

# 2016 ITF WHEELCHAIR TENNIS CLASSIFICATION MANUAL





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# 1. PURPOSE OF CLASSIFICATION

The purpose of classification is to evaluate an athlete's physical function and sport specific skills in order to determine their eligibility to play wheelchair tennis. Classification also determines eligibility for either Quad or Open division within the sport to reduce the effect of the impairment on sports performance.

## 2. CLASSIFIERS

### 2.1. CLASSIFIER ELIGIBILITY

- 2.1.1. The ITF will appoint Classifiers.
- 2.1.2. Classifiers are individuals with formal training in neuromuscular evaluation and testing. For example: physical therapy, occupational therapy, and physiotherapy.
- 2.1.3. Classifiers must have experience in the evaluation of individuals with physical disabilities.
- 2.1.4. Classifiers must have knowledge of wheelchair tennis and the willingness to increase their knowledge through observation and study of the sport.
- 2.1.5. Classifiers must demonstrate competence in manual muscle testing.
- 2.1.6. Classifiers will represent the various world regions whose National Associations participate in ITF Wheelchair Tennis programmes.
- 2.1.7. Classifiers will abide by the ITF code of ethics at all times in performing their duties, including, but not limited to disclosure of any conflicts of interest.

### 2.2. PURPOSE OF CLASSIFIERS

- 2.2.1. Classifiers perform assessment to determine an athlete's eligibility according to the classification procedures.
- 2.2.2. Classifiers will observe players in training and in competition to ensure that eligibility and classification results are consistent.
- 2.2.3. Classifiers' duties consist of evaluating the classification system and recommending improvements and classifications to the ITF Sports Science & Medicine Commission.

Please refer to Appendix B for the ITF Sports Science & Medicine Commission Terms of Reference.

### 2.3. CLASSIFIERS' CODE OF CONDUCT

#### 2.3.1 General principles

- 2.3.1.1 The role of Classifiers is to act as impartial evaluators in determining a player's Sport Class and Sport Class Status. The integrity of Classification in wheelchair tennis rests on the professional conduct and behaviour of each individual Classifier.
- 2.3.1.2 The Classifier Code of Conduct includes:
  - Recognition of the need to preserve and encourage confidence in the professionalism of Classification Rules and the Classification Personnel. This confidence must be inherent within all those involved in wheelchair tennis and within the general public.
  - Description of transparent and agreed-upon standards of practice and provide a meaningful set of guidelines for professional conduct of classification personnel
  - Provision to others (including, but not limited to players, player support personnel, Administrators, Organizing Committees, media and the public) of criteria by which to assess the professional conduct of classification personnel.

## **2.3.2 Classifier compliance with the Classifier Code of Conduct**

2.3.2.1 Classifiers should value and respect the Athletes and Athlete Support Personnel and:

- Treat Athletes and Athlete Support Personnel with understanding, patience, and dignity;
- Be courteous, objective, honest and impartial in performing their classification duties for all Athletes, regardless of team affiliation or national origin;
- Accept responsibility for all actions and decisions taken and be open to discussion and interaction with Athletes and Athlete Support Personnel in accordance with the International Standard for Athlete Evaluation and the International Standard for Protest and Appeals, and the IF and/or competition rules;
- Perform classification duties and related responsibilities while not being under the influence of alcohol or illegal substances;
- Maintain confidentiality of Athlete information whenever possible, according to the International Standard for Athlete Evaluation and the International Standard for Protest and Appeals.

2.3.2.2 Classifiers should respect the Classification Rules and:

- Accurately and honestly represent their qualifications and abilities when applying for training and certification and when accepting classification appointments to competitions
- Understand the theory and practical aspects of the Classification Rules and make them widely known and understood by players and Player Support Personnel
- Continuously seek self-improvement through study of the Sport, Classification Rules, mentoring lesser-experienced classifiers and developing trainee classifiers
- Perform duties without yielding to any economic, political, sporting or human pressure
- Recognise that anything that may lead to a Conflict of Interest, either real or apparent, must be avoided
- Disclose any relationship with a team, player or Player Support Personnel that would otherwise constitute a Conflict of Interest.

2.3.2.3 Classifiers should respect their colleagues, and:

- Treat all discussions with colleagues as confidential information
- Explain and justify decisions without showing anger or resentment
- Treat other Classifiers with professional dignity and courtesy, recognizing that it is inappropriate and unacceptable to criticize other Classifiers, Games Officials or Technical Advisers in public
- Publicly and privately respect the decisions and decision making process of fellow Classifiers, Games Officials and Technical Advisers whether you agree or not
- Share theoretical, technical and practical knowledge and skills with less experienced Classifiers and assist with the training and development of Classifiers in wheelchair tennis.

## **2.3.3 Consequences of Non-compliance with Classifier Code of Conduct**

- The ITF will take disciplinary action against Classifiers if a violation of the Classification Code of Conduct occurs.
- Classifiers must acknowledge and accept that disciplinary action against them may include a variety of sanctions from verbal or written reprimands to revoking their certification as a Classifier for the ITF.



### 3. PLAYERS

#### 3.1. PLAYER RESPONSIBILITIES

- Players must arrive at the assigned time in their playing chair with all appropriate equipment including racket, tennis balls, tape and straps.
- Players must co-operate fully, honestly and in good faith. If the Classifiers believe that the player is not co-operating with the classification process, then the player will not be eligible to compete in competition until such time as decided by the ITF and will receive the 'U' classification status (please see Appendix B, section III, B, 3)
- Players must educate themselves regarding the rules and regulations of wheelchair tennis eligibility.
- The classification process will be conducted in English.
- Players who are undergoing classification may be accompanied by an interpreter and not more than one representative of the athlete's national federation. These observers are there to witness the process and as appropriate facilitate the classification process e.g. for the translation of medical terms.
- The player must sign the Player Declaration Form at the end of the classification procedure (please see attachment 4).

### 4. CLASSIFICATION

The following (sections 4.1 – 4.4) is adapted from:

Tweedy, S.M. & Bourke, J. (2009), IPC Athletics Classification Project for Physical Impairments: Final Report – Stage 1, IPC Athletics, Bonn

**An athlete may compete in wheelchair tennis if they have a permanent impairment that alters the biomechanical execution of the running action in a way that is demonstrable and which will adversely affect sports performance.**

The effect of the impairment is considered without aids or prosthetics.

#### 4.1. ELIGIBLE IMPAIRMENT TYPES

Working descriptor	Examples of health conditions likely to cause such impairments	Impairment as described in the ICF*
Hypertonia (e.g. Hemiplegia, Diplegia / Quadriplegia, Monoplegia)	cerebral palsy, stroke, acquired brain injury, multiple sclerosis	High muscle tone <i>Inclusions:</i> hypertonia / high muscle tone <i>Exclusions:</i> low muscle tone
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
Athetosis	chorea, athetosis e.g., from cerebral palsy	Involuntary contractions of muscles <i>Inclusions:</i> athetosis, chorea <i>Exclusions:</i> Sleep related movement disorders

Working descriptor	Examples of health conditions likely to cause such impairments	Impairment as described in the ICF*
Limb deficiency	Amputation resulting from trauma or congenital limb deficiency (dysmelia).	Total or partial absence of the bones or joints of the lower extremities.
Impaired Passive Range of Movement (PROM)	arthrogryposis, ankylosis, scoliosis	Joint mobility <i>Exclusions:</i> hyper mobility of joints.
Impaired muscle strength	spinal cord injury, muscular dystrophy, brachial plexus injury, Erb palsy, polio, Spina bifida, Guillain-Barré syndrome	Muscle power
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 <i>Inclusions:</i> shortening of bones of one lower limb <i>Exclusions:</i> shortening of bones of both lower limbs; any increase in dimensions

\*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/site/icftemplate.cfm>

## 4.2. EXCLUSIONS

Some specific exclusions are identified in the preceding table and others are noted in the list below. Note that if an impairment is listed as an exclusion, this means that people with those impairments and only those impairments cannot be classified in this System. For instance, *cardiovascular impairment* is listed as an exclusion (see below). This indicates that a person with *only* a cardiovascular impairment cannot be classified in this System. However a person who was affected by hypertonia and also had a cardiovascular impairment *would* be eligible for this System because hypertonia is an eligible impairment. However, such an athlete's class should only reflect the extent of activity limitation resulting from the eligible impairment type (hypertonia) and not ineligible types of impairment. Vision impairment would be another example.

People who have vision impairments (as people with brain injury sometimes do) may compete in this system, but only if they also have an eligible impairment (e.g., hypertonia or ataxia).

### The following impairments are exclusions in this System:

- Mental functions, for example impairments of:
  - psychomotor control – mental functions that regulate speed of behaviour or response time that involves both motor and psychological components;
  - quality of psychomotor functions.– 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.– 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;
  - mental functions required for sequencing and coordinating complex, purposeful movements.
- Hearing functions;
- Pain;
- Joint stability, such as unstable shoulder joint, dislocation of a joint;
- Muscle endurance functions;
- Motor reflex functions;

- Involuntary movement reaction functions;
- Tics and mannerisms, Stereotypes and motor perseveration;
- Cardiovascular functions;
- Respiratory functions;
- Visual impairments.

