**WHEELCHAIR DANCE**

Wheelchair Dance Sport involves athletes with a physical disability that affects the lower limbs. Wheelchair dancers may participate with an able-bodied partner or duo-dance for two wheelchair users together. The dances include: Tango, Waltz, Viennese waltz, Foxtrot, Quickstep as well as Samba, Cha-cha-cha, Rumba, Paso doble and Jive. There are also Formation dances for four, six or eight couples dancing in formation.

For the first time an international competition in Wheelchair Dance Sport took place in Sweden in 1977. Few years later in 1998, the first World Championships took place in Japan. The same year, Wheelchair Dance Sport became an IPC Championship Sport, but is still not part of the Paralympic games today. It is governed by the International Paralympic Wheelchair Dance Sport Committee (IPWDSC) following the modified rules of the International Dance Sport Federation (IDSF) in 2008, and is widely practiced by athletes in more than 30 countries.

**Classification:**

- **Combi:** dancing with an able-bodied (standing) partner
- **Duo:** dance for two wheelchair users together
- **Formation:** dances for four, six or eight couples dancing in formation

**Complete Classification:**

1. **General Principal**
   
   1. The classification is a functional classification, which can be adapted to any category.
   
   2. Five criteria are tested to evaluate the function of upper limb and trunk control using a point system. The point limit depends on the category.

2. **Testing Procedure**
   
   1. The athlete has to be tested on a hard floor under competition conditions (in competition wheelchair e.g.straps, supports).
   
   2. The function is assessed for each side of the body with
      - 2 points for full function
      - 1 point for reduced function
      - 0 point for no function
      - Maximum points are 20

3. **The five criteria are:**
   
   1. **Wheel Control:** the ability to accelerate and stop the wheel by one or the other hand
   
   2. **Push Function:** by pushing in hand contact with the partner with one or the other arm the movement of the wheelchair can be controlled
3. **Pull Function**: by pulling in hand contact with the partner with one or the other arm the movement of the wheelchair can be controlled.

4. **Full Arm Function**: the athlete must be able to perform a controlled movement of the free arm reaching full extension of the joints and full co-ordination.

5. **Trunk Rotation**: hands in the neck, the athlete must be able to fully rotate the trunk without losing balance. [3]

### 4. Classes

1. The classes for Wheelchair Dance Sport Competitions in the section Standard Dances and the section Latin American Dances are:
   - LWD 1: 14 points or less
   - LWD 2: more than 14 points. [3]

### 5. Classification Card

All disabled competitors must present an IPC Medical Classification card prior to competition. After two international classifications the class can be permanent. [3]

### 6. Permanent Classification

- Basis is a disability, which is not likely to improve.
- "Permanent" can only be given by two (2) different international classifiers from different countries.
- Athletes showing their permanent classification by a valid classification card do not have to be tested before the competition. [3]

### 7. Classification Procedure

#### Official IPC Competitions

- For the IPC Competitions the classifiers can be selected from the official classifier list by the organiser.
- The team of classifiers should consist of minimum one classifier trainer and one international classifier and one national classifier. At least one of them should be a medical doctor.
- The proposed team needs to be approved by the Classification Committee.

#### Regional Championships approved by the IPC-WDSC

At least one international classifier from the official list has to lead the classification. Minimum of one medical doctor should be present.

#### Organising Principles

- Sufficient time has to be provided by the organiser, at least two (2) hours before the warm up dancing. The room must be big enough and have a hard floor to test dancing.
- Only one classifier who is the primarily responsible classifier signs the classification.
- The team leader of the classified athletes can protest the classification within one hour after classification (see also general protest regulation of IPC).
- The team of other nations can protest within a half-hour after the competition by their team leader.
- The protest classification should be done within one hour after protest.
- The protest classification has to be done by a different team. They have to hear the athlete's explanations as well as the first classifiers opinion.
- The times can be prolonged for special reasons in agreement with the involved persons. [3]

**Wheelchairs Used For Wheelchair Dance Sport:**

![Wheelchair 1](http://www.usatechguide.org/blog/a-wheelchair-for-dancing-not-a-dancing-wheelchair/)

![Wheelchair 2](http://www.usatechguide.org/blog/a-wheelchair-for-dancing-not-a-dancing-wheelchair/)

Pic Courtesy: http://www.usatechguide.org/blog/a-wheelchair-for-dancing-not-a-dancing-wheelchair/

Pictures of a rigid frame wheelchair with intrinsic features that make it especially suitable for use in both competitive and recreational dancing
PARATRIATHLON

A triathlon is a multiple-stage competition involving the completion of three disciplines which involves swimming, cycling, and running in immediate succession over various distances.

Paratriathlon is a variant of the triathlon for athletes with a physical disability.

The sport is governed by the International Triathlon Union (ITU) and has been accepted by the International Paralympic Committee as from the 2016 Summer Paralympics to be held in Rio de Janeiro, Brazil.

The event considers a 750m swim, 20km cycling (using handcycles, bicycles, tricycles or tandem bicycles with a guide) and a 5km wheelchair or running race. Athletes compete in the same six classes as in ITU events. [4]

Classification:

- **TRI-1** - Wheelchair user. Paraplegic, quadriplegic and other impairments that preclude use of a leg pedalled bicycle. Use a handcycle on the cycling stage and a racing wheelchair on the running stage.

- **TRI-2** - Severe leg impairment which includes above knee amputation. Use a conventional bicycle and run with above-knee prosthesis or using crutches.

- **TRI-3** - Les Autres, including athletes with multiple sclerosis, muscular dystrophy, cerebral palsy, double leg amputation or paralysis in multiple limbs. Use a conventional bicycle or a tricycle and run with leg braces or prosthesis.

- **TRI-4** - Arm impairments, including paralysis, amputation or other impairment in both arms. Use a conventional bicycle and may use braces, prosthesis or slings on the cycling and/or running stage.

- **TRI-5** - Moderate leg impairment, including below knee amputation. Use a conventional bicycle and may run with brace or prosthesis.

- **TRI-6** - Visual impairment, acuity of less than 6/60 or field of less than 40 degrees with correction. Competes with a guide of the same gender and uses a tandem bicycle. [5]
FOOTBALL 7- A- SIDE

Paralympic football consists of adaptations of the sport of association football for athletes with a physical disability.

These sports are typically played using International Federation of Association Football (FIFA) rules, with modifications to the field of play, equipment, numbers of players, and other rules as required to make the game suitable for the athletes.

The two most prominent versions of Paralympic football are:

- Football 5-a-side: for athletes with visual impairments
- Football 7-a-side, for athletes with cerebral palsy.[6]

Football 7-a-side is an adaptation of association football for athletes with cerebral palsy and other neurological disorders, including stroke and traumatic brain injury.

The sport is governed by the Cerebral Palsy International Sports and Recreation Association (CP-ISRA).

The sport is played with modified FIFA rules. Among the modifications are a reduced field of play, a reduction in the number of players, elimination of the offside rule, and permission for one-handed throw-ins. Matches consist of two thirty-minute halves, with a fifteen-minute half-time break. [7]

Players competing in Football 7-a-side are given a sport class based on their level of disability. Eligible classes are:

- **FT5**: Athletes having hypertonia and spasticity in both lower limbs and to some degree in both upper limbs.
- **FT6**: Athletes who are affected by co-ordination and balance problems in all four limbs and trunk
- **FT7**: Athletes with hemiplegia (only one side of the body affected causing players to run/walk with a limp)
- **FT8**: Minimally disabled athletes; they must meet eligibility criteria and have an obvious impairment that has impact on the sport of football. [8]

Teams must field at least one class FT5 or FT6 player at all times. No more than two players of class FT8 are permitted to play at the same time.
FOOTBALL 5- A-SIDE

Football 5-a-side, also known as futal and blind football, is an adaptation of football for athletes with visual impairments including blindness.

The sport, governed by the International Blind Sports Federation (IBSA), is played with modified FIFA rules.

The field of play is smaller and so is the goal. Teams are reduced to five players, including the goalkeeper, per team. Teams may also use one guide, who is positioned off the field of play, to assist in directing players. The ball is equipped with a noise-making device to allow players to locate it by sound. Matches consist of two 25-minute halves, with a ten-minute break at half-time. [9]

Since there are different levels of visual impairment, all players except the goalie (who acts as a guide) are required to wear eye shades. Matches are played indoors, or outdoors on AstroTurf or artificial grass pitches that may be enclosed within a barrier or "cage" to prevent the ball from leaving the playing area and keep the game flowing.

Rules:

Generally the rules for small sided games are much the same as the 11-a-side game with the following additions

- The ball is not allowed to go over "head height" or else the opposition is awarded an indirect free kick
- The penalty area is significantly different from regular football: it is semi-circular in shape, only the goalkeeper is allowed to touch the ball within it, and he or she is not allowed out
- Goalkeepers are only allowed to roll the ball out to another player. The goalkeeper may only kick the ball if it is in the course of making a save
- There are no offside rules, eliminating the need for linesmen
- Headers may or may not be allowed
- Yellow cards may result in the offending player being sent to the "sin bin" for a pre-determined length of time. Red cards work in the same way as the 11-a-side game
- Charging/sliding tackles are forbidden.

Additionally, metal studded boots or blades cannot be worn, as it damages the playing surface. Players are also required to wear shin pads but this is usually at the discretion of the referee.

Five-a-side is commonly played informally, and the rules are therefore flexible and are sometimes decided immediately before play begins. [10]
Classification:

Football 5-a-side players are assigned to one of three sport classes based on their level of visual impairment:

- **B1** - Totally or almost totally blind; from no light perception up to light perception but inability to recognise the shape of a hand.

- **B2** - Partially sighted; able to recognise the shape of a hand up to a visual acuity of 2/60 or a visual field of less than 5 degrees.

- **B3** - Partially sighted; visual acuity from 2/60 to 6/60 or visual field from 5 to 20 degrees.

Teams are permitted to use sighted athletes as goalkeepers and guides; sighted goalkeepers cannot have been registered with FIFA for at least five years.

Two types of competitions exist. For Class B1 games, only athletes with sport class B1 are permitted as players, with the exception of the goalkeepers and the guides, who may be class B2, B3, or sighted.

For Class B2/B3 games, teams can field players in sport classes B2 and B3; at least two B2 players must be on the field at all times.

Football 5-a-side in Europe was developed in Spain. The first Spanish national championships took place in Spain in 1986. The sport was added to the Summer Paralympic Games in 2004. [9]

WHEELCHAIR FENCING

Fencing, which is also known as Olympic fencing to distinguish it from historical fencing, is an activity using bladed weapons. It is usually practised with the help of a sword or mini-blade. [11]

Weapons:

There are the three weapons, Foil, Sabre, and Épée. The weapon used also affects the match.

- **Foil**—a light thrusting weapon that targets the torso, including the back, but not the arms. Touches are scored only with the tip; hits with the side of the blade do not count, and do not halt the action. Touches that land outside of the target area (off-target) stop the action, and are not scored. Only a single hit can be scored by either fencer at one time. If both fencers hit at the same time, the referee uses the rules of "right of way" to determine which fencer gets the point.

- **Sabre**—a light cutting and thrusting weapon that targets the entire body above the waist, excluding the hands. Hits with the edges of the blade as well as the tip are valid. As in foil, touches that land outside of the target area are not scored. However, unlike foil, these off-target touches do not stop the action, and the fencing continues. In the case of both fencers landing a scoring touch, the referee determines which fencer receives the point for the action, again through the use of "right of way".

- **Épée**—a heavier thrusting weapon that targets the entire body. All hits must be with the tip and not the sides of the blade. Touches hit by the side of the blade do not halt the action. Unlike foil and sabre, Épée does not use "right of way", and allows simultaneous hits by both fencers. However, if the score is tied at the last point and a double touch is scored, nobody is awarded the point. [11]

Protective Clothing:

Fencing outfits are made of tough cotton or nylon. Kevlar was added to top level uniform pieces (jacket, breeches, underarm protector, lamé, and the bib of the mask).

The Complete Fencing Kit Includes:

- **Form-fitting jacket** covering groin with strap which goes between the legs. In sabre fencing, jackets that are cut along the waist and exclude the groin padding are sometimes used. A small gorget of folded fabric is sewn in around the collar to prevent an opponent's blade from slipping under the mask and along the jacket upwards towards the neck.

- **Plastron**, an underarm protector, which goes underneath the jacket and provides double protection on the sword arm side and upper arm. The armpit cannot have a seam, which would line up with the jacket seam and provide a weak spot.

- One **glove** for the weapon arm with a gauntlet that prevents blades from going up the sleeve and causing injury, as well as protecting the hand and providing a good grip.
- **Breeches** or knickers which are a pair of short trousers that end just below the knee. The breeches are required to have 10 cm of overlap with the jacket. Most are equipped with suspenders (braces).

- Knee-length or thigh high **socks** which cover knee and thighs

- **Shoes** with flat soles and reinforcement on the inside of the back foot and heel of front foot, to prevent wear from lungeing

- **Mask**, including a bib which protects the neck. The mask can usually support 12 kilograms (26 lb) on the metal mesh 350 newtons (79 lb) of penetration resistance on the bib. FIE regulations dictate that masks must withstand 25 kilograms (55 lb) on the mesh and 1,600 newtons (360 lb) on the bib. Some modern masks have a see-through visor in the front of the mask. These have been used at high level competitions (World Championships etc.), however, they are currently banned by the FIE, following a 2009 incident in which a visor was pierced during the European Junior Championship competition.

- **Plastic chest protector**, mandatory for females. While male versions of the chest protector are also available, they were, until recently, primarily worn by instructors, who are hit far more often during training than their students. These are increasingly popular in foil, as the hard surface increases the likelihood that a hit fails to register, as well as with youth competitors.

- **Lamé** is a layer of electrically conductive material worn over the fencing jacket that entirely covers the valid target area. It is worn only in foil and sabre, and serves to distinguish hits on target from those that are off-target. In épée, the entire body is target, so it is not necessary to have a lamé. In foil the lamé is sleeveless, while in sabre the lamé has sleeves and ends in a straight line across the waist. A body cord is necessary to register scoring: it attaches to the weapon and runs inside the jacket sleeve, then down the back and out to the scoring box. In sabre and foil the body cord connects to the lamé in order to create a circuit to the scoring box.

- Fencing Masters often choose a heavier protective jacket, usually reinforced by plastic foam to cushion the numerous hits an instructor has to endure. Sometimes in practice, masters wear a protective sleeve or a leg leather to protect their fencing arm or leg.

Traditionally, the fencers' uniform is white (black for instructors). This may be due to the occasional pre-electric practice of covering the point of the weapon in dye, soot, or coloured chalk in order to make it easier for the referee to determine the placing of the touches. As this is no longer a factor in electric, the FIE rules have been relaxed to allow coloured uniforms (save black). The guidelines also limit the permitted size and positioning of sponsorship logos. [11]

**Wheelchair fencing** is a version of Fencing for athletes with a disability. Wheelchair fencing is governed by the International Wheelchair and Amputee Sports Federation that is a federation of the International Paralympic Committee, and is one of the sports in the Summer Paralympic Games.
Procedure:

Competitors duel in wheelchairs that are secured to the floor. The distance between them is set by the athlete with the shorter reach, who can decide whether they are his arm's reach apart or that of his opponent.

The aim is to strike your opponent with your weapon in the allowed target areas - the torso in the foil discipline, and anything above the waist in the sabre and epee. In the foil and epee only hits using the tip of the sword count, while in the sabre points may also be scored by using the edge of the sword.

Competitors are connected to an electronic scoring box which records valid hits. The first to five points in the initial rounds wins and this extends to 15 in the later stages.

Athletes with spinal cord injuries, lower leg amputations, cerebral palsy, and other impairments which require wheelchair use, are able to compete.

