

International  
Paralympic Committee

# Athletics Classification Rules and Regulations

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## Purpose and Organisation of these Rules

### Purpose

These Classification Rules (referred to generally as “the Rules”) provide a framework within which the process of “Classification” may take place. The term “Classification” refers to a structure for Competition the aim of which is to ensure that an Athlete’s Impairment is relevant to sport performance, and to ensure that Athletes compete equitably with each other. The purpose of Classification is to minimise the impact of eligible Impairment types on the outcome of competition, so that Athletes who succeed in competition are those with best anthropometry, physiology and psychology and who have enhanced them to best effect.

### Organisation

#### Articles

1. Article One explains that these Rules apply to persons who compete or are otherwise involved in the sport of IPC Athletics, and how the Rules should be interpreted.
2. Article Two explains that qualified personnel referred to in these Rules as “Classifiers” conduct Athlete Evaluation, with other key “Classification Personnel” being involved.
3. Article Three explains how Classifiers will conduct Athlete Evaluation as part of a Classification Panel.
4. Article Four explains that the process of Classification is carried out by way of Athlete Evaluation under these Rules, and details the specific processes and protocols to be followed during Athlete Evaluation.
5. Article Five explains that Classification is undertaken so that Athletes can be designated a Sport Class (which groups Athletes together in Competition) and allocated a Sport Class Status (which indicates when Athletes should be evaluated and how their Sport Class may be challenged).
6. Article Six explains that one outcome of Athlete Evaluation may be that an Athlete is found not to be eligible to compete in the sport of IPC Athletics, and the implications that arise if this is the case.
7. Article Seven explains that an Athlete or other party may dispute the allocation of a Sport Class, and the process by which these disputes should be resolved.
8. Article Eight explains that the procedure by which a Sport Class is allocated is subject to a limited form of challenge, and how these challenges should be made.

9. Article Nine explains that if an Athlete or other party attempts to subvert the Athlete Evaluation process, there will be consequences.

The Glossary to these Rules contains a list of the defined terms used in these Rules.

## **Appendices**

1. Appendix One deals with Sport Classes for Athletes with Physical Impairment, and sets out the Minimum Disability Criteria and assessment methodologies that apply in order for an Athlete with Physical Impairment to be eligible to compete in the sport of IPC Athletics.
2. Appendix Two deals with Sport Classes for Athletes with Visual Impairment, and sets out the Minimum Disability Criteria and assessment methodologies that apply in order for an Athlete with Visual Impairment to be eligible to compete in the sport of IPC Athletics.
3. Appendix Three deals with Sport Classes for Athletes with Intellectual Impairment, and sets out the Minimum Disability Criteria and assessment methodologies that apply in order for an Athlete with Intellectual Impairment to be eligible to compete in the sport of IPC Athletics.

## 1 Article One - Scope and Application

- 1.1 These Rules are an integral part of the IPC Athletics Rules and Regulations and are intended to implement the provisions of the IPC Classification Code for the sport of IPC Athletics.
- 1.2 These Rules shall apply to -
  - 1.2.1 All Athletes and Athlete Support Personnel who are registered and/ or licensed with IPC Athletics as defined in the IPC Athletics Rules and Regulations;
  - 1.2.2 All Athletes and Athlete Support Personnel participating in such capacity in Events and Competitions recognised by IPC Athletics or any of its members or affiliate organisations or licensees;
- 1.3 It is the personal responsibility of Athletes , Athlete Support Personnel and Classification Personnel to acquaint themselves with all of the requirements of these Rules, the IPC Classification Code (see IPC Handbook, Section 2, Chapter 1.3) and the other sections of the IPC Handbook that apply to Classification, including the IPC Position Statement on Background and Scientific Rationale for Classification in Paralympic Sport (see IPC Handbook, Section 2, Chapter 4.4)

### International Classification

- 1.4 Athlete Evaluation that is conducted in full compliance with these Rules is referred to as International Classification. IPC Athletics will only recognize Sport Class and Sport Class Status if allocated by way of International Classification.
- 1.5 IPC Athletics will provide Athletes with an opportunity to undertake International Classification by appointing Classifiers certified pursuant to Article Two to conduct Athlete Evaluation at Recognized Competitions, and by providing reasonable notice of such International Classification opportunities to Athletes and National Bodies.
- 1.6 An Athlete will only be permitted to undergo International Classification if he or she:
  - 1.6.1 Is registered and/ or licensed with IPC Athletics pursuant to the relevant provisions in the IPC Athletics Rules and Regulations, and
  - 1.6.2 Has been entered in a Recognised Competition where International Classification is to take place.

### Interpretation, Commencement and Amendment

- 1.7 These Rules shall be interpreted and applied at all times in a manner that is consistent with the IPC Classification Code.

- 1.8 These Rules shall come into full force and effect on the Effective Date as specified by IPC Athletics.
- 1.9 Amendments to these Rules shall be approved and shall come into effect in the manner prescribed by IPC Athletics. IPC Athletics may at any time amend, update or otherwise alter the text, meaning and effect of the Appendices independently of these Rules.



## 2 Article Two – Classification Personnel

2.1 Classification Personnel are fundamental to the effective implementation of these Rules. This Article Two explains how IPC Athletics Classification Personnel assist in the delivery of classification under these Rules.

### Classification Personnel

2.2 IPC Athletics should appoint the following Classification Personnel, each of whom will have a key role in the administration, organisation and execution of classification for IPC Athletics:

#### 2.3 Head of Classification

2.3.1 The Head of Classification for IPC Athletics will be appointed by IPC Athletics to be responsible for the direction, administration, coordination and implementation of all classification matters for IPC Athletics.

2.3.2 IPC Athletics may delegate the role of Head of Classification to a nominated person or group of persons, such persons being identified publicly as such by IPC Athletics.

2.3.3 The Head of Classification in conjunction with IPC Athletics Management is responsible for appointing Classification Panel(s) that will conduct International Classification at Recognised Competitions.

#### 2.4 Classifiers

2.4.1 A Classifier is a person authorised and certified by IPC Athletics as being competent to conduct Athlete Evaluation. IPC Athletics will specify from time to time the means by which it shall certify Classifiers.

2.4.2 IPC Athletics Classifiers are required, as appropriate, to assist in the research, development and clarification of the Classification Rules and Sport Class profiles for IPC Athletics; participate in Classifier workshops arranged by IPC Athletics and/or the IPC from time to time; and attend such Classifier training as requested from time to time by the IPC Athletics.

2.4.3 The Head of Classification may be appointed as Classifier and/ or Chief Classifier.

#### 2.5 Chief Classifiers

2.5.1 A Chief Classifier is a Classifier who is appointed by IPC Athletics to act as the senior Classifier present at a specific IPC Athletics Recognized Competition.

2.5.2 A Chief Classifier is responsible for the direction, administration, co-ordination and implementation of classification matters at a Competition. In particular, a Chief Classifier may be required by IPC Athletics to do the following:

2.5.2.1 Identify those Athletes who will be competing at that Competition who will require Athlete Evaluation;

2.5.2.2 Supervise Classifiers to ensure that the Rules are applied appropriately during a specific Competition;

2.5.2.3 Manage the Protest process as required by Article Seven.

2.5.2.4 Liaise with the relevant Competition organiser to ensure that all travel, accommodation and other logistics are arranged in order that Classifiers may carry out their duties at the Competition;

## 2.6 Trainee Classifiers

2.6.1 IPC Athletics may appoint Trainee Classifiers in order that they may be certified as a Classifier.

2.6.2 A Trainee Classifier may actively participate in or observe Athlete Evaluation under supervision of a Classification Panel in order to develop the necessary competencies and proficiencies so as to be certified by IPC Athletics as a Classifier. They will be required to perform any such other duties as IPC Athletics requires.

## **Classifier Competencies, Qualifications and Responsibilities**

2.7 IPC Athletics certifies Classifiers who have abilities and qualifications relevant to conduct Athlete Evaluation in respect of Athletes with Physical, Visual and/or Intellectual Impairment.

2.8 IPC Athletics requires Classifiers to have one of the below qualifications in order to be considered for certification as IPC Athletics Classifier:

2.8.1 a certified health professional in a field relevant to the Impairment category which IPC Athletics at its sole discretion deems acceptable, e.g. physicians and physiotherapists for Athletes with Physical Impairment, ophthalmologists and optometrists for athletes with Visual Impairment, and psychologists for athletes with Intellectual Impairment.

- 2.8.2 an extensive coaching or other relevant background in the sport of IPC Athletics or a recognised and reputable academic qualification which encompasses a requisite level of anatomical, biomechanical and sport-specific expertise, which IPC Athletics at its sole discretion deems to be acceptable.
- 2.9 Only classifiers that fulfil the requirements of Article 2.8.1 are entitled to conduct a Physical Assessment (for athletes with physical impairment).
- 2.10 All Classification Personnel must comply with the standards of behaviour mandated from time to time in the IPC Code of Ethics and the IPC Classifier Code of Conduct. If any Classification Personnel is found to have breached the terms of either the IPC Code of Ethics or the IPC Classifier Code of Conduct, IPC Athletics will have sole discretion to withdraw any applicable certification or authorisation. IPC Athletics may also make such recommendations as it sees fit to IPC and any other relevant bodies as regards any certification held by the relevant Classification Personnel to act as Classification Personnel in respect of other sports.

### 3 Article Three - Classification Panels

- 3.1 A Classification Panel is a body that is appointed by IPC Athletics to conduct Athlete Evaluation in accordance with these Rules. A Classification Panel should be comprised of a minimum of two (2) Classifiers. If the circumstances so require, the Head of Classification may designate that a Classification Panel may consist of one suitably accredited and qualified Classifier, who has been certified by IPC Athletics to conduct Physical Assessment (see Article A Classification Panel consisting of one Classifier may only allocate a Sport Class designated with Sport Class Status Review (R) (see Article 5.11.2 below).
- 3.2 IPC Athletics and competition organizers will whenever possible ensure that at least two Classification Panels are able to conduct Athlete Evaluation for each Impairment category (Physical Impairment, Visual Impairment and Intellectual Impairment, assuming that Events are offered for all three Impairment categories).
- 3.3 Classification Personnel should have no relationship with any Athlete or Athlete Support Personnel present at a Competition or otherwise that might create any actual or perceived bias or Conflict of Interest. Classification Personnel must disclose to IPC Athletics any actual or perceived bias or Conflict of Interest that may be relevant to their appointment as a member of any Classification Panel.
- 3.4 IPC Athletics will wherever possible ensure that Classifiers who act as members of a Classification Panel at a Competition will not have any official responsibilities other than in connection with Athlete Evaluation.
- 3.5 A Classification Panel may seek third party expertise of any nature if it considers in its sole discretion that this would assist it in completing the process of Athlete Evaluation.

## 4 Article Four - Athlete Evaluation

4.1 Athlete Evaluation is the process by which an Athlete is assessed by a Classification Panel in order that the Athlete may be allocated a Sport Class and a Sport Class Status.

### Athlete Evaluation Process

4.2 The Athlete Evaluation process may encompass the following:

4.2.1 Physical Assessment: The Classification Panel should conduct a Physical Assessment of the Athlete, so as to establish that the Athlete has an Eligible Impairment that meets the relevant Minimum Disability Criteria; and/ or

4.2.2 Technical Assessment: The Classification Panel should conduct a Technical Assessment of the Athlete which may include, but is not limited to, an assessment of the Athlete's ability to perform, in a non-competitive environment, the specific tasks and activities that are part of the sport in which the Athlete participates; and/ or

4.2.3 Observation Assessment: The Classification Panel may conduct Observation Assessment, which shall involve observing an Athlete performing the specific skills that are part of the Sport in Competition. Observation Assessment may only take place if a Classification Panel believes that they cannot complete Athlete Evaluation and allocate a fair Sport Class without observing the Athlete in Competition.

4.3 The means by which Physical, Technical and Observation Assessment are to be conducted are specified in the Appendices to these Rules.

### Athlete Evaluation Requirements

4.4 The following requirements apply to Athlete Evaluation:

4.4.1 The Athlete and his or her National Body are jointly responsible for ensuring that the Athlete attends Athlete Evaluation.

4.4.2 Athlete Evaluation and its associated processes will be conducted in English. If the Athlete and/or the Athlete Support Personnel require an interpreter, the National Body will be responsible for arranging the attendance of an interpreter.

- 4.4.3 One person (in addition to any required interpreter) may accompany an Athlete during Athlete Evaluation. This person should be familiar with the Athlete's Impairment and sporting history and must be a member of the Athlete's National Body or must be otherwise authorised in advance by the Chief Classifier to attend the Athlete's Athlete Evaluation.
- 4.4.4 The Athlete must accept the terms of the IPC Athletics Evaluation Consent Form prior to participating in Athlete Evaluation. The Athlete must provide identification, such as a passport, ID Card, IPC Athletics License Card or Accreditation that verifies the Athlete's identity to the satisfaction of the Classification Panel.
- 4.4.5 The Athlete must attend Athlete Evaluation with all sports equipment and attire used in competition.
- 4.4.6 The Athlete must attend Athlete Evaluation with all relevant medical documentation (in English or with a certified English translation), including but not limited to medical reports, medical records and diagnostic information, which relate to the Athlete's Impairment.
- 4.4.7 The Athlete must disclose either prior to, or at, Athlete Evaluation details of any medication used by the Athlete.
- 4.4.8 The Classification Panel may use video footage and/or any other records (including pre-existing video footage and/or records) to assist it in carrying out Athlete Evaluation. In addition, the Classification Panel may video-record any part of Athlete Evaluation if it considers that such recording is necessary to enable it to complete Athlete Evaluation. Any such recording will be used for the purposes of Athlete Evaluation only and may be used for research and education purposes with the Athlete's prior consent.
- 4.4.9 The Classification outcomes will be published at the Competition by the Chief Classifier or a person authorized by the Chief Classifier.

#### **Failure to Attend Athlete Evaluation**

- 4.5 If an Athlete is required to attend Athlete Evaluation, but fails to do so, the Classification Panel will report the fact of the non-attendance to the Chief Classifier. The Chief Classifier may, if satisfied that a reasonable explanation exists for the failure to attend Athlete Evaluation, specify a revised time and date for Athlete Evaluation at the relevant Competition.

- 4.6 If the Athlete fails to attend Athlete Evaluation on this second occasion, or is, in view of the Chief Classifier, unable to provide a reasonable explanation of his or her non-attendance, the Athlete will not be permitted to compete at the relevant Competition.

### **Suspension of Athlete Evaluation**

- 4.7 A Classification Panel may suspend Athlete Evaluation in one or more of the following circumstances:
- 4.7.1 if the Athlete fails to meet any of the requirements detailed in these Rules for attendance at Athlete Evaluation (see Article 4.4 above);
  - 4.7.2 if the Classification Panel considers that the use (or non-use) of any medication disclosed by the Athlete will affect its ability to conduct Athlete Evaluation in a fair manner;
  - 4.7.3 if an Athlete fails to produce sufficient medical documentation and the Classification Panel considers that the absence of such medical documentation will affect its ability to conduct Athlete Evaluation in a fair manner;
  - 4.7.4 if an Athlete has a health condition (of any nature or description) that limits or prohibits the Athlete from complying with requests made by the Classification Panel during the course of Athlete Evaluation, which the Classification Panel considers will affect its ability to conduct Athlete Evaluation in a fair manner (e.g. pain);
  - 4.7.5 if an Athlete refuses to comply with any reasonable instructions given to him or her by a Classification Panel (or a Chief Classifier or the relevant Head of Classification) during the course of Athlete Evaluation to an extent that Classification Panel considers that this means it cannot conduct Athlete Evaluation in a fair manner. Such behavior shall be referred to as a case of Non-Cooperation. (see IPC Classification Code, Article 10);
  - 4.7.6 if an Athlete's presentation of his or her abilities is inconsistent with other information made available to the Classification Panel to the extent that the Classification Panel considers that this means it cannot conduct Athlete Evaluation in a fair manner.
- 4.8 If a Classification Panel suspends an Athlete Evaluation the following steps will be taken:

- 4.8.1 the Classification Panel will explain the reason for the suspension to the Athlete and the Athlete's National Body and detail the remedial action that is required on the part of the Athlete.
- 4.8.2 the Classification Panel will report the fact of the suspension to the Chief Classifier. The Chief Classifier will specify a time and date for resumption of the Athlete Evaluation on the condition that the Athlete takes the remedial action specified by the Classification Panel.
- 4.9 If the Athlete attends Athlete Evaluation having taken the remedial action to the Classification Panel's satisfaction, the Classification Panel will attempt to complete the Athlete Evaluation and allocate a Sport Class and Sport Class Status. This procedure will be subject to the Classification Panel's right to further suspend Athlete Evaluation according to Article 4.7.
- 4.10 If the Athlete fails to take the remedial action required to the Classification Panel's satisfaction and within the time specified by the Chief Classifier, the Classification Panel will terminate the Athlete Evaluation and IPC Athletics will designate the Athlete as being "Classification Not Completed" (CNC) within the Classification Master List for IPC Athletics. This designation will preclude the Athlete from competing at any Competition until Athlete Evaluation is completed. IPC Athletics will stipulate from time to time how this designation impacts on performance recognition.
- 4.11 The Athlete and/ or Athlete Support Personnel may be subject to further investigation regarding Intentional Misrepresentation pursuant to Article Nine.

### **Observation Assessment**

- 4.12 If a Classification Panel requires an Athlete to complete Observation Assessment following completion of Physical and Technical Assessment in order that the Athlete can be allocated a Sport Class, the provisions regarding Observation Assessment will apply.
- 4.13 Pending completion of Observation Assessment, the Athlete will be allocated a Sport Class with a Tracking Code:
  - 4.13.1 If the Athlete has entered the relevant Competition with Sport Class Status New (N), the Athlete will be allocated the Tracking Code Competition New Status (CNS);
  - 4.13.2 If the Athlete has entered the relevant Competition with Sport Class Status Review (R), the Athlete will be allocated the Tracking Code Competition Review Status (CRS);



- 4.14 An Athlete will retain the Sport Class and Tracking Code until Observation Assessment is satisfactorily completed.

**Observation Assessment and First Appearance**

- 4.15 Observation Assessment, if required by the Classification Panel for the respective Athlete, is conducted during the Athlete's First Appearance.
- 4.16 First Appearance is the first time that an Athlete competes in an Event during a Competition. First Appearance in one Event within a Sport Class shall apply to all other Events within the same Sport Class, except if otherwise stipulated in the Appendices to these Rules.
- 4.17 After satisfactorily completing Observation Assessment, the Classification Panel will allocate the Athlete a Sport Class and designate the Athlete with a Sport Class Status. The Tracking Code will then be removed.

## 5 Article Five - Sport Class and Sport Class Status

- 5.1 A Sport Class is a sporting competition category that is allocated to an Athlete following Athlete Evaluation. It is allocated based on the existence of an Eligible Impairment and compliance with the Minimum Disability Criteria, and the degree to which Impairment impacts upon sport performance.

### Sport Class

- 5.2 A Sport Class will be allocated to an Athlete by a Classification Panel following Athlete Evaluation. A Sport Class cannot be allocated to an Athlete in any other circumstances.
- 5.3 The decision of the Classification Panel to allocate a Sport Class is final and subject to challenge only as prescribed in Article Seven and Article Eight of these Rules.
- 5.4 A Sport Class that enables an Athlete to compete in the sport of IPC Athletics will be allocated if that Athlete has an Eligible Impairment that complies with the Minimum Disability Criteria set by IPC Athletics. The requirements regarding Eligible Impairment and Minimum Disability Criteria are detailed in the Appendices to these Rules.
- 5.5 If an Athlete does not have an Eligible Impairment or has an Eligible Impairment that does not comply with the Minimal Disability Criteria, he or she will not be eligible to compete within the sport of IPC Athletics. If an Athlete is not eligible to compete he or she will be allocated Sport Class “Not Eligible” (see Article Six).
- 5.6 The Sport Class allocated to the Athlete will be in accordance with the Sport Class designations as explained in the Appendices to these Rules.

### Sport Class Status

- 5.7 An Athlete’s Sport Class Status indicates whether or not an Athlete will be required to undertake Athlete Evaluation again in the future, and whether (and by what party) the Athlete’s Sport Class may be subject to challenge by way of Protest as prescribed in Article Seven of these Rules.
- 5.8 The Sport Class Status designated to an Athlete will be one of the following:
- § Sport Class New (N)
  - § Sport Class Review (R)
  - § Sport Class Confirmed (C)

## 5.9 Athletes with Sport Class Status New (N)

5.9.1 An Athlete will be designated with Sport Class Status New (N) if a National Body has allocated an Entry Sport Class to him or her, and the Athlete has not completed International Classification yet.

5.9.2 An Athlete who has been designated with Sport Class Status New (N) must complete Athlete Evaluation prior to competing at any IPC Athletics Recognised Competition where Classification is offered.

## 5.10 Athletes with Sport Class Status Review (R)

5.10.1 A Classification Panel will designate an Athlete with Sport Class Status Review (R) if he or she has completed Athlete Evaluation and been allocated a Sport Class, but the Classification Panel believes that further Athlete Evaluation will be required before the Athlete can be designated as Sport Class Confirmed (C). This may be, for a range of reasons, for example, because the Athlete has a fluctuating and/or progressive Impairment(s), or, given his or her age, has Impairment(s) that may not have stabilised.

5.10.2 Any Athlete who has been allocated Sport Class Not Eligible (NE) will be designated with Sport Class Review (R) if that Athlete is entitled to a further Athlete Evaluation under these Rules (see Article Six).

5.10.3 An Athlete who has been designated with Sport Class Status Review (R) must complete Athlete Evaluation prior to competing at a Recognised Competition where Classification is offered, save where the provisions in these Rules relating to the Fixed Review Date apply (see Articles 5.12-15).

5.10.4 The Sport Class of any Athlete with Sport Class Status Review (R) may be subject to Protest by a National Body as prescribed in Article Seven of these Rules.

## 5.11 Athletes with Sport Class Status Confirmed (C)

5.11.1 A Classification Panel will designate an Athlete with Sport Class Confirmed (C) if he or she has completed Athlete Evaluation and has been allocated a Sport Class, and the Classification Panel is satisfied that the Athlete's Impairment and/or Activity Limitations are sufficiently stable so that the Athlete can be allocated Sport Class Status Confirmed.

