosterone in their serum below 2.5 nmol/L was unintentional, the Relevant Athlete will be ineligible to compete in the female classification in World Rankings Competitions or to have recognised any World Record performance in the female classification in a competition that is not a World Rankings Competition for the same period as the period of ineligibility that they would have received for intentional use of an anabolic steroid under the World Athletics Anti-Doping Rules in force at the relevant time.

5.5 The Relevant Athlete will be given a reasonable opportunity to provide any explanations or comments they see fit before any results are disqualified or any period of ineligibility is imposed pursuant to DSD Regulation 5.4.

5.6 Any decision to disqualify results and/or to impose a period of ineligibility pursuant to DSD Regulation 5.4 may be appealed by the Relevant Athlete in question in accordance with DSD Regulation 7.

## **6 Disciplinary Proceedings**

6.1 Without prejudice to the powers given to World Athletics in DSD Regulations 4.6, 5.4, 6.4 and 6.5 where:

6.1.1 a Relevant Athlete competes in a World Rankings Competition in the female classification when they have not satisfied the DSD Eligibility Conditions and/or World Athletics has previously notified them that they have not satisfied the DSD Eligibility Conditions; or

6.1.2 an Applicable Person has been complicit in a breach of or non-compliance with these DSD Regulations by an Athlete; or

6.1.3 there has been any other breach of or non-compliance by an Applicable Person with these DSD Regulations;

such breach of these DSD Regulations amounts to a breach of the Integrity Code of Conduct and accordingly will be subject to investigation by the Athletics Integrity Unit under the Athletics Integrity Unit Reporting, Investigation and Prosecution Rules (Non-Doping) and possible prosecution before the World Athletics Disciplinary Tribunal in accordance with the Disciplinary Tribunal Rules.

- 6.2 In such disciplinary proceedings, the validity of these DSD Regulations or of any decision made under these DSD Regulations may not be challenged. Instead, such challenge may only be brought by way of challenge or appeal in accordance with DSD Regulation 7.
- 6.3 In such disciplinary proceedings, the sanctions that may be imposed in case of proven breach may include (depending on all of the circumstances of the case):
- 6.3.1 a caution, reprimand, and/or warning as to future conduct;
  - 6.3.2 (subject to DSD Regulation 6.4) the disqualification of individual results obtained by the Relevant Athlete at World Rankings Competitions, with all resulting consequences, including forfeiture of any medals, ranking points, prize money, or other items awarded to the athlete based on those results;
  - 6.3.3 (subject to DSD Regulation 6.4) the disqualification of a World Record set by the Relevant Athlete at a competition that is not a World Rankings Competition;
  - 6.3.4 a specified period of ineligibility of the Relevant Athlete to participate in World Rankings Competitions; and/or
  - 6.3.5 a fine.
- 6.4 If a Relevant Athlete competes in a World Rankings Competition in the female classification when they have not satisfied the DSD Eligibility Conditions and/or World Athletics has previously notified them that they have not satisfied the DSD Eligibility Conditions, World Athletics' Disciplinary Officer may disqualify the individual results obtained by the Relevant Athlete at World Rankings Competitions and/or other competitions, with all resulting consequences, including forfeiture of any medals, ranking points, prize money, records (including World Records), and other items awarded to the Relevant Athlete based on those results, if the Disciplinary Officer considers it necessary to do so in order to maintain the integrity of competition results.
- 6.5 Subject to DSD Regulation 6.4, if a Relevant Athlete (or a likely Relevant Athlete in the Medical Manager's opinion in good faith and on reasonable grounds based on information derived from reliable sources) competes in a World Rankings Competition in the female classification when they have not satisfied the DSD Eligibility Conditions (irrespective of whether (1) they knew at the time of the competition that they had not satisfied the DSD Eligibility Conditions or (2) World Athletics had previously notified them that they might be a Relevant Athlete and/or that they had not satisfied the DSD Eligibility Conditions), World Athletics' Disciplinary Officer may disqualify the individual results obtained by the Relevant Athlete at World Rankings Competitions and/or other competitions, with all resulting consequences, including forfeiture of any medals, ranking points, prize money, records (including World Records), and other items awarded to the Relevant Athlete based on those results, if the Disciplinary Officer considers it necessary to do so in order to maintain the integrity of competition results.
- 6.6 In exercising discretion under DSD Regulation 6.4 or 6.5, the Disciplinary Officer will consider all relevant factors including whether the athlete in question (1) is publicly known to be a

Relevant Athlete, and/or (2) has been notified by World Athletics that a consequence of disqualification of individual results in such circumstances may be that the reason for disqualification becomes public knowledge (or may be the subject of public speculation).