Classification:

FUNCTIONAL TESTS:

Functional tests, to be effected in the wheelchair, consist of an evaluation of the extension and lateral inclination ability of the chest in different positions, with or without the use of a weapon. The tested movements repeat specific technical moves, e.g. lunge, i.e. a sudden and improvised lateral inclination of the trunk with the weapon in the hand, with simultaneous extension of the elbow, or as many fast return movements of the chest into its original position (or inclination from the opposite side) as for a "point of measurement" (in order to avoid hits by the opponent). A point score as follows is attributed during the tests:

- 0 Point - no function, movement cannot be put into effect
- 1 Point - very weak execution, minimum movement
- 2 Point - weak execution, fair movement
- 3 Point - normal execution

1. Test N° 1 consists of an evaluation of the extension of dorsal musculature: the subject, seated in the wheelchair, from a forward position of the trunk, tries to return to an upright position, contracting the dorsal muscles and maintaining the upper limbs retroflexed.

2. Test N° 2 is an evaluation of lateral balance with abducted upper limbs: the athlete has to move his own centre of gravity laterally to the right and left to the point where he would lose balance, thereby the lateral muscle function of the trunk and of the oblique abdominal can be evaluated as well as the lumbar muscle.

3. Test N° 3 (similar to test no 1) evaluates the extension of the trunk, but more specifically the lumbar muscle. The exercise is executed with the hands on the back of the neck, thus excluding both the inertial component of upper limb movement (violently retroflexive in test no 1) and the aid of the upper dorsal muscles of the trunk.

4. Test N° 4 Is similar to test no 2, but presents more difficulties, since it must be executed holding the weapon, the weight of which significantly reduces the possibility of lateral inclination of the trunk without losing balance. It is essential,
during the execution of Tests No 2 and 4 that the limb on the opposite side (on the side towards which the athlete does not move), does not hold either the wheelchair, nor the hand rim, nor the arm rest in order not to discredit the validity of the exercise.

5. **Test N° 5** evaluates a trunk movement directed half the way between test 1 / 3 and 2 / 4; the exercise is executed holding the chair with the opposed limb. Fencers of class 2 normally can’t lean forward in this direction without helping themselves pushing the fencing arm against their leg.

6. **Test N° 6** is similar to test no 1; evaluates the extension of the trunk, lumbar and dorsal muscles, the exercises are executed holding the position leaning forward at 45°.[12]

**BENCH TEST**

For an athlete affected by a spinal disability (paraplegia or polio) the muscle strength is evaluated by a point score from 0 - 5 as for IWAS actions following the bench test card. For athletes affected by spasticity, dystonia or athetosis, points are awarded for each controlled action as follows:

- 1 point non-functional movement, motory co-ordination is minimal or non-existent.
- 2 points sequence of movement can only happen very slowly and with difficulty. If affected with rapid repetition, it will not exceed 25% of the normal range of movement.
- 3 points as above, up to 50% of full range of movement.
- 4 points slight uncoordination of movements and / or not more than 75% of normal range of movement.
- 5 points normal motory co-ordination.

In the case of the injury being of orthopaedic origin, and therefore one is faced with problems of ankylosis or even a latent pathology in a reduction of range of movement, the point score (from 0 to 5) is expressed as follows:-

- 0 point no range of movement
- 1 points minimal range of movement
- 2 points 1/4 of normal range of movement
- 3 points 1/2 of normal range of movement
- 4 points 3/4 of normal range of movement
- 5 points normal range of movement [12]

**SPORT CLASSES**

After the analytical evaluation and functional tests, a classification into Sport Classes is given according to the following criteria:

**Eligibility to compete:**

An athlete must have a minimal handicap: any fencer that, due to a permanent disability, cannot fence standing as an able body fencer is eligible for wheelchair fencing. Otherwise the athlete gets the Sport Class “Ineligibility to Compete”.

Athletes, who are eligible to compete are classified into the following Sport Classes.
• **Class 1A:** Athletes with no sitting balance who have a handicapped playing arm. No efficient elbow extension against gravity and no residual function of the hand which makes it necessary to fix the weapon with a bandage. Such a class is comparable to the old ISMGF 1A, or tetraplegics with spinal lesions level C5/C6.

• **Class 1B:** Athletes without sitting balance and affected fencing arm. Functional elbow extension but no functional finger flexion. The weapon has to be fixed with a bandage. Comparable to complete tetraplegics level C7/C8 or higher incomplete lesion.

• **Class 2:** Athletes with fair sitting balance and normal fencing arm, paraplegic type D1 - D9 (Functional tests 1 and 2 - not totalling more than 4 points ) or incomplete tetraplegics with minimally affected fencing arm and good sitting balance.

• **Class 3:** Athletes with good Sitting balance, without support of legs and normal fencing arm, e.g. paraplegics from D10 to L2 (Functional tests 1 and 2 positive - with a point score from 5 to 9). Subjects with double above the knee amputation with short stumps, or incomplete lesions above D10 or comparable disabilities can be included in this class, provided that the legs can help in maintaining the sitting balance.

• **Class 4:** Athletes with good sitting balance with the support of lower limbs and normal fencing arm, e.g. with lesion below L4 or comparable disability (tests 3 and 4 positive with at least 5 points). In the case of cerebral lesion or even in the case of doubt, it is necessary to complete the evaluation by observing the athlete whilst fencing. The involvement of the athletes themselves in the classifying procedure is most important, which in fact the signature of an athlete (or technician) provides within the scope of the classification commission. [12]

**SPORT CLASS STATUS**

A Sport Class Status is allocated to each athlete to indicate evaluation requirements and protest opportunities.

There are three different Sport Class Status types:

**NEW (N)**

- Sport Class Status N is assigned to an athlete that has not been previously evaluated by an IWF Classification Panel and has not had an entry Sport Class verified by the IWF.
- Sports Class Status N athletes include athletes who have been allocated a Sport Class by their National Federation for entry purposes
- Sports Class Status N athletes must complete evaluation prior to competing at official IWF competitions.

**REVIEW (R)**

- Sport Class Status R is assigned to an athlete who has been previously evaluated by an IWF Classification Panel, but for reasons requires a review of their Sport Class.
- The athlete’s current Sport Class is valid, but the athlete is subject to re-evaluation and the Sport Class may be changed before or during competition
- Sports Class Status R Athletes include:
  - Requiring further observation during competition to confirm their Sport Class
  - Fluctuating impairments
• Sports Class is still subject to protest in accord with the First Appearance requirements

CONFIRMED (C)

• Sport Class Status C is assigned to an athlete if he has been previously evaluated by an IWF Classification Panel and the Panel has determined that the Athlete’s Sport Class will not change
• The IWF recognises that the Athlete’s assigned Sport Class is valid and will not be altered before or during competition, except in the case of a Protest

CATEGORIES

At official IWF competitions, the Sport Classes are joined for reducing the number of events and for increasing the number of participants per event.

There will be three Categories for each event:

• Category A: Sport Classes 3 and 4.
• Category B: Sport Class 2
• Category C: Sport Classes 1A and 1B

The sport was developed by Sir Ludwig Guttmann, the founder of the Paralympic Games, in the years after the Second World War and has appeared in every Games since 1960.

Competitive competition began in 1953 with the sport proving popular in Europe, but it quickly spread to Asia and countries like China and Hong Kong are now powerhouses in the competition. [12]

PARA ARCHERY

Archery is a test of accuracy, strength and concentration. The sport is open to athletes with a physical disability (including spinal cord injury, cerebral palsy, amputee, etc.) in three functional classes (Open, Standing, and Wheelchair). It comprises of individual and team events, standing and wheelchair competitions, as well as events for visual impaired. Competitors shoot at a target marked with ten scoring zones, from a set distance.

The governing body is World Archery (WA), in relation with the International Paralympic Committee (IPC). Para-archery competitions follow the WA Rules. Presently 54 countries compete but the number is still growing.

As a Paralympic sport, archery was originally a means of rehabilitation and recreation for people with a physical disability. The first archery competitions for people with a disability were held during the first International Games for the Disabled in Stoke Mandeville, England, in 1948, with the participation of 130 athletes from two countries.

In 1960, archery was introduced to the world as a Paralympic sport during the Games in Rome. Since then, archery has always been included in the Paralympic Games competition programme. [13]

Eligibility:

As of 2012, people with physical disabilities are eligible to compete in this sport. Male and female athletes with a physical disability (as defined by the IPC) can compete in the following divisions: recurve (or classic) bow, compound bow and visually impaired (VI).

Within these divisions are open, standing and wheelchair classes with events for individuals and teams.

The distance from the target and number of arrows shot is the same for para-archery athletes as for able-bodied competitors except for the Visually Impaired (VI) division.

Athletes must have a current disability classification card or their results will not qualify for World Records, titles or any other rankings. [14][15]

Classifications:

There are three divisions in Para-Archery: Recurve Bow, Compound Bow and Visually Impaired. Within these divisions, athletes are classified by their impairment(s) as follows:

- **ARW1 (also known as W1)/ Archery Wheelchair 1**: Impairment in the arms and legs. Athletes compete from a wheelchair and have “limited function in lower and upper limbs, and usually trunk. E.g. those with high level spinal cord injuries, or high multiple limb amputations”.

- **ARW2 (also known as W2)/ Archery Wheelchair 2**: Impairment in the legs. Athletes compete from a wheelchair and have "significantly limited lower limb function with little or no upper limb impairment eg athletes with paraplegia, diplegia or double leg amputation below the knee."
**ARST (also known as ST)/ Archery Standing:** Athletes may compete standing or in a wheelchair, but have limited impairment.

Assistive devices must be authorized by an international classifier and listed on the athlete’s classification card. Assistive devices can include:

- Wheelchair
- Chair/Stool
- Block
- Permitted body support
- Prosthesis
- Release aid
- Bow bandage
- Bow arm splint
- String arm wrist splint
- Assistant

Visually impaired athletes in the VI division must wear a blindfold for vision impairment equality. [14]

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Para Cycling is a sporting event for disabled athletes.

**Classification:**

The purpose of the Para-Cycling Classification is to minimise the impact of impairment on the outcome of competition, so that an athlete’s success in competition relies on training, physical fitness and personal athletic talent.

Classification is an on-going process whereby all athletes are under regular observation by Classifiers to ensure consistency and fairness for all athletes.

In order to achieve this purpose, athletes are classified according to the extent of activity limitation resulting from their impairment. This places athletes according to how much their impairment affects core determinants of performance in cycling.

Classification has two important roles:

- To determine eligibility to compete
- To group athletes for competition[16]

**Para-Cycling Sport Classes:**

**HANDBIKES**

- Handbike H 1
- Handbike H 2
- Handbike H 3
- Handbike H 4

**TRICYCLES**

- Tricycle T 1
- Tricycle T 2

**CYCLING**

- Cycling C 1
- Cycling C 2
- Cycling C 3
- Cycling C 4
- Cycling C 5

**TANDEMS**

- Tandems B

The UCI recommends using the codes below on UCI para-cyclists licenses:

<table>
<thead>
<tr>
<th></th>
<th>MB</th>
<th>WB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Handbike H 1</td>
<td>MH1</td>
<td>WH1</td>
</tr>
<tr>
<td>Handbike H 2</td>
<td>MH2</td>
<td>WH2</td>
</tr>
<tr>
<td>Handbike H 3</td>
<td>MH3</td>
<td>WH3</td>
</tr>
</tbody>
</table>
Handbike H 4          MH4          WH4
Tricycle T 1           MT1          WT1
Tricycle T 2           MT2          WT2
Cycling C 1             MC1          WC1
Cycling C 2             MC2          WC2
Cycling C 3             MC3          WC3
Cycling C 4             MC4          WC4
Cycling C 5             MC5          WC5

The rider's code is read as follows:
- 1st letter: gender
- 2nd-3rd letter and number: sport class

**Sport Class Profiles:**

**Handcycle Class H1**

**Tetraplegia C6 or above and severe athetosis / ataxia / dystonia**
- Tetraplegic with impairments corresponding to a complete cervical lesion at C6 or above
- Complete loss of trunk stability and lower limb function
- Limited extension of the elbow with a muscle score of 6 (total of both triceps)
- Limited handgrip
- Non-spinal cord injury, but functional ability profile equivalent to class H 1.1
- Impaired sympathetic nerve system
- Recumbent position in handbike mandatory (AP-bikes)
- Severe athetosis / ataxia / dystonia and elbow extension limitation
- Asymmetric or symmetric quadriplegia with at least grade 3 spasticity in upper limbs and lower limbs.

**Tetraplegia C7/C8 and severe athetosis / ataxia / dystonia**
- Tetraplegic with impairments corresponding to a complete cervical lesion at C7/C8 or above
- Complete loss of trunk stability and lower limb function
- Non-spinal cord injury, but functional ability profile equivalent to class H 1.2
- Impaired sympathetic nerve system
- Recumbent position in handbike mandatory (AP-bikes)
- Severe athetosis / ataxia / dystonia and no elbow extension limitation
- Asymmetric or symmetric quadriplegia spasticity with at least grade 2 spasticity in upper limb and lower limbs. [16]

**Handcycle Class H2:**
- Paraplegic with impairments corresponding to a complete lesion from Th1 to Th3
- Very limited trunk stability
- Impaired sympathetic nerve system
- Non-spinal cord injury, but functional ability profile equivalent to class H 2.1
- Recumbent position in handbike mandatory (AP-bikes) **H 2.2**
- Paraplegic with impairments corresponding to a complete lesion from Th4 to Th10
- Limited trunk stability
- Non-spinal cord injury, functional ability profile equivalent to class H 2.2
- Recumbent position in handbike mandatory (AP-bikes)
• Moderate quadriplegia with/without athetosis/ataxia.
• Severe hemiplegia (non-ambulant)
• Severe diplegia (non-ambulant) and athetosis/ataxia
• Neurological impairments with at least grade 1 spasticity in upper limb

Handcycle Class H3:

• Paraplegic with impairments corresponding to a complete lesion from Th11 or below
• No lower limb function or limited function
• Normal or almost normal trunk stability
• Non-spinal cord injury, functional ability profile equivalent to class H3
• Incomplete loss of lower limb function, functional ability profile equivalent to class H3 or H4, with other disabilities, which prevent the safe use of a conventional bicycle, tricycle or the Kneeling position in a hand bike
• Recumbent position in hand bike (AP or ATP bike)
• Diplegia and athetosis/ataxia/dystonia (almost normal UE)
• Hemiplegic with spasticity a minimum of Grade 3, lower limb more involved

Handcycle Class H4:

• An athlete who can use the kneeling position must use it and therefore will be classifier accordingly.
• Paraplegic with impairments corresponding to a complete lesion from Th11 or below
• Double below or Double through knee amputee
• Single leg amputation (AK), minimal disability below knee amputation (BK)
• Incomplete loss of lower limb function, with other disabilities, which prevent the save use of a conventional bicycle or tricycle
• Kneeling Position (HK-bike), in case of mobility reduction if prevents kneeling, the athlete can use a recumbent bike in H3
• Hemiplegic with spasticity Grade 2, lower limb more involved
• Diplegic, lower spasticity Grade 2 in both legs
• Mild to moderate athetosis or ataxia

Tricycle Class T1:

Neurological
• Hemiplegia / double / quadriplegic / hemiplegic, spasticity grade 3 in lower and upper limb Triplegia lower spasticity grade 3 in both legs
• Severe athetosis or ataxia or dystonia
• Severe locomotor dysfunction, can be mixed pattern (athetosis, spasticity or ataxia)
• Insufficient balance for cycling and a tricycles is required
• Pedalling / cadence is restricted
• Polio, peripheral neurological lesions incomplete Spinal Cord Lesion, not able to ride a bicycle
• Comparable disabilities multiple impairments (e.g. amputation with neurological impairment)
• Comparable multiple impaired with a tested point score of 210 points or higher.
• No amputees

Tricycle Class T2:

Neurological
• Hemiplegia / double / quadriplegic, spasticity grade 2, lower limb more
involved
- Diplegic, lower spasticity Grade 3 in both legs
- Moderate to severe athetosis / ataxia / dystonia
- Decrease in muscle strength
- Between 160 and 209 Points (Polio, peripheral neurological lesions incomplete Spinal Cord Lesion, not able to ride a bicycle)
- Comparable disabilities
- Multiple impaired (e.g. amputation with neurological impairments), but fluently movement and control of the bike
- No amputees

Cycling Class C1:

Neurological
- Hemiplegia, spasticity grade 3 in lower and upper limb
- Diplegia, lower spasticity grade 3 in both legs
- Athetosis or ataxia / dystonia
- Locomotor dysfunction, can be mixed pattern (athetosis, spasticity or ataxia)
- Poor functional strength in trunk, and / or in all extremities

Amputation:
- Single amputation of leg, AK, and arm, AE or BE, on same side or diagonal, with or without the use of a prosthesis
- Double TK amputation with the use of prostheses
- Double amputation BE + Single amputation AK, no prosthesis
- Comparable incomplete spinal cord injury or comparable multiple impaired with attested point score more than 210 points.