5.11.2 Sport Class Status Confirmed may not be allocated if the Classification Panel consists of one Classifier only.

- 5.11.3 Any Athlete who has been allocated Sport Class Not Eligible (NE) will be designated with Sport Class Confirmed (C) if that Athlete is not entitled to a further Athlete Evaluation under these Rules (see Article Six).
- 5.11.4 An Athlete who has been designated with Sport Class Status Confirmed (C) is not required to undergo Athlete Evaluation prior to competing at any Competition.
- 5.11.5 The Sport Class of any Athlete who enters a Competition with Sport Class Status Confirmed (C) may be subject to Protest pursuant to the provisions in Articles 7.24 – 7.26 of these Rules relating to Protests under Exceptional Circumstances.

### **Fixed Review Date**

- 5.12 A Classification Panel that allocates Sport Class Status Review may also, if it considers it appropriate to do so, nominate a “Fixed Review Date”.
- 5.13 If a Fixed Review Date is set in this manner, then
  - 5.13.1 the Athlete will not be required to attend Athlete Evaluation at any competition prior to the Fixed Review Date; and
  - 5.13.2 The Athlete will retain the Sport Class assigned to that Athlete and be permitted to compete with that Sport Class.
- 5.14 The Athlete may, at his or her own request, attend Athlete Evaluation before the Fixed Review Date pursuant to the Medical Review Process described in these Rules (see Articles 5.19-5.24).
- 5.15 The Fixed Review Date will be the first day of the Competition Season for IPC Athletics indicated by the Classification Panel or an alternative date set by the Classification Panel.

### **Changes to Sport Class criteria**

- 5.16 If IPC Athletics changes any Sport Class criteria and/ or assessment methods defined in the Appendices to these Rules, then –
  - 5.16.1 IPC Athletics may re-assign any Athlete with Sport Class Status Confirmed with Sport Class Status Review in order for the Athlete to undergo Athlete Evaluation; or
  - 5.16.2 IPC Athletics may remove the Fixed Review Date for any Athlete in order for the Athlete to undergo Athlete Evaluation at the earliest available opportunity; and
- 5.17 In both instances the relevant National Body shall be informed as soon as is practicable.

## Errors regarding Sport Class Status

- 5.18 If the Head of Classification believes on reasonable grounds that an Athlete has been designated with a Sport Class Status in manifest error and/or clear breach of these Rules, he or she shall
- 5.18.1 advise the Athlete and the relevant National Body or Bodies as to the error or breach that has taken place with a brief statement of the reasons for that belief; and
  - 5.18.2 immediately amend the Athlete's Sport Class Status, and advise the Athlete and the relevant National Body or Bodies. IPC Athletics will make the appropriate amendment to the Classification Master List.

## Medical Review: Application to undergo Athlete Evaluation

- 5.19 An Athlete who has reason to believe that his or her Impairment and Activity Limitations are no longer consistent with the profile for his or her Sport Class should have his or her Sport Class reviewed. The means by which this can take place is referred to in these Rules as "the Medical Review Process" and the means by which a request for such review is referred to as "a Medical Review Request".
- 5.20 A National Body must make a Medical Review Request. A Medical Review Request cannot be made by an Athlete.
- 5.21 A Medical Review Request may be made if an Athlete has been allocated:
- 5.21.1 A Sport Class with Sport Class Status Confirmed (C), or
  - 5.21.2 A Sport Class with Sport Class Status Review (R), if the Athlete has been allocated a Fixed Review Date
- 5.22 A Medical Review Request must be made by completing the IPC Medical Review Request Form and by following its instructions. The Athlete and his or her NPC must ensure that the Medical Review Request abides by the following provisions:
- 5.22.1 it must explain that the Athlete's relevant Impairment has changed since the last Athlete Evaluation to an extent that the Athlete's Sport Class might not be accurate anymore;
  - 5.22.2 it must be completed by an appropriately qualified health professional and include all relevant supporting documentation in English or with a certified English translation;
  - 5.22.3 a non-refundable fee must be paid.

- 5.23 Each Medical Review Request will be assessed by IPC Athletics to ensure that all requisite information, documentation and fee have been provided. Once the Medical Review Request is complete, the Head of Classification will, in conjunction with such third parties as he or she considers appropriate, decide whether or not the Medical Review Request should be upheld.
- 5.24 If the Medical Review Request is upheld the Athlete's Sport Class Status will be amended from Confirmed to Review; or the Athlete's Fixed Review Date will be set aside; and the Athlete will be requested to undertake Athlete Evaluation at the next available opportunity.

#### **Provision involving Multiple Sport Classes**

- 5.25 IPC's general principle is that an Athlete is allocated one Sport Class only, which is either based on a Physical, Visual or Intellectual Impairment.
- 5.26 The Model of Best Practice on Choice of Sport Class for Athletes with Multiple Impairments (IPC Handbook, Section 2, Chapter 1.3) should be considered by any Athlete who believes that he or she is eligible for more than one Sport Class.

#### **Recognition of Sport Classes for Athletes with Visual Impairment of other Sports**

- 5.27 If brought to the attention of IPC Athletics that an Athlete with Visual Impairment and Sport Class Status Review with Fixed Review Date or Confirmed with IPC Athletics holds a different and more recently allocated Sport Class with another IF or Sport, then IPC Athletics will adopt the Sport Class that indicates the most visual ability, and amend the Sport Class Status to Review. If the Sport Class by the other IF or Sport allocated is Not Eligible, the Athlete's Sport Class of IPC Athletics will not be changed, but the Sport Class Status will be changed to Review.

## 6 Article Six - Rules Regarding Athletes who are Not Eligible

- 6.1 An Athlete must have an Eligible Impairment, and that Eligible Impairment must comply with the Minimal Disability Criteria set by IPC Athletics in order to be eligible to compete. If a Classification Panel determines that an Athlete does not have such Eligible Impairment, and/or that Eligible Impairment does not comply with the Minimal Disability Criteria, that Athlete will not be eligible to compete.
- 6.2 If a Classification Panel determines that an Athlete is not eligible to compete the Athlete will be allocated Sport Class Not Eligible (NE).
- 6.3 If a Classification Panel allocates an Athlete Sport Class Not Eligible (NE) the Athlete will be required to undergo a second Athlete Evaluation by a second separate Classification Panel either at that Competition or as soon as practicable thereafter. Pending this second assessment the Athlete will be allocated Sport Class Not Eligible (NE) and designated with Sport Class Status Review (R). The Athlete will not be permitted to compete before such re-assessment.
- 6.4 If there is no opportunity for a separate Athlete Evaluation to be undertaken at that Competition, IPC Athletics will take all reasonable steps to ensure the second Athlete Evaluation is undertaken at the earliest opportunity.
- 6.5 If a second Classification Panel confirms that the Athlete is not eligible the Athlete will not be permitted to compete at that Competition or any future Competitions. The Athlete will be allocated Sport Class Not Eligible (NE) with Sport Class Status Confirmed and there is no further right to Protest unless made under Exceptional Circumstances pursuant to Articles 7.24 – 7.26.
- 6.6 A National Body may request that an Athlete with Sport Class Not Eligible (NE) with Sport Class Status Confirmed (C) undertakes Athlete Evaluation, but only by way of a Medical Review Request as defined in these Rules.
- 6.7 While an Athlete with Sport Class NE will be not eligible to compete within the sport of IPC Athletics, it will not affect his or her ability to compete in other Para-sports, subject to their rules on Classification.
- 6.8 If an Athlete is allocated Sport Class Not Eligible, this does not question the presence of a genuine Impairment. It is only a ruling on the eligibility of the Athlete to compete in the sport of IPC Athletics.

## 7 Article Seven - Protests

- 7.1 The term “Protest” is used in these Rules refers to the procedure by which a formal objection to the allocation of a Sport Class is made and subsequently resolved.
- 7.2 A National Body may make a Protest in respect of a Sport Class of any Athlete who entered the relevant Competition where Classification is offered with either Sport Class Status New (N) or Sport Class Status Review (R).
- 7.3 The decision that is the subject of the Protest is referred to in this part of the Rules as “the Protested Decision”, and the Athlete in respect of whose Sport Class the Protest is made is referred to as “the Protested Athlete”.
- 7.4 No National Body may make a Protest in respect of any Athlete who entered the relevant Competition with Sport Class Status Confirmed (C).
- 7.5 The Chief Classifier for the relevant Competition may make a Protest in respect of any Athlete regardless of their Sport Class Status pursuant to the provisions contained in these Rules regarding Protests under Exceptional Circumstances (see Articles 7.24-7.26).
- 7.6 An Athlete's Sport Class may only be protested once in any individual Competition, unless an additional Protest is made pursuant to the provisions concerning Protests made in Exceptional Circumstances.
- 7.7 The National Body making a Protest is responsible for ensuring that all Protest process requirements are observed.

### Protests submissions

- 7.8 A Protest may only be submitted by a National Body, an Athlete cannot submit a Protest.
- 7.9 The Chief Classifier, or a person designated by IPC Athletics for the relevant Competition, will be the person authorised to receive Protests on behalf of IPC Athletics.
- 7.10 If a Classification decision is published during the Classification Evaluation Period, the National Body must make a Protest within one (1) hour of the Classification decision being published. If a Protest is made during Competition following completion of an Athlete's Observation in Competition, the Protest must be submitted within fifteen (15) minutes of the Protested Decision being published.



- 7.11 Protests must be made by way of a designated Protest Form that will be made available by IPC Athletics at the relevant Competition. The Protest Form will prescribe certain information and documentation that must be submitted with the Protest form. This will include the following:
- 7.11.1 Name, Nation and Sport of the Athlete whose Sport Class is being protested;
  - 7.11.2 The details of the Protested Decision;
  - 7.11.3 An explanation as to why the Protest has been made and the basis on which the National Body believes that the Protested Decision is flawed;
  - 7.11.4 All documents and other evidence referred to in the Protest;
  - 7.11.5 The signature of the authorised National Body; and
  - 7.11.6 A Protest Fee of 200 EUR.
- 7.12 Upon receipt of the Protest Form the Chief Classifier will conduct a review of the Protest submission. If it appears to the Chief Classifier that the Protest is not made bona fide or is based on mere assertion without credible supporting evidence and/ or the Protest submission is otherwise not in compliance with these Rules, the Chief Classifier shall decline the protest and notify all relevant parties. In such cases the Chief Classifier shall provide a written explanation to the National Body as soon as is practicable. The Protest fee will be retained by IPC Athletics.
- 7.13 If the Chief Classifier declines a Protest, the National Body may resubmit the Protest if it is able to remedy the deficiencies identified by the Chief Classifier in respect of the Protest. The time frames for submitting a Protest shall remain the same in such circumstances. If a National Body resubmits a Protest, all protest procedure requirements will apply. A second Protest fee must be paid.

### **Resolving a Protest**

- 7.14 If the Protest is accepted, the Chief Classifier shall appoint a Classification Panel to conduct Athlete Evaluation in respect of the Athlete. This Classification Panel is referred to as a "Protest Panel".
- 7.15 A Protest Panel should comprise, at a minimum, the same number of Classifiers as those comprised in the Classification Panel that made the Protested Decision. Only if practicable given all the circumstances of the Competition, the Protest Panel should comprise Classifiers of equal or greater level of experience and/or certification as who comprised the Classification Panel that made the Protested Decision.

- 7.16 The Protest Panel must not include any person who was a Member of the Classification Panel that made the Protest Decision. Further, it should not include any person who has been a Member of any Classification Panel that has conducted any Athlete Evaluation in respect of the Protested Athlete within a period of eighteen (18) months prior to the date of the Protest Decision.
- 7.17 IPC Athletics will supply all documentation submitted with the Protest Form to the Protest Panel. The Chief Classifier will notify all relevant parties of the time and date for the Athlete Evaluation that will be conducted by the Protest Panel.
- 7.18 The Protest Panel will conduct Athlete Evaluation in respect of the Protested Athlete according to the provisions concerning Athlete Evaluation in these Rules.
- 7.19 The Protest Panel may make enquires of the Classification Panel that made the Protested Decision and the Chief Classifier, if such enquiries will enable the Protest Panel to complete Athlete Evaluation in a fair and transparent manner. In addition, it may seek medical, sport, technical or scientific expertise in its conduct of Athlete Evaluation.
- 7.20 The Protest Panel will conclude Athlete Evaluation and, if appropriate, allocate a Sport Class. All relevant parties shall be notified of the Protest Panel's decision as quickly as possible following Athlete Evaluation.
- 7.21 If the Protest is upheld and the Sport Class of the Athlete is changed by the Protest Panel, the Protest Fee will be refunded to the National Body. If the Protest is not upheld and if the Sport Class of the Athlete is not changed by the Protest Panel, the Protest fee will be retained by IPC Athletics.
- 7.22 The decision of the Protest Panel is final and is not subject to any further Protest. According to Article 6.3, the Athlete is given the opportunity to a re-assessment if the Sport Class allocated by the Protest Panel is Not Eligible.
- 7.23 The consequences of an Athlete changing Sport Class after the resolution of a Protest during Competition on medals, records and results are detailed in the Model of Best Practice on Sport Class Changes following First Appearance (IPC Handbook, Section 2, Chapter 1.3).

### **Protests under Exceptional Circumstances**

- 7.24 A Protest in Exceptional Circumstances may be made in respect of an Athlete if the Chief Classifier believes that because of exceptional circumstances, the Athlete should undertake Athlete Evaluation in order that his or her Sport Class may be reviewed.

- 7.25 Examples of exceptional circumstances that may arise that may warrant an Athlete participating in Athlete Evaluation include, but are not limited to:
- 7.25.1 An obvious and permanent change in the degree of Impairment of an Athlete;
  - 7.25.2 An Athlete demonstrating significantly less or greater ability prior to or during Competition which does not reflect the Athlete's current Sport Class;
  - 7.25.3 An error made by a Classification Panel which has led to the Athlete being allocated a Sport Class which is not in keeping with the Athlete's ability; or
  - 7.25.4 Sport Class allocation criteria having changed since the Athlete's most recent evaluation.
- 7.26 The procedure for the making of a Protest in Exceptional Circumstances shall be as follows:
- 7.26.1 The Chief Classifier shall advise the Athlete and relevant National Body that a Protest is being made in Exceptional Circumstances;
  - 7.26.2 The Chief Classifier will provide a written summary of the reasons for the making of the Protest, which at a minimum shall explain why the Chief Classifier believes that the Athlete's Sport Class appears to be inconsistent with the Athlete's perceived Impairment(s) and/or Activity Limitation(s) and/ or with these Rules;
  - 7.26.3 The Athlete's Sport Class Status will be amended to Review (R) with immediate effect;
  - 7.26.4 The process for making such a Protest shall be the same as that stated in these Rules in respect of Protests made by National Bodies save that the Chief Classifier is not required to pay a Protest fee.

### **Provisions Where No Protest Panel is Available**

- 7.27 If a Protest is made and accepted at a Competition, but there is no opportunity for the Protest to be resolved at that Competition (because, for example, it is not possible to form an appropriately constituted Protest Panel), the following provisions will apply:
- 7.27.1 If the Athlete has been allocated Sport Class Status Confirmed (C), that will be amended to Sport Class Status Review (R);
  - 7.27.2 The Athlete will be permitted (or required) to compete in his or her current Sport Class, pending the resolution of the Protest;

- 7.27.3 IPC Athletics will take all reasonable steps to ensure that the Protest is resolved at the earliest opportunity, for example, at the next Competition that the Athlete intends competing at and where International Classification is offered.

## 8 Article Eight – Appeals

- 8.1 An Appeal is a formal objection to the manner in which Classification procedures have been conducted is submitted and subsequently resolved.
- 8.2 If an Athlete believes that an unfair decision has been made pursuant to these Rules, he or she may apply to have that decision set aside following the Appeal procedure.
- 8.3 A decision will be considered unfair, if it has been made in contravention of the procedures set out in these Rules at Article 3, 4, 5, 6, 7 and 8 of these Rules; and there is some manifest unfairness associated with the decision such that it should be set aside.
- 8.4 IPC Athletics has designated the International Paralympic Committee Board of Appeal on Classification (BAC) to act as the hearing body for all Appeals and all Athletes submitting to Athlete Evaluation irrevocably submit to the exclusive, final and binding jurisdiction of the BAC.
- 8.5 The detailed rules of procedure in respect of Appeals are provided by the IPC in the form of the IPC BAC Bylaws (see IPC Handbook, Section 1, Chapter 2.8). These Rules incorporate the IPC BAC Bylaws, and any Appeal made under these Rules must be made pursuant to the IPC BAC Bylaws.
- 8.6 The outcome of an Appeal will be that either the relevant decision is upheld, or is set aside. An Appeal decision cannot amend a Sport Class or Sport Class Status.

## 9 Article Nine – Intentional Misrepresentation

- 9.1 Intentional Misrepresentation is a violation of these Rules, and will be investigated and potentially sanctioned as provided for in the IPC Intentional Misrepresentation Rules (IPC Handbook, Section 2, Chapter 1.3).

### Misrepresentation during Athlete Evaluation

- 9.2 An Athlete who intentionally misrepresents his or her skills and/or abilities and/or the degree or nature of Physical, Visual or Intellectual Impairment to a Classification Panel in the course of Athlete Evaluation with the intention of deceiving or misleading that Classification Panel shall be guilty of Intentional Misrepresentation.

### Misrepresentation after Allocation of Confirmed Sport Class

- 9.3 If following the allocation of a Sport Class an Athlete undertakes any form of corrective treatment (a “medical intervention”), and the Athlete (or any other Participant) knows (or should know) that the medical intervention was intended to result in improved sport performance, the Athlete must provide details of that medical intervention to the IPC at the earliest reasonable opportunity. If the Athlete’s Sport Class is later changed because the Athlete’s sporting performance has improved as a result of (in whole or in part) that medical intervention, but the Athlete failed to disclose that medical intervention to IPC, the Athlete will be charged with Intentional Misrepresentation.

### Assisting Intentional Misrepresentation

- 9.4 Any Athlete or Athlete Support Personnel, who knowingly assists, covers up or is any other way involved in any other type of complicity involving Intentional Misrepresentation shall themselves be guilty of Intentional Misrepresentation.

## 10 Glossary of Defined Terms

Term	Definition
<b>Activity Limitation</b>	Difficulties an individual may have in executing activities.
<b>Appeal</b>	A formal objection to the manner in which Classification procedures have been conducted is submitted and subsequently resolved.
<b>Athlete</b>	Any person who participates in the sport of IPC Athletics at either International Level (as defined by IPC Athletics) or National Level (as defined by a National Body) and any other additional person who participates in sport at a lower level if designated by the person's National Body.
<b>Athlete Evaluation</b>	The process by which an Athlete is assessed in accordance with these Rules.
<b>Athlete Support Personnel</b>	Any coach, trainer, manager, interpreter, agent, team staff, official, medical or paramedical personnel working with or treating Athletes participating in or preparing for training and/or Competition.
<b>Classification</b>	A structure for Competition to ensure that an Athlete's Impairment is relevant to sport performance, and to ensure that the Athlete competes equitably with other Athletes.
<b>Classification Evaluation Period</b>	The timeframe prior to the commencement of Events at a Competition within which Physical and Technical Assessment typically takes place.
<b>Classification Master List</b>	The list, made available by IPC Athletics that identifies the Athletes that participated in International Classification.
<b>Classification Panel</b>	A group of Classifiers appointed by IPC Athletics to determine Sport Class and Sport Class Status in accordance with these Rules.
<b>Classification Personnel</b>	All persons involved in or associated with the process of Athlete Evaluation, including the Head of Classification, Classifiers, Chief Classifiers and Trainee Classifiers.
<b>Classifier</b>	A person authorized by IPC Athletics to evaluate Athletes as a member of a Classification Panel.

<b>Competition</b>	A series of individual Events conducted together under the jurisdiction of IPC Athletics.
<b>Competition Season</b>	The timeframe within which Competitions are held for a particular sport. For summer sports, the Competition Season runs from January 1 of a calendar year until December 31 of the same calendar year. For winter sports, the Competition Season runs from July 1 of a calendar year until June 30 of the next calendar year.
<b>Conflict of Interest</b>	A conflict of interest will arise where a pre-existing personal or professional relationship gives rise to the possibility of that relationship affecting the Classifier's ability to make an objective decision or assessment.
<b>Effective Date</b>	The date upon which these Rules come into force.
<b>Eligible Impairment</b>	An Eligible Impairment is an Impairment the existence of which is a pre-requisite for an Athlete to meet the Minimum Disability Criteria for the sport of IPC Athletics.
<b>Entry Sport Class</b>	A Sport Class allocated to an Athlete by a National Body prior to an IPC Athletics Competition to indicate the Sport Class with which the Athlete intends to compete. An Entry Sport Class is an estimate and has no binding effect upon either the Athlete or the body responsible for organising and managing the relevant Competition.
<b>Event</b>	A sub-set of a Competition that requires specific technical and sporting skills.
<b>Fixed Review Date</b>	A date prior to which an Athlete who has been designated with Sport Class Status Review (R) will not be required to undertake Athlete Evaluation, regardless of whether or not that Athlete competes at any Competition.  Unless otherwise specified by the Classification Panel, the Fixed Review Date is the first day of the Competition Season of IPC Athletics, i.e. 1 January for summer sports and 1 July for winter sports.
<b>Head of Classification</b>	A Classifier responsible for all direction, administration, co-ordination and implementation of Classification matters for IPC Athletics.
<b>Impairment</b>	Problems in body function or structure such as a significant deviation or loss.



<b>Intellectual Impairment</b>	A type of Impairment, which is defined as a limitation in intellectual functioning and adaptive behaviour as expressed in conceptual, social and practical adaptive skills. This impairment originates before the age of 18.
<b>International Classification</b>	Athlete Evaluation that is conducted in full compliance with these Rules.
<b>IPC</b>	International Paralympic Committee
<b>IPC Classification Code</b>	The IPC Classification Code 2007 and accompanying International Standards and any subsequent version or versions of the same.
<b>IPC Classifier Code of Conduct</b>	A set of rules to outline the responsibilities, to guide behaviour and decisions and to identify best practice for an individual Classifier, which is part of the IPC Classification Code International Standard of Classifier Training.
<b>IPC Code of Ethics</b>	The ethical standard that will be applied consistently within the Paralympic Movement, and will be applicable to all IPC sanctioned Events, Competitions and activities.
<b>IPC Handbook</b>	The IPC Handbook is the primary governance instrument for the IPC in its capacity as both an International Federation and the ruling body for the Summer and Winter Paralympic Games. All persons who are subject to the jurisdiction of the IPC are required to abide by its provisions.
<b>Medical Intervention</b>	Any intervention such as surgery, pharmacological intervention or other treatment, which affects the Athlete's Eligible Impairment
<b>Medical Review</b>	The process by which an Athlete can apply to IPC Athletics to undergo Athlete Evaluation, in order that the Athlete's Sport Class may be reviewed to ensure that the Athlete's Sport Class remains a fair allocation.
<b>Minimum Disability Criteria</b>	The standards set by IPC Athletics in relation to the degree of Eligible Impairment that must be present in order that an Athlete is deemed to be eligible to compete in the sport of IPC Athletics.
<b>National Body</b>	A team entity of which an Athlete is a member. Such an entity may be National Federation, National Paralympic Committee or other representative team body.
<b>Not Eligible</b>	Consequence of not meeting the eligibility criteria.