- 6.7 Where a Member Federation has failed to comply in full with these DSD Regulations, and/or has failed to ensure compliance in full by Athletes under its jurisdiction with these DSD Regulations, World Athletics may take action against that Member Federation in accordance with its powers under the Constitution.

## **7 Dispute Resolution**

- 7.1 Excluding the disciplinary matters referenced in DSD Regulation 6 (which will be addressed as set out in DSD Regulation 6), any dispute arising between World Athletics and a Relevant Athlete (and/or their Member Federation) in connection with these DSD Regulations will be subject to the exclusive jurisdiction of the CAS. In particular, the validity, legality and/or proper interpretation or application of these DSD Regulations may only be challenged (a) by way of ordinary proceedings filed before the CAS; and/or (b) as part of an appeal to the CAS made pursuant to DSD Regulation 7.2.
- 7.2 Excluding decisions of the Disciplinary Officer which may only be appealed by the Athlete who is subject to the decision to the Disciplinary and Appeals Tribunal under the Disputes and Disciplinary Proceedings Rules, the following decisions (and only the following decisions) made under these DSD Regulations may be appealed by the Athlete affected to the CAS, in accordance with this DSD Regulation 7, by filing a Statement of Appeal with the CAS and with World Athletics within thirty days of the date of receipt of the written reasons for the decision (and World Athletics will be the respondent to the appeal):
- 7.2.1 a decision pursuant to DSD Regulation 4 that the Athlete is a Relevant Athlete who does not satisfy the DSD Eligibility Conditions and therefore is not eligible to compete in the female classification at World Rankings Competitions or to have recognised any World Record performance in the female classification at a competition that is not a World Rankings Competition;
- 7.2.2 a decision pursuant to DSD Regulation 4.6 to suspend an Athlete provisionally from competition; and
- 7.2.3 a decision pursuant to DSD Regulation 5.4 to disqualify results and/or to impose a period of ineligibility.
- 7.3 Any such challenge or appeal will be conducted in the English language and will be governed by the Constitution, these DSD Regulations, and the other applicable rules and regulations of World Athletics, with the laws of Monaco applying subsidiarily. The CAS will hear and determine the dispute or appeal definitively in accordance with the relevant provisions of the CAS Code of Sports-Related Arbitration, provided that (1) in the event of any conflict between the aforementioned governing instruments and laws on the one hand and the CAS Code of Sports-Related Arbitration on the other hand, the governing instruments and laws will take precedence; and (2) in any appeal the athlete will have fifteen days from the filing of the Statement of Appeal to file their Appeal Brief, and World Athletics will have thirty days from its receipt of the Appeal Brief to file its Answer. Pending determination of the dispute or appeal, the DSD Regulations and the decision under appeal will remain in full force and effect, unless the CAS orders otherwise.

- 7.4 The decision of the CAS on the merits of the challenge or appeal will be final and binding on all parties, and no right of appeal or other challenge will lie from that decision on any ground, except as set out in Chapter 12 of the Swiss Federal Code on Private International Law.