Cycling Class C2:

Neurological
- Hemiplegic, spasticity grade 2 lower limb more involved
- Diplegic, lower spasticity grade 2 in both legs
- Moderate to severe athetosis or ataxia
- Decrease in muscle strength
- Between 160 and 209 Points (Polio, peripheral neurological lesions incomplete Spinal Cord Lesion, HMSN, MS)

Amputation:
- Single AE amputation with or without use of prosthesis + Single TK amputation with the use of prostheses
- Double amputation BE + Single amputation TK with the use of a lower prosthesis
- Double BK amputation with the use of prostheses + Single AE amputation without the use of upper limb prosthesis
- Single amputation AK, no prosthesis, may have a stump support
  Comparable impairments:
- Multiple impairments (e.g. amputation with neurological impairments), but fluently movement and control of the bike.
- Limited ROM of the hip or knee or muscle weakness such that a functional full revolution of the crank is not possible. In this case, the radius of crank must be limited to 0 cm.

Cycling Class C3:

Neurological
- Hemiplegic with spasticity grade 2, lower limb more involved grade 1 in upper limb
• Diplegic, lower spasticity grade 2 in both legs
• Moderate athetosis or ataxia / dystonia
• Limited ROM of the hip or knee such that a normal functional full revolution of the crank is not possible. In this case, it is the cyclist’s option to shorten the crank to the optimal size.

Amputation:
• Single AE amputation, no prosthesis + Single BK amputation with the use of a prosthesis
• Single TK amputation with the use of a prosthesis + Single BE amputation
• Single amputation TK, with the use of prosthesis
• Double amputation BK, with the use of prostheses
• Comparable multiple impairments with a tested point score between 110 and 159 points.

Cycling Class C4:

Neurological
• Hemiplegic with spasticity grade 1, lower limb more involved
• Diplegic, lower spasticity grade 1 in both legs
• Mild to moderate athetosis or ataxia / dystonia
• Limited ROM of the hip or knee such that a normal functional full revolution of the crank is not possible. In this case, it is the cyclist’s option to shorten the crank to the optimal size.

Amputation:
• Single amputation BK with the use of prosthesis + Single BE amputation with or without the use of prosthesis
• Single amputation BK, with the use of prosthesis
• Double amputation BE with or without the use of a prosthesis that allows as much functional contact as possible to the handlebar
• Comparable multiple impairments with a tested point score between 60 and 109 points

Cycling Class C5:

This is the class for athletes with minimum impairments.

Neurological
• Monoplegia spasticity grade 1 or more in the affected arm, plus clear neurological signs
• Positive uni or bilateral Hoffman
• Noticeably brisk reflexes or clear differences in reflexes left vs. right

Amputation
• Single amputation AE, with or without prosthesis, no functional grip
• Single amputation BE with the use of a prosthesis

Minimal disability: Amputation of all fingers and thumb (through MCP) or amputation of more than half foot (forefoot). In the case of a single AE-, BE- amputation or a single upper limb dysmelia, the minimal impairment is met if all fingers and the thumb of one hand is missing through the MCP joint or other impairments who are equivalents, without a functional grip. As a proof of the loss of functional grip, the affected athlete will not be able to operate handle-bar mounted gear and brake levers with the affected or impaired limb. [16]
Comparable multiple impairments with a tested point score between 20 and 59 points.

**Tandem Class B**

**Blind or Visual Impaired (VI)**

TCB - from no light perception in either eye up to visual acuity of 6/60 and/or visual field of less than 20 degrees. Classification assessed in the best eye with the best correction (i.e. all athletes who use contact or corrective lenses must wear them for classification, whether they intend to them in competition or not). Classification will be provided by a UCI accredited classifier. [16]

**Upright Bikes:**

---

**Recumbent:**

---

**Kneeling Recumbent Trunk Power:**

---

**Body Lean Steering:**
**Paralympic cycling**
Consists of track, velodrome and road competitions with athletes split into 12 categories with tandems, handcycles, tricycles and bicycles.

**Tandem**
For athletes with visual impairment. The athlete sits on the back with a sighted pilot in front.

**Handcycle**
Pedals operated by hand with two wheels at the rear and one at the front. For athletes who usually use wheelchairs.

**Tricycle**
Used by an athlete whose balance makes him unable to race on two-wheeled cycles.

**Bicycle**
Used by all other athletes, often using modifications to meet the needs of disabilities.

Adaptations made to connect prosthetics to cycle.
**PARA JUDO**

**Judo** is a modern martial art, combat and Olympic sport created in Japan in 1882 by Jigoro Kano. Its most prominent feature is its competitive element, where the object is to either throw or takedown an opponent to the ground, immobilize or otherwise subdue an opponent with a grappling manoeuvre, or force an opponent to submit by joint locking or by executing a strangler hold or choke. Strikes and thrusts by hands and feet as well as weapons defences are a part of judo, but only in pre-arranged forms (kata) and are not allowed in judo competition or free practice (randori). [17]

**Paralympic judo** is an adaptation of the Japanese martial art of judo for visually impaired competitors. The rules of the sport are only slightly different from regular judo competitions. It has been part of the Summer Paralympics program since 1988 for men and 2004 for women. [18]

**Rules:**

Paralympic judo competition is governed by the International Judo Federation (IJF) rules with some modifications specified by the International Blind Sports Association (IBSA).

The major rule difference is that contests always start with the 2 competitors in a loose grip on each other’s Judo suits (grip called "Kumikata") and if contact is broken, "matte"(Wait), or stop, is called and the competitors return to centre and re-grip. [18]

**General Rules:**

IBSA competitions shall follow to the extent possible those of the International Judo Federation (IJF). The rules for refereeing set down by the IJF will be strictly followed, notwithstanding the following amendments which take account of the need to adjust the rules for the visually impaired athletes. The rules may be subject to future modifications, as determined by annual Seminars held by the International Judo federation.

**QUALIFICATION FOR COMPETITIONS:**

IBSA has established the following categories for qualification:

- **B1** = From perception of light in either eye to the perception of light, but without the ability to recognize the shape of a hand at any distance or in any direction.

- **B2** = From the ability to recognize the shape of a hand to a visual acuity of 2/60 and/or a visual field of less than 5 degrees.

- **B3** = From a visual acuity above 2/60 up to visual acuity of 6/60 and/or a visual field of more than 5 degrees and less than 20 degrees.

All classifications will be based on both eyes, with the aid of the best corrective lenses, e.g. all athletes who wear contact lenses or eyeglasses should be wearing said eyewear when tested (if they intend to make use of them while competing).

Note: Taking account of the aforementioned categories, deaf visual impaired athletes will be also accepted to participate

In Judo, all 3 B1,B2, B3 categories will be grouped to compete. [19]
COMPETITIONS:

Competitions are divided into the following categories:

- Individual Competitions
- Team Competitions for male
- Team Competitions for female

COACHES are authorized to accompany and give technical advice to the athlete.

The referees shall make sure that the COACHES keep their role and do not get differently.

The organisation may exclude the COACH from the competition hall.

INDIVIDUAL COMPETITIONS FOR MALE AND FEMALE:

Paralympic and World Championships

b) Each nation shall register only one athlete per weight category. The minimum grade is brown belt

<table>
<thead>
<tr>
<th>MALE</th>
<th>FEMALE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 60kg</td>
<td>Up to 48kg</td>
</tr>
<tr>
<td>Up to 66kg</td>
<td>Up to 52kg</td>
</tr>
<tr>
<td>Up to 73kg</td>
<td>Up to 57kg</td>
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<tr>
<td>Up to 81kg</td>
<td>Up to 63kg</td>
</tr>
<tr>
<td>Up to 90kg</td>
<td>Up to 70kg</td>
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<tr>
<td>Up to 100kg</td>
<td>Up to 78kg</td>
</tr>
<tr>
<td>Over 100kg</td>
<td>Over 78 kg</td>
</tr>
</tbody>
</table>

c) All Visual group classifications B1, B2 and B3 will compete together

d) The duration of each combat is:

- Male - 5 minutes - effective fighting time
- Female - 5 minutes - effective fighting time

e) Each participant is entitled to 10 minutes rest between 2 fights.

f) Based on the number of participants registered in each weight category, the following contest rules will be applied:

- If 6 or more participants are registered in one weight category, two repechages will take place
- If 3, 4 or 5 participants are registered in one weight category, the Olympic system will be used, (all competitors will meet each other)
- If under 3 participants are registered in one weight category, the Paralympic or World champion title will not be awarded.

g) Continental Championships

- Each nation is allowed to register two participants per weight category.
• The minimum grade is brown belt
• Visual groups B1, B2 and B3 will compete together
• The duration of each combat is:
  o Male: 5 minutes - effective fighting time
  o Female: 5 minutes - effective fighting time.
• Each participant is entitled to 10 minutes rest between 2 fights.
• Based on the number of participants registered in a weight category, the following contest rules will apply:
  o If 6 or more than 6 participants are entered in a single weight category, two repechages will be necessary
  o If 3, 4 or 5 participants are entered in a single weight category, the Olympic system will apply, ie all competitors will fight
  o If under 3 participants are registered in one weight category, the “continental champion” title will not be awarded. \[19\]

MEN’S TEAM COMPETITIONS:

a) Continental and World Championships

b) Each nation may register only one single team, consisted of the following weight categories: up to 66kg; up to 73kg; up to 81kg; up to 90kg; over 90kg.

c) The minimum grade is brown belt

d) Each nation may register two athletes per weight category (in which case only one replacement by weight category)

e) In order to be admitted to the team competition, each team shall be composed of a minimum of 3 athletes registered in 3 different weight categories with two B1 athletes

f) Athletes may fight in the weight category immediately above their natural one. However, this has to be previously reported when handing in the team composition, ten minutes before each “contest”

g) The same athletes may return into their natural weight category for the next contests. Once the team composition has been reported, it may not be changed during the competition. The team composition may be changed again for the next contests (10 minutes before), but only with those athletes registered on the weigh-in report at the beginning of the competition by team

h) Should injury occur, IJF rules will be followed

i) The team with the greatest number of victories will be the winner:
   i. In case of equal number of victories, the team with the greatest number of judo scores wins
   ii. In case of further equality, those competitors having an equal fight will fight again and a compulsory decision will be made at the end of each fight.

j) Visual groups B1, B2 and B3 will compete together;

k) If a situation is not covered by these current rules, the IJF rules will be applied.

International Tournaments:
a) Each nation may register several teams, in agreement with the organization of the tournament

b) The IBSA Sub Committee Judo rules and the IJF rules will be the reference for these tournaments

c) Visual groups B1, B2 and B3 will compete together

On an experimental basis, a nation may organise a tournament inviting only B1 competitors. [19]

WOMEN’S TEAM COMPETITIONS:

Continental and World Championships

a) Each nation may register only one single team, consisted of the following weight categories: up to 52 kg; up to 57 kg; up to 63 kg

b) The minimum grade is brown belt

c) Each nation may register two athletes per weight category (in which case only one replacement by weight category)

d) In order to be admitted to the team competition, each team shall be composed of a minimum of 2 athletes registered in 2 different weight categories, with one B1 competitor

e) Athletes may fight in the weight category immediately above their natural one. However, this has to be previously reported when handing in the team composition, ten minutes before each “contest”

f) The same athletes may return into their natural weight category for the next contests. Once the team composition has been reported, it may not be changed during the competition. The team composition may be changed again for the next contest (10 minutes before), but only with those athletes registered on the weigh-in report at the beginning of the competition by team

g) Should injury occur, IJF rules will be followed

h) The team with the greatest number of victories will be the winner:
   i. In case of equal number of victories, the team with the greatest number of judo scores wins
   ii. In case of further equality, those competitors having an equal fight will fight again and a compulsory decision will be made at the end of each fight.

i) Visual groups B1, B2 and B3 will compete together;

j) If a situation is not covered by these current rules, the IJF rules will be applied. [19]

International Tournaments:

a) Each nation may register several teams, in agreement with the organization of the tournament;
b) The IBSA Sub Committee Judo rules and the IJF rules will be the reference for these tournaments;

c) Visual groups B1, B2 and B3 will compete together.

d) On an experimental basis, a nation may organise a tournament inviting only B1 competitors. [19]

IBSA AMENDMENTS TO THE I.J.F. CONTEST RULES, SPECIFIC TO VISUALLY IMPAIRED ATHLETES

Appendix Art. 1:

**Competition Area** – The dimension of the competition area will be the maximum as described by IJF, i.e. 10x10 with a 3m security and with 4m when 2 competition areas are juxtaposed. An area of danger of a width of one meter and with a contrasting color should surround the competition area.

An adhesive blue tape and a white tape, approximately 10cm wide and 50cm long shall be fixed on the centre of the contest area, at a distance of 1m apart, so as to indicate the positions at which the contestants must start and end the contest. The blue tape shall be to the referee’s right and the white to his left side.

A 1m distance should be set between the competition area and any object likely to be hit by the competitors. [19]

Appendix Art. 3:

**Judo Outfit (Judogi)** – All athletes being classified as B1 (blind) will have a red circle having or 7 cm diameter sewn on the outer part of both sleeves. The centre of the circle will have to be positioned at about 15cm from the shoulder. Thus, the officials will apply the rules specific to B1 athletes. [19]

Appendix Art. 6:

**Position and Duties of the Referee** – The referee and the judges shall make sure that the surface of the tatami is in conformity with the safety rules as set up by the IBSA Judo. [19]

Appendix Art. 7:

**Position and Duties of the Judges** – Both judges will lead the two athletes from the edge of the tatami to their assigned positions within the combat zone, facing each other, as described in the Amendment to Article 1. The judges will then return to their respective seats at the angle of the competition area.

At the end of the combat, after the referee has declared the winner and the athletes have given the customary bow, each judge will accompany the athlete closer to his seat back to the edge of the tatami where an assistant from the organization will then take care of them. [19]

Appendix Art. 8:

**Signs** – Whenever the combat is stopped and in order to indicate to the athletes that they may sit down with crossed legs, the referee will place the palm of his hand on the shoulder and give a slight downward pressure.
Each time the referee assigns a score or a penalty, in addition to the conventional sign and term used, he will also announce AO (blue) or SHIRO (white), according to the athlete involved.

(Paragraph 12): In addition to the conventional sign made to indicate the invalidation of an opinion expressed, the referee should also announce ao (blue) or shiro (white) according to the athlete who has lost the advantage.

(Paragraph 14): In addition to declaring the winner of the competition in the usual fashion, the referee will also announce ao (blue) or shiro (white) according to the winner colour sign.

(Paragraph 15): In order to indicate to the athletes that they must adjust their judogis, the referee will approach and face the judoka, take his/her forearms and cross them in the conventional way.

(Paragraph 20): To indicate a non-combativeness penalty, after having made the conventional sign and announced ao (blue) or shiro (white) accordingly, the referee will approach the sanctioned athlete, will oblige him to stretch his arm forward, with his palm downwards and the referee will make a rotative movement with his two indexes in contact with the competitor’s palm of hand. [19]

Appendix Art. 15:

**Starting OF COMBAT** – After the judges have led the athletes to their respective positions, they will then return to their seats at the angle of the tatami. The referee will announce REI; at this command athletes will bow to each other. The referee will then have them raise their arms for the fundamental kumi kata (grip) (right or left).