#### 4.3. MINIMUM DISABILITY CRITERIA FOR WHEELCHAIR TENNIS

Not all athletes with an eligible impairment type are permitted to compete in wheelchair tennis. To be eligible the athlete's impairment must also cause sufficient activity limitation in running. The General Standard for what constitutes sufficient activity limitation is as follows:

- *An athlete may compete in wheelchair tennis if they have a permanent impairment that alters the biomechanical execution of the running action in a way that is demonstrable and which will adversely affect performance.*
- *The effect of the impairment is considered without aids or prosthetics.*

The remainder of this section presents the operational descriptions of the eight impairment types that meet this General Standard.

##### 4.3.1 Hypertonia

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. One of the following types of hypertonia must be clearly clinically detectable – i.e., grade 1 on the Ashworth scale – at the ankle, knee or hip

- **Spastic Hypertonia:** which is defined as a velocity dependent resistance to passive movement with a clasp-knife type of resistance. Clasp-knife resistance is resistance that is initially high and followed by a sudden relaxation. Velocity-dependence indicates 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 and people 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 plantarflexors 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 general standard and such people are eligible.
- **Rigidity:** which 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. 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:** which 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). As the description indicates, dystonia may equally be classified as a type of hypertonia OR a type of involuntary movement pattern.

A person who does not have one of the three types of hypertonia – spastic, rigidity or dystonia – is not eligible. The classification team should satisfy themselves 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 on which the tone is increased.

#### **4.3.2 Ataxia**

Ataxia refers to an unsteadiness, incoordination or clumsiness of volitional movement (8) and 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 hypertonia (8). 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.

When evaluating an athlete the classification team 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. Clearly evident means that characteristically ataxic movement should be observable during at least one of the following tests of voluntary movement:

- finger-to-nose test (athlete touching own nose from the crucifix position);
- finger-to-finger test (classifier presents their index finger and asks the athlete to touch it with their own index finger);
- toe-to-finger test (classifier presents their index finger and asks the athlete to touch it with their toe);
- heel draw 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);
- straight line heel-to-toe walking;
- walking

#### **4.3.3 Athetosis**

Athetosis refers to unwanted movement and posturing results from damage to motor control centres of the brain, most frequently the basal ganglia. When evaluating an athlete the classification team should satisfy themselves 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 person trying to remain still
- involuntary movement of the toes or lower extremities despite the person 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.

#### **4.3.4 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 minimum congenital limb deficiency.

#### 4.3.5 Impaired Passive Range of Movement (PROM) – Lower Limb

##### General points

**Method of assessment:** Unless otherwise indicated, PROM should be assessed using the standard Goniometric protocols described by Clarkson. 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 is relaxed and is not attempting voluntary movement during these tests. Active range of movement or AROM (i.e., where the athlete is asked to move the joint themselves, without assistance) is assessed as a component of conventional muscle power testing (see section on testing muscle power in this document).

**Approach used in development:** The development of these criteria is based upon research indicating the range of movement required for sprinting

An athlete who has impaired PROM in the lower limbs may be eligible to compete in wheelchair tennis in one of two ways. They may have impaired PROM in the same limb that meets:

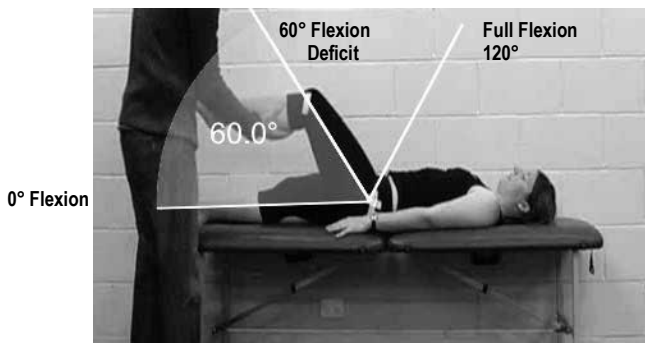
- **one of the 5 primary criteria OR**
- **two of the 5 secondary criteria**

Primary and secondary criteria are presented below.

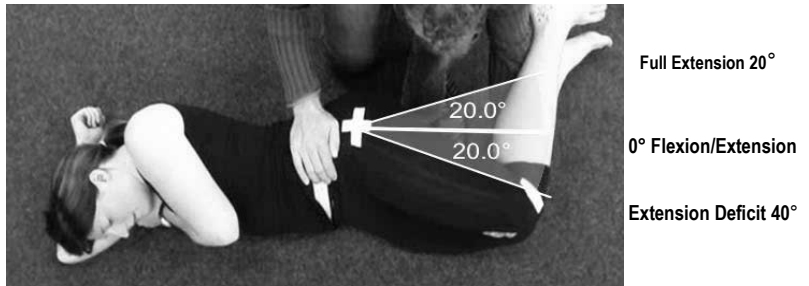
##### Primary Criteria for impaired PROM - Lower limb

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

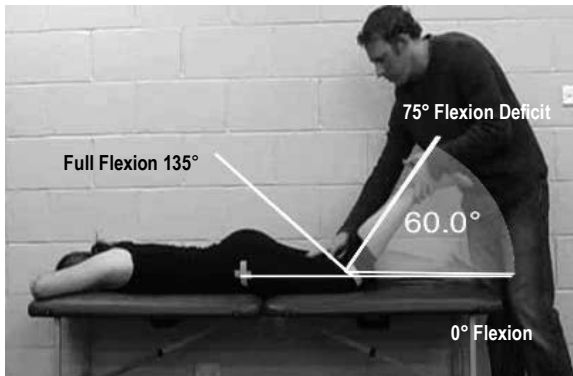
**Primary Criterion #1 – Hip flexion deficit of >60°.** The figure shows normal anatomical range of 120° hip flexion and the maximum amount of hip flexion ROM that is permissible in order to meet this criterion (60° hip flexion).



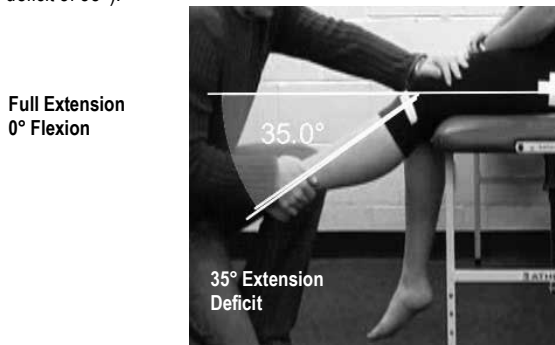
**Primary Criterion #2 – Hip Extension deficit of >40°.** The figure shows normal anatomical range of 20° hip extension. The neutral position (0°) is also shown, as is the maximum amount of hip extension ROM that is permissible in order to meet this criterion (40° hip extension deficit).



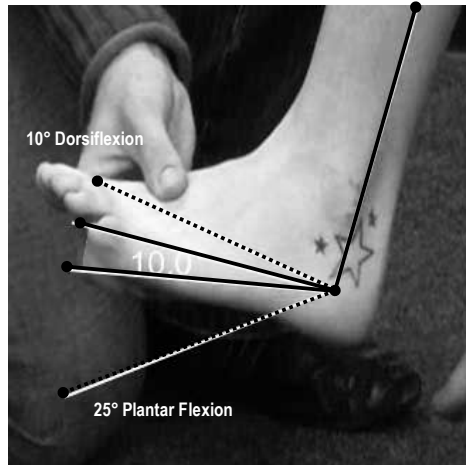
**Primary Criterion #3 – Knee Flexion deficit of >75°.** The figure shows normal anatomical range of 135° knee flexion and the maximum amount of knee flexion ROM that is permissible in order to meet this criterion (60° knee flexion).



**Primary Criterion #4 – Knee Extension deficit of >35°.** The figure shows normal knee extension range – i.e., 0° flexion and the maximum amount of knee extension ROM that is permissible in order to meet this criterion (extension deficit of 35°).



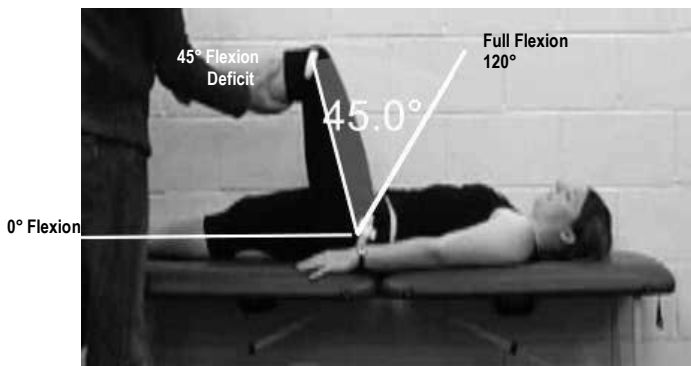
**Primary Criterion #5 – Less than or equal to 10° ankle dorsi / plantarflexion available in the range between 10° dorsiflexion and 25° plantar flexion.** Test conducted with knee in 90°. The outer (dashed) lines in the figure show 10° dorsiflexion and 25° plantar flexion – this range was chosen because it is the range of ankle movement used in running. The inner lines show an example of a 10° 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° dorsiflexion to 45° plantar flexion.