## **8 Confidentiality**

- 8.1 All cases arising under these DSD Regulations, and in particular all athlete information provided to World Athletics under these DSD Regulations, and all results of investigations, examinations and assessments conducted under these DSD Regulations, will be dealt with in strict confidence at all times. All medical information and data relating to an athlete will be treated as sensitive personal information and the Medical Manager must ensure that it is processed as such in accordance with applicable data protection and privacy laws. Such information and data will not be used for any purpose that is not contemplated in these DSD Regulations, and may not be disclosed to any third party save (a) as is strictly necessary for the effective application and enforcement of these DSD Regulations; or (b) as is required by law.
- 8.2 World Athletics will not comment publicly on the specific facts of a case arising under these DSD Regulations (as opposed to general descriptions of the process and science involved) except in response to public comments made by the Relevant Athlete or the Relevant Athlete's representatives.
- 8.3 Each member of the Expert Panel will sign an appropriate conflict of interest declaration and confidentiality undertaking in relation to his/her work as a member of the panel.

## **9 Costs**

- 9.1 World Athletics will bear the costs of assessment and diagnosis of the Athlete under these DSD Regulations (including the standing costs of the Expert Panel and all costs of the doctors and experts involved in such assessment and diagnosis), as well as the costs of collecting samples from the Athlete to monitor her compliance with the requirements of these DSD Regulations.
- 9.2 The Athlete will bear the costs of her personal physician(s) and of any treatment prescribed for her by her personal physician(s), including any treatment required to satisfy the requirements of these DSD Regulations, as well as any other costs of demonstrating compliance with these DSD Regulations that are not paid by World Athletics pursuant to DSD Regulation 9.1.

## **10 Mutual Recognition**

- 10.1 Where an athlete from another sport who may be a Relevant Athlete wishes to participate in the sport of Athletics, World Athletics may recognise and give effect to the eligibility decision of the international federation of the other sport in relation to that athlete, provided that the eligibility decision and the regulations of that other sport relating to that eligibility decision are consistent with these DSD Regulations. Any eligibility so afforded shall be subject to ongoing compliance by the athlete with the requirements of these DSD Regulations.

## **11 Limitation of Liability**

- 11.1 In no circumstances will World Athletics, any member of the Expert Panel, or any of World Athletics' employees, officers, agents, representatives, or other persons involved in the application and/or enforcement of these DSD Regulations be liable in any way to any person



in relation to acts done or omitted to be done in good faith in connection with these DSD Regulations.

- 11.2 Each case will be addressed as quickly as is reasonably practicable in all of the circumstances. However, in no circumstance will World Athletics or the Medical Manager or any member of the Expert Panel be liable for any detriment allegedly suffered by the Athlete in question or anyone else as a result of the length of time taken to complete the investigation/assessment of their case.

## 12 Transitional Provisions

- 12.1 These DSD Regulations will come into effect on 31 March 2023. They will replace the previous edition of these DSD Regulations (which came into effect on 10 December 2021) from that date, and will apply immediately and in full from that date to all cases, including cases arising prior to 31 March 2023, save only as set out in DSD Regulations 12.2 and 12.3.

- 12.2 Where a Relevant Athlete has competed before 31 March 2023 in the female classification in an event other than track events over distances between 400m and one mile (inclusive) (whether run alone or as part of a relay event or a Combined Event), they may continue to compete in that event (a **“Previously Unrestricted Event”**) after 31 March 2023 as follows:

12.2.1 If they give the Medical Manager at least two weeks’ written notice of a date between 31 March 2023 and 1 July 2023 (**“Date X”**) by which they will comply with the requirements of these DSD Regulations, and if they then complies with those requirements continuously from Date X on (including maintaining the concentration of testosterone in their serum below 2.5 nmol/L, and cooperating fully with World Athletics’ efforts to monitor the concentration of testosterone in their serum), they may start to compete in the female classification in the Previously Unrestricted Event(s) six months after Date X (i.e., after six months of testosterone suppression).

12.2.2 If they do not meet the two conditions set out in DSD Regulation 12.2.1, they may not compete in the female classification in any Previously Unrestricted Events until they have met the DSD Eligibility Conditions in full (including 24 months of testosterone suppression).

12.2.3 Even if they meet the two conditions set out in DSD Regulation 12.2.1, they may not compete in the female classification in any events that are not Previously Unrestricted Events until they have met the DSD Eligibility Conditions in full (including 24 months of testosterone suppression).