Note:

- The referee shall make sure that the kumi kata is only a grip and not the beginning of the fight.

- The referee shall make sure that, at the beginning of the fight and at each resumption of fight, the two competitors are facing and holding with one hand the other’s judogi sleeve (between the elbow and the tip of the shoulder) and with the other hand holding the opposite “revers” (between the clavicle and the tip of the sternum) without apparent force and stable equilibrium - The two athletes are allowed to move only once hajime (start) has been announced by the referee.

Warning:

- Competitors must not release one or both hands until “hajime” has been announced.

- If there is a problem when right-handed / left handed, the referee will impose the first grip of kumi kata for the blue (ao) fighter, then the white (shiro) fighter for the next kumi kata grip. [19]

Appendix Art. 17:

**Application of MATTE (WAIT)** – When the referee announces matte (wait), he should be careful not to lose sight of the athletes, staying close to them at all times, without obstructing them. He should then accompany them to the centre at their starting positions (if he deems it necessary, as some visually impaired judokas can return to their initial position by themselves.)
The referee will have them take the kumi kata (grip) and announce hajime (start) again. The referee will repeat the same action each time matte (wait) will be announced. [19]

Appendix Art. 19:

**SORE MADE (END OF COMBAT)** – When sore made (end of combat) has been announced, the referee should accompany the athletes to their starting positions. If necessary, the referee should ask them to adjust their judogis (see Art. 8, Paragraph XV).

After the referee has given the results of the combat, by an appropriate manner, with the announcement of ao (blue) or shiro (white), he will then ask the athletes to bow to each other as he announces rei. The judges will then accompany their respective athletes back to the edge of the tatami, where assistants from the organization will take care of them. [19]

Appendix Art. 20:

**IPPON (NET POINT)** – The referee will announce either ippon ao (net point blue) or ippon shiro (net point white). [19]

Appendix Art. 23, 24, 25:

**WAZA ARI, YUKO** - Similarly, the referee will use the same procedure.

Appendix Art. 26:

**OSAEKOMI (HOLD DOWN)** – The referee will announce osaekomi (hold down) in the traditional way; if a penalty should be given, he will follow the usual procedure:

- If a penalty has to be given to the contestant in the position of advantage, the referee will announce Matte, have the competitors resume their starting position and eventually give the penalty together with the announcement of “ao” or “shiro” as appropriate.

- If a penalty has to be given to the contestant in the position of disadvantage, the referee will announce the penalty, but will wait for the appropriate moment to confirm the penalty after “matte” consecutive to the end of the hold down. [19]

Appendix Art. 27:

**FORBIDDEN ACTIONS AND PENALTIES** - Exit tatamis – The referee will move toward the center of the competition area and will announce JOGAI so that the competitors modify the direction of their movement. If, despite the announcements of JOGAI, the competitors intentionally exit the competition area, SHIDO can be announced.

Releasing one or both hands from the kumi kata without attack will be sanctioned with SHIDO. The referee and judges are authorised to penalise competitors in such situations when the judo spirit is not respected, and so particularly in the interest and protection of visually impaired B1 judokas. [19]

Note: If a situation is not covered by these current rules, the IJF rules will be applied.

**3. SPECIFIC IBSA AMENDMENTS FOR DEAF ATHLETES**

Appendix Art. 3:
Judo outfit (Judogi) – When a participant is also deaf, a small blue circle having a diameter of 7cm will be sewn on the back of the judogi on the top center of the shoulders. This is in order for the officials to apply the rules according to these special circumstances.\(^{[19]}\)

Appendix Art. 8:

**Signs** – (Paragraph12): In addition to the conventional sign made to indicate the invalidation of an opinion expressed, as described above, if the athlete is also deaf, the referee will trace a large X on the palm of the athlete's hand.

(Paragraph20): To indicate a non-combativeness penalty, after having made the conventional sign and announced ao (blue) or shiro (white) accordingly, the referee will approach the sanctioned athlete, will oblige him to stretch his arm forward, with his palm downwards and the referee will make a rotative movement with his two indexes in contact with the competitor's palm of hand.

If the athlete is also deaf: When the penalty is assigned: the referee will follow the same procedure described above and also tap the top of the athlete's hand with:

i. one finger (in the case of first shido)

ii. two fingers (in the case of second shido)

Hansoku make (disqualification). If the sanction of Hansokumake should be given to the deaf athlete, the referee will trace an H in the palm of his/her hand.\(^{[19]}\)

Appendix Art. 15:

Starting OF COMBAT – If one athlete is also deaf, the judge will stay close to him/her until the referee has announced REI. The judge will have the athlete bow applying one hand on the belly and the other in the back. He will then go to his seat. The referee will make him/her take the kumi kata and will announce Hajime (starting of combat) giving one tap on the shoulder blade.\(^{[19]}\)

Appendix Art. 17:

**Application of MATTE (WAIT)** – If the athlete is also deaf, when announcing matte (wait) the referee should also tap him/her twice on the shoulder blades and carry out the steps listed under Art. 16.\(^{[19]}\)

Appendix Art. 18:

**SONOMAMA (DON'T MOVE)** – In the case of an athlete who is also deaf, the referee should also give a quick pressure on his/her head. While the referee announces YOSHI, so that the combat may continue, he will quickly give another pressure on the head with his hand.

In the case of an athlete who is also deaf, the judge will approach the athlete to help him to make the customary bow, bending his chest forward, and afterwards leading him to the edge of the tatami.\(^{[19]}\)

Appendix Art. 19:

**SORE MADE (END OF COMBAT)** – When sore made (end of combat) has been announced, the referee should accompany the athletes to their starting positions. If necessary, the referee should ask them to adjust their judogis (see Art.8, Paragraph
XV). The judge responsible in charge of the deaf athlete will come next to him/her and will assist him/her with the conventional bow.

The judges will then accompany their respective athletes, having them move back to the outer part of the tatami for the next bow, then accompany them to the edge of the tatami where assistants from the organization will take care of them. [19]

Appendix Art. 20:

**IPPON (NET POINT)** – The referee will announce either ippon ao (net point blue) or ippon shiro (net point white) as appropriate.

In the case of an athlete who is also deaf, the referee will also trace an “I” on the palm of his/her hand:

- Turning it towards his/her chest, if the advantage is attributed to him/her
- Turning it towards the opponent, if the advantage is attributed to the opponent

Appendix Art. 23, 24, 25:

**WAZA ARI, YUKO** - Similarly, after tracing the corresponding letter in the palm of hand, the referee will use the same procedure. [19]

Appendix Art. 26:

**OSAEKOMI (HOLD DOWN)** – The referee will announce osaekomi (hold down) in the traditional way; if a penalty should be given, he will follow the usual procedure:

- If a penalty has to be given to the contestant in the position of advantage, the referee will announce Matte, have the competitors resume their starting position and eventually give the penalty together with the announcement of “ao” or “shiro” as appropriate.

- If the athlete is also deaf, the referee will follow the procedures outlined in Art. 8, (Paragraph XX 1 and 2)

- If a penalty has to be given to the contestant in the position of disadvantage, the referee will announce the penalty, but will wait for the appropriate moment to confirm the penalty after “matte” consecutive to the end of the hold down. If the athlete is also deaf, the referee will follow chose a way to make the competitor stop the action. [19]

Appendix Art. 27:

**FORBIDDEN ACTIONS AND PENALTIES** - Hansoku make: If hansoku make should be given to the deaf, the referee will trace an H in the palm of his/her hand.

For all situations not covered by these current rules, the IJF rules will be applied, taking due account of the respective handicap of the competitors [19]
WHEELCHAIR TENNIS

Wheelchair tennis is one of the forms of tennis adapted for those who have disabilities in their lower bodies. The size of courts, balls, and rackets are same, but there are two major differences from pedestrian tennis:

- They use specially designed wheelchairs
- The ball may bounce up to two times. The second bounce may also occur outside of the field

This is one of the official Paralympic sports and also played at Grand Slams. There are three categories:

- Men
- Ladies
- Quads

Each category has singles and doubles tournaments. Quads is the category for those with quadriplegia and it is sometimes called Mixed especially at Paralympic Games. Quads players can hold rackets taped to the hand and use electric-powered wheelchairs.

History

Wheelchair tennis increased in popularity in 1967 due to the efforts of Brad Parks, who is seen as the creator of competitive wheelchair tennis. Since then, much effort has made to promote the sport to rid it of its ‘therapy’ image that still affects many sports for people with disabilities.

The sport quickly became popular worldwide and was introduced to the Paralympic Games as a demonstration event at the Seoul 1988 Summer Paralympics. It was at the 1992 Summer Paralympics in Barcelona that wheelchair tennis acquired the status of a full-fledged competition. The 2000 Summer Paralympics in Sydney boosted public awareness immensely and led to the introduction of the sport to Grand Slams of pedestrian tennis.

CLASSIFICATION:

Muscle Power Definitions:

<table>
<thead>
<tr>
<th>Category</th>
<th>Muscle Power Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>Muscle power grades 4 to 5 in all muscle groups</td>
</tr>
<tr>
<td></td>
<td>No loss of range of movement</td>
</tr>
<tr>
<td>Good</td>
<td>Muscle power grades 3 to 4 in all muscle groups</td>
</tr>
<tr>
<td></td>
<td>Fair Muscle power grade 3 in all muscle groups</td>
</tr>
<tr>
<td>Poor</td>
<td>Muscle power grades 2 to 3 in all muscle groups</td>
</tr>
<tr>
<td>Non-functional</td>
<td>Muscle power grades 1 to 2 in all muscle groups with evidence of significant muscle wasting</td>
</tr>
<tr>
<td></td>
<td>Severe loss of range of movement</td>
</tr>
</tbody>
</table>

[20]

[21]
## Scoring – Upper limbs:

<table>
<thead>
<tr>
<th>Score</th>
<th>Observations</th>
<th>Guide to Spinal Cord Injury Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Normal movement/function in all upper limb joints</td>
<td>T1 or below</td>
</tr>
</tbody>
</table>
| 3     | Normal shoulder movement  
Normal elbow movement  
Normal wrist movement  
Fair to good extrinsic finger movement  
Poor intrinsic finger movement | C8 |
| 2     | Normal shoulder movement  
Normal elbow movement  
Fair to good, balanced wrist movement  
Poor to fair extrinsic finger movement  
Non-functional intrinsic finger movement | C7 |
| 1     | Good shoulder movement  
Fair to good, unbalanced elbow movement  
Fair to good, unbalanced wrist movement  
Non-functional extrinsic and intrinsic finger Movement. | C6 |
| 0     | Non-functional to poor movement in all/majority of upper limb joints. | C5 |

## Scoring – Trunk:

<table>
<thead>
<tr>
<th>Score</th>
<th>Observations</th>
</tr>
</thead>
</table>
| 2     | Normal trunk  
Good function and mobility in all planes or directions |
| 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 |

Half points may be used for those players who do not fit exactly into one specific scoring group. Athletes with atypical patterns of weakness or paralysis will be assessed accordingly using appropriate modifications.
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 still 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

Quad Wheelchair Tennis Classification: Explanatory Text for Functional Testing

Reduced functional ability refers to neuromuscular and skeletal potential and is not to be mistaken for skill.

1. Reduced functional ability necessary to perform an overhead service

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 windup 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.

2. 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 e ability to actively achieve any wrist flexion in combination with ulnar deviation during the hitting phase.

3. 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.

4. 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.

5. 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° posterolateral 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. [21]
PARA ROWING (ADAPTIVE ROWING)

Adaptive rowing is a special category of rowing race for those with physical disabilities. Adaptive implies that the equipment is “adapted” to the user to practice the sport, rather than the sport being “adapted” to the user.

The International Rowing Federation (FISA) is the sole world governing body for Rowing, and the sport is practiced by athletes in 24 countries.

It was introduced into the Paralympic programme in 2005 and held its first Paralympic events in Beijing in 2008.

Process for Classifying Rowers with a Physical Disability:

The standard FISA classification process is conducted by a FISA Classification Panel comprised of two FISA Classifiers, one of whom must be a FISA Medical Classifier and one a FISA Technical Classifier

The process involves three parts:

1. Bench Test – performed by a FISA Medical Classifier with FISA Technical Classifier in attendance
2. Ergometer Test – performed by a FISA Technical Classifier with FISA Medical Classifier in attendance
3. On Water Observation – performed by both a FISA Medical Classifier and a FISA Technical Classifier and conducted during training and/or competition. Observation should be completed while the rower is aware of being observed and also while not aware. This test is not obligatory, but is recommended where the bench and ergometer tests are inconclusive or additional observations are required in order to make an agreed determination. [22]

2011 Fisa Adaptive Rowing Regulations:

Rules applying to World Rowing Championships and international regattas shall apply to adaptive rowing events at those regattas except as provided in these Regulations.

PART I - SCOPE

Regulation, Rule 2: Application

The FISA Rules, Event Regulations and related Bye-Laws shall also apply to Paralympic Regattas within the limits of the authority of FISA and to Paralympic Qualification Regattas [22]

Regulation, Rule 6: Right to Participate

Paralympic Regattas are open only to those rowers whose federations have qualified in the appropriate boat classes in accordance with the Paralympic Qualification System prescribed in the Bye-Laws. [22]
PART II – ROWERS AND COXSWAINS

Regulation, Rule 16: Eligibility

No rower may enter an adaptive event under these Rules unless they have submitted an Adaptive Rower Classification Application Form to FISA through their national federation and have been classified as set out in the FISA Classification Guidelines for Adaptive Rowers (“Guidelines”). The Guidelines shall be part of these Regulations.\textsuperscript{[22]}

Regulation, Rule 22: Coxswains

For adaptive events there is no restriction on coxswains in respect of adaptive eligibility, sex or age. The minimum weights of coxswains shall apply to adaptive events. \textsuperscript{[22]}

Regulation, Rule 28: Mixed Masters Events

Masters adaptive events may also be held for mixed crews without restriction on the ratio of men and women, provided that at least one rower of each sex is included in the crew. \textsuperscript{[22]}

Regulation, Rule 29: Adaptive

1. Adaptive Sport Class & Sport Class Status

FISA recognises the following adaptive sport classes:

- LTA
  - LTA-PD – Athletes in the LTA sport class with a physical disability
  - LTA-B1, B2 and B3 – Athletes in the LTA sport class with a visual impairment who have been classified by the International Blind Sports Federation (IBSA) and issued a sport class of B1, B2 or B3 respectively.

- TA
- AS ID – Athletes in the LTA sport class with an intellectual disability \textsuperscript{[22]}

2 FISA recognises the following sport class statuses:

- C (Confirmed)
- R (Review)
- N (New)

A rower’s sport class and sport class status shall be determined by a FISA Classification Panel upon completion of the classification process as set out in the Guidelines.

A list of all adaptive rowers who have been classified in accordance with Rule 16 of these Regulations, showing the respective sport class and the sport class status of each rower shall be maintained by FISA and shall be made available for inspection upon request.