<b>Observation Assessment</b>	The means by which a Classification Panel may complete Athlete Evaluation, if it considers that the only fair way in which it can complete Athlete Evaluation is to observe the Athlete performing the specific skills associated with the sport of IPC Athletics either prior to or during an Event.
<b>Physical Assessment</b>	The means by which a Classification Panel will determine whether or not an Athlete has an Eligible Impairment and whether that Eligible Impairment complies with the Minimum Disability Criteria.
<b>Physical Impairment</b>	A group of Eligible Impairments affecting an Athlete's biomechanical execution of sporting activities, comprising ataxia, athetosis, hypertonia, impaired muscle power, impaired range of movement, limb deficiency, leg length difference and short stature.
<b>Protest</b>	The procedure by which a formal objection to an Athlete's Sport Class is submitted and subsequently resolved.
<b>Protest Panel</b>	A Classification Panel formed to conduct Athlete Evaluation in respect of an Athlete's Sport Class, where that Sport Class is the subject of a Protest.
<b>Recognised Competition</b>	An umbrella term for IPC Athletics Competitions, IPC Athletics Sanctioned Competitions and IPC Athletics Approved Competitions as defined in the IPC Athletics Rules and Regulations.
<b>Sport Class</b>	A category defined by IPC Athletics in which Athletes are categorized by reference to an Activity Limitation resulting from impairment.
<b>Sport Class Status</b>	A Category allocation to each Athlete to indicate evaluation requirements and Protest opportunities.
<b>Technical Assessment</b>	The assessment of an Athlete's ability to perform the tasks and activities required to participate in the sport of IPC Athletics.
<b>Tracking Code</b>	A temporary designation applied to a Sport Class that indicates that a Sport Class is subject to final determination after Observation Assessment has taken place.
<b>Visual Impairment</b>	An Impairment of the eye structure, optical nerves or optical pathways, or visual cortex of the central brain, which adversely affect an Athlete's vision.

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## Appendix One: Athletes with a Physical Impairment

This Appendix is based on the outcomes of the “IPC Athletics Classification Project for Physical Impairments: Final Report – stage 1”, which were approved by the IPC Governing Board in June 2009 (11). The full report is available from the IPC Athletics website. This Appendix has three Sections:

1. Eligible and Non-Eligible Impairment Types: Identifies the types of impairments that are eligible for IPC Athletics.
2. Minimum Disability Criteria (MDC) and Methods of Assessment: a description of the assessment techniques to be applied in the evaluation process for Athletes with a Physical Impairment and how they translate in MDC.
3. Sport Class Profiles for Athletes with Physical Impairments.

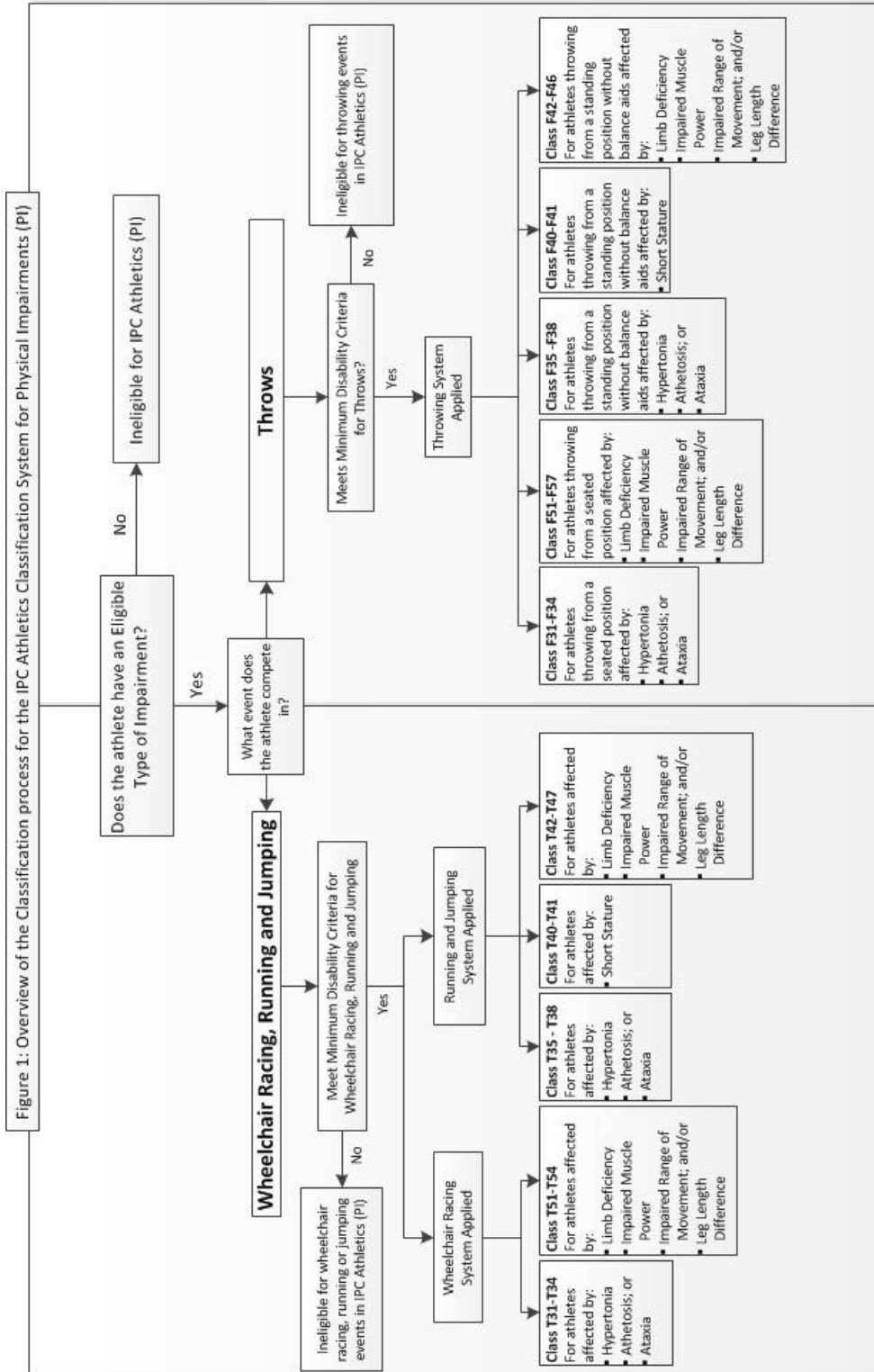


Figure 1 – Overview of the classification process



# 1 Eligible and Non-Eligible Impairment Types

## 1.1 Eligible Impairment Types

The following 8 impairment types are eligible in IPC Athletics (Table 1) under the following conditions:

- A. An athlete must be affected by at least one of the impairments listed in the first column of the table
- B. The impairment must result directly from a health condition (e.g. trauma, disease, dysgenesis)

*Table 1 – Eligible Impairment Types: In order to compete in IPC Athletics, an athlete must be affected by at least one of the 8 impairments listed in first column of this table.*

Impairment Type	Examples of health conditions likely to cause such impairments	Impairment as described in the ICF*	Relevant ICF Impairment Codes
Hypertonia	Cerebral palsy, stroke, acquired brain Injury, multiple sclerosis	High muscle tone <i>Inclusions:</i> Hypertonia / High muscle tone <i>Exclusions:</i> Low muscle tone.	b735
Ataxia	Ataxia resulting from cerebral palsy, brain injury, Friedreich's ataxia, multiple sclerosis, spinocerebellar ataxia	Control of voluntary movement <i>Inclusions:</i> Ataxia only <i>Exclusions:</i> Problems of control of voluntary movement that do not fit description of Ataxia.	b760
Athetosis	Cerebral Palsy, stroke, traumatic brain injury	Involuntary contractions of muscles <i>Inclusions:</i> Athetosis, chorea <i>Exclusions:</i> Sleep related movement disorders.	b7650

Limb deficiency	Amputation resulting from trauma or congenital limb deficiency (dysmelia).	Total or partial absence of the bones or joints of the shoulder region, upper extremities, pelvic region or lower extremities.	s720, s730, s740, s750  Note: These codes would have the extension .81 or 0.82 to indicate total or partial absence of the structure respectively.
Impaired Passive Range of Movement (PROM)	Arthrogryposis, ankylosis, post burns joint contractures.	Impaired joint mobility.  <i>Exclusions:</i> Hypermobility of joints.	b7100 – b7102
Impaired Muscle Power	Spinal cord injury, muscular dystrophy, brachial plexus injury, polio, spina bifida, Guillain-Barré syndrome	Muscle power.	b730
Leg Length Difference	Congenital or traumatic causes of bone shortening in one leg.	Aberrant dimensions of bones of right lower limb OR left lower limb but not both.  <i>Inclusions:</i> shortening of bones of one lower limb  <i>Exclusions:</i> shortening of bones of both lower limbs; any increase in dimensions.	s75000, s75010, s75020  Note: for coding purposes aberrant dimensions of bones of right lower limb is indicated by addition of the qualifying code .841 and in the left lower limb, .842
Short stature	Achondroplasia, growth dysfunction.	Aberrant dimensions of bones of upper and lower limbs or trunk which will reduce standing height.	s730.343, s750.343, s760.349

\*For further information on ICF codes, including how to obtain a copy of the ICF, visit the website at <http://www.who.int/classifications/icf/en/>.

## 1.2 Non- Eligible Impairments

The following impairments are examples of impairments that are not eligible to be classified for IPC Athletics.

An Athlete who is affected by an eligible impairment in combination with any of the non-eligible impairments listed below may be eligible, but Athletes affected only by the impairments listed below are not eligible.

- § Mental functions (b140-189), for example impairments of:
- § Psychomotor control (b1470) – mental functions that regulate speed of behaviour or response time that involves both motor and psychological components;
  - Quality of psychomotor functions (b1471) – mental functions that produce nonverbal behaviour in the proper sequence and character of its subcomponents, such as hand and eye coordination or gait;
  - Visuospatial perception (b1565) – mental functions involved in distinguishing by sight the relative position of objects in the environment or in relation to oneself;
  - Higher-level cognitive functions required for organization and planning movement (b1641);
- § Mental functions required for sequencing and coordinating complex, purposeful movements (b176).
- § Hearing functions (b230-249);
- § Pain (b280 – b289);
- § Joint stability (b715), such as unstable shoulder joint, dislocation of a joint;
- § Muscle endurance functions (b740);
- § Motor reflex functions (b750);
- § Involuntary movement reaction functions (b755);
- § Tics and mannerisms (b7652), stereotypies and motor perseveration (b7653);
- § Cardiovascular functions (b410-429);
- § Respiratory functions (b440-449);
- § Any exclusion listed in Table 1;
- § Impaired muscle power resulting from disuse (e.g. pain, conversion disorder);
- § Hypotonia (e.g. associated with Down syndrome, Ehlers-Danlos syndrome).

## 2 Minimum Disability Criteria (MDC) and Methods of Assessment

MDC define how severe an athlete's impairment must be in order to be eligible for IPC Athletics. IPC Athletics has two sets of MDC:

§ MDC for wheelchair racing, running and jumping (Section 2.1):

Impairments described in this section are considered to alter the biomechanical execution of the running action or wheelchair propulsion in a way that is demonstrable and which will adversely affect performance.

§ MDC for throwing (Section 2.2):

Impairments described in this section are considered to alter the biomechanical execution of the throwing action in a way that is demonstrable and which will adversely affect performance.

Note:

In terms of Anthropometric measurements, the average of two (2) measures is taken. If the difference between these two (2) measures is greater than 1%, one additional measure is taken, and the median measure is recorded on the Classification sheet as the measurement.

## 2.1 MDC and Methods of Assessment for wheelchair racing, running and jumping

### 2.1.1 Hypertonia

In IPC Athletics, spasticity grades refer to the Ashworth scale (1):

- § Grade 0: No increase in tone
- § Grade 1: Slight increase in tone giving a “catch” when the limb is flexed or extended
- § Grade 2: More marked increase in tone, but limb is easily flexed or extended
- § Grade 3: Considerable increase in tone with passive movement difficult
- § Grade 4: Limb rigid in flexion or extension

Hypertonia is defined as increased muscle tone which is caused by central nervous system impairment and which results in increased resistance to passive lengthening of the muscle (4). One of the following types of hypertonia must be clearly clinically detectable – i.e., grade 1 on the Ashworth scale (1) at the wrist, elbow, shoulder, ankle, knee or hip.

**Spastic hypertonia:** Is defined as a velocity-dependent resistance to passive movement with a clasp-knife type of resistance (4). Clasp-knife resistance is resistance that is initially high and followed by a sudden relaxation. Velocity dependence increases as the speed of the passive movement increases, the resistance becomes greater and starts earlier in the range.

Spastic hypertonicity tends to predominate in the antigravity muscles particularly the flexors of the arms and extensors of the legs and may affect certain parts of the body more than others. In classification, testing for Spastic hypertonicity involves rapid, passive movement through the principal ranges of movement at the wrist, elbow, shoulder, ankle, knee or hip. Athletes with clearly clinically detectable Spastic hypertonicity are eligible.

When testing for Spastic hypertonicity at the ankle or wrist, clonus may be elicited. Clonus is rapid, involuntary alternation of muscle contraction and relaxation and typically occurs in the ankle plantar flexors in response to rapid, passive dorsiflexion or the wrist flexors in response to rapid, passive wrist extension. Clonus that lasts for 4 beats or more and which can be reliably reproduced during a single classification session (i.e., is non-damping clonus) is considered to indicate presence of Spastic hypertonicity that meets the MDC.

**Rigidity:** Is defined as a heightened resistance to passive movement of a limb that is independent of the velocity of stretch and relatively uniform throughout the range of motion of that limb (4). The uniform resistance is often referred to as ‘lead pipe’ type of resistance. Usually has a predominant pattern with a flexor pattern being more common.

**Dystonia:** Is resistance to passive movement that may be focal (affecting muscles of one limb or joint) or general (affecting the whole body). Contractions are powerful and

sustained and cause twisting or writhing of the affected areas\*. The pattern is highly variable – contractions may be fast or slow; painful or not; and the direction of greatest resistance may change regularly (e.g., a limb may move regularly from an extreme flexion pattern to an extreme extension pattern) (4, 10).

\*As the description indicates, Dystonia may equally be classified as a type of Hypertonia OR a type of involuntary movement pattern.

An athlete who does not have one of the three types of Hypertonia – Spasticity, Rigidity or Dystonia – is not eligible. The Classification Panel should be satisfied that the resistance to passive lengthening of the muscle is due to central nervous system impairment and the following signs may be useful in this regard:

- § Presence of non-damping clonus on the side on which the tone is increased;
- § Abnormally brisk reflexes in the limb in which the tone is increased;
- § Mild atrophy in the limb in which the tone is increased;
- § Positive Babinski on the side in which the tone is increased.

### 2.1.2 Ataxia

Ataxia refers to an unsteadiness, incoordination or clumsiness of volitional movement (4). Eligible ataxias must result from either motor or sensory nervous system dysfunction. Motor ataxias most frequently result from malformation or damage to the cerebellum and are often associated with hypotonia (4). Motor ataxias are poorly compensated for by visual input. Sensory ataxias most frequently result from lower motor neuron damage or spinal cord disease, affecting vestibular function or proprioceptive function. Visual input can help compensate for sensory ataxia and so sensory ataxias are often more evident when eyes are closed (4).

When evaluating an athlete the Classification Panel should be satisfied that the ataxic movement is demonstrable and clearly evident during classification and that the observed ataxia is due to motor or sensory nervous system dysfunction as described. Tests that may be useful for determining this include but are not limited to:

- § Finger-to-nose test (athlete touching own nose from the crucifix position);
- § Finger-to-finger test (classifier presents his/her index finger and asks the athlete to touch it with his/her own index finger);
- § Toe-to-finger test (classifier presents his/her index finger and asks the athlete to touch it with his/her toe);
- § Heel shin test (i.e., draw the heel of one leg along the length of the contralateral shin, from ankle to knee and then in the reverse direction);

- § Tandem walk;
- § Gait.

### 2.1.3 Athetosis

Athetosis refers to unwanted movement and posturing resulting from damage to motor control centres of the brain, most frequently the basal ganglia. When evaluating an athlete the Classification Panel should satisfy itself that athetosis is clearly evident and that it is neurological in origin. Clearly evident athetosis is unwanted movement and posturing that is characteristically athetoid and is observable as at least one of the following:

- § Involuntary movement of the fingers or upper extremities despite the athlete trying to remain still;
- § Involuntary movement of the toes or lower extremities despite the athlete trying to remain still;
- § Inability to hold the body still – swaying of the body. Swaying should not be due to other neurological deficits such as vestibular or proprioceptive impairments and therefore should not be exacerbated by closing of the eyes;
- § Characteristic athetoid posturing of limbs and/or trunk;

The athlete will not be eligible if athetoid movements of the face are the sole impairment.

### 2.1.4 Limb Deficiency

#### 2.1.4.1 Limb Deficiency – Lower Limb

Complete unilateral amputation of half the length of the foot (i.e., measured on the non-amputated foot from the tip of the great toe to the posterior aspect of calcaneus)\* or equivalent congenital limb deficiency.

\* In surgical terms this description equates closely to a Lisfranc's amputation.

Unilateral dysmelia in which the length of the affected foot is less than or equal to 50% of the length of the unaffected foot.

#### 2.1.4.2 Limb Deficiency – Upper Limb

Certain types of upper limb deficiency (i.e. athletes with unilateral upper limb impairment) have restricted participation opportunities under these IPC Athletics Classification Rules and Regulations (e.g. T47).

### 1. Eligible for all running (100m – marathon) and jumping events

The types of upper limb deficiency, meeting the minimum disability criteria as described below, are eligible for ALL running and jumping offered by IPC Athletics:

Unilateral:

- § Unilateral amputation, through or above elbow;
- § Unilateral dysmelia in which the length of the affected arm measured from acromion to wrist is equal in length or shorter than the humerus of the unaffected arm (i.e., the length of the hand is not taken into account);

Bilateral:

- § Bilateral amputation through or above wrist (i.e., no carpal bones present in either wrist). Arthrodesed wrist joints do not meet eligibility requirements;
- § Bilateral dysmelia in which the combined length of the upper limbs measured from acromion to the most distal point of affected limb is  $\leq 0.646 \times$  standing height; that is the length of a normal humerus ( $0.193 \times$  standing height) + length of a normal arm ( $0.453 \times$  standing height). Both values from Contini (3).

Athletes meeting the criteria of section 2.1.4.2.1 are identified as T46 further down in these rules.

## **2. Eligible ONLY for running events from 100m to 400m and jumping events**

The reason for including the types of upper limb deficiency described below is not because they alter the biomechanics of the running action, but because they have been judged to alter the biomechanical execution of the crouch start or jumping actions in a way that is demonstrable and which will adversely affect performance.

Athletes with impairments that meet the criteria below but not the criteria in 2.1.4.2.1 are only eligible for 100m – 400m (i.e., not running events greater than 400m) and jumping events. The criteria are:

Unilateral:

- § Unilateral amputation, through or above wrist (i.e., no carpal bones present in affected limb).
- § Unilateral dysmelia in which the length of the affected arm measured from acromion to the most distal point of affected limb is equal in length or shorter than the combined length of the humerus and the radius of the unaffected arm.
  - Measuring unaffected arm: For people who can fully extend the elbow, the combined length of humerus and radius can be a single measure of the distance from the acromion to the tip of the radial styloid. When full elbow extension cannot be achieved, humerus length (from acromion to superior head of radius) and radius length (from head of radius to the tip of the radial



styloid, measured with hand supinated) should be measured separately and then summed.

- Measuring affected arm: Length of arm from acromion to most distal point of affected limb – the length of the hand IS taken into account in this criterion.

Bilateral:

§ Bilateral dysmelia in which the combined length of the upper limbs measured from acromion to the most distal point of affected limb is  $\leq 0.674 \times$  standing height; that is the length from the acromion to the tip of the radial styloid in a normally proportioned body (0.337) multiplied by 2. Values from Contini (3).

Athletes meeting the criteria of section 2.1.4.2.2 are identified as T47 further down in these rules.

## 2.1.5 Impaired Passive Range of Movement (PROM)

Unless otherwise indicated, PROM should be assessed using the protocols described by Clarkson (2). In brief, measurement of PROM requires the athlete to relax completely while the classifier moves the joint of interest through the available range. The athlete should be relaxed and not attempting voluntary movement during these tests (5, 8, 9).