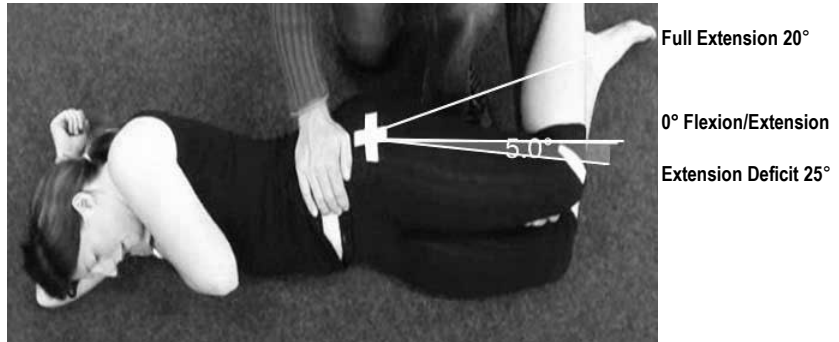
### Secondary Criteria impaired PROM (Lower limb)

Athletes are eligible if they meet **TWO OR MORE** of the following secondary criteria.

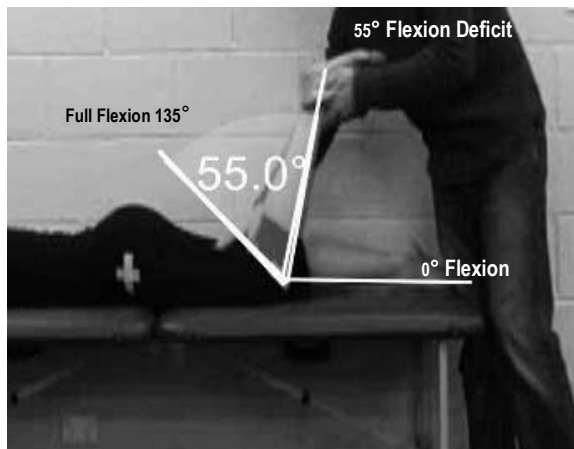
**Secondary Criterion #1 – Hip flexion deficit of >45° but <60°.** The figure shows normal anatomical range of 120° hip flexion as well as a 45° flexion deficit – the maximum amount of hip flexion ROM that is permissible in order to meet this criterion. Athletes with >60° loss of flexion meet the primary criterion for loss of hip PROM.



**Secondary Criterion #2 – Hip extension deficit of  $>25^\circ$  but  $<40^\circ$ .** The figure shows normal anatomical range of  $20^\circ$  hip extension as well as the neutral position and a  $25^\circ$  extension deficit (i.e.,  $5^\circ$  flexion, just in front of the  $0^\circ$  line). A  $25^\circ$  deficit is the maximum amount of hip extension that is permissible in order to meet this criterion. Athletes with  $>40^\circ$  loss of extension meet the primary criterion for loss of hip PROM.

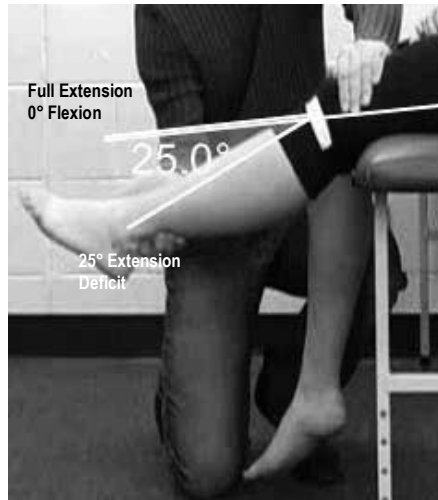


**Secondary Criterion #3 – Knee flexion deficit of  $>55^\circ$  but  $<75^\circ$ .** The figure shows normal anatomical range of  $135^\circ$  knee flexion as well as  $0^\circ$  flexion and a  $55^\circ$  flexion deficit – the maximum amount of knee flexion that is permissible in order to meet this criterion. Athletes with  $>75^\circ$  loss of extension meet the primary criterion for loss of hip PROM.

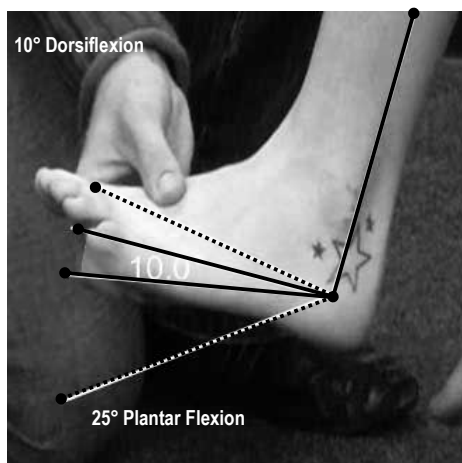




**Secondary Criterion #4 – Knee Extension deficit of >25° but <35°.** The figure shows normal knee extension range – i.e., 0° flexion as well as a 25° extension deficit, the maximum amount of knee extension that is permissible in order to meet this criterion. Athletes with >35° loss of extension meet the primary criterion for loss of knee PROM.



**Secondary Criterion #5 – Less than or equal to 20° ankle dorsi / plantarflexion available in the range between 10° dorsiflexion and 25° plantar flexion.** Test conducted with knee in 90°. The outer (dashed) lines in the figure show 10° dorsiflexion and 25° plantar flexion – this range was chosen because it is the range of ankle movement used in running. The inner lines show an example of a 20° arc within this range – this is the maximum PROM is that is permissible in order to meet this criterion. Athletes with <10° PROM available meet the primary criterion for ankle PROM.



### 4.3.6 Impaired Muscle Strength – Lower Limb

#### General Points

Classifiers should satisfy themselves that impaired muscle power results from injury or pathological deficits in the neuromusculoskeletal system and not from chronic disuse.

Method of assessment: Muscle strength will be assessed according to the Daniels and Worthingham (D&W) scale published in the 2002 (11). 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.

**NOTE: While manual muscle testing methods in this System are based upon the published D&W text, some elements have been modified in order to make the grades more relevant to the sport of wheelchair tennis.**

**Approach used in development:** Not all muscle actions make an equal contribution to running (for example, hip extension is much more important to running performance than hip adduction). Therefore criteria have been developed for the major individual muscle actions of both the lower limb and upper limb (e.g., impaired strength for hip flexion, hip extension, shoulder extension etc.). The main muscle actions of the upper and lower limbs have been divided into three categories:

- **Principal** – those muscle actions making direct or major contribution to the generation of forward momentum;
- **Supporting** – muscle actions contributing indirectly to generation of forward momentum by stabilizing segments or providing counter-rotational movements;
- **Minimal impact** – muscle actions which would be unlikely to meet the general standard, even if they were severely weakened.

Because Principal muscle actions are more important, fewer muscle grade points need to be lost from these actions in order to meet the General standard, than the Supporting muscle actions.

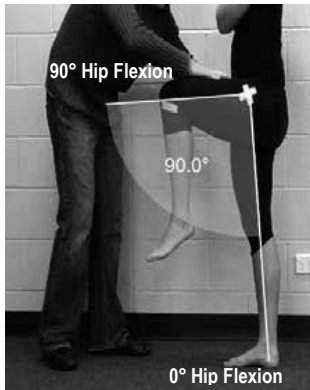
An athlete who has impaired muscle strength in the lower limbs may be eligible to compete in wheelchair tennis in one of two ways. They may have impaired muscle strength that meets:

- **One** of the 7 **primary** criteria OR
- **Two or more** of 5 **secondary** criteria

#### **Primary Criteria for impaired muscle strength (lower limb)**

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

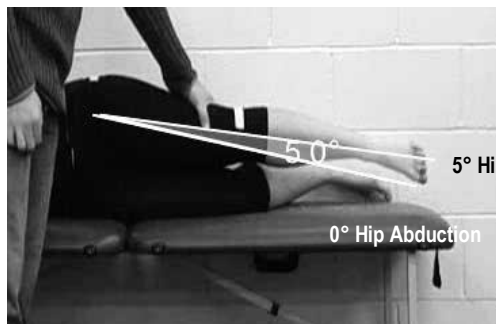
**Primary Criterion #1 – Hip flexion loss of 3 muscle grade points (muscle grade of two).** The figure shows manual resistance being applied at 90° hip flexion. To meet this criterion the athlete should not be able to actively flex the hip to 90° against gravity OR, if PROM is <90°, should not be able to actively flex through available PROM.