A copy of the current list may be posted on the FISA website. A list made available for public inspection shall indicate the name, federation, sport class and sport class status of each rower but shall not identify any individual’s disability. \textsuperscript{[22]}
Qualifying Disabilities

Only a rower having a minimum disability as defined in the Guidelines, such disability leading to a permanent and verifiable activity limitation, shall be eligible to compete. [22]

FISA Classifier

The status of FISA Classifier may be granted to any person who meets FISA’s requirements for this purpose and who is duly appointed by the Executive Committee after consultation with the Adaptive Rowing Commission and the Head of Classification. [22]

Regulation Rule 31: World Rowing Championships Adaptive Boat Classes

World Rowing Championships include the following adaptive events:

- LTA Mixed coxed four (LTAMix4+)
- TA Mixed double sculls (TAMix2x)
- AS Men’s single sculls (ASM1x)
- AS Women’s single sculls (ASW1x)
- ID Mixed coxed four (IDMix4+)

In Mixed adaptive events half of the rowers in a crew shall be men and half shall be women. In the 4+, the coxswain may be of either sex. An LTAMix4+ crew may include a maximum of two rowers whose disability is visual impairment, only one of whom may have a sport class of LTA-B3. An LTAMix4+ may not include rowers with intellectual disabilities. [22]

2011 FISA Adaptive Rowing Regulations 3

Regulation, Rule 32: Paralympic Games Boat classes

The programme at the Paralympic Regatta includes the following events:

- LTA Mixed coxed four (LTAMix4+)
- TA Mixed double sculls (TAMix2x)
- AS Men’s single sculls (ASM1x)
- AS Women’s single sculls (ASW1x)

In Mixed adaptive events half of the rowers in a crew shall be men and half shall be women. In the 4+, the coxswain may be of either sex. An LTAMix4+ crew may include a maximum of two rowers whose disability is visual impairment, only one of whom may have a sport class of LTA-B3. An LTAMix4+ may not include rowers with intellectual disabilities. [22]

PART IV – BOATS AND CONSTRUCTION

Regulation, Rule 33 – Boats and Equipment

1. General Aspects

The use of FISA Standard Adaptive boats is mandatory for all adaptive AS1x and TAMix2x events.
1.1 The Council shall determine the design and specifications of FISA Standard Adaptive boats and any changes thereto. The design and specifications shall be a part of these Regulations. Those parts of the Standard Adaptive Boats which are not specified in these Regulations may be modified subject to these Regulations and subject to Rule 60.

1.2 No changes in the standard design and specifications of FISA Standard Adaptive Boats shall be made except in the year following the Paralympic Games.

1.3 The minimum weight of FISA Standard Adaptive boats shall be as specified in these Regulations (Regulation, Rule 34: Boat Weights). [22]

2. Adaptive LTAMix4+ and IDMix4+

Boats used in LTAMix4+ and IDMix4+ events shall be subject to the same restrictions as those for coxed fours (4+) under the FISA Rules of Racing. No additional restrictions shall apply. [22]

3. Standard Adaptive TA Mix2x

The FISA Standard Adaptive TAMix2x has a fixed seat and may have stabilising pontoons. The hull, the pontoons where fitted, and the seat fixing are part of the Standard specifications. The seat itself and the rigger design of the Standard Adaptive TAMix2x are not restricted.

TAMix2x rowers are required to comply with the strapping requirements set out in point 5 of this Regulation. [22]

4. Standard Adaptive AS1x

The FISA Standard Adaptive 1x has a fixed seat and must have stabilising pontoons installed, attached to the riggers at a minimum distance of 60 cm from centreline of pontoon to centreline of boat. The pontoons should be fixed in position so that when the rower is seated in the balanced boat both pontoons shall be horizontal and shall, at a minimum, touch the water. The hull, the pontoons and the seat fixing are part of the Standard specifications.

The seat itself and the rigger design of the Standard Adaptive AS1x are not restricted, except that the design of the seat must be compatible with the Standard seat fixing and the design of the rigger must allow the stabilising pontoons to be correctly fixed.

AS1x rowers are required to comply with the strapping requirements set out in point 5 of this Regulation.

IMPORTANT - FISA recommends that caution is taken with rowers who rely on pontoon floats for stability when changing rigger spans. By bringing the pins towards the centreline of the boat, stability might be compromised. [22]

5. Strapping

TAMix2x Strapping Requirements – rowers shall be secured with a strap to prevent flexion and extension of the knee(s) during rowing. The strap must be secured under the seat or rails and over the thighs, as close to the knees as possible.

AS1x Strapping Requirements – rowers shall use a strap that must be secured to the seat back and around the torso just below the nipple line or the breasts and be tight
enough to restrict trunk movement whilst not restricting breathing. The point at which the strap is attached to the seat should be no lower than the top edge of the supportive portion of the strap at the front of the torso.

Straps will be assessed with the spine straightened by bearing the weight of the upper body through the arms while the buttocks and back remain in contact with the seat. The supportive portion of the back rest of the seat must not be lower than the level of attachment point for the front strap.

The back of the seat may be covered with a soft material to prevent injuries, but the covering material must not be thicker than 2 cm. If a bracket is attached to the strap it must not rotate at the attachment point.

Additionally, the AS1x rower shall be secured with a strap to prevent flexion and extension of the knee(s) during rowing. The strap must be secured under the seat or rails and over the thighs, as close to the knees as possible. [22]

6. General Strapping Requirements

a. All straps must be a minimum width of 50 mm, be of non-elastic material, be without mechanical buckles and must be able to be released immediately by the rower with a single quick hand action of pulling on the free end of the strap.

b. The colour of the all straps must be a contrasting colour from the rowers’ racing uniform so that it can be clearly seen.

c. All straps for each rower must be released in the same manner and direction.

d. Any hand strapping must be able to be released immediately by quick mouth action.

e. Additional strapping may be used by any rower but must be in compliance with this Regulation.

f. To avoid accidents arising from capsizing, all boats shall be equipped with stretchers or shoes that allow the rowers to get clear of the boat without using their hands and with the least possible delay. [22]

7. Eyewear for Visually Impaired Rowers

Rowers classified as visually impaired must wear FISA or IBSA approved eyewear at all times when on the water during training, warm up, cool down, and competition from the opening day of the course until completion of the final race of their competition. Such eyewear shall completely block all light.

All eyewear must be checked to ensure a secure fit and complete light occlusion by an IBSA doctor during classification or by a FISA International Classifier if an IBSA doctor is not present. (Samples of eyewear can be found on www.worldrowing.com.) [22]

Regulation, Rule 34: Boat Weights

In addition to the requirements of Rule 34, the minimum weights for Adaptive boats shall include pontoons where used.

The weight of the AS1x and TA2x boats shall include the strapping which is firmly attached to the boat, the seat and/or its fittings. Straps, padding and other items which
are not essential to the use of the boat and not firmly attached shall not be included in the weight of the boat.

The minimum weights of Adaptive boats are:

- 4+ 51kg
- TA2x 37kg
- AS1x 24kg.

PART V - COURSES

Regulation Rule 36: Length of the Course

For adaptive events the length of the standard course shall be 1,000 metres straight.

The Executive Committee may decide to waive the use of starting pontoons for adaptive events.

PART VI – ORGANISATION OF REGATTAS

Regulation, Rule 44: Rowers’ Clothing and Blade Colours

One or both rowers in the TAMix2x event may extend their racing uniform to cover their legs. Where both rowers cover their legs in this manner, such coverings shall be identical in colour and design.

Where AS1x rowers are using chest strapping and this strapping obscures the Identifications permitted to be worn on the racing shirt or equivalent, those Identifications which are so obscured may be repeated on the strapping material but shall not be visible on both the racing shirt and the strapping at the same time.

Regulation Rule 47: Entries

No entry shall be accepted for an Adaptive event unless the rower concerned has submitted all Adaptive Rower Classification paper work as required under the Guidelines by the deadline stipulated by FISA and has been given a sport class by FISA.

A rower without a FISA sport class or whose sport class has been withdrawn may not compete in adaptive events.

Regulation, Rule 52: Crew Changes before the First Heat

A rower whose sport class has been withdrawn or changed after the close of entries and before the first heat, may be replaced by another eligible rower from the same Federation.

Regulation, Rule 53: Crew Changes after the First Heat

The crew of a rower whose sport class is withdrawn or changed to make them ineligible for that event after the first heat shall not compete again in that event.

Regulation, Rule 55: Safety of Adaptive Rowers

AS and TA rowers require special safety procedures which shall be agreed between FISA and the Organising Committee. In particular, the Organising Committee or the President
of the Jury may require additional rescue boats to be present on the course for all adaptive events, but particularly for AS events. [22]

Particular care must be taken in weather conditions which may generate extreme uncontrolled body temperatures. [22]

All rowers may wear a self-inflating or other flotation device for additional safety but adaptive rowers in particular should consider this precaution. [22]

Safety requirements for strapping are set out at Regulation, Rule 33.5

**Regulation Rule 56: Traffic Rules on the Course**

In principle the traffic rules shall provide clear separation between fixed seat adaptive crews and all other crews during training and racing for the safety of all crews. 2011 FISA [22]

**Adaptive Rowing Regulations 7**

**Regulation Rule 59: Fairness – General Principles**

At all times when on the water during training, warm up, cool down, and competition from the opening day of the course until completion of the final race of their competition, all adaptive rowers must row with the prescribed equipment which must be used according to the boat class as described at Regulation, Rule 33 and/or classification requirements as described in the FISA Classification Guidelines. Equipment in this context refers to eyewear, strapping, prostheses, and orthoses.

Failure to comply with these requirements may lead to a penalty being imposed on the crew in accordance with these Rules, including (but not limited to), where such failure to comply is judged to have taken place during a race, relegation to last place in the particular race or exclusion of the crew. The appropriate penalty in all circumstances shall be at the discretion of the Jury. [22]

**Regulation, Rule 68: The Starting Procedure**

1. **Starting Procedure for LTA4+**

The LTAMix4+ event may include rowers with visual impairment. Therefore, at the start of each race in an LTAMix4+ event, the Starter shall give an additional verbal indication to crews as follows:

After completing the roll call and stating the word “Attention!”, the Starter shall say the words “Red Flag!” at the same time as he raises the red flag (or in the case where traffic lights are used, “Red Light!” at the same instant that he presses the button to activate the red light). He shall then proceed with the start in the normal way. [22]

**Regulation, Rule 69: Yellow Card for LTAMix4+ and IDMix4+**

When the Starter awards a Yellow Card to a crew in the LTAMix4+ event, the coxswain of that crew shall raise his arm to acknowledge that he understands that the penalty has been awarded to his crew. [22]

**Regulation, Rule 73 - Interference**
AS rowers wishing to lodge an objection regarding interference with the Umpire during the race may do so verbally if their hands are strapped, by calling clearly to the Umpire “Objection!” so that the Umpire hears. It is the responsibility of the rower to ensure that the Umpire hears the call and is aware of the objection. [22]

Regulation, Rule 75 – Finish of the Race for LTAMix4+

At the finish of the race in an LTAMix4+ event, when raising the white flag the Umpire shall clearly state the words “WHITE FLAG!” for all crews to hear. Should he raise the red flag, he shall similarly clearly state the words “RED FLAG!” [22]

Regulation, Rule 76 - Objections

AS rowers wishing to lodge an objection with the Umpire may do so verbally if their hands are strapped, by calling clearly to the Umpire “Objection!” so that the Umpire hears. It is the responsibility of the rower to ensure that the Umpire hears the call and is aware of the objection. [22]

Para Shooting is a form of shooting for athletes with physical disability. Classification is governed by the International Shooting Committee for the Disabled. [23]

CLASSIFICATION

In Shooting, there are two different sport classes for athletes with physical impairments.

All athletes eligible for Shooting have an impairment of their lower limbs, such as an amputation or a loss of muscle strength, and thus most of them compete in a seated position. [23]

Sport Class SH1:

Athletes in this sport class either shoot with a pistol or a rifle. They do not require a shooting stand, because their arms are affected by impairment to a lesser extent and allow for sufficient support of the pistol or rifle. Eligible pistol shooters, for example, have an impaired non-shooting arm, such as amputation or muscle weakness.

Sport Class SH2:

This sport class is designated to shooters with a more severe impairment in the upper limbs, which necessitates them to use a shooting stand. Unlike the SH1 class they shoot with a rifle only and not with pistols. [24]

Within these two classes, athletes are further sub-classified as follows:

**SH1 sub-classes:**

These subclasses are used to determine height of backrests permitted. If competitors compete standing they must only be supported by ordinary prosthesis/orthosis. Arm prosthesies must not have fixed elbows or grip the rifle.

Shooting chairs are allowed in rifle prone events. All competitors classed within SH1 compete in the SH1 class, regardless of their sub-classifications

- **SH1A**: Athletes may compete sitting or standing. Torso strength and function is normal. No backrest permitted
- **SH1B**: Athletes compete sitting. Severe impairment to lower limbs but normal function in pelvis (m.quadratus lumborum). Low backrest permitted
- **SH1C**: Athletes compete sitting. No function in the lower limbs, or severe impairment in lower limbs coupled with impairment in the torso. High backrest permitted. [25]

**SH2 Sub classes:**

These sub-classes are used to determine the height of backrests permitted and spring flexibility. With exception to an IPC certified shooting stand (which is either used on a table or tripod) no other devices are allowed to support the rifle. All competitors classed within SH2 compete in the SH2 class, regardless of their sub-classification.
- **SH2A**: Athletes compete sitting or standing. Severe impairment to both upper limbs or non-function to one upper limb. Normal torso strength and function. No backrest permitted.

- **SH2B**: Athletes compete sitting. Severe impairment or non-function to lower limbs. Normal pelvis control. Low backrest permitted.

- **SH2C**: Athletes compete sitting. Severe impairment or non-function in lower limbs. Impairment or non-function in torso. High backrest permitted. [25]

**PARA POWERLIFTING**

**Powerlifting** is open for athletes with all eight eligible physical impairments listed in the introduction, if these impairments have a certain severity that impacts on sport performance.

All athletes have an impairment in their lower limbs or hips, which would prohibit them to compete in able-bodied weightlifting. For example, athletes with a single or double amputation through or above the ankle or stiffness of the knee joint would be eligible to compete.

All eligible athletes compete in one sport class, but in different weight categories just like their able-bodied counterparts in weightlifting.

- For men: Weight bands start at 48kg and go up to +100kg
- For women: Weight bands start at 40kg and go up to +82.5kg

Para Athletics

Athletics consists of 18 events which involve running, jumping and throwing.

Sprint Events (100 m, 200 m, 400 m):

Athletes run as fast as they can over the given short distance. Athletes start in a crouched position and push off using the starting blocks. In the 100 m and 200 m events, athletes remain in their lanes for the entire race. The 100 m takes place on the home straight of a standard 400 m track. The 200 m begins on the curve of a standard 400 m track. The 400 m involves one lap around the track on the inside lane. Runners are staggered in their starting positions to ensure that everyone runs the same distance. The winner is the athlete who completes the distance the fastest.

Middle-distance Events (800 m, 1 500 m):

Athletes run as fast as they can over the given medium distance. The 800 m consists of two laps around a standard 400 m track. Also known as the ‘metric mile,’ the 1 500 m consists of three and three-quarter laps around a standard 400 m track. For these distances, athletes do not use starting blocks. In the 800 m event, runners are staggered and must remain in their lanes until they pass the first turn. In the 1 500 m events, runners are in two staggered groups. The winner is the athlete who completes the distance the fastest.

Long-distance Events (5 000, 10 000 m):

Athletes run as fast as they can over the given long distance. The 5 000 m consists of 12 and a half laps around a standard 400 m track and 10 000 m consists of 25 laps around a standard 400 m track. The 10 000 m is the longest standard track event. Athletes begin with a standing start and are in two staggered groups. The winner is the athlete who completes the distance the fastest.

Relay Events (4 x 100 m, 4 x 400 m):

A team of four athletes passes a baton to each other as they run as fast as they can over the given distance. Each runner must hand off the baton to the next runner within a certain zone marked on the track. Each segment of the relay (the distance run by one person) is referred to as a ‘leg.’ The winning team is the one with the runner who is first to cross the finish line.

Shot Put:

Athletes ‘put’ (throw using a pushing motion) a heavy metal ball – the shot. Athletes take their throw from inside a 2.135 m diameter circle. The shot must be released above the height of the shoulder using only one hand. The distance is measured from the centre of the circle to the nearest mark made on the ground by the shot. The athlete’s best throw is recorded. The winner is the athlete who puts the shot the farthest.

Discus:

Athletes throw a heavy disc called a discus. Athletes take their throw from inside a 2.5 m diameter circle which is recessed in a concrete pad. The thrower spins counter-clockwise one and a half times before letting go of the discus. The distance is measured from the
front edge of the circle to where the discus lands. The competitor’s best throw is recorded. The winner is the athlete who throws the discus the farthest.