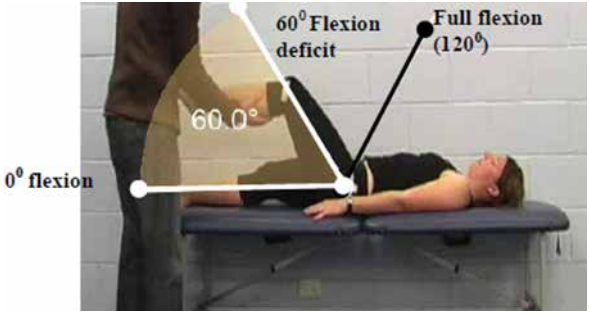
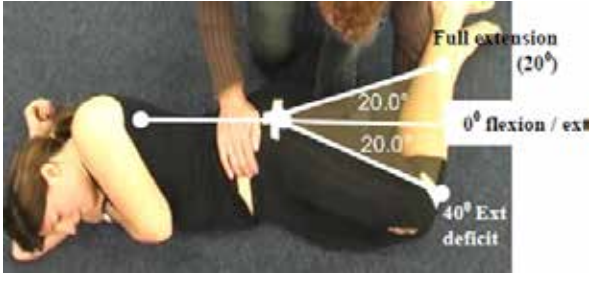
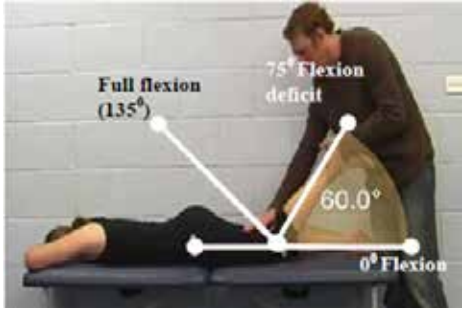
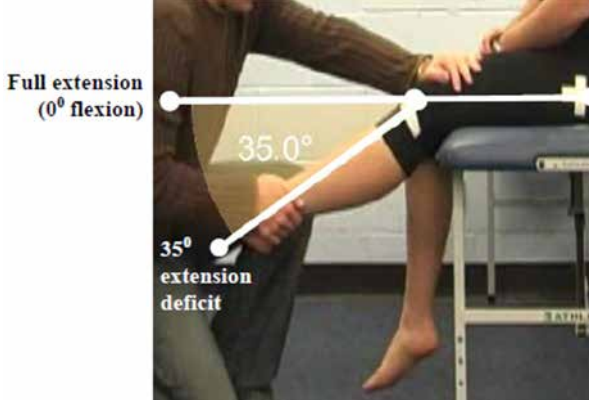
### 2.1.5.1 Impaired PROM - Lower limb

The Minimum Disability Criteria for impaired PROM in the lower limbs is met if one lower limb meets:

- § **One or more** of the **5 primary** criteria presented in 2.1.5.1.1; **OR**
- § **Two or more** of the **5 secondary** criteria presented in 2.1.5.1.2

#### 1. Primary Criteria for impaired PROM - Lower limb

Athletes are eligible if they meet ONE OR MORE of the following criteria:

<p><b>Primary Criterion #1</b></p> <p><b>Hip flexion deficit of <math>\geq 60^\circ</math>.</b></p> <p>The figure shows normal anatomical range of <math>120^\circ</math> hip flexion (6) and the maximum amount of hip flexion ROM that is permissible in order to meet this criterion (<math>60^\circ</math> hip flexion).</p>	 <p>The diagram shows a person lying on their back on a table. A vertical line represents the neutral position (<math>0^\circ</math> flexion). A horizontal line represents full flexion (<math>120^\circ</math>). A dashed line indicates a <math>60.0^\circ</math> flexion deficit from the neutral position.</p>
<p><b>Primary Criterion #2</b></p> <p><b>Hip Extension deficit of <math>\geq 40^\circ</math>.</b></p> <p>The figure shows normal anatomical range of <math>20^\circ</math> hip extension (6). The neutral position (<math>0^\circ</math>) is also shown, as is the maximum amount of hip extension ROM that is permissible in order to meet this criterion (<math>40^\circ</math> hip extension deficit).</p>	 <p>The diagram shows a person lying on their back on a table. A vertical line represents the neutral position (<math>0^\circ</math> flexion / ext). A horizontal line represents full extension (<math>20^\circ</math>). A dashed line indicates a <math>40^\circ</math> Ext deficit from the neutral position. Two <math>20.0^\circ</math> angles are also marked.</p>
<p><b>Primary Criterion #3</b></p> <p><b>Knee Flexion deficit of <math>\geq 75^\circ</math>.</b></p> <p>The figure shows normal anatomical range of <math>135^\circ</math> knee flexion (6) and the maximum amount of knee flexion ROM that is permissible in order to meet this criterion (<math>60^\circ</math> knee flexion).</p>	 <p>The diagram shows a person lying on their back on a table. A vertical line represents full flexion (<math>135^\circ</math>). A horizontal line represents <math>0^\circ</math> Flexion. A dashed line indicates a <math>75^\circ</math> Flexion deficit from the full flexion position. A <math>60.0^\circ</math> angle is also marked.</p>
<p><b>Primary Criterion #4</b></p> <p><b>Knee Extension deficit of <math>\geq 35^\circ</math>.</b></p> <p>The figure shows normal knee extension range – i.e., <math>0^\circ</math> flexion (6) and the maximum amount of knee extension ROM that is permissible in order to meet this criterion (extension deficit of <math>35^\circ</math>)</p>	 <p>The diagram shows a person sitting on a table. A horizontal line represents full extension (<math>0^\circ</math> flexion). A dashed line indicates a <math>35^\circ</math> extension deficit from the full extension position. A <math>35.0^\circ</math> angle is also marked.</p>

### Primary Criterion #5

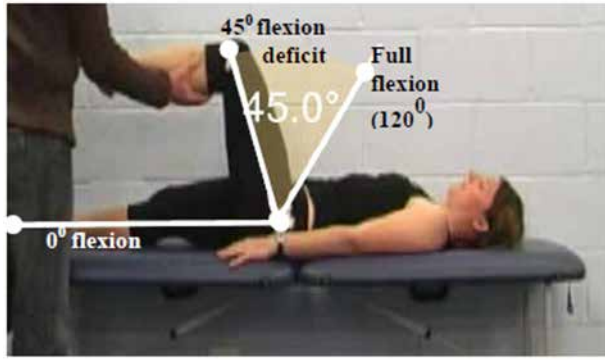
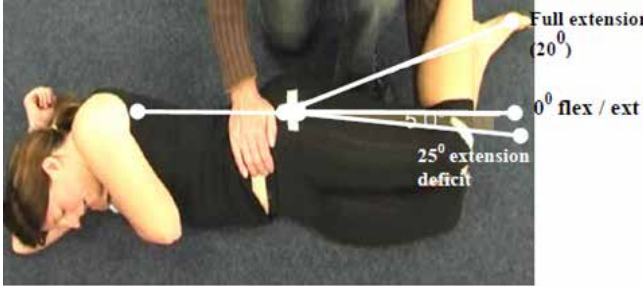

**$\leq 10^\circ$  ankle dorsi / plantar flexion available in the range between  $10^\circ$  dorsiflexion and  $25^\circ$  plantar flexion.**

The test is conducted with the knee in  $90^\circ$ . The outer (dashed) lines in the figure show  $10^\circ$  dorsiflexion and  $25^\circ$  plantar flexion – this range was chosen because it is the range of ankle movement used in running (8, 9). The inner lines show an example of a  $10^\circ$  arc within this range – this is the maximum PROM is that is permissible in order to meet this criterion. Normal anatomical PROM is not shown in the figure but is  $20^\circ$  dorsiflexion to  $45^\circ$  plantar flexion (6).



## 2. Secondary Criteria for impaired PROM - Lower limb

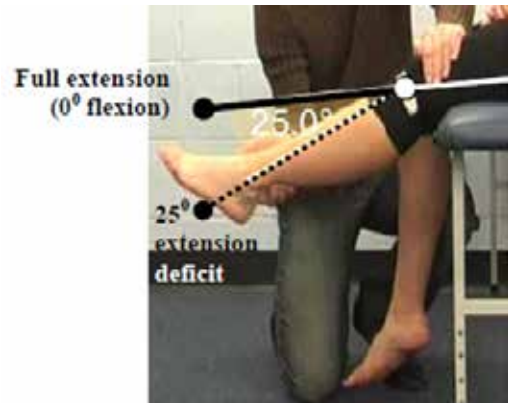
Athletes are eligible if they meet TWO OR MORE of the following secondary criteria unilaterally:

<p><b>Secondary Criterion #1 –</b></p> <p><b>Hip flexion deficit of <math>\geq 45^\circ</math> but <math>&lt; 60^\circ</math>.</b></p> <p>The figure shows normal anatomical range of <math>120^\circ</math> hip flexion (6) as well as a <math>45^\circ</math> flexion deficit – the maximum amount of hip flexion ROM that is permissible in order to meet this criterion. Athletes with <math>\geq 60^\circ</math> loss of flexion meet the primary criterion for loss of hip PROM.</p>	 <p>The diagram shows a person lying on their back on a table. A horizontal line represents the <math>0^\circ</math> flexion position. A vertical line represents the <math>120^\circ</math> full flexion position. A line representing the actual flexion position is shown at <math>45.0^\circ</math> below the full flexion line, indicating a <math>45^\circ</math> flexion deficit.</p>
<p><b>Secondary Criterion #2 –</b></p> <p><b>Hip extension deficit of <math>\geq 25^\circ</math> but <math>&lt; 40^\circ</math>.</b></p> <p>The figure shows normal anatomical range of <math>20^\circ</math> hip extension (6) as well as the neutral position and a <math>25^\circ</math> extension deficit (i.e., <math>5^\circ</math> flexion, just in front of the <math>0^\circ</math> line). A <math>25^\circ</math> deficit is the maximum amount of hip extension that is permissible in order to meet this criterion. Athletes with <math>\geq 40^\circ</math> loss of extension meet the primary criterion for loss of hip PROM.</p>	 <p>The diagram shows a person lying on their back on a table. A horizontal line represents the <math>0^\circ</math> flex / ext position. A line representing the actual extension position is shown at <math>25^\circ</math> below the <math>0^\circ</math> line, indicating a <math>25^\circ</math> extension deficit. A line representing the full extension position is shown at <math>20^\circ</math> below the <math>0^\circ</math> line.</p>
<p><b>Secondary Criterion #3 –</b></p> <p><b>Knee flexion deficit of <math>\geq 55^\circ</math> but <math>&lt; 75^\circ</math>.</b></p> <p>The figure shows normal anatomical range of <math>135^\circ</math> knee flexion (6) as well as <math>0^\circ</math> flexion and a <math>55^\circ</math> flexion deficit – the maximum amount of knee flexion that is permissible in order to meet this criterion. Athletes with <math>\geq 75^\circ</math> loss of extension meet the primary criterion for loss of hip PROM.</p>	 <p>The diagram shows a person lying on their back on a table. A horizontal line represents the <math>0^\circ</math> flexion position. A line representing the actual flexion position is shown at <math>55.0^\circ</math> below the full flexion line, indicating a <math>55^\circ</math> flexion deficit. A line representing the full flexion position is shown at <math>135^\circ</math>.</p>

**Secondary Criterion #4 –**

**Knee Extension deficit of  $\geq 25^\circ$  but  $< 35^\circ$ .**

The figure shows normal knee extension range – i.e.,  $0^\circ$  flexion (6) as well as a  $25^\circ$  extension deficit, the maximum amount of knee extension that is permissible in order to meet this criterion. Athletes with  $\geq 35^\circ$  loss of extension meet the primary criterion for loss of knee PROM.



**Secondary Criterion #5 –**

**$\leq 20^\circ$  ankle dorsi / plantar flexion available in the range between  $10^\circ$  dorsiflexion and  $25^\circ$  plantar flexion.**


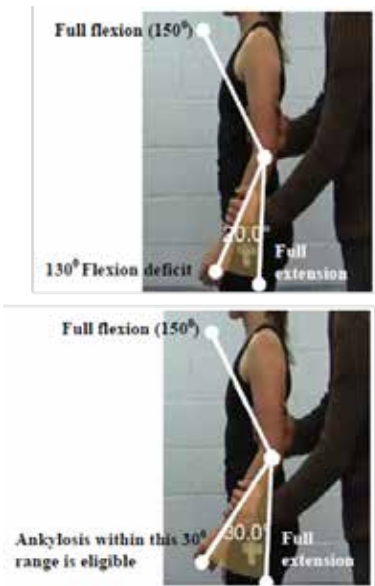
Test conducted with knee in  $90^\circ$ . The outer (dashed) lines in the figure show  $10^\circ$  dorsiflexion and  $25^\circ$  plantar flexion – this range was chosen because it is the range of ankle movement used in running (8, 9). The inner lines show an example of a  $20^\circ$  arc within this range – this is the maximum PROM is that is permissible in order to meet this criterion. Athletes with  $\leq 10^\circ$  PROM available meet the primary criterion for ankle PROM.



2.1.5.2 Impaired PROM - Upper limb

1. Impaired PROM upper limb – eligible for all running (100m – marathon) and jumping events

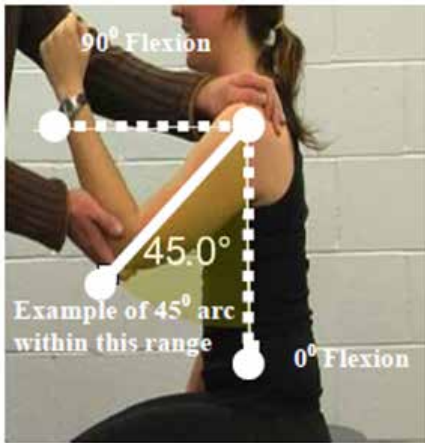
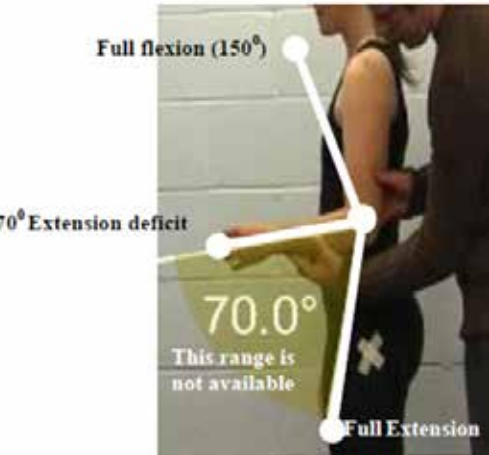
Athletes meeting ONE OR MORE of the following two upper limb criteria are eligible for ALL running and jumping events offered by IPC Athletics:

<p><b>Criterion #1</b></p> <p><b>≤ 15° shoulder extension available in the range between neutral and 50° extension.</b></p> <p>Test is conducted with athlete in prone.</p> <p>The outer (dashed) lines indicate 0° flexion and 50° extension – the range of shoulder movement used in running (5, 8, 9). The inner lines show an example of a 15° arc within this range – this is the maximum PROM is that is permissible in order to meet this criterion. Normal anatomical PROM is not shown in the figure but is 180° flexion 50° extension.</p>	
<p><b>Criterion #2</b></p> <p><b>Elbow flexion deficit of ≥ 130° OR ankylosis in any position in the range 0-30° flexion.</b></p> <p>The top left figure shows full elbow extension and a flexion deficit of 130° (i.e., max. elbow flexion of 20° from full extension) as well as full flexion of 150°. 20° flexion from full extension is the maximum amount of flexion permissible in order to meet this criterion. The top right figure shows the range in which ankylosis will meet this criterion (from full extension to 30° flexion). Ankylosis outside this range is not eligible. The range of movement used in running is from 80° flexion to 120° flexion (5, 8, 9).</p>	

Wrist and fingers are not assessed. Athletes with an impairment only affecting the PROM of the wrist are not eligible.

**2. Impaired PROM upper limb – eligible ONLY for running events from 100m to 400m and jumping events**

Athletes with impairments that meet ONE OF MORE of the criteria below but not the criteria in 2.1.5.2.1 are ONLY eligible for 100 – 400m and jumping events. The criteria are:

<p><b>Criterion #1</b></p> <p><b><math>\leq 45^\circ</math> shoulder flexion available in the range between neutral and <math>90^\circ</math> flexion.</b></p> <p>The outer (dashed) lines indicate <math>0^\circ</math> flexion and <math>90^\circ</math> flexion. The inner lines show an example of a <math>45^\circ</math> arc within this range – this is the maximum PROM is that is permissible in order to meet this criterion. Normal anatomical PROM is not shown in the figure but is <math>180^\circ</math> flexion to <math>50^\circ</math> extension (6).</p>	 <p>The diagram shows a person's right arm being moved from a vertical position (labeled <math>0^\circ</math> Flexion) to a horizontal position (labeled <math>90^\circ</math> Flexion). A dashed line indicates the full range. A solid line shows a <math>45.0^\circ</math> arc within this range, labeled "Example of <math>45^\circ</math> arc within this range".</p>
<p><b>Criterion #2</b></p> <p><b>Elbow extension deficit of <math>\geq 70^\circ</math> or ankylosis of the elbow <math>\geq 80^\circ</math> flexion.</b></p> <p>The outer lines in the figure indicate full elbow flexion (<math>150^\circ</math>) and full elbow extension. The middle line shows an extension deficit of <math>70^\circ</math> (indicated in the picture). Ankylosis in <math>80^\circ</math> elbow flexion or a greater amount of flexion will also meet this criterion.</p>	 <p>The diagram shows a person's right arm being moved from a horizontal position (labeled Full Extension) to a vertical position (labeled Full flexion (<math>150^\circ</math>)). A dashed line indicates the full range. A solid line shows a <math>70.0^\circ</math> deficit from the full extension position, labeled "70° Extension deficit" and "This range is not available".</p>

### 2.1.6 Impaired Muscle Power

Muscle power will be assessed according to the Daniels and Worthingham (D&W) scale published in 2002 (6). The scale has 6 levels, from 0-5:

- 5: normal muscle power through available ROM
- 4: active movement through available ROM, against gravity plus some resistance
- 3: active movement through full available ROM against gravity but no resistance
- 2: active movement with gravity eliminated (some movement against gravity may be possible, but not full range);
- 1: trace muscle activity but no movement of the limb
- 0: No muscle activity

While manual muscle testing methods in this System are based upon the published D&W text (6), some elements have been modified in order to make the grades more relevant to the sport of athletics, as follows:

- § IPC Athletics considers impaired muscle power only in the reference range of movement. Principles underpinning these adjustments are described below and details are presented in Table 2
- § Plus and minus grades should not be used
- § An adjustment to the range of movement required for an athlete to be assigned a grade of 3, 4 or 5.

According to the D&W methods (6), the muscle grade assigned for a given muscle action is influenced by the range of movement that can be achieved. For example if an athlete is assessed as having passive range of movement (ROM) of 120° at the hip (normal anatomical range) and then can only actively flex the hip to 100° against gravity, according to the conventional D&W scale the athlete must receive a grade of 2, because s/he cannot complete the available range of movement against gravity (6). However, even athletes performing at the very highest levels in athletics do not use full anatomical ROM at every joint. For example, the range of hip flexion required for elite level sprinting is only 90° (9). If a person can actively flex their hip to 100°, assignment of a grade 2 will not be a valid reflection of the activity limitation such a person would experience in the activity of running.

The reference range of movement for assessment of muscle power is not normal anatomical range but the range of movement required for the activity (either running or throws). Example: A runner with 100° hip flexion against gravity will receive a grade of 3 to



5, depending on the amount of resistance that can be tolerated at 90° flexion (no resistance tolerated = 3; some = 4; normal = 5). Muscle grades assigned using this method will provide a more valid indication of the activity limitation likely to be experienced by the athlete when s/he runs. Table 2 presents the reference range of movement that should be used assessing muscle power in the lower and upper limbs for running and Table 3 presents the reference range of movement for assessing muscle power in the upper limbs in throwing (lower limbs for throwing are assessed using the same reference range as for running).

**Table 2: Reference range of movement for testing muscle power for RUNNERS in IPC Athletics**

Movement	Anatomical ROM	Reference range for this System, based on ROM used in running
Hip Flexion	120°	90°
Hip Extension	20°	5°
Hip Abduction	45°	5°
Hip Adduction	20°	5°
Knee Extension	0°	-15°*
Ankle plantar flexion	45°	25°
Ankle dorsiflexion	20°	10°
Ankle Eversion	25°	10°**
Ankle inversion	35°	10°**
Shoulder Flexion	180°	10°
Shoulder Extension	50°	40°
Elbow flexion	150°	90°

\*In running the knee does not fully extend.

\*\*Range of movement data in running was not available for these movements but was thought to be minimal, so a mild restriction of these movements was taken a guide.

In all other regards the methods for assignment of muscle grade are as per the D&W system (6). For example, a runner with a flexion deficit of 40° (i.e., an available range of 80° hip flexion) and normal muscle power in this range would receive a grade of 5.

### Impaired muscle power - Lower limb

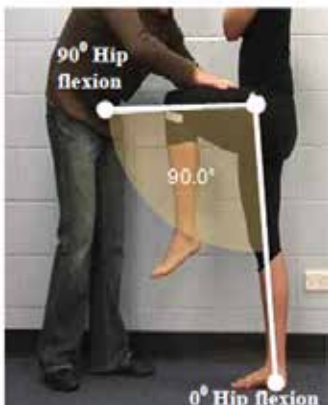


The Minimum Impairment Criteria for impaired muscle power in the lower limbs is met if one lower limb meets:

§ **One or more** of the **7 primary** criteria presented in 2.1.6.1.1; **OR**

§ **Two or more** of **5 secondary** criteria presented in 2.1.6.1.2

#### 1. Primary Criteria for impaired muscle power - Lower limb

Athletes are eligible if they meet ONE OR MORE of the following criteria:

<p><b>Primary Criterion #1</b></p> <p><b>Hip flexion loss of 3 muscle grade points (muscle grade of two).</b></p> <p>The figure shows manual resistance being applied at 90° hip flexion. To meet this criterion the athlete should not be able to actively flex the hip to 90° against gravity OR, if PROM is &lt;90°, should not be able to actively flex through available PROM.</p>	
<p><b>Primary Criterion #2</b></p> <p><b>Hip extension loss of 3 muscle grade points (muscle grade of two).</b></p> <p>The figure shows manual resistance being applied at 5° hip extension. To meet this criterion the athlete should not be able to actively extend the hip 5° against gravity.</p>	
<p><b>Primary Criterion #3</b></p> <p><b>Hip Abduction loss of 3 muscle grade points (muscle grade of two).</b></p> <p>The figure shows manual resistance being applied at 5° hip abduction. To meet this criterion the athlete should not be able to actively abduct the hip 5° against gravity.</p>	

**Primary Criterion #4**

**Hip Adduction loss of 4 muscle grade points (muscle grade of one).**

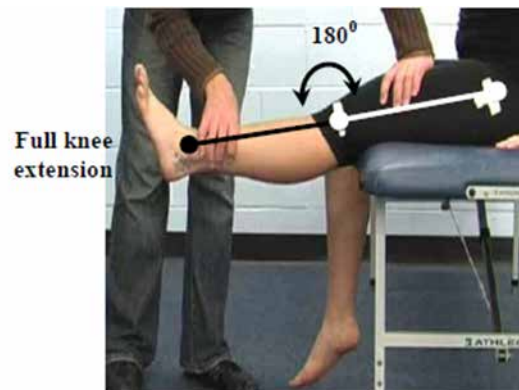
The figure shows the athlete in a gravity eliminated position for adduction and the examiner has moved the leg into 10° of abduction. To meet this criterion the athlete should not have any active adduction in the direction of the arrow.