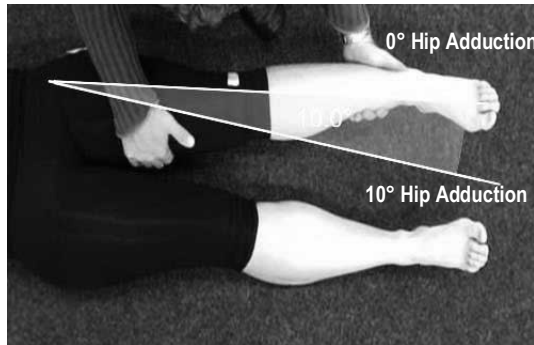
**Primary Criterion #2 – Hip extension loss of 3 muscle grade points (muscle grade of two).** The figure shows manual resistance being applied at 5° hip extension. To meet this criterion the athlete should not be able to actively extend the hip 5° against gravity.



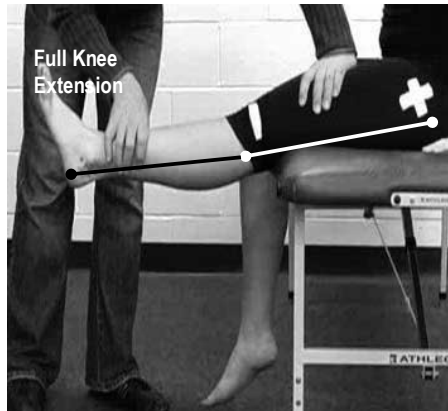
**Primary Criterion #3 – Hip Abduction loss of 3 muscle grade points (muscle grade of two).** The figure shows manual resistance being applied at 5° hip abduction. To meet this criterion the athlete should not be able to actively Abduct the hip 5° against gravity.



**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.

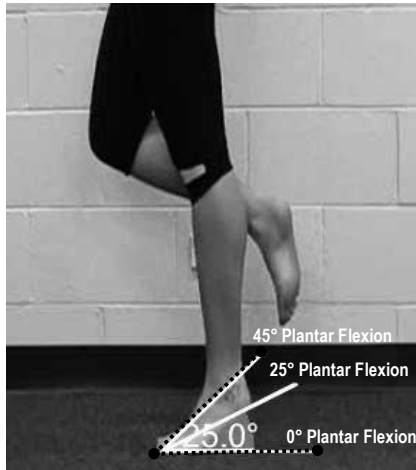


**Primary Criterion #5 – Knee extension loss of 3 muscle grade points (muscle grade of two).** The figure shows manual resistance being applied at full knee extension (0° flexion). To meet this criterion the athlete should not be able to fully extend the knee against gravity OR, if knee extension is restricted, should not be able to actively extend through available PROM.



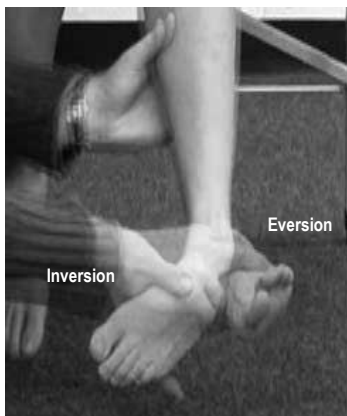
**Primary Criterion #6 – Ankle plantar flexion loss of 3 muscle grade points (muscle grade of two).** The outer (dashed) lines on the figure show 0° plantar flexion and 45° plantar flexion (normal anatomical AROM). The centre line shows the athlete raising her heel in 25° plantar flexion. In the Daniels and Worthingham system plantar flexion is tested differently to all other muscle groups. 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 left figure shows inversion and eversion and the right 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°.



**NOTE:** Muscle strength 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 strength 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.

### **Secondary Criteria for impaired muscle strength (lower limb)**

An athlete will be eligible to compete in wheelchair tennis if they lose a total of 6 muscle grade points in the following **5 principal** muscle actions:

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

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

#### **4.3.7 Leg Length Difference**

The difference in length between right and left legs should be at least 7cm. To measure, the athlete should lie supine with legs relaxed and fully extended. With the pelvis in neutral position, measure from anterior superior iliac spine to medial malleolus on each leg and then compare.

### **4.4 QUAD DIVISION – ELIGIBILITY CRITERIA**

Not all athletes with an eligible impairment for wheelchair tennis are permitted to compete in the quad division of wheelchair tennis. To be eligible for the quad division the athlete's impairment must also cause sufficient activity limitation as described below. The General Standard for what constitutes sufficient activity limitation is as follows:

- ***An athlete may compete in wheelchair tennis quad division if they have a permanent impairment that alters the biomechanical execution of wheelchair propulsion and other sport-specific skills that will adversely affect performance.***
- ***The effect of the impairment is considered without aids or prosthetics.***

Reduced functional ability refers to neuromuscular and skeletal potential and should not be mistaken for training effect or natural aptitude.

**The sport-specific skills considered in determining eligibility for the quad division include, but may not be limited to:**

**Reduced functional ability necessary to perform an overhead service. The requirements of an overhead service are defined as the sequential and controlled combination of the following:**

- The ability to actively elevate the shoulder above 90 degrees in combination movements of shoulder flexion of at least 90 degrees, abduction of at least 90 degrees and external rotation of at least 90 degrees during the preparatory or wind-up phase.

- The ability to actively achieve elbow extension beyond the final 60 degrees during the forward hitting phase.
- The ability to actively achieve any wrist flexion in combination with ulnar deviation and forearm pronation during the forward hitting phase.

### **Reduced functional ability necessary to perform a smooth and continuous forehand and backhand**

*Forehand is defined as the ability to:*

- Achieve abduction to 45 degrees in combination with external rotation of 90 degrees during the preparatory or wind-up phase.
- Completion of stroke involves shoulder adduction and forward flexion of the shoulder joint so that the elbow can reach midline of the body in combination with flexion of the elbow.

*Backhand is defined as the ability to:*

- Achieve adduction and internal rotation of the shoulder joint across the body in combination with elbow flexion to execute the preparatory or wind up phase.
- Completion of stroke includes the combination of shoulder abduction of at least 60 degrees, shoulder flexion of at least 60 degrees and external rotation of at least 90 degrees.
- And the ability to actively achieve elbow extension beyond the final 45 degrees during the hitting phase.

### **Reduced functional ability necessary to manoeuvre a manual wheelchair**

Full wheel control is defined as the ability to:

- Use the hands to achieve grasp and release of the wheel rim in order to perform multidirectional stops, starts and turns during play.

### **Inability to grip the racket necessitating the need for taping and/or an assistive device**

Maintenance of grip is defined as the ability to:

- Maintain a closed grip of the racket against resistance with the wrist in 30 degrees of wrist flexion without tape or assistive device.

### **Limitation of trunk function**

*Trunk balance is defined as the ability to:*

- Sit unsupported and forward flex both shoulders to elevate arms straight up above head.
- Sit unsupported and abduct both shoulders to elevate arms straight up above head.

*Trunk raising is defined as the ability to:*

- Hold a racket in both hands and lift it from in front of the wheelchair (racket on the floor) to above the head height, without using the arms to push up on either the chair or the body

*Trunk rotation is defined as the ability to:*

- Reach across body with one arm and twist trunk around to an angle of 45° postero-lateral to the opposite shoulder. An athlete with good trunk function should not have to reposition their hips or lean over the backrest of the chair.

#### 4.4.1 Bench Testing

For athletes who present with atypical impairments, the classifiers may adapt the described techniques to better evaluate the impairment, i.e. cerebral palsy, polio or muscular dystrophy.

If an athlete's impairment lies between two (2) defined point scores, the classifiers have the discretion to use a 0.5 point descriptor to document that difference.

##### Scoring – Upper Limbs:

Upper limb muscles are assessed as per the procedure for manual muscle testing outlined in section 4.3.6. Each upper limb is awarded a point score, as determined by the muscle strength profile descriptions detailed on the following page. Possible point scores for the upper limbs are 0.5, 1.0, 1.5, 2.0, 2.5, 3.0, 3.5 and 4.0.

While the descriptors contained in the scoring guide describe values for athletes with muscle strength impairments, it should be noted that additional impairments, such as range of movement limitation, muscle co-ordination impairments or partial loss of limb segments or digits will be taken into consideration when determining the final point score for that limb.

##### *Upper Extremity Proximal Weakness and Preservation of Distal Strength*

Upper extremity point value for athletes with neuromuscular conditions that result in proximal weakness with preservation of distal strength, for example, poliomyelitis, and muscular dystrophy, is determined in a special manner:

- Draw a line on the classification form to divide the muscle test scores on the bench test above the triceps.
- Give point value for the upper arm and the lower arm separately.
- Add the scores and divide by two. This score gives you the point value for that arm.

Trunk function is assessed as per the procedure below. Classifiers may determine the trunk score through a variety of tests performed in and/or out of the wheelchair.