**Javelin:**

Athletes throw a spear called a javelin. Athletes take a running start on a 30 m runway before throwing the javelin. The athlete throws overhand, over the upper arm and shoulder. The distance of the throw is measured from the throwing arc at the end of the runway to the point where the tip of the javelin lands. The competitor’s best throw is recorded. The winner is the athlete who throws the javelin the farthest.

**Club Throw:**

Athletes throw a wooden club which looks similar to a bowling pin. This event is for athletes in wheelchairs. The wheelchair is strapped down in the shot put circle. The competitor’s best throw is recorded. The winner is the athlete who throws the club farthest.

**High Jump:**

Athletes jump over a horizontal bar placed at measured heights. The winner is the athlete who clears the highest height. In the case of a tie, fewer failed attempts at that height determines the winner.

**Long Jump:**

Athletes try to jump as far from the take-off point as possible. Athletes run down a runway and jump as far as they can from a wooden board that is flush with the end of the runway into a pit of gravel or sand. The distance of the jump is measured from the nearest mark in the sand made by the athlete’s body to the foul line. Each athlete has a number of attempts with the athlete’s best legal jump being recorded. The winner is the athlete who jumps the farthest.

**Triple Jump:**

Athletes try to jump as far from the take-off point as possible. Unlike Long Jump, in Triple Jump, athletes must hop and step (or skip) before they jump. The winner is the athlete who jumps the farthest.

**Pentathlon:**

Athletes compete in five different events (Long Jump, Shot Put, 100 m, Discus and either high jump or 400 m). An athlete’s placing is determined by adding the scores for each of the events. The winner is the athlete with the highest combined score for the five events.

**Marathon:**

Athletes run a distance of 42.195 km on a road, rather than on a track. The winner is the athlete who completes the distance the fastest. [28]
CLASSIFICATION

Athletics events are open to all athletes in all disability classes; however, not all events are offered to all disability classes (i.e., athletes with cerebral palsy do not compete in the marathon, 10 000 m, High Jump or Triple Jump events, but compete in all other track events and all throwing events).

Athletes are classified and compete in five categories:

1. Athletes who are blind or partially sighted
2. Athletes with spinal cord injuries and other physical disabilities
3. Athletes with cerebral palsy.
4. Athletes with an amputation and athletes with limited function in an upper limb, lower limb and/or torso.
5. Athletes with dwarfism due to lack of cartilage formation (throwing events only).

Within each category, based on the severity of the athlete’s disability, athletes compete in sub-categories.

Athletes compete according to their functional classifications in each event, which are continually redefined to include as many athletes as possible. A brief classification guide is as follows (prefixing F for field athletes or T for track athletes)

**Sport Classes T/F11-13: Visual impairment**

The three sport classes 11, 12 and 13 are allocated to athletes with varying degrees of visual impairment, with sport class 11 including athletes with the lowest vision and sport class 13 including athletes with the best vision meeting the minimum criteria. All athletes in the T11 sport class run with a guide runner and are blindfolded. Athletes in sport class T12 may also chose to run with a guide.

**Sport Class T/F 20: Intellectual impairment**

Athletes in this class are diagnosed with intellectual impairment and meet sport-specific minimum impairment criteria in 1,500m, long jump or shot put, respectively.

**Sport Classes T32-38 and F31-38**

The 30s sport classes are allocated to athletes with athetosis, ataxia and/or hypertonia. The impairments typically affect the ability to control legs, trunk, arms and hands. The lower the number is, the more significant the activity limitation.

Athletes in the sport classes 31-34 compete in a seated position, e.g. in wheelchair racing or using a throwing chair. In contrast, athletes in the sport classes 35-38 show a better function in their legs and better trunk control and therefore compete standing, e.g. in running events, long jump or throwing events.

**Sport Class F40**

Athletes with short stature compete in the sport class F40.

**Sport Classes T/F42-46**

These sport classes are designated for athletes with limb deficiencies, such as amputations. In the sport classes 42-44 the legs are affected by impairment and in the
In sport classes 45-46 the arms are affected, for example by above or below elbow amputations.

For example, a shot put athlete with a single above-the-knee amputation competes in sport class F42.

All athletes in the 40s classes compete standing and do not use a wheelchair.

**Sport Classes T51-54 and F51-58:**

The 50s sport classes only include athletes competing in a wheelchair. Again, a lower number indicates a higher activity limitation.

Athletes competing in wheelchair racing events for T51-54 sport classes differ in regards to their arm and shoulder functions, which are pertinent for pushing a wheelchair. Athletes in classes T51-52 have activity limitations in both lower and upper limbs, for example, due to tetraplegia. Unlike athletes in the sport classes T51-53, athletes competing in T54 have partial trunk and leg function.

For field events, wheelchair athletes compete in more differentiated classes.

Athletes in sport classes F51-54 have limited shoulder, arm and hand functions to different degrees and no trunk or leg function. This profile is for example seen with tetraplegic athletes. Athletes in the class F54 have normal function in their arms and hands.

Throughout the sport classes F55-58 the trunk and leg function increases, which is an advantage in throwing events. For example, an athlete with an amputation on one leg could also compete in the F58 sport class. [20]

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PARALYMPIC SAILING

Sailing is a multi-disability sport where athletes from the amputee, cerebral palsy, visually impaired, wheelchair and les autres groups can compete together.

There are three sailing classes: the Sonar, which is a mixed three-person crew, the SKUD18, a new two-person class introduced for Beijing, and the 2.4mR event, which is single-crewed.

Competitors are ranked according to a points system where low points are given to the severely disabled and high points for the less disabled.

Each crew of three is allowed a maximum of 12 points between them.

Single-handed sailors must have a minimum level of disability which prevents them competing on equal terms with able-bodied sailors. [30]

Sailing sports has many forms - cruise, race or simply potter around in all kinds of boats, on the sea or inland water. It is one of the very few sports in which able-bodied sailors and disabled sailors can participate on equal terms.

The International Association for Disabled Sailing (IFDS) has been authorized by ISAF to be responsible for sailing for people with disabilities worldwide. IFDS is an affiliate member of ISAF and the International Paralympic Committee (IPC) and works with it's members, the Recognized National Authorities (RNAs).

IFDS promotes all types of sailing for people with all types and degrees of disability. The values of IFDS are equity, opportunity to excel and empowerment for sailors with disabilities. [31]

**Competition format**

All races are fleet races – all boats start at the same time. In each event, points from the worst race are discarded. The remaining points are added together to give an overall score to determine the medals.

**Officials**

Running the Paralympic Sailing events is a highly complex operation. Officials will include equipment inspectors – ensuring all equipment is within the rules of the class and the competition; international judges – making decisions on rules questions and applying penalties when necessary; international race officers – ensuring all races are run fairly and within the rules of the competition.

**Classification:**

The classification rules of the International Federation for Sailing state that athletes with a physical impairment and athletes with a visual impairment are eligible to compete in the sport at the Paralympics.

Classification also groups athletes in classes, defined by the degree to which they are limited in their ability to perform activities within that sport.
The classification system for Sailing assigns a point score to each athlete based on their ability to perform tasks specific to the sport.

Sailing has three categories of boat at the Paralympics; Three Person Keelboat, Two Person Keelboat and Single Person Keelboat. Each boat uses its own classification points system to make up a team.

**Three-Person Keelboat (Sonar):**

Each athlete is assigned a point score between 1 and 7 based on the impact of the athlete's impairment to perform tasks on the boat. The lower the point score, the greater the impact of the athlete’s impairment on their ability to sail. The total classification points of all three sailors must not exceed a maximum of 14 points.

**Two-Person Keelboat (SKUD18):**

Athletes are assigned a class of TPA if they have an impairment with a greater impact on their ability to sail. TPB athletes have an impairment with a lesser impact on their ability to sail. One TPA athlete and one TPB athlete make up the team of a Two-Person Keelboat.

**Single-Person Keelboat (2.4mR):**

The athlete must meet the minimum eligibility requirement for the sport, the equivalent of a point 7 in the Three-Person Keelboat. [32]

**Commonly Used Sailing Jargons:**

MD – Minimum Disability
TPA – Two-Person Keelboat
TPB – Two-Person Keelboat
SPA – Single-Person Dinghy Classification 1 Sailors with “Very Severe Disability”
SPB – Single-Person Dinghy Classification 2 Sailors with “Severe Disability”
SPC – Single-Person Dinghy Classification 3 with limited sailing abilities
SPD – Single-Person Dinghy Classification 4 all other sailors with a minimal disability
N – New
R – Review
C – Confirmed [33]
Port – when looking forwards, the left-hand side of the craft
Starboard – when looking forwards, the right-hand side of the craft
Tacking – when a boat passes through the eye of the wind in order to change direction, because it is impossible to sail directly into the wind, sailing boats must zig-zag
Keel boat – any boat with a keel as opposed to a centreboard or dagger board as used in dinghies. [32]

**Sailing Functions:**

The main functions of sailing are:

- Operating the control lines and the tiller (Hand function)
- Ability to see whilst racing (Vision)
- Compensation for the movement of the boat (Stability)
- Ability to move about in the boat (Mobility)

These functions are evaluated by any one or combination of:
• A physical examination (Functional Anatomical Test – FA)
• Observation of standardized simulated sailing functions (Functional Dock Test – FD)
• Observation of the sailor during competition and/or training and/or out of competition. (Functional Sail Test – FS)  

**Eligibility for Competition:**

**IPC Criteria:** The IPCCC states under its section 5, Eligibility to Compete:

5.2 To be Eligible to Compete, an Athlete must have an impairment that leads to a permanent verifiable Activity Limitation.

5.3 The impairment should limit the Athlete’s ability to compete equitably in elite sport with Athletes without a disability.

5.4 If an Athlete has an Activity Limitation resulting from an impairment that is not permanent and/or does not limit the Athlete’s ability to compete equitably in elite sport with Athletes without impairment, the Athlete should be considered ineligible to compete.

5.5 If an Athlete fails to meet the eligibility criteria for a particular sport, the Athlete will be declared ineligible for competition in that particular sport.

5.6 If an Athlete is deemed ineligible for competition under the rules of IFDS, this does not question the presence of a genuine impairment. This is only a ruling on the eligibility of the Athlete to compete under the Sport Rules of IFDS.

**IFDS Criteria:**

At this time, sailing permits sailors with a physical disability to compete, but not sailors with only an intellectual disability. The only sensorial disability allowed for competition is impaired vision. All sailors must have at least minimum disability, as defined below, to be eligible to compete.

Disability solely due to mental, psychological, physiological causes, or pain, including the effects of aging or a disorder such as obesity, are not considered eligible for competition. These factors will not be taken into consideration if a sailor also has a physical disability.  

**Method of Assessment (Tests):**

1. **Benchmark:**

Many sailors have clear-cut or benchmark disabilities. Establishing the benchmarks will also ensure that sailors are not penalised for training.

a) Sailors with benchmark disabilities will be examined to confirm this. This may be done by a single classifier, but will be confirmed by another member of the Classification Panel. A full functional anatomic examination and simulated and actual sailing activity observation may not be carried out at the discretion of the Classification Panel.

b) Out of competition procedure for Sailors with benchmark disabilities. These sailors shall be classified by two International Classifiers. One of these International Classifiers may conduct this classification by the use of photograph/video clip of the sailor. The Classifiers shall communicate their decision to IFDS and the sailor.
The Sailor’s name shall not appear on the Master List until the Classification Administration fee has been received by IFDS.

2. Functional Anatomical Test (FA)

This physical examination measures strength, co-ordination and range of movement. Only the most significant impairment (i.e. the lowest points) for each relevant movement is scored, whether strength, range of movement, or co-ordination, although any or all may be recorded on a 0–5 scale.

For example, impairment of strength is measured for complete spinal lesions, polio and other neurological weakness.

Impairment of range of movement is measured for those with congenital deformities, joint damage from injury or rheumatoid arthritis. While significant restrictions of range of movement will be taken into consideration and recorded, their impact on the sailor’s Class will be decided functionally rather than anatomically, by means of the Dock and Sailing tests.

Impairment of co-ordination is measured for those with neuromuscular disorders causing lack of coordination, spasticity, rigidity, tremor or involuntary movement such as cerebral palsy, multiple sclerosis, Parkinson’s disease or head injuries. While abnormalities of co-ordination will be taken into consideration and recorded, their impact on the sailor’s Class will be decided functionally rather than anatomically, by means of the Dock and Sailing test.

3. Functional Dock Test (FD):

This test of simulated sailing actions may be performed during classification in the three person keelboat or, in exceptional situations, similar style of boat at the dockside. It may be necessary to use the boat in which the sailor will be competing, (for example, the SKUD 18), if this is not a Sonar. The functions: “tiller”, “sheeting”, “cleating”, “transferring” and “hiking” are measured on a 1–5 scale and recorded. The sailors may be asked to perform functions that are not usually carried out by them in their usual crew position.

4. Functional Sailing Test (FS):

A Classification Panel may perform this observation, including video and photo recording, at any time during the period of competition, in training, while sailing to and from the racecourse and while racing.

During training, practice and after racing, Classifiers may observe from close along side or come aboard the boat. The same functions as tested in the Functional Dock Test are, where possible, observed and recorded. The classifiers may ask the sailor to perform specific tasks during this observation.

The Functional Sailing Test usually ends after the First Appearance. The “First Appearance” is the first day of racing in which, in the opinion of the Chief Classifier, wind and wave conditions have been sufficient to have shown sailors’ true abilities.

5. Impairment of Sight:

a) All visually impaired sailors must be examined by an ophthalmologist or optometrist using IBSA (International Blind Sports Association) standards.
b) All measurements are to be performed separately in both eyes with best correction (i.e. all athletes who use contact or corrective lenses must wear them during classification, whether they intend to compete wearing them or not).

c) Sailors with Class Status N or R, sailors shall bring to the Evaluation, completed documents including visual acuity and visual field testing results, certifying their IBSA classification, together with copies of their visual field tests, if these have been carried out (if visual field tests have not been carried out, the documents should state why not).

d) These tests MUST have been carried out within the last 6 months. Failure to bring these documents may result in sailing classification being refused. These documents MUST be submitted in the English language.

e) If the sailor has been awarded Class Status C, no further documentation or classification is required within the period the IBSA passport is valid.

f) Sailors with visual problems are reminded they must be reclassified if there has been any important change to their vision, e.g. cataract removal, corneal graft, laser surgery etc. and up to date (within the last six months) documentation as described above and re-evaluation is required at the next IFDS level 1 or 2 event in which they intend to sail.

g) Classifiers have the right to request another examination by an IBSA classifier or another ophthalmologist or optometrist at any event.

h) If there are any doubts, the wording of the IBSA rules shall apply and official IBSA classifiers have to be consulted. [35]

**PARALYMPIC SWIMMING**

Paralympic swimming is an adaptation of the sport of swimming for athletes with disabilities. Paralympic swimming is contested not only at the Summer Paralympic Games, but at disabled sports competitions throughout the world.

The sport is governed by the International Paralympic Committee (IPC), hence the name of "Paralympic" swimming. Rules for the sport are adapted from those set forth by the International Swimming Federation (FINA).[^36]

**Rules:**

- All races take place in a 50 metre pool and the winner is the person to complete the race in the quickest time.
- There are 4 strokes used in Paralympic competition: freestyle, backstroke, breaststroke and butterfly.
- All four strokes are included in the medley relay and 200 metre individual medley events.
- Athletes may start races in different ways: from a standing start; using a dive start from a sitting position; and from in the water.
- All swimmers with visual impairments must wear blackened goggles so that no athlete has an advantage. Goggles are checked by officials at the end of the race.
- In events for visually impaired swimmers there are "tappers" who use signals to inform athletes that they should turn or finish the race.[^37]

**Classification:**

The sport class names in Swimming consist of a prefix ―S,‖ "SM,‖ or “SB” and a number. The prefixes stand for the strokes and the number indicates the sport classes.