**Primary Criterion #5**

**Knee extension loss of 3 muscle grade points (muscle grade of two).**

The figure shows manual resistance being applied at full knee extension (0° flexion). To meet this criterion the athlete should not be able to fully extend the knee against gravity OR, if knee extension is restricted, should not be able to actively extend through available PROM.

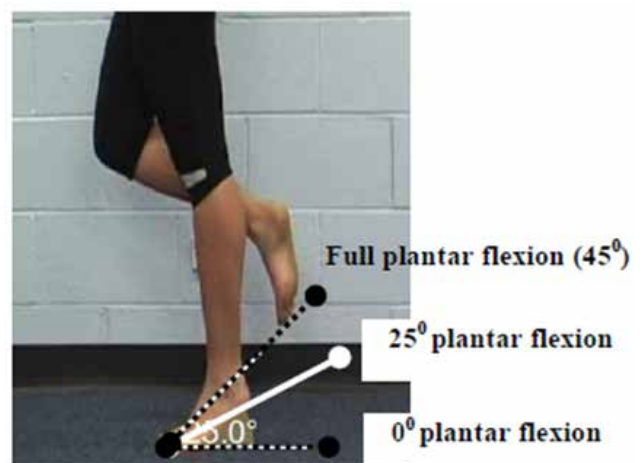


### Primary Criterion #6

**Ankle plantar flexion loss of 3 muscle grade points (muscle grade of two).**

The outer (dashed) lines on the figure show 0° plantar flexion and 45° plantar flexion (normal anatomical AROM). The centre line shows the athlete raising her heel in 25° plantar flexion. In the Daniels and Worthingham system plantar flexion is tested differently to all other muscle groups (6). Below is the method with the range of movement adjusted from full anatomical to 25° (the ROM required for running).

- § Grade 5 = can do 20 single leg heel rises to 25°;
- § Grade 4 = can do 10-19 single leg heel rises to 25°;
- § Grade 3 = can do 1-9 single leg heel rises to 25°;
- § Grade 2 = can't complete 1 heel rise to 25°. In lying may complete full ROM with resistance.
- § Grade 1 = in lying, trace muscle activity but no actual movement.



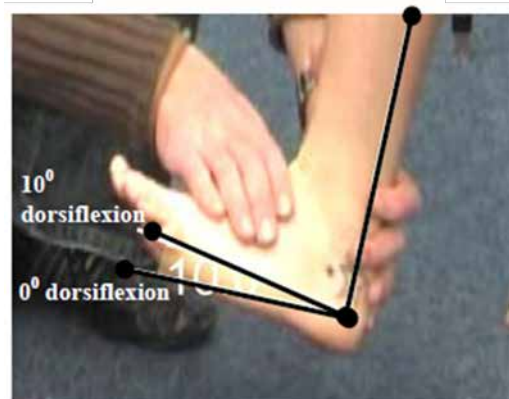
### Primary Criterion #7

At least two of the following three muscle actions must have a loss of 3 points each: **Ankle Dorsiflexion, Ankle Eversion, and Ankle Inversion.**

Test conducted in sitting, knee in 90°. The top figure shows inversion and eversion and the bottom figure shows 0° dorsiflexion and 10° dorsiflexion. To meet this criterion the athlete must not be able to perform two of the following movements:

- § Active eversion through available PROM;
- § Active inversion through available PROM;
- § Active dorsiflexion to 10°.

Muscle power in knee flexion is not expressly examined as an independent criterion. Knee flexors are active in late swing and act to retard forward swing of the leg. Impaired power would only result in a more rapid knee extension prior to contact and therefore this is not important. Moreover the main knee flexors contribute to other Principal muscle actions - Hamstrings perform hip extension and Gastrocnemius plantar flexes – so any weakness in these muscles will be reflected in assessment of those actions.



## 2. Secondary Criteria for impaired muscle power - Lower limb

Athletes will be eligible to compete in wheelchair racing or running and jumps if they lose a total of 6 muscle grade points (in one limb) in two or more of the following 5 “principal” muscle actions\*:

- § Hip Flexion
- § Hip Extension
- § Hip Abduction
- § Knee Extension
- § Ankle Plantar Flexion

Two of the movements must have a loss of 2 points each (i.e., a combination of 4 x 1 point losses and 1x 2 point loss would not meet this criterion\*\*).

\*Only the “principal” muscle actions were considered in the combined impairment criterion since decreases in the power of these actions would be cumulative, decreasing the overall propulsion the athlete is able to generate.

\*\*According to the authors of the Daniels and Worthingham muscle testing manual, the grade of 4 is the most difficult to grade reliably, due to the subjectivity of deciding whether resistance is “normal” or “below normal”) (6).

### 2.1.6.1 Impaired muscle power - Upper limb

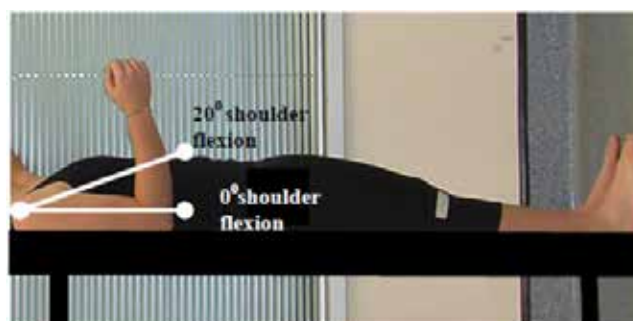
#### 1. Eligible for all running (100m – marathon) and jumping events

Athletes meeting ONE OR MORE of the following three upper limb criteria are eligible for ALL running and jumping events offered by IPC Athletics:

##### Criterion #1

**Shoulder flexion loss of 3 muscle grade points (muscle grade of two).**

The figure shows the athlete lying in supine with the shoulder in 0° flexion and a line representing 20° flexion. To meet this criterion the athlete should not be able to flex the shoulder to 20° OR if shoulder PROM is < 20°, should not be able to actively flex through available PROM.



**Criterion #2**

**Shoulder extension loss of 3 muscle grade points (muscle grade of two).**

The figure shows the athlete lying prone, shoulder in 0° extension and a line representing 50° extension. To meet this criterion the athlete should not be able to extend the shoulder to 50° OR if shoulder PROM is < 50°, should not be able to actively extend through available PROM

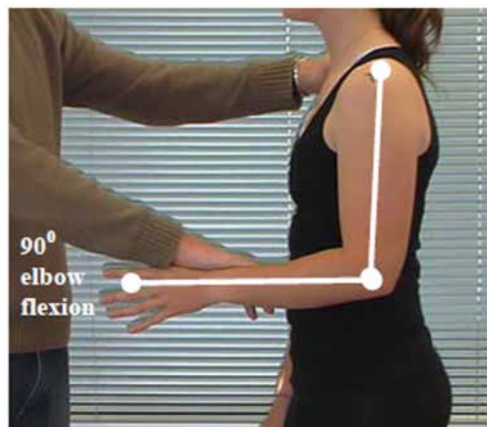


**Criterion #3**

**Elbow flexion loss of 3 muscle grade points (muscle grade of two).**


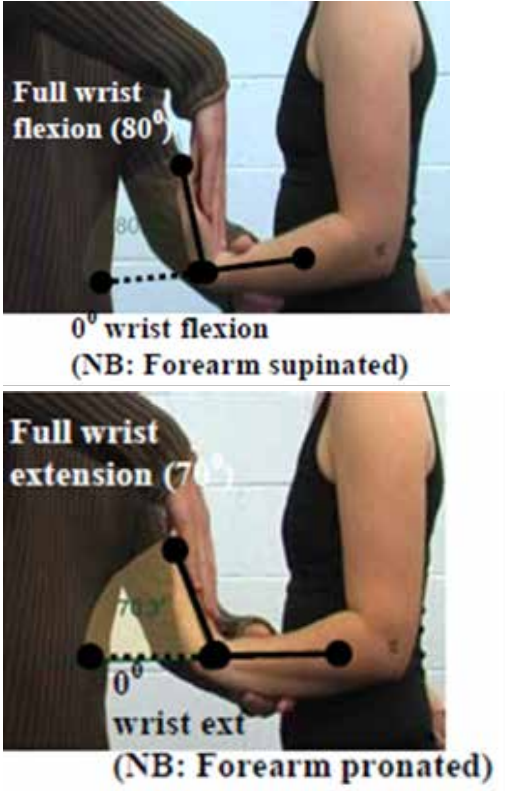
The figure shows manual resistance applied at 90°. To meet this criterion the athlete should not be able to actively flex the elbow to 90° against gravity OR, if PROM is < 90°, should not be able to actively flex through full available PROM.

Note: Elbow extension and muscle power of the wrist and fingers are not assessed.



## 2. Eligible ONLY for running events from 100m to 400m and jumping events

Athletes with impairments that meet ONE OR MORE of the two criteria below, but not the criteria in 2.1.6.2.1, are ONLY eligible for 100 – 400m (i.e., not running events greater than 400m) and jumping events. The criteria are:

<p><b>Criterion #1 –</b></p> <p><b>Loss of 3 muscle grade points in elbow extension (i.e., grade 2 elbow extensors).</b></p> <p>The figure shows manual resistance applied at full elbow extension, with the shoulder fully flexed. To meet this criterion the athlete should not be able to actively fully extend the elbow against gravity OR, if PROM is restricted, should not be able to actively extend through available PROM.</p>	
<p><b>Criterion #2 –</b></p> <p><b>A loss of 3 muscle grade points (i.e., muscle grade of 2) in wrist flexion AND wrist extension.</b></p> <p><b>Wrist flexion:</b> The figure in the top left shows manual resistance being applied at 80° wrist flexion. To meet this criterion the athlete should not be able to actively flex the wrist 80° against gravity OR, if wrist PROM is &lt; 80° flexion, should not be able to actively flex through available PROM; AND</p> <p><b>Wrist Extension:</b> The figure second from the left shows manual resistance being applied at 70° wrist extension. To meet this criterion the athlete should not be able to actively extend the wrist 70° against gravity OR, if wrist PROM is &lt;70° extension, should not be able to actively extend through available PROM.</p>	



### 2.1.7 Leg Length difference

The difference in length between right and left legs must be 7cm or more to meet eligibility. To measure, the athlete should lie supine with legs relaxed and fully extended. Measure from the inferior aspect of the anterior superior iliac spine to the inferior aspect of the tip of the medial malleolus on each leg and then compare.

### 2.1.8 Short Stature

Short stature athletes will be subject to an annual review (in accordance with articles 5.12 - 5.15 of these Rules) until the age of 18 years.

#### 2.1.8.1 Males with short stature

Maximum standing height permitted is 145cm. The maximum arm length permitted is 66cm, measured with the athlete lying supine; arm abducted to 90 degrees and the measure taken is from the acromion to the tip of the longest finger of the longest arm. The measure should be taken regardless of elbow contracture because the effective length of the arm is reduced by such an impairment. This arm length is proportionate for a male of standing height 145cm. The sum of standing height + length of longest arm must be  $\leq 200$ cm.

To be eligible, male athletes must meet all of the following criteria:

- § Standing height  $\leq 145$ cm; AND
- § Arm length  $\leq 66$ cm; AND
- § Sum of standing height plus arm length  $\leq 200$ cm.

#### 2.1.8.2 Females with short stature

Maximum standing height permitted is 137cm). The maximum arm length permitted is 63cm, measured with the athlete lying supine; arm abducted to 90 degrees and the measure taken is from the acromion to the tip of the longest finger of the longest arm. The measure should be taken regardless of elbow contracture because the effective length of the arm is reduced by such an impairment. This arm length is proportionate for a female of standing height 137cm. The sum of standing height + length of longest arm must be  $\leq 190$ cm.

To be eligible, female athletes must meet all of the following criteria:

- § Standing height  $\leq 137$ cm; AND
- § Arm length  $\leq 63$ cm; AND
- § Sum of standing height plus arm length  $\leq 190$ cm.

There are two (2) classes of athletes with short stature, T/F40, T/F41.

## 2.2 MDC and Methods of Assessment for Throwing

The following Minimum Disability Criteria are exactly the same for throws as for running:

- § Hypertonia (Section 2.1.1);
- § Ataxia (Section 2.1.2);
- § Athetosis (Section 2.1.3);
- § Limb deficiency – Lower limb (Section 2.1.4.1);
- § Impaired PROM – Lower limb (Section 2.1.5.1);
- § Impaired Muscle Power – Lower limb (Section 2.1.6.1);
- § Leg length difference (Section 2.1.7);
- § Short stature (Section 2.1.8).

The following Minimum Disability Criteria are different for throws than for running, and these are presented below:

- § Limb deficiency – Upper limb;
- § Impaired PROM – Upper limb;
- § Impaired Muscle Power – Upper limb;

**Notes on the development of MDC for upper limb impairment in throws:** The criteria have been developed on the principle that athletes with upper limb impairments will be classified as if they throw with their least impaired arm irrespective of arm dominance. In practice, athletes will be permitted to throw with their more impaired arm if they wish to, but they will be classified as if they throw with their least impaired arm. There are two divisions for athletes with upper limb impairments:

- § Unilateral upper limb impairments: For athletes with one limb affected by limb deficiency, impaired PROM or impaired muscle power. MDC are presented in Section 2.2.1;
- § Bilateral upper limb impairments: For athletes with both limbs affected by limb deficiency, impaired PROM or impaired muscle power. MDC are presented in Section 2.2.2.

## 2.2.1 MDC for Unilateral Upper Limb Impairment

An athlete with unilateral upper limb impairment must have one upper limb that meets the MDC below for limb deficiency (2.2.1.1), impaired PROM (2.2.1.2) or impaired muscle power (2.2.1.3); otherwise they are ineligible for competition.



Refer to 2.2.2 for the MIC for **Bilateral** Upper Limb Impairment.

### 2.2.1.1 Limb Deficiency

- § Unilateral amputation, through or above wrist (i.e., no carpal bones present in affected limb). Arthrodesed wrist joint is not eligible.
- § Unilateral dysmelia in which the length of the affected arm measured from acromion to most distal point of affected limb is equal in length or shorter than the combined length of the humerus and the radius of the unaffected arm.
  - Measuring unaffected arm: For people who can fully extend the elbow, the combined length of humerus and radius can be a single measure of the distance from the acromion to the tip of the radial styloid. When full elbow extension cannot be achieved, humerus length (from acromion to superior head of radius) and radius length (from head of radius to the tip of the radial styloid, measured with hand supinated) should be measured separately and then summed.
  - Measuring affected arm: Length of arm from acromion to most distal point of affected limb – the length of the hand IS taken into account in this criterion. If full elbow extension cannot be achieved, humerus length (from acromion to superior head of radius) and radius + hand length (from head of radius to most distal point of affected limb) should be measured separately and then summed.

### 2.2.1.2 Impaired PROM

Athletes are eligible for throwing events if they have a unilateral upper limb impairment of PROM that meets ONE OR MORE of the following criteria:

<p><b>Criterion #1</b></p> <p><b>Shoulder abduction <math>\leq 60^\circ</math> available in the range between <math>0^\circ</math> and <math>90^\circ</math> abduction.</b></p> <p>Test is conducted with athlete in supine.</p> <p>The dashed lines in the figure show <math>0^\circ</math> shoulder abduction and shoulder abduction to <math>90^\circ</math>. It also shows <math>60^\circ</math> abduction, the maximum amount of PROM that is permissible in order to meet this criterion.</p>	
<p><b>Criterion #2</b></p> <p><b>Elbow extension deficit of <math>\geq 70^\circ</math> or ankylosis of the elbow <math>\geq 80^\circ</math> flexion.</b></p> <p>The outer lines in the figure indicate full elbow flexion (<math>150^\circ</math>) and full elbow extension. The middle line shows an extension deficit of <math>70^\circ</math> (indicated in the picture). Ankylosis in <math>80^\circ</math> elbow flexion or a greater amount of flexion will also meet this criterion.</p>	

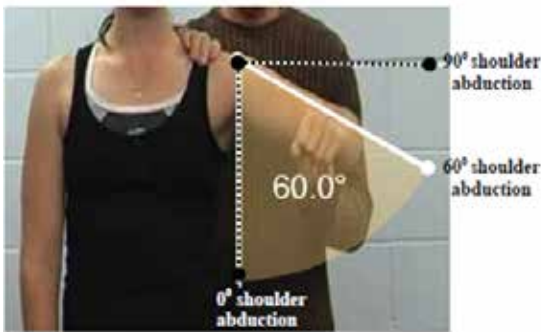

### 2.2.1.3 Impaired Muscle Power

Muscle power will be assessed based on the Daniels and Worthingham (D&W) scale (2002) (6). Details of the method and how it should be adjusted are described in section 2.1.6. The reference ranges of movement for throwers are presented in Table 3.

**Table 3:** Reference range of movement for testing muscle power for *THROWERS* in IPC Athletics.

Movement	Anatomical ROM	Reference range for this System
	All lower limb actions as per running (see table 2)	
Shoulder Abduction	180°	90°
Shoulder Horizontal Flexion	130°	Shoulder abducted to 90° and apply manual resistance at 60° shoulder horiz. flex
Shoulder Internal Rotation	80°	60°
Shoulder External Rotation	60°	50°
Elbow Flexion	150°	90°
Elbow Extension	0°	0°
Wrist Flexion	80°	80°
Wrist Extension	70°	70°
Finger Flexion	90°	90°
Finger Extension	0°	0°

Athletes are eligible for throwing events if they have a unilateral upper limb impairment of muscle power that meets ONE OR MORE of the following criteria:

<p><b>Criterion #1</b></p> <p><b>Shoulder abduction loss of 3 muscle grade points (i.e., grade 2 shoulder abductors).</b></p> <p>The dashed lines in the above figure show 0° abduction and 90° abduction. The solid line shows manual resistance being applied at 60° shoulder abduction. To meet this criterion the athlete should not be able to abduct to 60° OR, if PROM is &lt;60°, should not be able to actively abduct through available PROM.</p>	
<p><b>Criterion #2</b></p> <p><b>Loss of 2 muscle grade points in elbow flexion AND extension (i.e., grade 3 elbow extensors and flexors).</b></p> <p>This criterion has two parts – athletes must meet both parts to meet the criterion.</p> <p>The top figure shows manual resistance being applied at 90° elbow flexion. To meet the first part of this criterion the athlete should not be able to flex to 90° and hold against resistance OR, if PROM is &lt;90°, should not be able to flex through available PROM and hold against resistance.</p> <p>The bottom figure shows manual resistance being applied at full elbow extension. To meet the second part of this criterion the athlete should not be able to go to full extension and hold against resistance OR, if PROM is less than full extension, should not be able to extend through available PROM and hold against resistance.</p>	

## 2.2.2 MDC for Bilateral Upper Limb Impairment


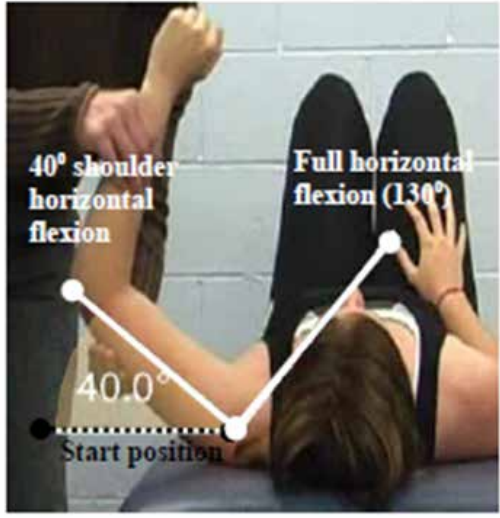
For athletes with bilateral upper limb impairments, BOTH upper limbs must separately meet the MDC as outlined in 2.2.2.1, 2.2.2.2, or 2.2.2.3.


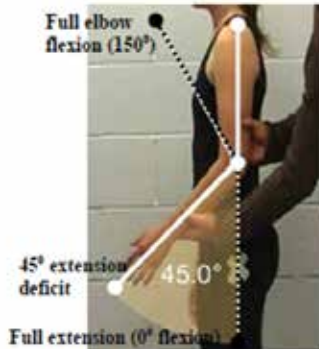
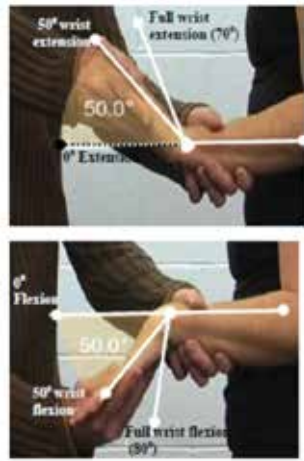
### 2.2.2.1 Limb Deficiency

Complete amputation of at least 4 digits (excluding or including the thumb) from AT LEAST the metacarpophalangeal joint OR amputation of thumb and thenar eminence OR equivalent congenital deformity.