##### Scoring – Trunk:

Score	Observations
2	Able to control the chair with their trunk without use of the hands Good function and mobility in all planes or directions and able to reach outside base of support with racket and recover.
1	Fair to good trunk Some function in one or two planes or directions May use strap to stabilise hips in chair Unable to move trunk in all planes without repositioning hips
0	Non-functional trunk Unable to use trunk for any physical advantage during play

##### Scoring – Weighting and Eligibility:

The dominant limb is weighted by doubling the score achieved.



The final score is determined by adding the weighted dominant limb score, the non-dominant limb score, and the trunk score.

Players who score more than **10 points** out of a possible maximum of 14 points shall be ineligible for the quad division.

On court observations will also be utilised in determining and/or confirming eligibility/ineligibility

### Scoring – Example Combinations:

Normal non-dominant arm + class 3 dominant arm + no trunk = eligible

Normal dominant arm + class 3 non-dominant arm = ineligible

Normal non-dominant arm + class 3 dominant arm + any trunk function = ineligible

### Scoring Guide – Upper Limbs

The following guide to upper limb point values is adapted from:

International Wheelchair Rugby Federation Classification Manual – 3<sup>rd</sup> Edition, 2011

#### 0.5 point

Deltoid	0 – 5
Latissimus Dorsi	0 – 1
Clavicular Pectoralis	0 - 5
Sternal Pectoralis	0 - 1
Biceps	0 - 5
Triceps	0 - 1
Wrist extension	0 - 5
Wrist flexion	0 - 1
Remaining hand muscles	0

*Characteristics of 0.5* are triceps 0-1 and shoulder girdle weakness, sternal pectoralis and latissimus weakness; possible weak shoulder rotation, with limited range; and possible clavicular pectoralis weakness.

#### 1.0 point

Latissimus Dorsi	0 - 3
Clavicular Pectoralis	5
Sternal Pectoralis	2 - 3
Biceps	5
Triceps	0 - 3
Wrist extension	0 - 5
Wrist flexion	0 - 3
Remaining hand muscles	0 – 1

*Characteristics of 1.0* are normal strength of deltoid muscles and clavicular pectoralis fibres with overall stronger proximal muscles than 0.5. Still has proximal weakness throughout shoulder girdle. May have 0 triceps with stronger proximal muscles, especially sternal pectoralis.

#### 1.5 point

Triceps	3+ - 4-
Wrist extension	4 - 5
Wrist flexion	0 – 3
Sternal Pectoralis	0 - 3
Latissimus	0 - 3

*Characteristics of 1.5* are remaining weakness of proximal muscles such as serratus anterior, sternal pectoralis or latissimus, in combination with stronger triceps and wrist extensors compared to 1.0.

#### 2.0 point

Shoulder girdle muscles	5
Biceps	5
Triceps	4 - 5
Wrist extension	4 - 5
Wrist flexion	4 - 5
Finger flexion and extension	0 - 2
Finger adduction and abduction	0 - 2
Thumb movements	0 – 2

*Characteristics of 2.0* are full strength in the shoulders and chest, good to normal triceps, and balanced wrist extension and flexion strength.

### 2.5 point

Shoulder girdle muscles	5
Biceps	5
Triceps	5
Wrist extension and flexion	5
Finger flexion and extension	2 - 4
Finger adduction and abduction	0 - 2
Thumb adduction, extension and flexion	0 - 4
Thumb opposition and abduction	0 – 2

*Characteristics of 2.5* are limited hand function with a curling and uncurling of the hand and not functional grasp and release. The curling and uncurling motion results from action of the finger flexor muscles without the stabilizing effect of the intrinsic muscles.

### 3.0 point

Shoulder girdle muscles	5
Biceps	5
Triceps	5
Wrist extension and flexion	5
Finger flexion and extension	3 - 5
Finger adduction and abduction	0 - 4
Thumb flexion, extension, adduction	3 - 4
Thumb abduction, opposition	3 - 4

*Characteristics of 3.0* are functional grasp and release (opening and closing) but grip strength is impaired because of less than normal strength in intrinsic and/or thumb abduction and opposition. Atrophy is present in the hands at the thenar and hypothenar eminences. Also, interossei and lumbrical muscle weakness causes decreased maintenance of the hand arches and indicates significant hand weakness and muscle strength of less than 4–5. A value of 3 or more for interossei and/or thumb opposition and/or abduction usually exclude a hand from 2.5 and indicates a 3.0 hand.

### 3.5 point

Good function (grades 4 to 5) in most muscle groups throughout the upper limb, but with some functional focal impairment resulting from health conditions such as peripheral nerve damage, reduced range of movement, partial or complete loss of digits, or reduced dexterity due to muscle co-ordination problems or tonal abnormalities.

### 4.0 point

Good function and mobility throughout the upper limb with scores of 4/5 in all muscle groups.

A classifier should not determine arm value on muscle tests alone, but consider neuromuscular movement potential of the entire extremity. Skill level, equipment, athletic ability or training effects should not be considered in the allocation of sport class.

## 4.4.2 Functional Skill Testing

Functional skills tested may include, but are not limited to: pushing, turning, stopping, starting, holding wheelchair against resistance, ball strokes and catching and throwing a tennis ball.

Functional skills will be performed in the athlete's playing chair, utilising all strapping and/or taping that the athlete plans to use during match play.

## 4.4.3 On Court Observation During Play (including match play)

All aspects of the athlete's game will be observed in order to determine the presence of functional limitations, caused by the athlete's impairment.

## 4.4.4 Video/ DVD Evidence.

Videos or DVDs can be used as evidence of quad status. If the National Association considers that the player fully meets all the ITF quad criteria, the National Association should send either a video or a DVD to the ITF Office, which includes the following material:

- The date on the footage
- The player stating name, date of birth and country of residence
- Close up shots of hands prior to taping or wearing gloves.
- Match play in a Competition- footage of general play and movement around the court (e.g. a 10 minute clip)
- Player gripping racquet
- Player gripping wheel rims
- Footage of forehand, backhand, service and smash shots
- Close up shots of the front and back of the hands
- Close up shots of the player opening and closing their hand (i.e. attempting to make a fist several times)
- Close up of both flexor and extensor aspects of both forearms
- Close up shots of any taping used
- Wheelchair propulsion/ manoeuvrability
- Evidence of shoulder range of movement.
- Evidence of trunk function:
  1. Athlete bends forward and with chest on the knees he tries to sit up without using his arms;
  2. Arms extended to the sides player rotates trunk from side to side;
  3. Arms extended to side, player leans left and right;
  4. If possible player sits at front of the seat without back support (hands to the side).
- A copy of the passport of the player should also be included with the video/ DVD

If quad status is still not clear after reviewing the video/DVD evidence, then the player will be requested to attend classification.

## 4.5 QUAD DIVISION – POWERDRIVE WHEELCHAIR ELIGIBILITY

### **4.5 QUAD DIVISION – POWERDRIVE WHEELCHAIR ELIGIBILITY**

*An athlete may compete in a powerdrive wheelchair if (and only if) he/she has a severe permanent impairment that significantly compromises wheelchair propulsion, when considered without aids or prosthetics. This is established by assessing the athlete's upper limbs and trunk as per the procedure described in Section 4.4.1 (Bench Testing). Using this procedure, the athlete must, in order to be eligible to use a powerdrive wheelchair, have:*

- *A point score for each arm of no greater than 1.0 or one arm that is completely non-functional during play [in which case any point score for the other arm is permitted], and;*
- *A point score for the trunk of no greater than 1.0.*

The athlete's upper limbs and trunk are assessed as per the procedure outlined in **Section 4.4.1 – Bench Testing**. Point scores are allocated to each upper limb and the trunk as described.

## **4.6 ASSIGNING CLASSIFICATION**

- Following classification, a score will be determined in line with the point scoring process as described in Section 3.5.2 (Bench Testing).
- Players will be informed of their classification score and subsequent classification status (please see Appendix A) as soon as a decision has been reached.
- Players are encouraged to discuss the results if necessary.
- When the classification status is established and the player has been informed, the ITF Wheelchair Tennis Department is responsible for ensuring that all appropriate parties are notified.

### **4.6.1 Classification Procedure**

Classification may include any or all of the following components, the use of which is determined by the initial assessment of the classifier.

- Bench testing (neuro-muscular assessment)
- Functional skill testing
- On court observation during play (including tournament play)

## **4.7 INTENTIONAL MISREPRESENTATION OF SKILLS AND/OR ABILITIES**

- 4.7.1** A player who, in the opinion of the classifiers, is intentionally misrepresenting skills and/or abilities shall be considered in violation of the Classification Rules.
- 4.7.2** If the player intentionally misrepresents skills and/or abilities, the player will not be allocated to a division (Quad or Open) or a sport class status (P-Status or E-Status within the Quad Division), and will not be permitted to compete.
- 4.7.3** In addition, the ITF will:
- 4.7.3.1.1** Not allow the player to undergo any further evaluation for a minimum of two years from the date upon which the player intentionally misrepresented skills and/or abilities
  - 4.7.3.1.2** Remove the player from the Ranking and the Quad Player List
  - 4.7.3.1.3** Not allow the player to undergo any further evaluation for any sport within the IF for a period of two years from the date upon which the player intentionally misrepresented skills and/or abilities.
  - 4.7.3.1.4** A player who, on a second separate occasion, intentionally misrepresents skills and/or abilities will receive a ban from the Paralympic Games and will be subject to other sanctions deemed appropriate by the ITF.