The prefixes stand for:

- **S:** Freestyle, Butterfly and Backstroke events
- **SM:** Individual Medley
- **SB:** Breaststroke[^36]

Classification numbers are assigned according to two factors: the type of disability and how an athlete’s disability affects his/her ability to perform in each event. Lower numbers within a category indicate a more substantial disability.

- **S1 to S10:** athletes with a physical disability (i.e. S2 has a larger disability than S7)
- **S11 to S13:** athletes with visual impairment
- **S14:** athletes with intellectual disabilities

Because different swim strokes require strength in different muscle groups, an athlete’s disability may have little impact on one event and a significant impact on another. For example, breaststroke relies more on the legs for moving forward than any other swimming stroke. Therefore an athlete with a lower limb disability may have a different classification for breaststroke than for freestyle. This change in difficulty level is also important when athletes compete in the individual medley.[^37]
Sport Classes S1 - S10: Physical impairment:

There are ten different sport classes for athletes with physical impairment, numbered 1-10. A lower number indicates a more severe activity limitation than a higher number.

You will notice that athletes with different impairments compete against each other. The impact of their impairment on swim performance, however, is similar. [38]

The following gives a few examples for impairments described in each sport class profile:

**S1 SB1 SM1**

Swimmers in this sport class have a significant loss of muscle power or control in legs, arms and hands. Some athletes also have limited trunk control, as it may occur with tetraplegia. These impairments may be caused by spinal-cord injuries or polio. Swimmers in this class usually use a wheelchair in daily life.

**S2 SB1 SM2**

Swimmers in this sport class are able to use their arms with no use of their hands, legs or trunk or have severe coordination problems in 4 limbs. As in sport class S1 SB1 SM1, athletes mostly only compete in backstroke events.

**S3 SB2 SM3**

This sport class includes athletes with amputations of all four limbs. Swimmers with reasonable arm strokes but no use of their legs or trunk and swimmers with severe coordination problems in all limbs are also included in this sport class.

**S4 SB3 SM4**

Swimmers who can use their arms and have minimal weakness in their hands, but cannot use their trunk or legs. Athletes with amputations of three limbs also swim in this sport class.

**S5 SB4 SM5**

Swimmers with short stature and an additional impairment, with loss of control over one side of their body (hemiplegia) or with paraplegia compete in this sport class.

**S6 SB5 SM6**

This sport class includes swimmers with short stature, amputations of both arms or moderate coordination problems on one side of their body.

**S7 SB6 SM7**

This profile is designated for athletes with one leg and one arm amputation on opposite sides, double leg amputations or a paralysis of one arm and one leg on the same side. Moreover, swimmers with full control over arms and trunk and some leg function can compete in this class.

**S8 SB7 SM8**

Swimmers who have lost either both hands or one arm are eligible to compete in this sport class. Also, athletes with severe restrictions in the joints of the lower limbs could compete in this sport class.
S9 SB8 SM9
Athletes in this sport class swim with joint restrictions in one leg, double below-the-knee amputations or an amputation of one leg.

S10 SB9 SM10
This class describes the minimal impairments of eligible swimmers with physical impairment. Eligible impairments would be the loss of a hand or both feet and a significantly limited function of one hip joint. [38]

Sport Classes 11-13: Visual Impairment:
Swimmers with visual impairment compete in the sport classes 11-13, with 11 meaning a complete or nearly complete loss of sight and 13 describing the minimum eligible visual impairment. Athletes in sport class 11 compete with blackened goggles. [38]

Sport Classes 14: Intellectual impairment:
Swimmers with intellectual impairment who also meet the sport-specific criteria compete in sport class 14. [38]

**PARALYMPIC TABLE TENNIS**

**Para table tennis** is a disabled sport which follows the rules set by the International Table Tennis Federation (ITTF). It is open to athletes with physical and intellectual disabilities. The usual table tennis rules are in effect with slight modifications for wheelchair athletes. Athletes from disability groups can take part. [39]

Table tennis is based on the same basic principles as tennis, but has a very different scoring system. With 29 medal events and nearly 300 athletes, it is one of the largest sports on the Paralympic programme. [40]

**Rules:**

- Table tennis is played on a table 2.74m long, 1.52m wide and 76cm high.
- There is a net in the middle of the table which divides it into two courts. Players stand or sit at the end of their court (at the end of the table).
- Players use a racket to hit a ball. The ball must go over the net and land in the other court. The ball can land on the edge of the court but not touch the sides.
- To start, one player hits or ‘serves’ the ball. The other player tries to hit the ball back (or ‘returns the serve’).
- When players hit the ball to each other, this is a ‘rally’. The rally continues until a player misses the ball, hits it into the net, or off the court.
- The aim of the game is to hit the ball so that the other player misses it. Each player serves two points in a row and then the server changes. But if the score reaches 10-10 in any game, something else happens: in that case each server serves only one point.
- Matches are played over the best of five games. The first player OR team to reach 11 points wins each game provided there is a margin of two points. [40]

**Classifications**

There are a total of 11 Table Tennis classes. Lower numbers in each class indicate a more severe disability in relation to the sport.

- **Classes 1 to 5**: athletes who compete using a wheelchair
- **Classes 6 to 10**: athletes who can play standing up
- **Class 11**: athletes with intellectual disabilities [40]

**Sitting classes:**

**Sport Class 1**: Class 1 players have no sitting balance and a severely affected playing arm, for example due to a spinal-cord lesion or polio.

**Sport Class 2**: Players in this sport class also have no sitting balance, but their playing arm is less affected than described in sport class 1.

**Sport Class 3**: While class 3 players have no trunk control, their arms and hands are not or minimally affected by the impairment.

**Sport Class 4**: Class 4 players have a fair sitting balance and fully functional arms and hands. Such a profile may be due to a lower spinal-cord lesion or cerebral palsy.
**Sport Class 5:** This sport class includes athletes who compete in a wheelchair, like athletes with a sport class 1-4, but who have normal sitting balance, arm and hand function.[^41]

**Standing Classes:**

**Sport Class 6:** Class 6 players have severe impairments in both arms and legs, which is due to incomplete spinal cord injuries, neurological conditions which affect both or one side of the body, amputations or similar congenital conditions. You will see some players handling the racket with their mouth.

**Sport Class 7:** Class 7 players either have very severe impairments of the legs or the playing arm or impairments affecting arms and legs, less severe than described in sport class 6. For example, a player with an amputation of both arms above the elbow could compete in this sport class.

**Sport Class 8:** Athletes with moderate impairment of their legs or moderately affected playing arm compete in this sport class. Classified as these conditions are stiffness of both knees or a below elbow amputation of the playing arm.

**Sport Class 9:** Class 9 players have mild impairments affecting the legs or the playing arm. Some show severe impairments of the non-paying arm, such as an amputation above the elbow. Athletes with a stiff knee or a restricted range of motion in a joint of the playing arm may also compete in this sport class.

**Sport Class 10:** Class 10 players have minimal impairments and may include a stiff ankle or wrist of the playing arm. Players with short stature may also play in sport class 10.[^41]

**Sport class 11**

This includes athletes with intellectual impairment who also meet sport specific criteria for table tennis.[^41]

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[^41]: http://learnenglish.britishcouncil.org/en/english-for-the-games/sports/worksheets
SITTING VOLLEYBALL

Sitting volleyball, also known as Paralympic volleyball, is volleyball for disabled and is known to be one of the fastest and most exciting Paralympic sports.

Sitting Volleyball emerged in the Netherlands in the 1950s, a combination of Volleyball and a German game called Sitzbal. It is played indoors by two teams of either men or women. [42]

The World Organization Volleyball for Disabled (WOVD) is a member of the International Paralympic Committee (IPC), and is recognised by IPC as the sole International Federation with worldwide responsibility for volleyball for athletes with a disability. [43]

Rules:

- Sitting volleyball is played by two teams of six players.
- The court measures 10 meters by 6 meters and is divided by a net.
- The object of the game is to make the ball hit the floor on the other side of the court. This wins one point.
- Usually 25 points are needed to win a set.
- To start a point, one player hits or ‘serves’ the ball and the other team tries to hit the ball back. Players have to rotate before their team serves.
- When players hit the ball to each other, this is a ‘rally’. The rally continues until the ball hits the floor, goes out of the court or a team fails to return the ball or commits a fault.
- Players can hit the ball (but not catch or throw it) 3 times before it must cross over the net. They are also allowed to ‘block’ the ball in addition to the maximum number of touches.
- A part of the player’s body between the buttocks and the shoulders must be touching the court when playing or attempting to play the ball.
- The first team to win 3 sets is the winner. [44]

Competition Format:

Both the men’s and women’s Sitting Volleyball competitions begin with a preliminary phase. The teams in each event are divided into two pools of five in the men’s and two groups of four in the women’s competition. Each team plays every other team in their pool. The top eight teams in the men’s and the top four teams in the women’s competition qualify for the knockout phase, with the winners of the semi-finals going head to head for the gold medal.

All matches are the best of five sets, with the first four sets going to 25 points. The fifth set goes to 15 points, and all sets must be won with at least a two-point advantage. [45]

Officials:

Two referees oversee each game. They are assisted by scorers, who sit at the scorers’ table, and line judges, who stand at the corners of the court and indicate various line faults with the use of flags. [45]
Classification:

There are two sport classes in Sitting Volleyball:

- Minimally Disabled (MD) – Less Severe Disability
- Disabled (D) – Severe Disability

For example, with an amputation through the ankle a player would be classified as MD and if the amputation is at a more proximal level, a player would be allocated a sport class D. Impairments can affect the lower and the upper limbs, for example causing stiffness of joints or shortening of extremities. [46]

Fairness between two teams

To ensure a fair competition between two teams, a team may only have one MD player on the court and all other five players have to be allocated sport class D.

Pic Courtesy: [www.volleyballengland.org/sitting](http://www.volleyballengland.org/sitting)
WHEELCHAIR BASKETBALL

Wheelchair basketball is basketball played by people in wheelchairs and is considered one of the major disabled sports practiced.

Wheelchair basketball was developed after World War II as part of rehabilitation programmes for returning soldiers. The rules are similar to those in Olympic Basketball.

The International Wheelchair Basketball Federation (IWBF) is the governing body for this sport. It is recognized by the International Paralympic Committee (IPC) as the sole competent authority in wheelchair basketball world wide. FIBA has recognized IWBF under Article 53 of its General Statutes.

Rules:

- Wheelchair basketball is played on a court with a basket at each end.
- The aim is to throw the ball through the basket of the other team and stop the other team from doing the same to you.
- When a player throws the ball toward the basket, it is called a “shot”. A shot can score between one and three points.
- Each team has five players on the court.
- Players cannot carry the ball across the court. Instead, they have to pass or bounce (“dribble”) it after every two pushes of their wheels.
- If a player stops dribbling the ball and continues moving, he/she commits a violation called “travelling”.
- If a player is too aggressive, the referee may call a “foul”. The opposite team gets a “free throw”.
- In Wheelchair basketball a “physical advantage foul” is called if a player:
  - lifts his legs or puts his foot on the floor to gain an advantage
  - raises his body out of his wheelchair
  - uses his legs to steer the chair.
- If a player falls out of his chair a referee may stop play if in his opinion the player is at risk of being injured.
- The game ends when time is up.
- The winner is the team with the most points.
- In the event of a draw, teams play extra time to decide the winner.

Classifications:

Wheelchair basketball players are allocated one of eight sport classes from 1.0 to 4.5. Sport class 1.0 describes the most significant activity limitation.

All athletes compete in a wheelchair and have an impairment affecting their legs or feet that would prohibit them to compete equally in able-bodied basketball.

Examples for eligible impairments are amputations affecting their legs and paraplegia. However, not all of the players are wheelchair users in daily life. Most athletes have normal arm function.

Sport Class 1.0:
Players in sport class 1.0 have no trunk control and thus cannot bent forward or sideways or rotate to catch and pass the ball. To keep a stable position, the backrest of the wheelchair is a bit higher and the athletes are strapped to the wheelchair.

**Sport Class 2.0:**

These players can move lean forward and rotate their body to some extent, allowing them to catch the ball within a larger radius. Like their team members in sport class 1.0, their wheelchairs have a higher backrest and strapping for trunk support.

**Sport Class 3.0:**

This profile describes players whose trunk control allows them to fully rotate and lean forward, but does not allow them to lean to the sides. As they do not need sitting support, their wheelchair has a low backrest.

**Sport Class 4.0:**

While 4.0 players can move forward and rotate like their team members in sport class 3.0, they can partially lean to the sides as well. Often players in this sport class can lean to one side only, for example, because an impairment in one leg would cause a loss of balance to the other side.

**Sport Class 4.5:**

Players in this sport class have the least eligible impairment and have no restriction in trunk rotation or leaning forward or sideways. Players with a foot amputation or a 6 cm leg length difference would be eligible for this sport class.

An athlete can also be allocated the sport classes 1.5, 2.5 or 3.5. The activity profile of these half-pointers fit in between the profiles of the lower and higher class. [49]

**Fairness between two teams**

Each team of five players is only allowed to have 14 points on the field of play at the same time. [49]
Wheelchair Rugby is a team sport for athletes with a disability. It is currently practiced in over twenty countries around the world and is a Paralympic sport.

Developed in Canada in 1977, the sport's original name was murderball. The United States name of quad rugby is based on the fact that all wheelchair rugby players need to have disabilities that include at least some loss of function in at least three limbs—most are medically classified as quadriplegic.

Wheelchair rugby is played indoors on a hardwood court. The rules include elements of wheelchair, ice hockey, handball and rugby union. It is a contact sport and physical contact between wheelchairs is an integral part of the game. It has little in common with Rugby football except for the name.

The sport is governed by the International Wheelchair Rugby Federation (IWRF) which was established in 1993. [50]

Rules:

- The ball is the same size and shape as a volleyball.
- A game consists of four quarters of eight minutes each.
- The game begins with a tip-off.
- A goal is scored when a player touches or crosses the other team’s goal line, inside the key area, while in control of the ball.
- The player with the ball must bounce or pass it at least every 10 seconds.
- When a team gets possession of the ball, they have 40 seconds to score a goal.
- Contact between wheelchairs is allowed, but physical contact is a foul.
- If a player commits a minor foul the other team gets possession of the ball.
- If a player commits a more serious foul s/he must leave the court for one minute. [51]

Classification:

The players are allocated to one of seven different sport classes: 0.5, 1.0, 1.5, 2.0, 2.5, 3.0 and 3.5. The most significant activity limitation is described in the 0.5 sport class profile.

Wheelchair Rugby is played by athletes with various impairment types, including muscle weakness or limb deficiencies, which impact on at least three limbs. [52]

Sport Class 0.5:

Players in sport class 0.5 show significant shoulder instability and limitations in their upper arm and hand functions. Most have no trunk or leg control. The player would typically catch the ball by tapping it into the lap and throw the ball with a scoop pass.

Sport Class 1.5:

Players in sport class 1.5 have better shoulder stability and arm and wrist function than players in sport class 0.5. They can do chest passes, but the instability of their wrist
makes ball handling difficult. Some players might have one side of their body more strongly affected than the other side.

**Sport Class 2.5:**

Players in this sport class have good shoulder stability and arm function. They might have some trunk control. Due to their ability to flex their fingers, they can perform overhead passes, catch the ball with two hands and manoeuvre the wheelchair better than their team mates in the lower sport classes.

**Sport Class 3.5:**

This is the sport class describing the least severe eligible impairment in wheelchair rugby. Due to a less significant impairment of their shoulders, trunk, arms and hands, they are good ball handlers and can move quickly on the court. [52]

**Fairness between two teams**

The total number of points on court during a game for four players may not exceed 8 points. This way the impact of impairment on the game is balanced between the two teams. [52]

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WHEELCHAIR TENNIS

**Wheelchair Tennis** is one of the forms of tennis adapted for those who have disabilities in their lower bodies. The size of courts, balls, and rackets are same, but there are two major differences from pedestrian tennis; they use specially designed wheelchairs and the ball may bounce up to two times. The second bounce may also occur outside of the field.