### 2.2.2.2 Impaired PROM

Athletes are eligible if they meet ONE OR MORE of the following criteria for impaired PROM:

<p><b>Criterion #1</b></p> <p><b>Shoulder abduction <math>\leq 60^\circ</math>.</b></p> <p>Test is conducted with athlete in supine.</p> <p>The dashed lines in the figure show <math>0^\circ</math> shoulder abduction and shoulder abduction to <math>90^\circ</math>. The solid line is at <math>60^\circ</math> abduction, the maximum amount of PROM that is permissible in order to meet this criterion.</p>	
<p><b>Criterion #2</b></p> <p><b>Shoulder horizontal flexion of <math>\leq 40^\circ</math>.</b></p> <p>The dashed line in the figure shows the start position for testing (supine lying, shoulder abducted to <math>90^\circ</math>, humerus supported by bench, elbow flexed to <math>90^\circ</math>, forearm at <math>90^\circ</math> to the horizontal, fingers pointing to the sky). The solid lines represent normal anatomical range for horizontal shoulder flexion (<math>130^\circ</math>), as well as <math>40^\circ</math> horizontal flexion, the maximum horizontal flexion permissible in order to meet this criterion.</p>	

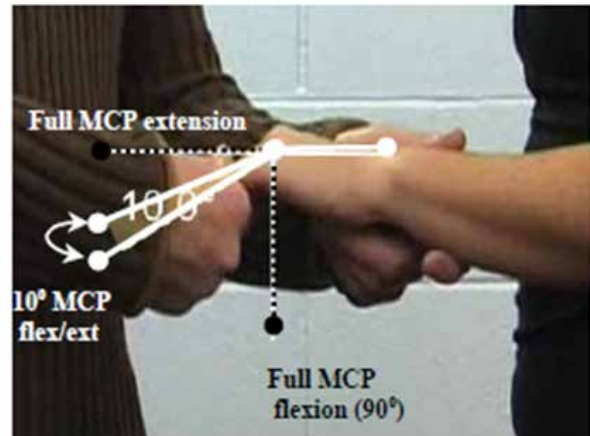
<p><b>Criterion #3</b></p> <p><b>Shoulder horizontal extension of <math>\leq 20^\circ</math>.</b></p> <p>The dashed line in the figure shows the start position for testing (prone lying, shoulder abducted to <math>90^\circ</math>, humerus supported by bench, elbow flexed to <math>90^\circ</math>, forearm at <math>90^\circ</math> to the horizontal, fingers pointing to the floor). It also shows normal anatomical range for horizontal shoulder extension of <math>45^\circ</math> (6), as well as <math>20^\circ</math> horizontal extension, the maximum horizontal extension permissible in order to meet this criterion.</p>	
<p><b>Criterion #4</b></p> <p><b>Elbow extension deficit of <math>\geq 45^\circ</math> or ankylosis in any position*.</b></p> <p>The dashed lines in the figure are full elbow flexion (<math>150^\circ</math>) and full extension (<math>0^\circ</math>). The solid line represents an extension deficit of <math>45^\circ</math>, the maximum amount of elbow extension that is permissible in order to meet this criterion.</p>	
<p><b>Criterion #5</b></p> <p><b>Wrist ankylosed in <math>\geq 50^\circ</math> flexion or extension.</b></p> <p>The dashed line in top figure is <math>0^\circ</math> extension and the solid lines represent <math>50^\circ</math> extension and full wrist extension (<math>70^\circ</math>). An athlete with a wrist ankylosed in <math>50-70^\circ</math> is eligible. The dashed line in bottom figure is <math>0^\circ</math> flexion and the solid lines represent <math>50^\circ</math> flexion and full wrist flexion (<math>80^\circ</math>). An athlete with a wrist ankylosed in <math>50-80^\circ</math> is eligible.</p>	



### Criterion #6

**Any four digits with  $\leq 10^\circ$  of flexion / extension at the metacarpophalangeal joint.**

The outer (dashed) lines in the figure show normal anatomical range, from full extension to  $90^\circ$  flexion (6). The inner lines show an example of a  $10^\circ$  arc within this range. This amount of movement may occur anywhere in the range but  $10^\circ$  is the maximum PROM that is permissible in order to meet this criterion.




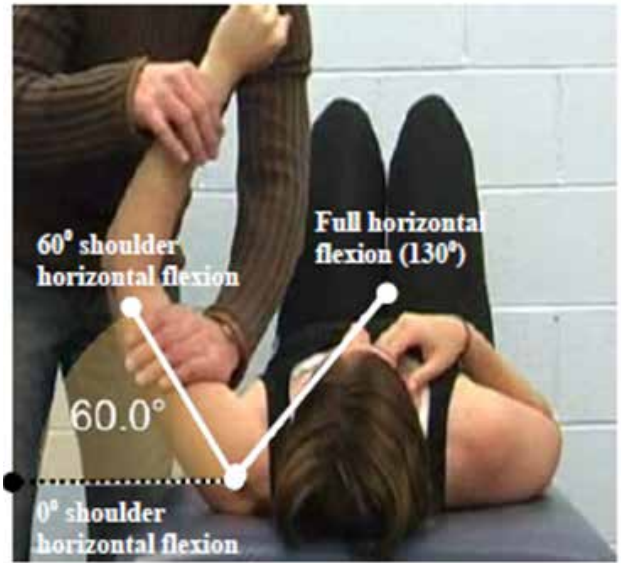
### 2.2.2.3 Impaired Muscle Power

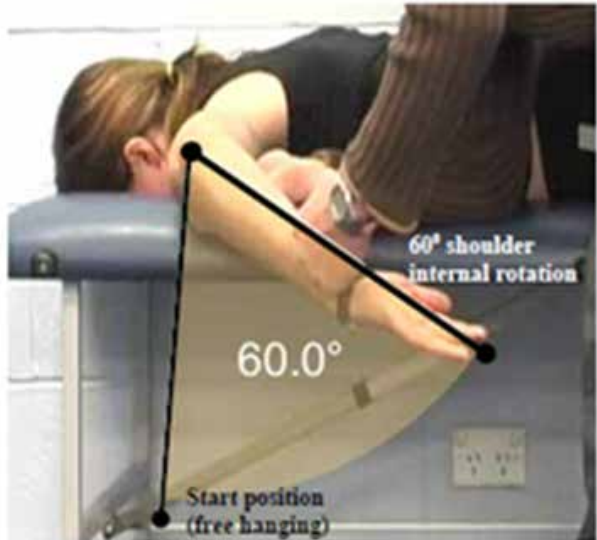

The Minimum Disability Criteria for athletes with **bilateral** upper limb muscle power impairments is met if each upper limb meets:



- § **One or more** of the **seven primary** criteria presented in 2.2.2.3.1; **OR**
- § **The secondary** criteria presented 2.2.2.3.2 in each upper limb.

#### 1. Primary Criteria for impaired muscle power – Bilateral Upper limb

Athletes are eligible if they meet ONE OR MORE of the following criteria:

<p><b>Criterion #1</b></p> <p><b>Shoulder abduction loss of 3 muscle grade points (i.e., grade 2 shoulder abductors).</b></p> <p>The figure shows manual resistance being applied at 90° shoulder abduction. To meet this criterion the athlete should not be able to abduct to 90° OR, if PROM is &lt; 90°, should not be able to actively abduct through available PROM.</p>	 <p>The diagram shows a person standing with their right arm abducted to 90 degrees. A vertical line is labeled '0° abduction' at the bottom and '90° abduction' at the top. A horizontal line is labeled '90.0°' in the middle. The text '90° shoulder abduction' is written in the upper right corner.</p>
<p><b>Criterion #2</b></p> <p><b>Shoulder Horizontal Flexion loss of 3 muscle grade points (i.e., muscle grade of two).</b></p> <p>The dashed line in the figure shows the start position for testing (supine lying, shoulder abducted to 90°, humerus supported by bench, elbow flexed to 90°, forearm at 90° to the horizontal, fingers pointing to the sky). The solid lines represent 60° horizontal shoulder flexion and full horizontal flexion (130°). To meet this criterion the athlete should not be able to do one of the following (to be tested in order):</p> <ul style="list-style-type: none"> <li>§ horizontally flex to 90°;</li> </ul>	 <p>The diagram shows a person lying on their back with their right arm abducted to 90 degrees. A dashed line is labeled '0° shoulder horizontal flexion' at the bottom. A solid line is labeled '60.0°' in the middle. Another solid line is labeled 'Full horizontal flexion (130°)' at the top. The text '60° shoulder horizontal flexion' is written in the upper left corner.</p>

<p>§ hold the arm at 60° horizontal flexion</p> <p>If PROM is &lt; 90° but &gt; 60°, the athlete should not be able to horizontally flex actively through available PROM to 60°. If horizontal flexion is &lt;60° the athlete should not be able to horizontally flex actively through available PROM.</p>	
<p><b>Criterion #3</b></p> <p><b>Shoulder Internal Rotation loss of 3 muscle grade points (i.e., muscle grade of two).</b></p> <p>The figure shows the start position for testing (prone lying, shoulder abducted to 90°, humerus supported by bench, elbow flexed to 90°, forearm at 90° to the horizontal, fingers pointing to the floor). It also shows manual resistance being applied at 60°. To meet this criterion the athlete should not be able to internally rotate to 60° OR, if PROM is &lt; 60°, should not be able to actively internally rotate through available PROM.</p>	
<p><b>Criterion #4</b></p> <p><b>Shoulder External Rotation loss of 4 muscle grade points (i.e., muscle grade of 1).</b></p> <p>The figure shows the start position for testing (prone lying, shoulder abducted to 90°, humerus supported by bench, elbow flexed to 90°, forearm at 90° to the horizontal, fingers pointing to the floor). To meet this criterion the athlete should not be able to demonstrate any active external rotation (external rotation is movement in the direction of the arrow)</p>	

<p><b>Criterion #5</b></p> <p><b>Elbow flexion loss of 4 muscle grade points (i.e., muscle grade of 1).</b></p> <p>The figure shows the classifier supporting the wrist of the athlete so that the elbow is in 90° flexion. The athlete is asked to flex the elbow. To meet this criterion there should be no active elbow flexion in this position.</p>	
<p><b>Criterion #6</b></p> <p><b>Elbow extension loss of 3 muscle grade points (i.e., muscle grade of two).</b></p> <p>The figure shows manual resistance being applied at full elbow extension. To meet this criterion the athlete should not be able to go to full extension against gravity OR, if elbow PROM restricted, should not be able to extend through available PROM.</p>	

### Criterion #7

Any two of the following four muscle actions must have a loss of 3 muscle grade points (i.e., muscle grade of 2):

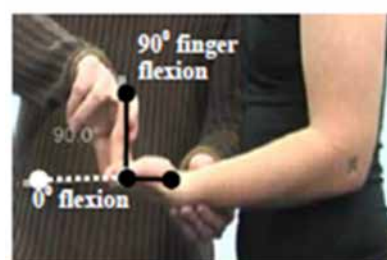
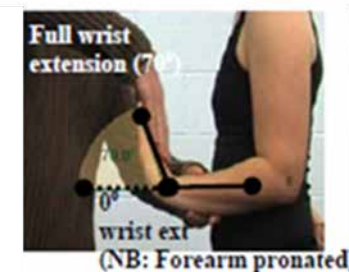
- § Wrist flexion;
- § Wrist extension;
- § Finger extension;
- § Finger flexion.

**Wrist flexion:** The first figure shows manual resistance being applied at 80° wrist flexion. To meet this criterion the athlete should not be able to actively flex the wrist 80° against gravity OR, if wrist PROM is <80° flexion, should not be able to actively flex through available PROM;

**Wrist Extension:** The second figure shows manual resistance being applied at 70° wrist extension. To meet this criterion the athlete should not be able to actively extend the wrist 70° against gravity OR, if wrist PROM is <70° extension, should not be able to actively extend through available PROM;

**Finger extension:** The third figure shows manual resistance being applied at full finger extension. To meet this criterion the athlete should not be able to actively extend the fingers 90° against gravity OR, if finger PROM is <90° extension, should not be able to actively extend through available PROM;

**Finger flexion:** The fourth figure shows manual resistance being applied at 90° finger flexion. To meet this criterion the athlete should not be able to actively flex the fingers 90° against gravity OR, if finger PROM is <90° flexion, should not be able to actively flex through available PROM.



## 2. Secondary Criteria for impaired muscle power – Bilateral upper limb

Athletes are eligible if they meet the following criteria: Total loss of four points from a combination of the following shoulder and elbow movements in each upper limb, with at least 1 movement having a loss of 2 points:

- § Shoulder abduction;
- § Shoulder horizontal flexion
- § Shoulder internal / external rotation
- § Elbow extension

### Special notes:

- § A loss of 1 point for four movements is NOT eligible – at least one movement must have a loss of 2 points.

### 3 Sport Class Profiles for Athletes with Physical Impairments

IPC Athletics designates its Sport Classes according to the discipline used in the Event: the Track events (running or wheelchair racing) and Jump events have the prefix “T”; the Throwing events have the prefix “F”. Athletes are given a single class for discus, shot put and javelin events. Athletes are not permitted to choose to compete from a standing position in one discipline and a sitting position in another discipline (for example, throw as F57 and compete in track as a T42).

The Sport Classes in IPC Athletics are as follows:

#### **Wheelchair/Sitting Athletes**

- § Track – Classes T31, T32, T33, T34, T51, T52, T53, T54
- § Throwing – Classes F31, F32, F33, F34, F51, F52, F53, F54, F55, F56, F57

#### **Ambulant/Standing Athletes**

- § Track /Jump – Classes T35, T36, T37, T38, T40, T41, T42, T43, T44, T45, T46, T47
- § Throwing – Classes F35, F36, F37, F38, F40, F41, F42, F43, F44, F45, F46

### 3.1 Class profiles for wheelchair racing, running and jumps

Note that previously, athletes competing in long jump, high jump or triple jump were allocated a class that was preceded by the letter “F” – for example F44. In this system athletes competing in jumps will receive a class preceded by the letter “T” – for example T44.

#### 3.1.1 Wheelchair racing class profiles for athletes affected by hypertonia, athetosis or ataxia

##### 3.1.1.1 Class T31

Athletes in this class compete by propelling the wheelchair with their feet. They will usually propel the wheelchair more efficiently with their feet than with their arms.

Quadriplegic - Severe to moderate involvement. Spasticity Grade 4 to 3 with or without athetosis. Included in this Sport Class are severe athetoid quadriplegics with more function in less affected side and no spasticity. Poor functional strength in all extremities and trunk.

Upper Extremities - Hand severe to moderate involvement. Spasticity Grade 3. If the Classification Panel determines that the upper limb function is more appropriate for T33 or higher, then the athlete does not qualify as Class T31. However athletes with arm function equivalent to class T32 may choose to propel the chair with their feet. Class T31 athletes can sometimes ambulate but never run functionally.

Trunk – Static trunk control is fair. Dynamic trunk control is poor as demonstrated by the obligatory use of upper extremities and/or head to assist in returning to the mid-line (upright position).

Lower Extremities – A demonstrable degree of function in one or both lower limbs allowing propulsion of the wheelchair automatically qualifies individual as a Class T31.

##### 3.1.1.2 Class T32

Quadriplegic – Severe to moderate involvement. Spasticity Grade 4 to 3 with or without athetosis. Included in this Sport Class are severe athetoid quadriplegics with more function in less affected side and no spasticity. Poor functional strength in all extremities and trunk but able to functionally propel a wheelchair with arms.

Upper extremities - Hand severe to moderate involvement. Spasticity Grade 3. A Class 32 athlete often has a cylindrical or spherical grasp. Active range of movement is moderately to severely impaired, thus hand function is the key.



Trunk – Static trunk control is fair. Dynamic trunk control is poor as demonstrated by the obligatory use of upper extremities and/or head to assist in returning to the mid-line (upright position).

Lower extremities –The athlete may ambulate (always with abnormal gait) but is never able to run functionally.

#### 3.1.1.3 Class T33

Quadriplegic, triplegic, severe hemiplegic – Moderate (asymmetric or symmetric) quadriplegic or severe hemiplegic in a wheelchair with almost full functional strength in least impaired upper extremity. It is rare for an athlete with athetosis to be included within this class unless he/she presents with a predominantly hemiplegic or triplegic profile with almost full function in the least impaired upper limb. Can propel a wheelchair independently.

Upper extremities - Moderate limitation spasticity Grade 2 in least impaired arm shown as limitation in extension and follow through. Least impaired hand may demonstrate cylindrical and spherical grasp.

Trunk control - When pushing chair forward trunk movement is often limited by extensor tone during forceful pushing. Spasticity Grade 2.

Lower extremities - Spasticity Grade 4 to 3, some demonstrable function can be observed during transfer. May be able to ambulate with assistance or assistive devices but only for short distances.

In order to differentiate between Class T33 and T34, trunk mobility in propulsion of the chair, and hand function are important. If an athlete demonstrates a very poor ability to use rapid trunk movements in the pushing motion, or significant asymmetry in the arm action or grasp and release which impedes the development of forward momentum, s/he is a Class T33. An athlete using only one arm for wheelchair propulsion may have long strokes and rapid grasp and release in the least impaired arm and still be Class T33.

#### 3.1.1.4 Class T34

Diplegic – Moderate to Severe involvement. Good functional strength with minimal limitation or control problems noted in upper limbs and trunk.

Upper extremities – the upper limbs often show normal functional strength. Minimal limitation of range of movement may be present but close to normal follow through and propulsion is observed when throwing or wheeling. With hand function, normal cylindrical/spherical opposition and prehensile grasp is seen in all sports. Limitation if any is usually apparent only during rapid fine motor tasks. It should be remembered that diplegia

implies that there is more spasticity in the lower than the upper extremities. Some involvement spasticity Grade 2 to 1 can be seen particularly in functional movements of the hands, arms and trunk.

Trunk – Spasticity Grade 2 to 1. Minimal limitation of trunk movements when propelling a wheelchair. In some athletes fatigue can increase spasticity which can be overcome with proper positioning. When standing, poor balance is obvious even using assistive devices.

Lower Extremities-Moderate to severe involvement in both legs Spasticity Grade 4 to 3 usually rendering them non-functional for ambulation over long distances without the use of assistive devices.

When propelling the chair the athlete is able to perform long and forceful strokes, with rapid grasp and release, although fine movements of the hands may be affected. During propulsion these fine movements are not essential. Strong trunk movements in forward and backward direction support the arm strokes. If these movements do not occur the trunk is well balanced and forms a stable base for the arm movements. When the wheelchair makes a curve, the trunk follows the wheelchair without disturbance of balance.

### **3.1.2 Wheelchair racing class profiles for athletes affected by limb deficiency, impaired PROM, impaired muscle power or leg length difference**

The class profiles for athletes in these groups are written in terms of the muscle power that an athlete is likely to have. If an athlete has an impairment that is not directly related to impaired muscle power (e.g., loss of range of movement, amputation) then it is important to use judgement and experience to try to match this impairment with the most appropriate class profile.

#### **3.1.2.1 Class T51**

These athletes will usually have elbow flexion and wrist dorsiflexion muscle power to grade 5, a decrease of shoulder muscle power especially pectoralis major, and triceps muscle power from grade 0-3. Usually have no muscle power in the trunk.

Use elbow flexors and wrist dorsiflexors for propulsion. Sit in an upright position with knees under the chin. Usually have small push rims. Equivalent activity limitation to athlete with complete spinal cord injury at neurological level C5-6.

#### **3.1.2.2 Class T52**

These athletes will usually have normal shoulder, elbow and wrist muscle power, poor to normal muscle power of the finger flexors and extensors with there being wasting of the intrinsic muscles of the hands.

Use shoulders, elbows and wrists for propulsion. Usually have no muscle power in the trunk. May use gloving techniques similar to the next two classes. Equivalent activity limitation to athlete with complete spinal cord injury at neurological level C7-8.

#### **3.1.2.3 Class T53**

These athletes will have normal arm muscle power with no abdominal and no lower spinal muscle activity.

Use different techniques to compensate for lack of abdominal musculature including lying horizontal. In general when acceleration occurs, the trunk rises off the legs due to a lack of abdominal muscles to hold the trunk down; there is no active downward movement of the trunk to assist with propulsion.

Usually have to interrupt the pushing cycle to adjust the compensator. Equivalent activity limitation to athlete with complete spinal cord injury at neurological level T1-7.

#### 3.1.2.4 Class T54

These athletes will have normal arm muscle power with a range of trunk muscle power extending from partial trunk control to normal trunk control. Athletes who compete in this group may have significant leg muscle power.

These athletes have reasonable to normal trunk control which allows them to hold their trunk down when the propulsion force is applied to the push rim. Usually do not interrupt the pushing cycle to adjust the compensator. Can shift direction of the wheelchair by sitting up and applying a trunk rotational force to the wheelchair. Equivalent activity limitation to athlete with complete spinal cord injury at neurological level T8-S4.

Athletes competing in this class must meet one or more of the MDC presented in Section 2.1.4 (limb deficiency), 2.1.5 (impaired PROM) and 2.1.6 (impaired muscle power) or 2.1.7 (leg length difference).

### 3.1.3 Running and jumping class profiles for athletes affected by hypertonia, athetosis or ataxia

#### 3.1.3.1 Class T35

Diplegic – moderate involvement: This athlete may require the use of assistive devices in walking but not necessarily when standing. A shift of centre of gravity may lead to loss of balance. A Triplegic may appear in this Class.

Upper extremities – this is an area where variation occurs. Some moderate to minimal limitation in upper extremities can often be seen particularly when throwing, but strength is within normal limits.

Lower extremities – spasticity Grade 3 to 2: Involvement of one or both legs which may require assistive devices for walking. A Class T35 athlete must have sufficient function to run on the track. Athletes who can perform this task but with difficulty should consider competing in wheelchair racing in Class T34 (Section 3.3).

Balance – usually has normal static balance but exhibits problems in dynamic balance.

#### 3.1.3.2 Class T36

Dystonia, Athetoid or Ataxic – moderate involvement: The athlete ambulates without assistive devices. Athetosis or Dystonia are the most prevalent factors, although some ambulant spastic quadriplegics (i.e. more arm involvement than in ambulant diplegics), may fit this Class. All four limbs will usually show functional involvement in sports movements. Class T36 athletes have more control problems in upper limbs than Class 35 athletes, although the T36 athlete usually has better function in lower limbs particularly when running.

Lower extremities – Function can vary considerably depending on the sports skill involved, from poor, laboured, slow walking to a running gait, which often shows better mechanics. There can be a marked contrast between the walking athetoid with uncoordinated gait and the smooth even paced co-coordinated running action. Cyclical movements like running are much better performed than non-cyclical movements.

Balance – May have good dynamic balance compared with static balance. Spasticity is common in Class 36 athletes and should not be a reason for placement in Class 35.

For the T36 athlete, holding the 'set' position may present difficulties (e.g. false starts). Explosive movements also are difficult to perform. This is demonstrated in the long jump where an athlete may have good speed but the height from the board is poor and subsequently the distance covered is rather limited.

Some athletes may have an upper extremity profile consistent with this class but be relatively more severely impaired in their lower limbs. In this circumstance the Classification Panel should consider Section 3.3.2 (Special Note Class T35/F36).

#### 3.1.3.3 Class T37

This Class is for the true ambulant hemiplegic athlete. A Class T37 athlete has spasticity Grade 3 or 2 in one half of the body. They walk without assistive devices but often with a limp due to spasticity in the more impaired lower limb. Good functional ability in less impaired side of the body.

Upper extremities – arm and hand control is affected in the more impaired side. There is good functional control on the less impaired side.