## **4.8 PROTESTS**

- Players may protest the decision of a classifier regarding their eligibility or Classification status.
- Protest and future tournament site classifications will be organised through the ITF Wheelchair Tennis Office.
- Any evaluation or classification undertaken as part of a Protest shall not be conducted by the same individual(s) as performed the initial evaluation. (See also General Points below).

- Protest forms will be sent automatically to players who have been deemed ineligible for the quad draw. Forms may also be obtained from the ITF Office in London or downloaded from the ITF Wheelchair Tennis website.

#### **General Points**

- In general two Classifiers will be present – a Lead Classifier and an Assistant Classifier. If only one Classifier is in attendance, the ITF reserves the right to have another representative present.
- In situations where the athlete's eligibility is not easily demonstrated or easily assessed, a full panel of 2 Classifiers is required to make a final determination regarding eligibility.
- In situations where the athlete's eligibility is clearly demonstrated or easily assessed, one Classifier may determine the athlete's eligibility.
- Classifiers working alone reserve the right to not make a determination regarding athlete eligibility for the reasons outlined above.
- The Lead Classifier, if at all possible, will not be from the same country of origin as the player who is being tested.
- Classifiers will utilise a variety of assessments to determine eligibility. These assessments may include, but are not limited to manual muscle tests, range of movement testing, assessment of muscle tone, functional movement's tests, sensory testing, and observation.
- Not all players have a spinal cord injury, and it is important to consider the fact that players must also meet functional disability criteria for general eligibility. Players should be considered individually and classified appropriately to ensure fair competition.

For full details on the Protest and Appeals Procedure please **see Appendix A**.

## APPENDIX A

### PROTESTS AND APPEALS

#### 1. PARTIES ENTITLED TO PROTEST/APPEAL

Only the following parties are entitled to appeal the eligibility or Protest the Classification status of a wheelchair tennis player (a "Protest") or appeal against the procedures by which a Classification has been conducted (an "Appeal"):

- The player (against the eligibility or Classification status assigned to him/her only) (the "Player")
- An ITF National Association (through its general secretary)
- The ITF Wheelchair Tennis Committee.

#### 2. NUMBER OF PROTESTS

The classification status of a player can only be protested once by any party.

#### 3. ADMISSIBILITY OF A REQUEST

To be admissible, a Protest or Appeal must be submitted to the ITF Wheelchair Tennis Manager in writing by one of the parties entitled to appeal (the "Protestor" or "Appellant", as appropriate). Where the Appellant is the Player, the Appeal must be received within two weeks of receipt of determination of eligibility or Classification.

#### 4. EXPERT PANEL

Appeals and Protests shall be considered by a panel (the "Expert Panel") appointed by the ITF Wheelchair Tennis Committee, which shall consist of no fewer than three people with relevant expertise. No member of the Expert Panel shall be a member of the ITF Classification Panel that was involved in the decision being appealed or subject to Protest.

#### 5. PROCEDURE

The Expert Panel shall deal with the appeal in the manner it considers appropriate in the circumstances. The Expert Panel is not bound by judicial rules governing the procedure or admissibility of evidence provided that the Player is informed of the Appeal and the grounds on which it is made, and is given a reasonable opportunity to be heard and/or provide information/evidence. There is no obligation for the Expert Panel to meet in person.

If the Expert Panel considers that a hearing is required, then the Protestor/Appellant and the Player are entitled to be present. The non-attendance of the Protestor/Appellant (or any other witness) at a hearing will not prevent the Expert Panel from proceeding and making a determination. Any hearing shall ordinarily be held in private and shall be confidential.

The Protestor/Appellant shall provide the Expert Panel with all relevant documentation relating to the Protest/Appeal including (at a minimum):

- The name and country of the Player whose eligibility or Classification status is the subject of the Protest, or whose Classification procedures are being appealed;
- Full details of the Appeal/Protest
- The Protest form (where appropriate)
- The decision being appealed/protested.
- The Player Declaration Form;
- The Minimum Eligibility Classification Form;
- The Quad Division Tennis Classification Form (as appropriate);
- Any documents and other evidence to be offered in support of the Protest/Appeal;
- All fees payable.

All documentation submitted as part of the Appeal/Protest shall be provided to the Player and any other party identified in the Protest/Appeal.

The Expert Panel may request other information from the Appellant and/or Player as it sees fit, such as medical evidence of permanent physical disability and/or the Player's pertinent medical records, including pertinent diagnostic studies. The Expert Panel may also require the Player to undergo evaluation by a relevant specialist. Any request for information, assistance and/or evidence must be complied with within a reasonable time limit as directed by the Expert Panel.

Failure on the part of the Protestor/Appellant to comply with a request for assistance, information or evidence upon which the Protest/Appeal is based within the time period designated by the Expert Panel shall invalidate the Protest/Appeal. Failure on the part of the Player to submit evidence or information and/or provide assistance within the time designated by the Expert Panel shall result in the suspension from competition of the Player until such time as the evidence, information and/or assistance is provided.

## **6. DETERMINATION**

On completion of its consideration (and subject to a failure on the part of the Protestor to comply with a request of the Expert Panel), the Expert Panel shall determine that:

For Protests

- The Player's original eligibility or Classification status is confirmed, or;
- The Player's original eligibility or Classification status is changed (and specify what that change is), or;
- The Player must undergo a further classification or;

The Expert Panel may only determine that the Player's eligibility and/or Classification status is changed if it is unanimous in that view.

For Appeals

- The Appeal is dismissed, or;
- The Appeal is upheld, or;
- The Appeal is partially upheld.

The Expert Panel shall provide all parties a written decision, with reasons. The ITF Wheelchair Tennis Manager shall communicate the Expert Panel's determination to the Player and the Appellant as soon as reasonably practicable following the determination. The determination shall be final and binding on receipt by the Player.

## **7. ELIGIBILITY**

The original eligibility and/or Classification status of a Player subject to Protest/Appeal will remain unchanged pending the outcome of the Protest/Appeal.

If the Expert Panel determines that the Player's eligibility and/or Classification status is changed, then the new eligibility and/or Classification status shall apply immediately on receipt by the Player of the Expert Panel's determination.

If the Player participates in an ITF-sanctioned wheelchair tennis event while his eligibility and/or Classification status is under appeal, and is subsequently determined by the Expert Panel to be ineligible and/or differently Classified, no match results obtained by the Player during that period shall be re-assessed, except in the case of a final, in which case the Player's win(s), if any, will be reversed. This may result in the player (or nation) who originally lost the final being declared the Champion (or Champion Nation).

## **8. FEES AND COSTS**

All Protests and Appeals are subject to payment of a fee. This fee is US\$150 for a Protest and US\$300 for an Appeal. No Protest or Appeal will be considered until all payable fees have been received by the ITF. In the event that the Protest/Appeal is successful, the fee will be returned. Otherwise, all fees shall be retained by the ITF.

Costs incurred by a Player subject to Protest/Appeal (e.g. in obtaining medical or any other evidence and/or providing information and/or assistance to the Expert Panel) shall be borne by the Player. However, the Expert Panel, in conjunction with the ITF Wheelchair Tennis Manager, may determine that the Protestor/Appellant meet the reasonable costs necessarily incurred by the Player in responding to the Protest/Appeal (either in whole or in part).

## **9. CLASSIFICATION PROTEST DEADLINE FOR THE PARALYMPIC TENNIS EVENT**

Protests against the eligibility or Classification status of a Player to compete in the Paralympic Tennis Event ("PTE") are only admissible from the end of the PTE until one year prior to the start of the next PTE. The ITF will not accept any Protests outside of this period to provide certainty of preparation for all players aiming to qualify for the PTE.

## **10. CHANGE OF CIRCUMSTANCES**

Subject to the previous section ('Classification protest deadline for the Paralympic Tennis Event'), the Expert Panel may, at any time, decide to re-open a Protest/Appeal where it believes, in its absolute discretion, that there has been a change in a Player's circumstances that might affect that Player's eligibility and/or Classification status.

Such circumstances may result from:

- a) A change in the degree of impairment of a Player.
- b) A Player demonstrating significantly less or greater ability prior to or during Competition which does not reflect the Player's current Classification.
- c) An error made by a Classification Panel, which has led to the Player being allocated a Classification which is not in keeping with the Player's ability.
- d) Classification criteria having changed since the Player's most recent Evaluation.

A re-opened Protest/Appeal shall follow the procedures described in this Appendix.