- 12.3 World Athletics’ Chief Executive Officer (or their nominee) may exceptionally agree special transitional arrangements in individual cases on behalf of World Athletics, where the Chief Executive Officer (or their nominee) decides (in their absolute discretion) that such arrangements are necessary to avoid unfairness.

**APPENDIX 1****LIST OF MEDICAL EXPERTS (TBC, VETTED)**

	<b>Name</b>	<b>Area of expertise</b>
1	Prof. Joshua Safer (USA) Chair	Endocrinology, Transgender Medicine
2	Prof. Angelica Lindén Hirschberg (SWE)	Gynecology/endocrinology
3	Prof. Natalie Nokoff (USA)	Pediatrics/endocrinology
4	Prof. Lourdes Ibáñez Toda (ESP)	Pediatrics/endocrinology
5	Prof. Jeffrey D. Zajac (AUS)	Pediatrics/endocrinology

## APPENDIX 2

### FRAMEWORK FOR ASSESSMENT OF CASES

1. This Appendix sets out an overall framework for the assessment of cases arising under the DSD Regulations. The specific procedure to be adopted in each case will depend on the nature, timing and/or complexity of the case. For example, depending on the circumstances of the case, the Level 1 and Level 2 Assessments may be performed together, or the athlete may be referred directly to the Level 3 Assessment.

#### **Level 1 Assessment – initial clinical examination and compilation of data and preliminary endocrine assessment**

2. When a case first arises for assessment under the DSD Regulations, the first step will normally be an initial clinical examination of the athlete and compilation of their clinical and anamnestic data, together with a preliminary endocrine assessment (together, the **Level 1 Assessment**), in order to (i) confirm that the athlete's blood testosterone level is 2.5 nmol/L or greater; (ii) gather information to assist in diagnosing the cause of her elevated level of blood testosterone; and (iii) gather information to assist in assessing whether the athlete is androgen insensitive (and, if so, to what degree).
3. To the extent that such information has already been gathered by the athlete's own physician, or by a physician appointed by the athlete's Member Federation, and is provided by that physician (having obtained the athlete's informed consent) to the World Athletics Medical Manager for use in assessing the athlete's case under the DSD Regulations, the World Athletics Medical Manager will not repeat the process but will rely on that information, provided it appears adequate and reliable.
4. If not all of the necessary information has been gathered, however, the World Athletics Medical Manager will refer the athlete to an appropriate examining physician, who should be a gynaecologist, endocrinologist or pediatrician with extensive experience of DSDs and other conditions leading to female hyperandrogenism. The examining physician should be familiar with the relevant literature, including (1) *American Association of Clinical Endocrinologists – medical guidelines for clinical practice for the diagnosis and treatment of hyperandrogenic disorders*, Goodman et al, *Endocrine Practice* 2001 Mar-Apr;7(2):120-34; (2) Lee et al, *Consensus Statement on Management of Intersex Disorders*, International Consensus Conference on Intersex, *Pediatrics* 2006; 118:E488-E500; (3) Lee et al, *Global Disorders of Sex Development, Update since 2006: Perceptions, Approach and Care*, *Horm Res Paediatr* 2016;85:158-180; and (4) Wisniewski et al. *Management of 46,XY Differences/Disorders of Sex Development (DSD) Throughout Life*. *Endocr Rev.* 2019 Dec 1;40(6):1547-1572.
5. Prior to conducting the Level 1 Assessment, the examining physician will explain to the athlete the purpose of the assessment, the nature of the testing to be conducted, and the potential consequences both for the athlete's health and for her eligibility under the DSD Regulations. Where the athlete is a minor, the examining physician will provide such explanation to the athlete's parents or legal guardian(s). The examining physician will satisfy themselves that the fully informed consent of the athlete (or of the athlete's parents or legal guardian(s), where the athlete is a minor) has been obtained before starting the Level 1 Assessment.
6. The athlete (or the athlete's parents or legal guardian(s), where the athlete is a minor) will designate a physician to be the recipient of the results of the Level 1 Assessment on their behalf.