Lower extremities – Less impaired side has better development and good follow through movement in walking and running. Athlete has difficulty walking on his heels and has significant difficulty with hopping on the more impaired leg. Side stepping towards the more impaired side is also affected. Athletes with mild to moderate athetosis do not fit into this Class.

In walking the Class T37 athlete demonstrates a limp on the more impaired side. While running the limp may disappear almost totally. The reason is that in walking the leg support during stance phase begins with a heel strike. This is the most difficult action for athletes with a spastic paresis. In running only the forefoot hits the ground, providing support and push off. The tight calf muscle in the Class T37 athletes facilitates the push off, and heel strike is not necessary. Thus a more normal looking running pattern.

The Class T37 athlete demonstrates a weakness in knee pick-up in sprinting and an asymmetrical stride length.

#### 3.1.3.4 Class T38

This class is for the athletes who are affected by mild hypertonia, ataxia or athetosis which is consistent with the MDC presented in Section 2.1.1 (hypertonia), 2.1.2 (ataxia) and 2.1.3 (athetosis).

### 3.1.4 Running and jumping class profiles for athletes affected by limb deficiency, impaired PROM, impaired muscle power, leg length difference or short stature

#### 3.1.4.1 Class T40

##### Males

Maximum standing height permitted is 130cm. The maximum arm length permitted is 59cm, measured with the athlete lying supine; arm abducted to 90 deg. and the measure taken is from the acromion to the tip of the longest finger of the longest arm. The measure should be taken regardless of elbow contracture because the effective length of the arm is reduced by such an impairment. This arm length is proportionate for a male of standing height 130cm. The sum of standing height + length of longest arm must be  $\leq 180$ cm.

To be eligible for T40 males must meet all of the following criteria:

- § Standing height  $\leq 130$ cm; AND
- § Arm length  $\leq 59$ cm; AND
- § Sum of standing height plus arm length  $\leq 180$ cm.

Athletes who are  $\leq 130$ cm in standing height but who do not meet either of the other two criteria will be assessed against the criteria for class T41.

##### Females

Maximum standing height permitted is 125cm. The maximum arm length permitted is 57cm, measured with the athlete lying supine; arm abducted to 90 deg and the measure taken is from the acromion to the tip of the longest finger of the longest arm. The measure should be taken regardless of elbow contracture because the effective length of the arm is reduced by such an impairment. This arm length is proportionate for a female of standing height 125cm. The sum of standing height + length of longest arm must be  $\leq 173$ cm.

To be eligible for T40, female athletes must meet all of the following criteria:

- § Standing height  $\leq 125$ cm; AND
- § Arm length  $\leq 57$ cm; AND
- § Sum of standing height plus arm length  $\leq 173$ cm.

Athletes who are  $\leq 125$ cm in standing height but who do not meet either of the other two criteria will be assessed against the criteria for class T41.

#### 3.1.4.2 Class T41

##### Males

Maximum standing height permitted is 145cm. The maximum arm length permitted is 66cm, measured with the athlete lying supine, arm abducted to 90 deg. and the measure taken is from the acromion to the tip of the longest finger of the longest arm. The measure should be taken regardless of elbow contracture because the effective length of the arm is reduced by such an impairment. This arm length is proportionate for a male of standing height 145cm. The sum of standing height + length of longest arm must be  $\leq 200$ cm.

To be eligible for T41, male athletes must meet all of the following criteria:

- § Standing height  $\leq 145$ cm; AND
- § Arm length  $\leq 66$ cm; AND
- § Sum of standing height plus arm length  $\leq 200$ cm.

##### Females

Maximum standing height permitted is 137cm. The maximum arm length permitted is 63cm, measured with the athlete lying supine, arm abducted to 90 deg. and the measure taken is from the acromion to the tip of the longest finger of the longest arm. The measure should be taken regardless of elbow contracture because the effective length of the arm is reduced by such an impairment. This arm length is proportionate for a female of standing height 137cm. The sum of standing height + length of longest arm must be  $\leq 190$ cm.

To be eligible for T41, female athletes must meet all of the following criteria:

- § Standing height  $\leq 137$ cm; AND
- § Arm length  $\leq 63$ cm; AND
- § Sum of standing height plus arm length  $\leq 190$ cm.



### 3.1.4.3 General comment classes T42 – 47

The class profiles for athletes in these groups are written principally in terms of limb deficiency. If an athlete has an impairment other than limb deficiency (e.g., loss of muscle power) then it is important to use judgement and experience to try to match this impairment with the most appropriate class profile.

#### 1. Determining Maximum Allowable Standing Height (MASH) for athletes with bilateral lower limb deficiency competing with prostheses

For ambulatory athletes running, jumping and throwing with prostheses (i.e. bilateral above knee amputations, bilateral below knee amputations, or combined above knee and below knee amputations) the following 3-Step method for calculating Maximum Allowable Standing Height (MASH) must be used:

##### § Step 1: Estimate MASH from Ulna length.

Measure the distance between point of the elbow (olecranon process) and the ulna styloid using the technique depicted in figure 2.

The maximum standing height in metres is determined from the ulna length chart below.

**Figure 2: Measurement of Ulna Length**



### Ulna lengths

Ulna Length (centimetres)	Male Height (metres)	Female Height (metres)
21		1.54
21.5		1.55
22		1.56
22.5		1.58
23		1.59
23.5		1.61
24	1.64	1.62
24.5	1.66	1.63
25	1.67	1.65
25.5	1.69	1.66
26	1.71	1.68
26.5	1.73	1.69
27	1.75	1.70
27.5	1.76	1.72
28	1.80	1.73
28.5	1.82	1.75
29	1.84	1.76
29.5	1.85	1.77
30	1.87	1.79
30.5	1.89	
31	1.91	
31.5	1.93	
32	1.94	

### § Step 2: Estimate MASH based on measurement of Demi-span.

Demi-span is measured as the distance from the middle of the sternal notch to the tip of the middle finger in the coronal plane. The measure is best obtained with the athlete standing with their back against a stable wall, right shoulder abducted to 90° with the palm of the hand facing forward. The measure is taken in centimetres. Maximum standing height is then calculated from the following formulae:

#### Females

Height in cm. = (1.35 x demi-span (cm)) + 60.1

#### Males

Height in cm. = (1.40 x demi-span (cm)) + 57.8

### § Step 3: Final estimate of MASH.

Take the mean of the two estimates (MASH estimated from ulna length and MASH estimated from demi-span). The overall standing height of the Athlete with their competitive prostheses on must be less than or equal to the mean estimated height plus 2.5%.

The MASH will be kept on permanent record in the IPC Athletics Sports Data Management System (SDMS).

It will be a matter of technical routine that all athletes with double lower limb amputations who compete standing will be measured either before the competition starts, or in the call room prior to the event or after the event the athlete has competed in. The measure obtained must at all times be less than the MASH recorded in the SDMS.

**Note:** In the case athletes with bilateral lower limb impairment, in combination with deficiencies in the upper limb which do not allow for the measurement of ulna length and/or demi-span, the measure of sitting height will determine the MASH, measured as follows:

#### For Males

Measure sitting height as indicated in figure 3 below - this length is 0.52 x standing height. To calculate expected standing height, divide sitting height by 0.52.

#### For Females

Measure sitting height as indicated in figure 3 below - this length is 0.533 x standing height. To calculate expected standing height, divide sitting height by 0.533.

The overall standing height of the athlete with their competitive prostheses on must be less than or equal to the estimated height plus 2.5%.

**Figure 3 - Measuring sitting height**



Athlete sits fully erect on a backless box with back and head against a wall, thighs parallel to the ground, neck in neutral position (not flexed or extended), eyes facing straight ahead.

The height of the highest point of the head is marked against the wall and sitting height is the distance from seat surface to the mark on the wall.

## 2. Measurement of athletes wearing bilateral prostheses at a competition

To determine whether athletes wearing prostheses remain within the MASH, have the athlete wear the prostheses and measure their standing height as follows:

Athlete stands with back against a rigid pole with feet shoulder width apart, in the most upright position possible. Methods for achieving the most upright position possible are presented in Figure 4 and described below:

1. The athlete should be positioned so that they have contact with the pole at the following points:
  - § Head (if possible)
  - § Shoulder girdle
  - § Buttocks

To achieve contact at all three points, the most posterior aspect of the blade of the prosthesis may need to be positioned behind the pole.

2. Joint position should be as close as possible to:
  - § Neck in neutral (not extension or flexion). In some athletes, this may mean that the head is not in contact with the wall;
  - § Pelvis in neutral (no anterior or posterior pelvic tilt);
  - § Hips in neutral (not in flexion);
  - § Knee extension

It may be difficult for athletes to maintain their balance while in this position and consequently the athlete should be provided with the support necessary to maintain balance using their arms (e.g., tall chair or an assistant). The support should be high enough so the athlete does not have to stoop to reach it (see figure 4).

The height measurement obtained should be less than or equal to the MASH.

Note that the athlete in figure 4 is positioned against a rigid pole (rather than a wall) which allows the most posterior part of the prosthesis to be positioned behind the pole if required.



Figure 4: Athlete in the most upright position possible

#### 3.1.4.4 Class T42

Through knee amputees and athletes with other impairments that are comparable to a single through or above knee amputation.

#### 3.1.4.5 Class T43

This class is for any athlete with bilateral lower limb impairments where both limbs meets the MDC for:

- § Lower limb deficiency (section 2.1.4.1);
- § Impaired lower limb PROM (section 2.1.5.1);
- § Impaired lower limb muscle power (section 2.1.6.1).

#### 3.1.4.6 Class T44

This class is for any athlete with a lower limb impairment/s that meets MDC for:

- § Lower limb deficiency (section 2.1.4.1);
- § Impaired lower limb PROM (section 2.1.5.1);
- § Impaired lower limb muscle power (section 2.1.6.1); or
- § Leg length difference (section 2.1.7).

#### 3.1.4.7 Class T45

Athletes will compete in this class for all running and jumping events if they have BILATERAL upper limb impairments where BOTH limbs meet one of the following criteria:

- § through or above elbow amputation;
- § dysmelia where both limbs are less than or equal to the length of a normal humerus (i.e., 0.193 x standing height);
- § criteria for impaired upper limb ROM detailed in Section 2.1.5.2.1; or
- § criteria for impaired upper limb muscle power detailed in Section 2.1.6.2.1

#### 3.1.4.8 Class T46

Athletes with a UNILATERAL upper limb impairment that meets the relevant criteria described for UNILATERAL upper limb deficiency (Section 2.1.4.2.1), impaired upper limb PROM (Section 2.1.5.2.1) or impaired upper limb muscle power (Section 2.1.6.2.1);

Athletes with BILATERAL impairment meeting the criteria described for BILATERAL upper limb deficiency in Section 2.1.4.2.1.

#### 3.1.4.9 Class T47

Athletes with a UNILATERAL upper limb impairment that meets the relevant criteria described for UNILATERAL upper limb deficiency (Section 2.1.4.2.2), impaired upper limb PROM (Section 2.1.5.2.2), or impaired upper limb muscle power (Section 2.1.6.2.2);

Athletes with BILATERAL impairment meeting the BILATERAL criteria described for upper limb deficiency in Section 2.1.4.2.2.

## 3.2 Sport Class Profiles for Throws

### 3.2.1 Class profiles for athletes throwing from a seated position who are affected by hypertonia, athetosis or ataxia

#### 3.2.1.1 Class F31

Quadriplegic - Severe involvement. Spasticity Grade 4 to 3, with or without athetosis or with poor functional range of movement and poor functional strength in all extremities and trunk OR the severe athetoid with or without spasticity with poor functional strength and control. Dependant on power wheelchair or assistance for mobility. Unable to functionally propel a wheelchair.

Upper extremities-severe limitation in functional range of movement or severe athetosis are the major factors in all sports and reduced throwing motion with poor follow through is evident. Opposition of thumb and one finger may be possible allowing athlete to grip.

Trunk control-static and dynamic trunk control very poor or non-existent. Severe difficulty adjusting back to mid-line or upright position when performing sports movements.

Lower extremities considered non-functional in relation to any sport due to limitation in range of movement strength and/or control. Minimal or involuntary movement of the lower extremities would not change this athlete's class.

F31 is determined by the very poor hand function in handling and throwing the club, shot or discus. An athlete could have adequate static grip but may have difficulty when releasing the implement.

#### 3.2.1.2 Class F32

Quadriplegic – Severe to moderate involvement. Spasticity Grade 4 to 3 with or without athetosis. Included in this Sport Class are severe athetoid quadriplegics with more function in less affected side and no spasticity. Poor functional strength in all extremities and trunk but able to functionally propel a wheelchair with arms.

Upper extremities - Hand severe to moderate involvement. Spasticity Grade 3. A Class 32 athlete often has a cylindrical or spherical grasp, and can demonstrate sufficient dexterity to manipulate and throw a ball, but will exhibit poor grasp and release. Throwing motions must be tested for effects on hand function. Wheelchair propulsion with upper extremities is also demonstrable. Active range of movement is moderately to severely impaired, thus hand function is the key.



Trunk – Static trunk control is fair. Dynamic trunk control is poor as demonstrated by the obligatory use of upper extremities and/or head to assist in returning to the mid-line (upright position).

Lower extremities – the athlete may demonstrate function in the lower extremities sufficient for foot wheelchair propulsion. S/he may ambulate (always with abnormal gait) but is never able to run functionally.

Upper extremity athletes with athetosis may demonstrate fair trunk rotation during throwing with unreliable release of implement. For athletes with spasticity or athetosis the trunk makes a very limited contribution to propulsion of the implement.

#### 3.2.1.3 Class F33

Quadriplegic, triplegic, severe hemiplegic – Moderate (asymmetric or symmetric) quadriplegic or severe hemiplegic in a wheelchair with almost full functional strength in least impaired upper extremity. It is rare for an athlete with athetosis to be included within this class unless he/she presents with a predominantly hemiplegic or triplegic profile with almost full function in the least impaired upper limb. Can propel a wheelchair independently.

Upper extremities - Moderate limitation spasticity Grade 2 in least impaired arm shown as limitation in extension and follow through. Least impaired hand may demonstrate cylindrical and spherical grasp with poor finger dexterity demonstrable in release of shot and discus.

Trunk control - When pushing chair forward trunk movement is often limited by extensor tone during forceful pushing. Some trunk movement can be noted also in throwing for postural correction, but throwing motions are mostly from the arm.

Lower extremities - Spasticity Grade 4 to 3. Some demonstrable function can be observed during transfer. May be able to ambulate with assistance or assistive devices but only for short distances.

Class F33/F34 differentiation: Sometimes a hemiplegic athlete with spasticity Grade 4 to 3 in the more impaired arm and near normal function in the less impaired arm (i.e., an asymmetric diplegic athlete) is more appropriate in Class F34. However, a close look should be given to the trunk movement, as it is often the determining factor. In all cases movement, follow through and release are ultimate considerations. Split classes can sometimes occur in these cases (i.e., F34, T33).

#### 3.2.1.4 Class F34

Diplegic – Moderate to Severe involvement. Good functional strength with minimal limitation or control problems noted in upper limbs and trunk.

Upper extremities – the upper limbs often show normal functional strength. Minimal limitation of range of movement may be present but close to normal follow through and propulsion is observed when throwing. With hand function, normal cylindrical/spherical opposition and prehensile grasp is seen in all sports. Limitation if any is usually apparent only during rapid fine motor tasks. It should be remembered that diplegia implies that there is more spasticity in the lower than the upper extremities. Some involvement spasticity Grade 2 to 1 can be seen particularly in functional movements of the hands, arms and trunk. Slight weakness in fine movements may present problems during the release of a discus and to a lesser extent a javelin. There is even less of a problem with shot.

Trunk – Spasticity Grade 2 to 1. Minimal limitation of trunk movements when throwing. When standing, poor balance is obvious even using assistive devices. In throwing events the trunk has to make a complicated, forceful and rapid movement. This movement is complicated because it requires co-ordination of rotation, forward and sideways bending (more complicated than required for propulsion).

Lower Extremities – Moderate to severe involvement in both legs Spasticity Grade 4 to 3 usually rendering them non-functional for ambulation over long distances without the use of assistive devices.

Due to the slight spasticity in trunk muscles and the negative influence of the spastic legs, some disturbances may be seen when force and speed are required.

Split classification between F34 and F35 is considered a matter of preference for athletes. The rules governing how this preference may be exercised are presented in 3.3.1. A hemiplegic seated athlete with one functional arm and a free moving trunk is a F34 (see also F33).

### **3.2.2 Class profiles for athletes throwing from a seated position who are affected by limb deficiency, impaired PROM, impaired muscle power or leg length difference**

The class profiles for athletes in these groups are written in terms of the muscle power that an athlete is likely to have. If an athlete has an impairment that is not directly related to impaired muscle power (e.g., loss of range of movement, amputation) then it is important to use judgement and experience to match this impairment with the most appropriate class profile.

#### **3.2.2.1 Class F51**

These athletes will usually have elbow flexion and wrist dorsiflexion muscle power to grade 5, a decrease of shoulder muscle power, and triceps muscle power grade 0-3.

Usually use elbow flexors to propel the implement. Hold the club between the fingers and the discus with the hand facing upwards.

Equivalent activity limitation to athlete with complete spinal cord injury at neurological level C5-6.

#### **3.2.2.2 Class F52**

These athletes will have good shoulder muscle power, almost normal elbow muscle power, good wrist muscle power but finger flexor and extensor muscle power will be at a maximum grade 3. Wasting of the intrinsic muscles of the hand is present.

Usually have difficulty gripping with non-throwing arm.

No functional finger flexors lead to difficulties gripping all throwing implements. Usually there is no finger contact with the shot put, a lack of control of the discus unless there are finger contractures, and may hold the javelin between the digits of the hand including the index finger and the thumb.

Equivalent activity limitation to athletes with complete spinal cord injury at neurological level C7.

Consideration of class 52 should be given if an athlete has upper limb muscle power consistent with F51 and partial and full trunk muscle

#### **3.2.2.3 Class F53**

These athletes will have normal shoulder, elbow and wrist muscle power, good or normal muscle power of the finger flexors and extensors with there being wasting of the intrinsic muscles of the hands.

Usually have good grip function in the non-throwing hand. Usually can grip the throwing implement normally and can impart force to the implement when throwing. Equivalent activity limitation to athlete with complete spinal cord injury at neurological level C8. Consideration of Class F53 should be given if an athlete has upper limb muscle power consistent with F52 and partial trunk muscle power.

#### 3.2.2.4 Class F54

These athletes will have normal arm muscle power with no abdominal and no lower spinal muscle activity.

Usually have normal control of the implement when throwing. Have no active trunk movements when throwing. May generate the throwing movement by a forceful movement of the non-throwing arm.

Equivalent activity limitation to athlete with complete spinal cord injury at neurological level T1-7. Consideration of Class F54 should be given if an athlete has upper limb muscle power consistent with F52 and full or nearly full trunk muscle power.

#### 3.2.2.5 Class F55

These athletes will have normal arm muscle power. They may have full or nearly full trunk muscle power. They may have a flicker of movement in the hip flexors.

Three trunk movements may be seen in this class. They are:

1. An upwards movement off the back of the chair (spinal extension with anterior pelvic tilt);
2. A degree of movement forwards and backwards (trunk flexion and extension);
3. A degree of rotation.

Equivalent activity limitation to athlete with bilateral hip disarticulations or complete spinal cord injury at neurological level T8-L1.

#### 3.2.2.6 Class F56

These athletes will have normal arm and trunk muscle power. They will have hip flexor and hip adductor muscle activity, knee extensor muscle activity, and up to grade 3 power in the medial hamstrings (knee flexor).

Usually have normal trunk control in the upwards, backwards and forwards, and rotation movements.

May use hip flexors to reinforce forward movement in the process of throwing. Trunk rotation is best seen in the discus event.

Equivalent activity limitation to athlete with bilateral high above knee amputation (The femoral length will be less than half the distance measured between the point of the elbow and the tip of the middle finger. The femoral length is measured from the greater trochanter to the distal bony tip of the residual limb) OR complete spinal cord lesion at L2-4. Athletes with a complete spinal cord injury must have grade 0 for hip extension and for hip abduction.

Unilateral hip disarticulation or very short femur (Bone cut above greater trochanter – no muscle attached, no active hip movement).

Those athletes with incomplete spinal cord injuries who have grade 1s and 2s in most muscle groups in the lower limbs will generally fit into the F56 class.

### 3.2.2.7 Class F57

Due to the introduction of the new technical rules 35 and 36, as of 01 January 2014 class F58 ceases to exist. The class profile for sport class F57 has been extended to include the existing F57 and F58 Classes (See memo sent to NPCs on 11/11/2013: 'New' Rule 35 & 36).

Athletes competing in this class must meet one or more of the following minimum disability criteria:

- § Lower Limb deficiency as described in Section 2.1.4.1
- § A loss of lower limb PROM as described in Section 2.1.5.1
- § Muscle power impairment in the lower limb as described in Section 2.1.6.1.
- § Leg Length Difference as described in 2.1.7

Athletes who do not fit the sport class profiles F51 - 56 but meet the MDC for seated throws fall in the F57 class.

### **3.2.3 Class profiles for athletes throwing from a standing position who are affected by Hypertonia, Athetosis or Ataxia**

#### **3.2.3.1 Class F35**

Diplegic – moderate involvement: This athlete may require the use of assistive devices in walking but not necessarily when standing. A shift of centre of gravity may lead to loss of balance. A Triplegic may appear in this Class.

Upper extremities – this is an area where variation occurs. Some moderate to minimal limitation in upper extremities can often be seen particularly when throwing, but strength is within normal limits. Hand function – normal cylindrical/spherical, opposition and prehensile grasp and release in the less impaired hand is seen in all sports.

Lower extremities – spasticity Grade 3 to 2: Involvement of one or both legs which may require assistive devices for walking. A Class F35 athlete must have sufficient function to run.

When throwing the major problem is dynamic balance and function when standing in sport with or without assistive devices. Class F35 athletes may use a run up in field events.

Some athletes may have a lower extremity profile consistent with this class but be relatively more severely impaired in their upper limbs. In this circumstance the Classification Panel should consider Section 3.3.2 Special Note Class T35/F36.

#### **3.2.3.2 Class F36**

Athetoid or Ataxic – moderate involvement: This athlete ambulates without assistive devices. Athetosis is the most prevalent factor, although some ambulant spastic quadriplegics (i.e. more arm involvement than in ambulant diplegics), may fit this Class. Spasticity is common in Class 36 athletes and should not be a reason for placement in Class 35. All four limbs will usually show functional involvement in sports movements. Class F36 athletes have more control problems in upper limbs than Class 35 athletes, although the F36 athlete usually has better function in lower limbs particularly when running.