## **APPENDIX B**

### **I. ITF SPORTS SCIENCE AND MEDICINE COMMISSION TERMS OF REFERENCE**

1. To provide advice, assistance and, where appropriate, make recommendations to the ITF on Anti-Doping Rules, policies and procedures in wheelchair tennis.
2. To provide advice on medical issues and, where appropriate, make recommendations to the ITF on medical issues.
3. To provide advice, assistance and, where appropriate, make recommendations to the ITF Wheelchair Tennis Committee on the Rules of Wheelchair Tennis and related matters.
4. To carry out such functions, including, but not limited to, reviewing proposed rule changes, as the ITF Wheelchair Tennis Committee and/or the ITF refer to the Commission from time to time.

#### ITF Classification Panel Terms of Reference

5. To determine eligibility matters in accordance with the Rules of Wheelchair Tennis and/or to appoint classifiers to adjudicate eligibility to play wheelchair tennis and quad tennis.
6. To consider applications from players to register as a quad player and determine whether a player is eligible to play in the Quad Draw or whether a quad tennis classifier(s) should assess such player.

To advise the ITF Wheelchair Tennis Committee with regard to eligibility and classification in wheelchair tennis.

### **II. GENERAL ELIGIBILITY**

A. All players with a medically diagnosed permanent mobility related physical disability as defined in IV.2.a) are eligible to compete in ITF sanctioned wheelchair tennis tournaments. Players must be prepared to present medical documentation that substantiates the disability.

#### **B. GENERAL ELIGIBILITY CLASSIFICATION**

In cases where players may be uncertain over their eligibility status to play wheelchair tennis, they may request to the ITF Wheelchair Tennis Manager that they be allowed to be classified. The manager shall have the discretion to determine whether such classifications should take place and if so, the location, timing and cost of such classification. If such classification is to take place, the player may be observed by an approved classifier(s) during practice, warm-up, play and/or at any time during the tournament stay. These observations by the classifier(s) may be supplemented by a review of the player's medical history and by a physical examination of the player. Based on the evidence of the classifier(s), the ITF Classification Panel will make a decision on the eligibility of the player.

For the avoidance of any doubt, save for quad eligibility and the exceptional circumstances as per above, the procedures for general eligibility remain self-certification.

### III. QUAD DRAW

#### A. QUAD ELIGIBILITY

It is recognized that fairness for competition necessitates a Quad Draw for wheelchair tennis. Adapting from the philosophy for classification in most of the other sports for persons with a disability, function and movement potential, in addition to minimal medical criteria, now form the basis for determining the criteria for the Quad Draw as defined in IV 2. b, c. The function and movement potential criteria are those specific for wheelchair tennis. It is also understood that medical conditions other than spinal cord injury may result in upper extremity impairment, and may allow a player to be eligible for the Quad Draw if the functional criteria set out in the Rules are met. The 'Quad' Draw may not be encompassing of all quadriplegic athletes. For avoidance of doubt, some quadriplegic athletes will be deemed eligible and some ineligible, under the criteria stipulated for quad tennis (please see Section IV, Eligibility Rules).

#### B. QUAD CLASSIFICATION

##### 1. NEW QUAD PLAYERS

Players applying for quad status may apply to register throughout the year but such applications must be received at least three (3) months prior to the event they wish to enter. Quad registration forms are available through the ITF, the players' National Association, and the ITF website. Fully completed forms will be examined by members of the Classification Panel who will ordinarily advise the player within six (6) weeks if the player is eligible provisionally for quad tennis (P status). The player will then be able to compete in a maximum of four tournaments on the UNIQLO Wheelchair Tennis Tour (this includes only one ITF 1 event and no BNP Paribas World Team Cup, Paralympics, Super Series and Grand Slams) within any 12 month period. If a player with a P status wishes to compete in further ITF sanctioned tournaments, he must attend for classification.

##### 2. CLASSIFICATION

Subject to paragraph B1 above, in order to ascertain whether a player is eligible to play wheelchair tennis in the Quad Draw, the player will be observed by an approved classifier(s) during practice, warm-up, play and/or at any time during the tournament stay and will be assessed on a points system as laid down in the ITF Quad Tennis Classification Manual. These observations by the classifier(s) may be supplemented by a review of the player's medical history and by a physical examination of the player to provide further information to assist in deciding whether the player is eligible to play in the Quad Draw. Training and experience do not affect movement potential and so do not have any bearing on the eligibility of the player.

##### 3. ELIGIBILITY CODES

Following a classification, players will be informed of their classification score and subsequent eligibility status. The status will be one of the following:

#### C Confirmed

Players with the C status have been classified as eligible to play quad wheelchair tennis. This status would remain unless the classification criteria are reviewed and/or there is a need for re-classification (e.g. protest).

#### R Review

A player with this code is under classification review. The classifiers have been unable to reach a definite decision following the initial assessment. The player can compete but will remain under observation. The R status will expire 12 months after the player is given this status or before that time if the player has been reviewed as ineligible/eligible. It is the responsibility of the player to ensure that he attends another classification event and/or arrange classification before the 12 month period lapses. The R code may only be given once for the maximum length of 12 months.

R Status players are not eligible to play in the BNP Paribas World Team Cup, Paralympics and any Super Series or Grand Slam events.

#### P Provisional

Upon receipt of the quad registration form with the fully completed paperwork, the Classification Panel will decide if the player will receive the provisional status, which will allow him to compete in a maximum of 4 UNIQLO Tour events (Futures Series, ITF 3 and 2 Series, and only one ITF 1 event). No player should have more than four events on their ranking at any time. However, a player assigned the P status may be required to attend classification at any time prior to this if this is deemed necessary.

P Status players are not eligible to play in the BNP Paribas World Team Cup, Paralympics and any Super Series or Grand Slam events.

#### U Unclassifiable

Classifiers have been unable to classify the player. The testing process may not have been completed or was made impossible due to pain, spasticity or lack of co-operation from the player. This player will be given an unclassifiable status and deemed ineligible to compete in the Quad Draw.

**WHEELCHAIR TENNIS MINIMUM ELIGIBILITY  
CLASSIFICATION FORM**

Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Name of Lead Classifier: \_\_\_\_\_ Signature: \_\_\_\_\_

Name of Assistant Classifier: \_\_\_\_\_ Signature: \_\_\_\_\_

Name of Athlete: \_\_\_\_\_ Country: \_\_\_\_\_

Date of Birth: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

Diagnosis: \_\_\_\_\_

Onset: \_\_\_\_ / \_\_\_\_ / \_\_\_\_  
Congenital /  
Acquired

Supporting documentation provided: Yes / No

Limbs Affected:      L LE                      R LE                      L UE                      RUE

Current medication and dosage:

Taken today: Yes / No

Operations - Type/Location:

**Athlete's Description of Impairment(s) Impacting on Tennis:**

Eligible Impairment Types -

- |                          |                  |                             |
|--------------------------|------------------|-----------------------------|
| 1. Hypertonia            | 2. Ataxia        | 3. Athetosis                |
| 4. Limb Deficiency       | 5. Impaired PROM | 6. Impaired Muscle Strength |
| 7. Leg Length Difference | 8.               |                             |

**HYPERTONIA, ATAXIA, ATHETOSIS**

**Tests for Major Signs:**

Positive Babinski

Clonus

Brisk reflexes/ clear differences in reflexes

Biceps  
Triceps  
Wrist

Left	Right

Knee  
Ankle

<b>Left</b>	<b>Right</b>

Evidence of athetosis or ataxia

**Tests for Minor Signs:**

Stiffness or rigidity in one or more limbs

Mild atrophy or shortening of a limb

**Ashworth Spasticity Grade:**

Arms Proximal  
Distal  
Legs Proximal  
Distal

**Trunk:**

Static Trunk

Control:

Good

Fair

Poor

Dynamic Trunk Movements:

Good

Fair

Poor

**Coordination Tests:**

Suggested Tests -

- |                           |                                |                         |
|---------------------------|--------------------------------|-------------------------|
| 1. Gait (describe)        | 2. Tiptoe Walking              | 3. Heel Walking         |
| 4. Single Leg Hopping     | 5. High Stepping               | 6. Heel to Buttock Kick |
| 7. Heel - Shin Slide      | 8. Side Step to Left and Right | 9. Finger-Nose Test     |
| 10. Fast Elbow Flex / Ext | 11. Fast Forearm Pron / Sup    |                         |

**Comments:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**LIMB DEFICIENCY**

**Amputation Side(s) and Level:**

Measurements if required:

- Leg length (ASIS to med malleolus)
- Femur length
- Tibia length
- Foot length
- Arm Length (acromion to fingertip)

<b>Left</b>	<b>Right</b>

Humerus length  
 Radius length  
 Hand length  
 Stiffness or rigidity in one or more limbs