7. The examining physician will take a full medical history and conduct a careful clinical examination of the athlete designed to ensure accurate assessment and diagnosis. The examining physician will assess the athlete in particular for clinical features associated with pronounced and chronic cases of female hyperandrogenism. The World Athletics Medical Manager may provide a checklist to assist in the collection of all potentially relevant information.
8. For the preliminary endocrine assessment, urine and blood (serum) samples will be collected from the athlete under conditions prescribed by the World Athletics Medical Manager, for analysis by a laboratory approved by World Athletics.
  - a. The laboratory will analyse the athlete's urine for at least the following hormones and their urinary metabolites: testosterone, epitestosterone, androsterone, etiocholanolone, 5 $\alpha$ -androstenediol, 5 $\beta$ -androstenediol, dihydrotestosterone and dehydroepiandrosterone sulphate. (If the athlete has had urine samples tested for such substances as part of anti-doping testing, they will provide the World Athletics Manager with the results of such testing).
  - b. The laboratory will analyse the athlete's blood (serum) to determine the concentration of testosterone.<sup>4</sup>
  - c. Depending on the circumstances of the case, to assist with diagnosis the World Athletics Medical Manager may also decide to have the athlete's blood analysed for additional hormones/substances, including but not limited to dihydrotestosterone, luteinizing hormone, follicle-stimulating hormone, estradiol, prolactin, anti-mullerian hormone, inhibin B, 17-OH-Progesterone, dehydroepiandrosterone sulfate, delta 4 androstenedione, and/or sex hormone-binding globulin.
9. The laboratory's reports of the results of the above analyses, the report of the examining physician in respect of the initial clinical examination of the athlete, and the clinical and anamnestic data compiled, will be transmitted confidentially to the athlete's designated physician and to the World Athletics Medical Manager.
10. The World Athletics Medical Manager will review the results of the Level 1 Assessment to decide whether there is sufficient information for the Expert Panel to carry out the Level 2 Assessment. As part of this review, the World Athletics Medical Manager may:
  - a. arrange for the collection and analysis of one or more further urine and/or blood samples from the athlete to exclude the possibility that the athlete's results are the consequence of an exogenous administration of androgens;
  - b. arrange for the collection and analysis of further blood and/or urine samples from the athlete in order to confirm the results obtained from the preliminary endocrine assessment and/or as an additional tool for diagnosis; and/or
  - c. seek an advisory opinion on a confidential basis from such person(s) as the Medical Manager considers appropriate.

### **Level 2 Assessment – assessment by an Expert Panel**

11. Once the necessary information has been gathered and a serum testosterone concentration above 2.5 nmol/L has been confirmed, the World Athletics Medical Manager will send the file (in anonymised form) to the chair of the Expert Panel,<sup>5</sup> who will either review the case alone or choose at least three experts (which may include the chair) from the list at Appendix 1 to review the case. A person may not sit on the Expert Panel for the case if they were involved in any prior medical examination of the athlete.
12. The Expert Panel (whether one person or more) will review the athlete's file to determine whether further investigation is warranted as to whether the athlete meets the following criteria (and so is to be considered a 'Relevant Athlete' for purposes of the DSD Regulations):
  - a. the athlete has one of the following DSDs:
    - i. 5 $\alpha$ -reductase type 2 deficiency;
    - ii. partial androgen insensitivity syndrome (PAIS);
    - iii. 17 $\beta$ -hydroxysteroid dehydrogenase type 3 (17 $\beta$ -HSD3) deficiency;
    - iv. ovotesticular DSD; or
    - v. any other genetic disorder involving disordered gonadal steroidogenesis;<sup>6</sup> and
  - b. as a result, the athlete has a concentration of testosterone in their serum of 2.5 nmol/L or more; and
  - c. the athlete has sufficient androgen sensitivity for that testosterone to have a material androgenising effect. (To assess this third criterion, the Expert Panel will look at the results of the clinical examination and the data collected as part of the Level 1 Assessment in order to determine the nature and extent of the androgenising effect, with the benefit of any doubt on this issue being resolved in favour of the athlete).
13. The Expert Panel may make such enquiries or investigations as it considers necessary to carry out the required assessment effectively, including (without limitation) requesting further data or information from the athlete or the athlete's physician and/or obtaining additional expert opinion(s), in which case the World Athletics Medical Manager will organise the collection and provision of such data or information to the Expert Panel. The athlete and their personal physician must cooperate and assist with that process.
14. If the Expert Panel considers that further investigation is warranted as to whether the athlete meets the criteria to be a Relevant Athlete, it will recommend a full examination and diagnosis (the **Level 3 Assessment**).
15. If the Expert Panel considers that further investigation is not warranted and that the athlete does not meet the criteria to be a Relevant Athlete, it will so advise the Medical Manager, in writing, with reasons.
16. The Medical Manager will send the Expert Panel's decision to the athlete and their designated physician as soon as reasonably practicable. Where the Expert Panel considers that the athlete is not a Relevant Athlete because their elevated levels of blood testosterone were not caused