Upper extremities and hand control-grasp and release can be significantly affected when throwing in the moderate to severe athetoid athlete. The more spasticity present, the greater the limits on follow through and maintenance of balance after throwing.

Lower extremities – Function can vary considerably depending on the sports skill involved, from poor, laboured, slow walking to a running gait, which often shows better mechanics. There can be a marked contrast between the walking athetoid with uncoordinated gait and the smooth even paced co-coordinated running action. Cyclical movements like running are much better performed than non-cyclical movements like throwing.

Balance – May have good dynamic balance compared with static balance.

Throwing events require explosive movement and because of instability and poor balance F36 athletes often have difficulty demonstrating explosive power. This is particularly obvious in shot-put. Athletes with ataxia may demonstrate these problems to a lesser extent as intention tremor is stabilised with the weight of the implement. A run up in the javelin is possible.

#### 3.2.3.3 Class F37

This Class is for the true ambulant hemiplegic athlete. A Class F37 athlete has spasticity Grade 3 or 2 in one half of the body. They walk without assistive devices but often with a limp due to spasticity in the more impaired lower limb. Good functional ability in less impaired side of the body.

Upper extremities – arm and hand control is affected in the more impaired side. There is good functional control on the less impaired side.

Lower extremities – Less impaired side has better development and good follow through movement in walking and running. Athlete has difficulty walking on his heels and has significant difficulty with hopping on the more impaired leg. Side stepping towards the more impaired side is also affected. Athletes with mild to moderate athetosis do not fit into this Class.

In walking the Class F37 athlete demonstrates a limp on the more impaired side. While running the limp may disappear almost totally. The reason is that in walking the leg support during stance phase begins with a heel strike. This is the most difficult action for athletes with a spastic paresis. In running only the forefoot hits the ground, providing support and push off. The tight calf muscle in the Class F37 athletes facilitates the push off, and heel strike is not necessary.

In throwing events, particularly the javelin, the F37 athlete often demonstrates hip flexion instead of extension on the more impaired side. Trunk rotation during a throwing action also indicates a loss of fluency.

#### 3.2.3.4 Class F38

This class is for the athletes who are affected by mild hypertonia, ataxia or athetosis which is consistent with the MDC presented in Section 2.1.1 (hypertonia), 2.1.2 (ataxia) and 2.1.3 (athetosis).

### **3.2.4 Class profiles for athletes throwing from a standing position who are affected by limb deficiency, impaired PROM, impaired muscle power, leg length difference or short stature.**

#### **3.2.4.1 Class F40**

Athletes must meet the criteria as outlined in 3.1.4.1.

#### **3.2.4.2 Class F41**

Athletes must meet the criteria as outlined in 3.1.4.2.

#### **3.2.4.3 General Comment classes F42 – 46**

The class profiles for athletes in these groups are written principally in terms of limb deficiency. If an athlete has an impairment other than limb deficiency (e.g., loss of muscle power) then it is important to use judgement and experience to try to match this impairment with the most appropriate class profile.

#### **1. Determining Maximum Allowable Standing Height (MASH) for athletes with bilateral lower limb deficiency competing with prosthesis**

For ambulatory athletes competing with prostheses (i.e. bilateral above knee amputations, bilateral below knee amputations, or combined above knee and below knee amputations) the method outlined in 3.1.4.3.1 for calculating Maximum Allowable Standing Height (MASH) must be used.

#### **3.2.4.4 Class F42**

Through knee amputees and athletes with other impairments that are comparable to a single through or above knee amputation. This includes athletes with loss of muscle power in the lower limbs consistent with Class F57.

#### **3.2.4.5 Class F43**

This class is for any athlete with bilateral lower limb impairments where both limbs meets the MDC for:

- § Lower limb deficiency (section 2.1.4.1);
- § Impaired lower limb PROM (section 2.1.5.1);
- § Impaired lower limb muscle power (section 2.1.6.1).



#### 3.2.4.6 Class F44

This class is for any athlete with lower limb impairment/s that meets MDC for:

- § Lower limb deficiency (Section 2.1.4.1);
- § Impaired lower limb PROM (Section 2.1.5.1);
- § Impaired lower limb muscle power (Section 2.1.6.1); or
- § Leg length difference (section 2.1.7).

#### 3.2.4.7 Class F45

Athletes with BILATERAL upper limb impairments where both arms meet the MDC in section 2.2.2.1, 2.2.2.2, or 2.2.2.3.

#### 3.2.4.8 Class F46

Athletes with a UNILATERAL upper limb impairment that meets the relevant MDC described for UNILATERAL upper limb deficiency (Section 2.2.1.1), impaired upper limb PROM (Section 2.2.1.2) or impaired upper limb muscle power (Section 2.2.1.3);

Athletes with BILATERAL upper limb impairment, one arm meeting the MDC for UNILATERAL upper limb impairment (2.2.1.1, 2.2.1.2 or 2.2.1.3) and one NOT meeting the MDC for BILATERAL upper limb impairment (2.2.2.1, 2.2.2.2 or 2.2.2.3).

### 3.3 Special provisions for Class Allocation

#### 3.3.1 Classes T/F30's, 40's and 50's

IPC Athletics recognizes a number of instances in which athletes may have an impairment which matches one sports class profile if they compete in a sitting position (i.e. in a wheelchair or from a throwing chair) and another if they compete from a standing position and do not use these devices. All Athletes who are eligible for IPC Athletics and who have sufficient lower limb function may choose to compete in a sitting position or standing position. This means for track events that they can compete in running events or wheelchair racing, and for throwing events that they can throw from a seated position with the aid of a throwing frame (IPC Athletics Rules and Regulations, Rule 35 and 36) or from a standing position without the aid of a throwing frame. Once the athlete has indicated whether he/she will sit or stand to compete, a sport class is allocated based on how much his/her impairment will affect the activity.

For Example:

An ambulant athlete with spastic diplegia featuring lower limb spasticity grade 3 to 2. An athlete with this impairment profile would be eligible to compete in:

- § Track: T35 (running) or T34 (wheelchair racing);
- § Throws: F35 (standing throws) or F34 (seated throws);

An athlete with unilateral above knee amputation or equivalent. An athlete with this impairment profile would be eligible to compete in:

- § Track: T42 (running) or T54 (wheelchair racing);
- § Throws: F42 (standing throws) or F57 (seated throws);

An athlete with unilateral below knee amputation or equivalent. An athlete with this impairment profile would be eligible to compete in:

- § Track: T44 (running) or T54 (wheelchair racing);
- § Throws: F44 (standing throws) or F57 (seated throws).

An athlete with bilateral lower limb amputation or equivalent. An athlete with this impairment profile would be eligible to compete in:

- § Track: T43 (running) or T54 (wheelchair racing);
- § Throws: F43 (standing throws) or F57 (seated throws).

Once an athlete has chosen to compete in a sitting or standing position, the following rules apply with the following provisions:

- § An athlete exercises this choice at the time of his/her FIRST classification by an accredited IPC Athletics Classification panel at an event officially approved by IPC Athletics. Once the athlete has been classified, the athlete must continue to compete using his/her chosen technique - sitting or standing - in all IPC Athletics approved events.
  - **Note that all IPC Athletics approved events include both track and field. For example an athlete may NOT choose a sitting technique for track and standing technique for field.**
- § An athlete may request ONE review of the choice to compete sitting or standing prior to the start of the second IPC Athletics season after the initial international classification took place. The application must be submitted to the IPC Athletics Head of Classification at the moment of renewal of the annual License (end of first trimester of the year).
- § An athlete may also request a review of the choice after the athlete has already had ONE review as noted above if there is a clear medical justification for changing, in which case an application for Medical Review is completed.

### 3.3.2 Special note Class T35/F36

Athletes who fit the following profile should compete in Class T35 for running and jumps, but Class F36 for throws.

Quadriplegic – athetoid or ataxic with spasticity. Moderate involvement.

Upper extremities – Athetosis is the most prevalent factor and athlete demonstrates significantly more control problems than the F35 athlete. Hand control, grasp and release are affected when throwing.

Lower extremities – spasticity Grade 3 or 2. Involvement of both legs and with sufficient function to run on the track. Usually has good static balance but exhibits problems in dynamic balance activities.

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## Appendix Two: Sport Class Profiles for Athletes with Visual Impairment

### 1 Introduction

- 1.1 IPC Athletics has designated Sport Classes for Athletes with Visual Impairment, which are defined in this Appendix.
- 1.2 IPC Athletics is currently revisiting the Sport Classes for Athletes with Visual Impairment and is aiming towards sport-specific classification systems on the basis of activity limitations that result from Impairment. Until such a system is approved, the processes detailed in this Appendix apply to Athlete Evaluation in respect of Sport Classes for Athletes with Visual Impairment.
- 1.3 The processes detailed in this Appendix apply to Athlete Evaluation in respect of Sport Classes for Athletes with Visual Impairment.
- 1.4 The Sport Class allocated to Athletes with Visual Impairment applies to all Events offered by IPC Athletics.
- 1.5 All provisions of the IPC Athletics Classification Rules apply to the assessment of Athletes with Visual Impairment, except if otherwise specified in this Appendix.

### 2 Eligibility Criteria

- 2.1 To be eligible to compete in Sport Classes T/F11-13 in IPC Athletics, the Athlete must meet both of the criteria below:
  - 2.1.1 The Athlete must have at least one of the following Impairments:
    - § impairment of the eye structure;
    - § impairment of the optical nerve/optic pathways;
    - § impairment of the visual cortex.
  - 2.1.2 The Athlete's Visual Impairment must result in a visual acuity of less than or equal to LogMAR 1.0 or a visual field restricted to less than 20 degrees radius.
- 2.2 It is the Athlete's and NPC's responsibility to provide sufficient evidence of the Athlete's visual impairment. This must be done by way of submitting medical diagnostic information completed by an ophthalmologist no later than at the beginning of Athlete Evaluation.
- 2.3 The medical diagnostic information must comprise the completed Medical Diagnostics Form (available on the IPC Athletics website) and additional medical documentation as

indicated on the Medical Diagnostics Form. Failure to present with complete medical diagnostic information might lead to Athlete Evaluation being suspended in accordance with Article 4.7 of these Rules.

- 2.4 Medical Diagnostic Information must be typewritten and submitted in English and may not be older than 12 months prior to the date of Athlete Evaluation.

### 3 Assessment Methods

- 3.1 All Athlete Evaluation and Sport Class allocation will be based on the assessment of visual acuity in the eye with better visual acuity when wearing the best optical correction.
- 3.2 Depending on an Athlete's visual acuity, visual acuity is tested using the LogMAR chart for distance visual acuity testing with Illiterate "E" and/or the Berkeley Rudimentary Vision Test.
- 3.3 Athletes who compete using any corrective devices (e.g. glasses, lenses) must attend classification with these devices and their prescription.
- 3.4 An Athlete found to be using corrective devices during competition that were not declared during Athlete Evaluation may be subject to further investigation of Intentional Misrepresentation (see Article Nine).
- 3.5 Athletes must declare any change in their optical correction to IPC Athletics before any competition. If the Athlete has a Sport Class Status Review with Fixed Review Date or Confirmed, the Athlete's Sport Class Status will be changed to Review. The Athlete will then undergo Athlete Evaluation prior to the next competition under the provisions of these Rules. Failure to do so may result in an investigation of Intentional Misrepresentation (see Article Nine).
- 3.6 Any Athlete Support Personnel accompanying the Athlete in the Assessment room must remain out of sight of the visual acuity charts during Assessment.
- 3.7 Under the current provisions set forth in this Appendix, Observation Assessment does not apply to Athletes with Visual Impairment.
- 3.8 IPC Athletics will inform the Local Organizing Committee of the equipment and room requirements for the assessment of Athletes with visual impairment after the Classification Panels have been appointed. It is the Local Organizing Committee's responsibility to provide all equipment required by IPC Athletics.
- 3.9 Failure to provide all equipment required by IPC Athletics may result in the

Classification decisions not being accepted by IPC Athletics.

## **4 Sport Classes Profiles for Athletes with Visual Impairment**

### **4.1 Sport Class T/F11**

4.1.1 Visual acuity is poorer than LogMAR 2.60.

### **4.2 Sport Class T/F12**

4.2.1 Visual acuity ranges from LogMAR 1.50 to 2.60 (inclusive), and/or

4.2.2 the visual field is constricted to a radius of less than 5 degrees.

### **4.3 Sport Class T/F13**

4.3.1 Visual acuity ranges from LogMAR 1.40 to 1 (inclusive), and/or

4.3.2 the visual field is constricted to a radius of less than 20 degrees.

## Appendix Three: Athletes with an Intellectual Impairment

This Appendix details the Sport Classes that are to be allocated to Athletes with Intellectual Impairments who wish to compete in IPC Athletics.

### 1 Introduction

- 1.1 IPC Athletics has designated a Sport Class – Sport Class T/F20 – for Athletes with Activity Limitations that result from an Intellectual Impairment. These Athletes are referred to as Athletes with Intellectual Impairment.
- 1.2 The processes detailed in this Appendix apply to the conduct of Athlete Evaluation in respect of the Sport Class designated by IPC Athletics for Athletes with Intellectual Impairment.

### 2 Eligibility Criteria

- 2.1 Prior to Athlete Evaluation, an Athlete must comply with the following Eligibility Criteria set by IPC Athletics.
  - § Inclusion in the INAS Classification Master List
  - § Completion of the Training History and Sport Limitation Questionnaire (TSAL-Q) provided by IPC Athletics

#### INAS Classification Master List

- 2.2 Athletes must be included on the INAS Classification Master List no later than the date of final entry for a Competition, or, in absence of such entry deadline, on the day before the beginning of Athlete Evaluation. This is a pre-condition to participate in Athlete Evaluation by IPC Athletics.
- 2.3 To be listed on the INAS Classification Master List, Athletes must meet the eligibility criteria defined by INAS.

#### Training History and Sport Limitation Questionnaire (TSAL-Q)

- 2.4 A completed TSAL-Q (no older than 12 months) needs to be submitted to IPC Athletics no later than the date of final entry for a Competition, or, in absence of such entry deadline, the TSAL-Q must be made available to the Chief Classifier on the day before the beginning of Athlete Evaluation.
- 2.5 If a completed TSAL-Q is not provided before Athlete Evaluation, Athlete evaluation will be suspended as defined in article 4.6 of these Rules.



### 3 Assessment methods and Minimum Disability Criteria

3.1 The process of Athlete Evaluation requires the Athlete to undergo the

§ Sport Cognition Test Battery and the

§ Sport Specific Tests for each discipline the Athlete wishes to compete in.

3.2 Athlete Support Personnel is not permitted to give instructions to the Athlete unless if explicitly permitted by the Classification Panel. Unauthorized instructions to the Athlete during Athlete Evaluation, will lead to investigations relating to Article Ten.

3.3 The sport specific tests will require the athlete to do sports activities. The Athlete must warm up before the tests begin and must present in sports attire.

#### 3.4 Sport Cognition Test Battery

3.4.1 The Sport Cognition Test Battery consists of a series of tests on four different components of sport cognition, which are memory and learning, executive functioning, visual perception and fluid intelligence, and processing speed and attention-concentration skills. Additionally, visual-motor ability is controlled for in a separate exercise.

3.4.2 The following table provides a short description of the components and tests.

Component	Tests	Task	Scoring	Cut-off Score
Memory and Learning	Corsi	To remember a sequence of blocks and to repeat the sequence in the same order	Average length of a sequence	6.69
Executive Functioning	Tower of London	To copy the frame structure by moving balls in the least number of moves possible	Number of items solved correctly	12.43
Visual Perception & Fluid Intelligence	Block Design	To copy patterns with white/red cubes	Raw total performance score	58.31
	Matrix Reasoning	To indicate out of 5 pictures which one belongs at the place of the question mark in the matrix	Amount of items solved correctly	28.91

Processing Speed & Attention-Concentration Skills	Simple Reaction Time	To tap the space bar as fast as possible when circle appears	Mean Reaction Time over 12 trials	372.13
	Complex Reaction Time	To tap the space bar as fast as possible only when circle appears, not when other shape appears	Mean Reaction Time over 12 trials	487.26
	Simple Visual Search	To tap the circle appearing on the screen in random position as fast as possible	Mean Reaction Time over 12 trials	512.32
	Complex Visual search	To tap objects on the screen once you can distinguish them from the surrounding	Mean Reaction Time over 12 trials	7542.51

### 3.5 Sport Specific Test in Shot-Put

3.5.1 Shot-put competitors perform:

3.5.1.1 Three two-handed full-effort backward throws to determine explosive strength of the athlete. The athlete is instructed to throw at best performance.

3.5.1.2 Three throws with the dominant hand and with a competition weight shot as close as possible to a target set at 80% and a target set at 60% of the Athlete's personal best performance, totaling in six throws.

3.5.1.3 The sequence of targets is randomized by the Classification Panel.

### 3.6 Sport Specific Test in Long Jump

3.6.1 Athletes competing in Long-Jump perform:

3.6.1.1 Two full effort jumps from the athlete's regular approach distance.

3.6.1.2 Three full effort jumps from an approach distance of 10m for male athletes or 7.5m for female athletes.

3.6.1.3 Three full effort jumps from an approach distance of 20m for male athletes or 15m for female athletes.

3.6.1.4 The approach distance is randomized by the Classification Panel.

3.6.2 The Athlete is instructed to:

§ Start take off precisely from the distance mark, to

- § Jump even if the take-off board is not hit precisely, to
- § Try to jump off with the proper take-off foot, and to
- § Try to jump as far as possible

### 3.7 Sport Specific Test of 1500m

- 3.7.1 The Athlete will be asked to run two 400m runs at set pace at 80% of the Athlete's personal best performance. Auditive pacing signals will be given at 20m, 40m, 60m, 80m, 120m, 160m, and 200m marks, prompting the Athlete to keep the pace of 80% of his or her personal best. The Athlete needs to reach the cones at the time of auditive signal, running at a steady pace, and continue to run the last 200m at that pace without further auditive pacing signal. Athletes will have a 5m run-up to the start line before timing begins.

### 3.8 Minimum Disability Criteria

- 3.8.1 For the Sport Cognition Test Battery, the following scoring mechanism applies:
- 3.8.1.1 For the test items Corsi, Tower of London, Block Design and Matrix Reasoning:
- § A score of 1 is given to each test is given if the individual score for the Athlete is higher than the cut-off score.
  - § A score of 0 is given to each test is given if the individual score for the Athlete is lower than the cut-off score.
- 3.8.1.2 For the test items Simple Reaction Time, Complex Reaction Time, Simple Visual Search, Complex Visual Search:
- § A score of 1 is given if the Athlete scores lower than the cut-off score for 2 or more of the tests.
  - § A score of 0 is given if the Athlete scores lower than the cut-off score for a maximum of 1 test.
- 3.8.2 An Athlete fails the Sport Cognition Test Battery, if the total score is 2/5 or higher.
- 3.8.3 Athletes meet the T/F20 Sport Class Profile with a Sport Cognition Test Battery score of 0/5 or 1/5, in combination with Sport Specific Test outcomes as follows:
- 3.8.3.1 Shot put: A maximum of two out of six throws within the defined range of target (score 4/6 or higher on classification form). Three or more throws within the defined range of target (score of 3/6 or less on the classification form) constitute a failure of meeting the sport-specific criteria. The defined target ranges are:

§ 80% throws: 69cm from target

§ 60% throws: 62cm from target

3.8.3.2 Long Jump: At minimum four out of six take-offs must be within a range of 3 to 30cm from the take-off board (score 4/6 or more on the classification form). Three or more take-offs outside of this range (score of 3/6 or less on the classification form) constitute a failure of meeting the sport-specific criteria.

3.8.3.3 1500m: The second 200m section split time must be within a range of +1 to +4sec of the target time for at least one out of two runs. The Sport Specific assessment criteria are not met, if the results of both runs fall outside the set range (score 0/2 on the classification sheet).

3.8.4 Any Athlete who does not meet the criteria of the Sport Cognition Test Battery and/or the sport specific tests will be entitled to enter the respective Event at minimum until Observation Assessment.

## 4 Observation Assessment

4.1 All Athletes undergoing Athlete Evaluation in respect of the Sport Classes T/F20 shall undergo Observation Assessment.

4.2 Observation Assessment takes place during First Appearance, and is specific to one Event. An Athlete will undergo Observation Assessment for every Event he or she competes in.

## 5 Sport Class and Sport Class Status Allocation

5.1 The Classification Panel will consider the information from the TSAL-Q, the Sport Cognition Test Battery, the sport-specific assessment and Observation Assessment to allocate a Sport Class. It is at the discretion of the Classification Panel to also match the Athlete presentation with the INAS eligibility file or findings from previous Athlete Evaluation.

5.2 If the Athlete meets the criteria of the Sport Cognition Test Battery and the relevant sport-specific test and these findings are confirmed by Observation Assessment in that Event, the Athlete is allocated the following Sport Class:

§ Shot Put: F20

§ Long Jump: T20

§ 1500m: T20

- 5.3 Sport Class Status Confirmed for the Sport Classes T/F20 is only allocated if the Athlete has undergone Athlete Evaluation in respect of these Sport Classes at least twice with at least a one month interval.
- 5.4 The Sport Classes T/F20 and the Sport Class Status are specific to one Event. Therefore, it is possible that an Athlete is Eligible for one Event and Not Eligible for another Event, or that the Sport Class for one Event can be designated with a Sport Class Status Confirmed before a Sport Class in another Event.
- 5.5 The Classification Panel will determine that the Athlete is Not Eligible to compete in the respective Event, if the Classification Panel finds after Observation Assessment that:
- § an Athlete fails to meet the criteria of the Sport Cognition Test Battery and/ or the sport specific tests, and/ or
  - § there are inconsistencies between the Sport Cognition Test Battery, the sport-specific tests, Observation Assessment, the TSAL-Q, previous Athlete Evaluation or the INAS Eligibility File.
- 5.6 If a Classification Panel determines that an Athlete is Not Eligible, the provisions in Article Seven apply.
- 5.7 For the avoidance of doubt, the Sport Class Not-Eligible is a decision on the Athlete's Eligibility in respect of one Event in Sport Class T/F20 only.



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