Mild atrophy or shortening of a limb

**Ashworth Spasticity Grade:**

Proximal  
 Distal


**IMPAIRED PASSIVE RANGE OF MOVEMENT AND IMPAIRED MUSCLE STRENGTH**

**Passive Joint Range:**

	Left	Right	Normal
<b>Hip:</b>			
Flexion			120
Extension			20
Abduction			45
Adduction			20
<b>Knee:</b>			
Flexion			135
Extension			0
<b>Ankle:</b>			
Dorsiflexion			20
Plantar Flexion			45
Inversion			35
Eversion			25

**Muscle Strength:**

	Left	Right	Measure d at
<b>Hip:</b>			
Flexion			90
Extension			5
Abduction			5
Adduction			5
<b>Knee:</b>			
Flexion			
Extension			-15
<b>Ankle:</b>			
Dorsiflexion			10
Plantar Flexion			25
Inversion			10
Eversion			10

**LEG LENGTH DIFFERENCE**

ASIS to tip of medial malleolus

Left	Right	Difference

Standing height: \_\_\_\_\_

Arm length: \_\_\_\_\_

## SUMMARY AND OUTCOME

### Observe in a variety of situations -

1. On the open court during play and warm ups
2. During time-outs while working with equipment i.e. tape, gloves, water bottle, etc
3. During daily activities

**Comments:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### Decision of Classifiers:

#### 1. NON ELIGIBILITY

My reasons for classifying this athlete as ineligible for Wheelchair Tennis are:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### 2. ELIGIBILITY

I confirm that \_\_\_\_\_ be classified eligible for Wheelchair Tennis

**QUAD DIVISION TENNIS CLASSIFICATION FORM**

Lead Classifier \_\_\_\_\_ Signature \_\_\_\_\_

Assistant Classifier \_\_\_\_\_ Signature \_\_\_\_\_

Name of Athlete \_\_\_\_\_

Diagnosis \_\_\_\_\_

Limbs Affected	L UE	R UE	Onset		
Dominance	Pre injury _____	Post Injury _____	L LE	R LE	
			Tape racket	Yes _____	No _____

Current medication and dosage:  
Taken today: Yes / No

Strap for trunk support Yes \_\_\_\_\_ No \_\_\_\_\_

Operations (cervical/tendon)

Type/Location: \_\_\_\_\_

Spasticity: \_\_\_\_\_

Type/Location: \_\_\_\_\_

Sensory level \_\_\_\_\_ Complete Incomplete

Contractures: Type/Location: \_\_\_\_\_

Muscle wasting:	Scapular/rot cuff Forearms	Deltoid Hypothernar	Pectoralis Thenar	Triceps Intrinsics
-----------------	-------------------------------	------------------------	----------------------	-----------------------

**MANUAL MUSCLE TEST ( 0-5 )**

	MANUAL MUSCLE TEST ( 0-5 )			PROM		AROM	
	R	L		R	L	R	L
Shoulder Abd			Shoulder Abd				
Shoulder Horiz Add			Shoulder Horiz Add				
Shoulder Ext			Shoulder Ext				
Shoulder Flex			Shoulder Flex				
Scapular Protract							
IR neutral/90 abd			Shoulder IR				
ER neutral/90 abd			Shoulder ER				
Elbow Flex			Elbow Flex				
Elbow Ext			Elbow Ext				
Pronation			Pronation				



Supination			Supination					
Wrist Ext			Wrist Ext					
Wrist Flex			Wrist Flex					
Ulnar deviation								
Radial deviation								
Finger extension			Finger extension					
Finger flexion			Finger Flexion					
Dorsal Abduction								
Palmar Adduction								
Thumb Abduction			Thumb Abduction					
Thumb Adduction			Thumb Adduction					
Thumb Extension			Thumb Extension					
Thumb Flexion			Thumb Flexion					
Thumb Opposition			Thumb Opposition					

### FUNCTIONAL TESTS

- |  |          |                               |   |
|--|----------|-------------------------------|---|
| Trunk balance in unsupported sitting       |          | Able <input type="checkbox"/> | Unable <input type="checkbox"/>                   |
| Trunk raise from forward flexion           |          | Able <input type="checkbox"/> | Unable <input type="checkbox"/>                   |
| Trunk control on rotation movements        |          | Able <input type="checkbox"/> | Unable <input type="checkbox"/>                   |
| Racket grip in 30 degrees of wrist flexion |          | Able <input type="checkbox"/> | Unable <input type="checkbox"/>                   |
| Tennis ball grip with thumb opposition     |          | Able <input type="checkbox"/> | Unable <input type="checkbox"/>                   |
| Overhead ball toss                         |          | Able <input type="checkbox"/> | Unable with substitution <input type="checkbox"/> |
| Stroke demonstration                       | Serve    | Able <input type="checkbox"/> | Unable <input type="checkbox"/>                   |
|  | Forehand | Able <input type="checkbox"/> | Unable <input type="checkbox"/>                   |
|  | Backhand | Able <input type="checkbox"/> | Unable <input type="checkbox"/>                   |

Racquet hand is: \_\_\_\_\_

R arm score: \_\_\_\_\_ + L arm score: \_\_\_\_\_ + Trunk score: \_\_\_\_\_ =

Total score: \_\_\_\_\_

Comments:

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**WHEELCHAIR TENNIS ELIGIBILITY & CLASSIFICATION:  
PLAYER DECLARATION FORM**

**PLAYER** .....

**LEAD CLASSIFIER** .....

**ASSISTANT CLASSIFIER** .....

**EVENT** ..... **DATE** .....

**THE CLASSIFICATION PROCESS:**

1. Classifiers will fully explain the classification process.
2. Players are required to co-operate fully with classifier requests at all times. Players who do not co-operate fully may be deemed unclassifiable, and will therefore be ineligible to compete in the quad division.
3. Players are entitled to have one accompanying person as an observer to the process. This person must also co-operate fully with classifier's requests. If the observer fails to co-operate fully, the player may be deemed unclassifiable, and will therefore be ineligible to compete in the quad division.
4. Classification will be carried out in English. Those players who do not understand English, are responsible for providing their own interpreter.
5. The classification process consists of any or all of 3 components that may be performed in any sequence:
  - a. Bench testing
  - b. On-court skills testing
  - c. On-court match play observation
6. At the conclusion of all testing and observation, players will be asked to sign the Player's Declaration that follows, to indicate that they are satisfied that the correct process has been followed.
7. Classifiers may then require a period of time to deliberate on the player's assessment findings. Once the final decision has been made, the player will be notified directly by the classifiers of the outcome of their classification process.
8. Players will be notified officially in writing of the decision by the ITF.

**I AGREE TO THE TERMS OF THE CLASSIFICATION PROCESS THAT IS DESCRIBED ABOVE:**

.....  
**PLAYER'S SIGNATURE**

**PLEASE READ THE FOLLOWING BEFORE SIGNING THE FORM AT THE BOTTOM OF THIS PAGE**

**PLAYER'S DECLARATION**

I acknowledge and accept that the classification procedure was carried out fairly and in accordance with the regulations in Appendix A of the Wheelchair Tennis Handbook

I confirm that I have had the opportunity to ask the classifiers the questions that I would wish to ask in relation to the process and they have explained to my satisfaction the relevant procedures.

I acknowledge and accept that by signing this form, I agree that the examination by the classifiers has been carried out properly and fairly and that the ITF is entitled to rely on the classification determined by the classifiers who examined me and further that the classification and related information may be distributed and disclosed as necessary by the ITF for the purposes of applying the regulations or related matters.

I also confirm that I have had the opportunity to make comments and have recorded those comments that I would wish to make on this form in the relevant section below.

**COMMENTS OF PLAYER OR OBSERVER:**

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Please delete as appropriate:

- ◆ I confirm that I have read, understand and agree the above declaration.
- ◆ I am not in agreement with the above declaration.

.....  
**PLAYER'S SIGNATURE**

**WHEELCHAR TENNIS ELIGIBILITY & CLASSIFICATION:  
PROTEST FORM**



Please indicate which of the following categories you fall into:

- a) Player (protesting against the classification status assigned to him)
- b) An ITF National Association (through its general secretary)
- c) The ITF Wheelchair Tennis Committee.

Name of Protested Player: \_\_\_\_\_ Country: \_\_\_\_\_

Reason for Protest against Classification status:

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Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Please attach the fee of US\$150 (Protest) or US\$300 (Appeal) made payable to ITF Licensing (UK) Ltd and return to the following address:

ITF Limited  
Bank Lane  
Roehampton  
LONDON, SW15 5XZ  
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E-mail: [wheelchairtennis@itftennis.com](mailto:wheelchairtennis@itftennis.com)  
[www.itftennis.com/wheelchair](http://www.itftennis.com/wheelchair)  
Registered address: PO Box N-272, Nassau, Bahamas

**Office use only**

Date of original assessment of player: \_\_\_\_\_

Tournament : \_\_\_\_\_

Lead Classifier: \_\_\_\_\_

Result of Classification: \_\_\_\_\_

---

Notes:

Notes:



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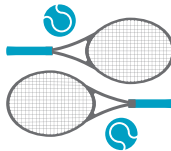
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