by one of the conditions referenced above, it will be for the athlete's designated physician to follow up on any comments made by the Expert Panel as to the potential cause of the elevated levels of blood testosterone.

### **Level 3 Assessment – assessment by a specialist reference centre**

17. Where the Expert Panel refers a case for a Level 3 Assessment, the purpose of that assessment will be (a) to diagnose the cause of the athlete's elevated levels of blood testosterone; and (b) to consider further the degree of the athlete's androgen insensitivity (if any). The assessment will take place as soon as possible after notification to the athlete and their designated physician, at the specialist reference centre listed in Appendix 3 that is located closest geographically to the athlete's habitual place of residence, unless the athlete prefers for legitimate reasons to be examined in another specialist reference centre on the list (or another reference centre not on the list but accepted by World Athletics). The costs of the Level 3 Assessment, including the athlete's travel costs, will be borne by World Athletics.
18. If the athlete is permitted to continue to compete in the female classification at World Rankings Competitions while their case is assessed, the Level 3 Assessment will take place on an expeditious basis, and the World Athletics Medical Manager may impose a deadline for this purpose.
19. Prior to conducting the Level 3 Assessment, the examining physician will explain to the athlete the purpose of the assessment, the nature of the testing to be conducted, and the potential consequences both for the athlete's health and for their eligibility under the DSD Regulations. (Where the athlete is a minor, the examining physician will provide such explanation to the athlete's parents or legal guardian(s)). The athlete will provide their fully informed written consent to the examination in accordance with applicable laws. Where the athlete is a minor, parental or legal guardian consent will be obtained.
20. The specialist reference centre will conduct a full examination on the athlete and will carry out a diagnosis of the athlete in accordance with best medical practice. In cases of DSDs, the diagnosis will further be made in accordance with the recommendations for diagnostic evaluation set out in the Consensus Statement on Management of Intersex Disorders (and update paper) cited above. The Level 3 Assessment will normally include the following different types of test: physical, laboratory (including urine and blood analysis and appropriate genetic testing for mutations in the genes involved in the conditions at issue), imaging, and psychological assessment.
21. Following completion of the Level 3 Assessment, the results (including the athlete's diagnosis and any recommended medical treatment) will be transmitted confidentially by the reference centre to the athlete's designated physician and to the World Athletics Medical Manager.

### **Expert Panel decision**

22. The World Athletics Medical Manager will forward the results of the Level 3 Assessment (in anonymised form) to the Expert Panel, so that the Expert Panel may make an informed decision as to whether the athlete meet the criteria to be a Relevant Athlete. As part of its review, the Expert Panel will consider all of the information in the athlete's file, as well as any written submission or other evidence that it may request (via the World Athletics Medical Manager) from the athlete, and any further expert opinion(s) that it considers necessary to obtain (on an anonymised basis). The Expert Panel may also, if it sees fit, give its view on the efficacy of any proposed medical treatment.

23. If the Expert Panel has any concerns about the adequacy of the evidence provided by the athlete on any particular point, and it could in theory be possible for the athlete to address those concerns, it must give the athlete a fair opportunity to try to address those concerns before it comes to a final view.
24. The Expert Panel will only conclude that the athlete is a Relevant Athlete if it is satisfied that the athlete meets all of the relevant criteria set out in the DSD Regulations. In this analysis, the benefit of any doubt shall be resolved in favour of the athlete.

**APPENDIX 3****WORLD ATHLETICS****APPROVED SPECIALIST REFERENCE CENTRES**

<b>Centre</b>	<b>Expert</b>	<b>Address</b>
Stockholm (SWE)	Prof. Angelica Lindén Hirschberg	Dept. of Gynecology and Reproductive Medicine, Karolinska University Hospital, Stockholm
Melbourne (AUS)	Prof. George Werther  Prof. Jeffrey D. Zajac	The Royal Children’s Hospital, 50 Flemington Road, Parkville, Victoria 3052, Melbourne  Dept. of Medicine, The University of Melbourne, Austin Health & Northern Health, Studley Road, Heidelberg, Victoria 3084, Melbourne
London (GBR)	Prof. Sarah Creighton Prof. Gerard Conway	University College London Hospitals, Elizabeth Garrett Anderson Wing



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## **End notes**

- 1 A survey of published, peer-reviewed studies reporting concentrations of serum testosterone measured by mass spectrometry methods indicates that (i) women (including elite female athletes) without DSDs have serum levels of testosterone of between 0.06 and 1.68 nmol/L (95% two-sided confidence limit); (ii) women with polycystic ovary syndrome have serum levels of testosterone with an upper limit of 3.1 nmol/L (95% one-sided confidence limit) and 4.8 nmol/L (99.99% one-sided confidence limit); and (iii) the normal range of serum testosterone levels in men is 7.7 to 29.4 nmol/L (95% two-sided confidence limit). Meanwhile women (including female athletes) with DSDs covered by these DSD Regulations can have serum levels of testosterone well into (or even above) the normal male range. See Handelsman, Hirschberg and Bermon (2018), *Circulating Testosterone as the Hormonal Basis of Sex Differences in Athletic Performance*, *Endocrine Reviews*, Volume 39, Issue 5, 1 October 2018, pp. 803–829.
- 2 A woman who has androgen insensitivity syndrome (AIS) is completely (CAIS) or partially (PAIS) insensitive to testosterone, thereby eliminating (CAIS) or reducing (PAIS) the physiological effect of that testosterone. An athlete with CAIS is not a Relevant Athlete. An athlete with PAIS will only be a Relevant Athlete if they are sufficiently androgen-sensitive for her elevated testosterone levels to have a material androgenising effect. The benefit of any doubt on this issue will be resolved in favour of the athlete.
- 3 As noted above (see endnote 1), the available data on serum testosterone levels in men and women indicate that the upper limit of the normal female range (including elite female athletes) is 1.68 nmol/L (95% two-sided confidence limit), and the lower limit of the normal male range is 7.7 nmol/L (95% two-sided confidence limit). 99.99% of all females (excluding those with PCOS or DSD) have a T level under 2.44. Therefore, a concentration of 2.5 nmol/L is an appropriate decision limit for purposes of these DSD Regulations.
- 4 Due to circadian fluctuations in the blood levels of testosterone, the blood sample(s) should be collected between 8 am and 10 am, with the athlete not having taken part in any strenuous physical exercise for at least two hours before the time of blood collection.
- 5 Due to circadian fluctuations in the blood levels of testosterone, the blood sample(s) should be collected between 8 am and 10 am, with the athlete not having taken part in any strenuous physical exercise for at least two hours before the time of blood collection.
- 6 These DSD Regulations do not apply to any other conditions (including, without limitation, polycystic ovary syndrome and Congenital Adrenal Hyperplasia), even if such conditions cause the athlete to have testosterone levels in her blood above the normal female range. However, such conditions may have implications for the athlete's health, and diagnosis can often help to improve the conditions, avoid metabolic disorders, and possibly reduce the risk of later cardiovascular events and gynaecological cancers. A serious underlying medical condition should always be suspected if the onset of symptoms is fast and/or intense. In such cases, the possibility of an androgen-secreting tumour should always be investigated. All relevant information should be provided to the athlete's personal physician to determine the appropriate treatment (the Expert Panel may make recommendations in this regard).