This is one of the official Paralympic sports and also played at Grand Slams. There are three categories; Men, Ladies, and Quads and each category has singles and doubles tournaments. [53]

The sport is governed by the International Tennis Federation (ITF) which organizes all the International Tournaments. [54]

**Rules:**

- Tennis is played on a court, 23 metres long and 11 metres wide.
- There is a net in the middle of the court. Players take up a position at both ends of the court.
- Players use a racket to hit a ball. The ball must go over the net and land inside the court.
- To start, one player hits or ‘serves’ the ball. The other player tries to hit the ball back (or ‘returns the serve’).
- When players hit the ball to each other, this is a ‘rally’. The rally continues until a player misses the ball, hits it into the net, or out of the court.
- The aim of the game is to hit the ball so that the other player misses it.
- A match consists of ‘games’ and ‘sets’.
- The same player serves throughout one game, then the other player serves in the next game.
- A set is a group of games. Usually the first person to win six games wins the set.
- The winner of the match is the first to win two sets.
- * Wheelchair tennis has individual (or ‘singles’) and team (or ‘doubles’) events for men and women, and Quad singles and Quad doubles, with men and women competing in the same events. [55]

**Classification:**

There are two sport classes in Wheelchair Tennis and all players have in common that they have an impairment that affects their mobility.

**Open Class:**

This sport class is designated for athletes, who have a significant and permanent impairment of one or both legs and normal arm function. This profile may match with athletes with paraplegia or leg amputations.

**Quad Class:**

Players in this class have an impairment affecting their arm function, as well as their legs. This limits their ability to grip the racket and to move in the wheelchair. [56]
BOCCIA

**Boccia** is a Portuguese precision ball sport game, similar to bocce, and related to bowls and pétanque. The name Boccia is derived from the Latin word for boss – bottia.[57]

The sport is competed at national and international level, by athletes who require a wheelchair because of physical disability. It was originally designed to be played by people with cerebral palsy but now includes athletes with other severe disabilities affecting motor skills. In 1984 it became a Paralympic sport, and in 2008 was being practised in over fifty countries worldwide.[58]

Boccia is a target sport that tests muscle control and accuracy, demanding extreme skill and concentration at the highest level.

Believed to have Ancient Greek origins, Boccia is a tough test of nerve, tactics and skill. Played on a rectangular court by individuals, pairs and teams, the sport offers both tension and excitement, as athletes aim to land balls close to a target ball, across a series of demanding ends. The sport is similar to boules or petanque. [59]

Boccia is governed by the Cerebral Palsy International Sports and Recreation Association (CPISRA) and is one of three Paralympic sports that have no counterpart in the Olympic program.

**Rules:**

- Athletes propel the ball towards a white target ball, known as the ‘jack’.
- The closest ball to the jack wins.
- Men and women compete together in team, pairs and individual events.
- Each match has a number of different stages called ‘ends’.
- Each player, pair or team gets six balls in each end.
- Individual and pairs matches have four ends.
- Team events have six ends.
- When each ‘end’ is finished, the athlete (or pair or team) whose ball is closest to the jack scores one point.
- The athlete also receives another point for every ball that is nearer to the jack than the opposition’s closest ball. [60]

**Classifications:**

There are four sport classes in Boccia, BC1–4. All players compete in wheelchairs due to a loss of leg function and trunk stability, caused by a lack of muscle coordination and control.

**BC1:**

Athletes in sport class BC1 have severe activity limitations affecting their legs, arms and trunk due to coordination impairments. They can grasp and throw the ball and do not use assistive devices. Athletes with some leg control are allowed to propel the ball with their foot.

**BC2:**
Boccia players in sport class BC2 have better trunk control and arm function than the players in the BC1 and BC3 sport class. The abilities of their arms and hands often allow them to throw the ball overhand and underhand and with a variety of grasps.

**BC3:**

Athletes competing in sport class BC3 have a significantly limited function in their arms and legs and poor or no trunk control due to cerebral or non-cerebral origin. Unlike BC1 players, they use a ramp to roll the ball as they are unable to propel the ball into court. Athletes often require assistive devices to propel the ball, because they cannot consistently grasp and throw the ball.

**BC4:**

While the sport classes BC1-3 include athletes with impairments of cerebral origin, such as spasticity, athetosis or ataxia, sport class BC4 comprises athletes with impairments that have no cerebral origin and that cause a loss of muscle strength or coordination. Among possible health conditions are multiple sclerosis and spina bifida. Players competing in this sport class have very poor leg and trunk function, but are able to grasp and throw the ball. [61]

---

Para-canoe sport is exactly like canoeing for able-bodied athletes, allowing those with physical impairments at all levels to enjoy the sport.

Para-Canoe will be included in the Paralympic Games for the first time in Rio de Janeiro in 2016.

Para-Canoe is governed by the International Canoe Federation (ICF) [62]

Rules:

- Two types of boats are used in this sport, canoes and kayaks.
- Canoes are usually open at the top but kayaks are closed. The paddle of a canoe has one blade. A kayaker's paddle has two.
- In canoeing you kneel on one knee but in kayaking you sit.
- The names of the different events depend on the number of canoers or kayakers. So "C-2" means a race with two athletes in each canoe and "K-1" is a kayak race with one athlete in each kayak.
- Sprint events take place on a straight course which is divided into lanes, on calm water.
- There are nine lanes and any boat leaving its lane is disqualified.
- Slalom events take place on a course of between 20 and 25 gates, which are suspended above the water.
- Athletes must go through different gates depending if they are going downstream, or upstream.
- If a boat touches a gate it is penalized 5 seconds, and if it misses a gate it is penalized 10 seconds.
- The fastest time, after adding on penalties, is the winner. [63]

Classification:

- LTA (Legs, Trunk & Arms)
- TA (Trunk & Arms)
- A (Arms Only) [64]

LTA (Legs, trunk and arms):

The LTA class is for paddlers with a disability who have good use of their legs, trunk and arms for paddling, and who can apply force to the foot board or the seat to propel the boat. LTA paddlers may typically meet one of the following:

- Limb loss or deficiency Amputee or full loss of three fingers on one hand, or at least a tarsal metatarsal amputation of the foot
- Loss of muscle strength E.g. equivalent to incomplete spinal cord injury or the loss of ten muscle grade points on one limb or fifteen points across two limbs
- Minimal ataxia, athetosis, monoplegia or hypertonia. Eg Cerebral Palsy, brain injury, stroke or MS [64]
TA (Trunk and arms):

The TA class is for paddlers who have good use of the trunk and arms, but limited use of their legs. They are unable to apply continuous and controlled force to the footboard or seat to propel the boat. TA paddlers may typically meet at least one of the following:

- Limb loss or deficiency equivalent to double above leg amputation
- Significant muscle strength loss in both legs equivalent to complete spinal cord injury, or an incomplete lesion
- Athletes with Ataxia, Athetosis, hypertonia from CP brain injury or stroke which affecting both legs, and one side of the body who are able to walk. [64]

A (Arms only):

The A class is for paddlers who have no trunk function (i.e. shoulder function only). An A class paddler is able to apply force predominantly using the arms and/or shoulders. These athletes will likely also have poor sitting balance. Eligible paddlers typically meet one of the following:

- Athletes with Ataxia, Athetosis, hypertonia from Cerebral Palsy, Brain injury or stroke who may use a wheelchair or walking aid, but who are not able to run with effectiveness.
- Loss of muscle strength equivalent to spinal cord injury [64]

EQUESTRIAN

‘The term ‘Equestrian’ means connected with riding horses. The Equestrian events test the ability of horse and rider to display both athletic prowess and supreme elegance. [65] [66]

Para-equestrianism is governed by the International Federation for Equestrian Sports (FEI), and includes two competitive events:

- **Para-equestrian dressage** is conducted under the same rules as conventional dressage, but with riders divided into different competition grades based on their functional abilities (see para-equestrian classification) [67]

- **Para-equestrian driving** operates under the same basic rules as combined driving but places competitors in various grades based on their functional abilities [68]

The Paralympic games host a para-equestrian dressage competition, and have done so since 1996, but like the Summer Olympics, they do not yet offer driving. The FEI brought para-equestrian sport under its umbrella in 2006.

Rules:

- There are three Olympic equestrian events: dressage, jumping, and eventing.

- In each event, there are individual and team medals.
- Men and women compete against each other.
- Riders must be at least 16 years old.
- Horses must be at least 7 years old and must have a health inspection. [69]

**Dressage:**

The horses/riders perform a special series of movements known as a dressage test. [69]

**Jumping:**

- Each horse/rider has a maximum of forty-five seconds to complete the course containing twelve to fourteen obstacles.
- A horse/rider gets penalties if they commit faults, such as knocking down a fence.
- The horse/rider who finishes the course in the fastest time, with the least number of penalties, is the winner [69]

**Eventing:**

- There are three parts in the eventing competition: dressage; cross-country riding; and jumping.
- In dressage each horse/rider performs one dressage test.
- Cross-country takes place on a course containing up to forty-five obstacles. Each horse/rider gets penalty points for jumping errors and time penalties.
- There are two jumping tests, one for teams and one for individuals.
- Penalty points from all three tests are added up to decide who wins the medals. [69]
Classification:

In Equestrian Dressage riding there are five sport classes called grades for athletes with physical and visual impairments. Lower grades indicate more severe activity limitations and higher grades include athletes with less severe activity limitations. [70]

Grade Ia: Physical impairments

Athletes in Grade Ia have severe impairments of all limbs and poor trunk control, which usually necessitate the athlete to use a wheelchair in daily life.

Grade Ib: Physical impairments

Athletes in Grade Ib have either severely reduced trunk control and minimally impaired upper limbs or moderate impairments of the upper and lower limbs and the trunk. Most riders in this class use a wheelchair in daily life.

Grade II: Physical impairments

Athletes in Grade II have a very limited ability in both lower limbs and a good trunk balance, or milder limitations in upper and lower limbs with reduced trunk control. For example, an athlete with a severe impairment in one arm and one leg on opposite sides and good trunk and hip control is likely to compete in Grade II. Some riders in this class use a wheelchair in daily life.

Grade III: Physical and visual impairment

Athletes in Grade III are able to walk, but have a severe impairment in both arms or have no arms, a moderate impairment of all four limbs or short stature. This grade also includes athletes with no sight.

Grade IV: Physical and visual impairment

Grade IV comprises athletes with impaired range of motion or muscle strength, deficiency on one limb or mild deficiency on two limbs. Moreover, riders with reduced vision or a restricted visual field compete in this grade. [70] [71] [72]

GOALBALL

Goalball was developed as an activity to help soldiers who suffered eye injuries in the Second World War. Since then it has spread around the world. It is now played in more than 100 countries. It is played by teams of three visually impaired athletes who try to score by rolling the ball into the other team’s goal. The ball has bells inside so that the players can hear it. [73]

The International Blind Sports Federation, responsible for fifteen sports for the blind and partially sighted, is the governing body for the sport. [74]

Rules:

- A game is played by two teams of three players with a maximum of three substitutes on each team. There are no more than three players per team on the court at any time.
- The game is conducted on the floor of a gymnasium within a rectangular court which is divided into two halves by a centre line. Goals are erected at either end.
- There are bells inside the ball which allow players to hear it rolling along the ground.
- The object of the game is for each team to roll the ball across the opponent’s goal line while the other team attempts to prevent this from happening.
- Most fouls are punished by the loss of possession to the other team.
- A penalty throw is awarded for more serious fouls.
- Games last for 14 minutes with two halves of seven minutes each.
- The team with the most goals after 14 minutes is the winner.
- If each team has the same number of goals after 14 minutes, the game is decided by extra throws. This is similar in principle to a penalty shootout. [75][76]

Classification:

The classification rules of the International Federation for Goalball state that athletes with a visual impairment are eligible to compete in the sport at the Paralympics. Goalball classification at the Paralympic Games is the basis for determining who can compete in the sport, and within which class. It is used for the purposes of establishing fair competition. Entry is eligible to male and female athletes with a visual disability in one of the three blind sport classifications: B1, B2 and B3. The blind classifications are based on medical classification, no functional classification. This sport has rules that were designed specifically with people with disabilities in mind. [77]

- **B1**: Total absence of perception of the light in both eyes, or some perception of the light but with inability to recognize the form of a hand at any distance and in any direction.

  ![B1 Classification](image)

- **B2**: From the ability to recognize the form of a hand to a visual acuity of 2/60 and/or a visual field of less than 5 degrees.
• B3: From a visual acuity of above 2/60 to a visual acuity of 6/60 and/or a visual field or more than 5 degrees and less than 20 degrees.

All classifications must be made by measuring the best eye and to the highest possible correction. This means that all athletes who use contact lenses or correcting glasses normally must wear them during classification, whether or not they intend to use them during competition. [78]

All athletes wear eyeshades to ensure fairness and allow athletes with varying degrees of visual impairment to compete together.

**PARA – ALPINE SKIING**

**Paralympic Alpine Skiing** is an adaptation of alpine skiing for athletes with a disability. The sport evolved from the efforts of disabled veterans in Germany and Austria during and after the Second World War.

The sport is governed by the International Paralympic Committee Sports Committee. [79]

**Alpine skiing Disciplines:**

Para-alpine skiing disciplines include:

**Downhill:**

This is a speed based timed discipline, where competitors ski down a steep course that can finish 450 metres (1,480 ft) to 800 metres (2,600 ft) lower than it started while containing many turns and jumps. The winner is determined based on one run down the course, with the competitor with the fastest time being the winner.

**Super-G:**

Developed in the 1980s, the Super-G is less technical than others, and is known for the speed of the skier, who navigate a course that has a vertical drop between 400 metres (1,300 ft) to 600 metres (2,000 ft) from top to bottom. Compared to other para-alpine skiing disciplines, this course tends to be mid-length. It is longer than the Giant Slalom and the Slalom but shorter than the Downhill course. In this discipline, competitors ski between alternating red and blue gates that are 25 metres (82 ft) apart, with men needing to clear 35 gates and women needing to clear 30 gates.

**Giant Slalom:**

With a vertical drop of 300 metres (980 ft) to 400 metres (1,300 ft), this is one of the more technical of the para-alpine skiing disciplines. This discipline involves two runs down a course straighter and shorter than the Downhill, but longer and having fewer turns than the Slalom course. The winner is determined based on the combined time for both races.

**Slalom:**

The name for this event is from a Norwegian word meaning "sloping path." This event is the most technical para-alpine skiing disciplines, with a vertical drop of only 140 metres (460 ft) to 220 metres (720 ft) on an intentionally iced course. This is the shortest of all the para-alpine skiing events and uses two different courses. Skiers go down each course once, with their finishing position being determined based on their combined course completion time. There are gates in this event, about 55-75 for men and 40-60 for women, and if a skier misses a gate, they are disqualified from the race.

**Super Combined:**

The Super Combined event is a combination of two disciplines such as the Slalom and the Super G, or the Downhill and the Slalom. In the event, skiers go down the Downhill course once, and the Slalom course twice. The times for the races are combined, with the fastest time winning.

**Snowboard:**
Snowboard has vertical drops between 100 metres (330 ft) and 240 metres (790 ft) for both men's and women's races with the course being run over a distance of 400 metres (1,300 ft) to 900 metres (3,000 ft). The course has alternating gates. The sport is only open to standing competitors.

The rules for these disciplines are based on the rules set by the International Ski Federation, though some rules have been adapted for skiers with disabilities.  

**Classification:**

Para-alpine skiing classification is the classification system for para-alpine skiing designed to insure fair competition between alpine skiers with different types of disabilities.

There are three categories of racer:

**Visually Impaired:** Athletes with a visual impairment use exactly the same equipment as that used by non-disabled athletes but require the company of a guide, who skis ahead of the competitor while providing verbal instruction on slope and direction. Athletes can have varying degrees of visual impairment.

**Standing:** Standing skiers are athletes who have an amputation or disarticulation of upper limbs and use the same equipment as that used by non-disabled athletes, with the only difference being the skiing poles on the side affected by the impairment. Standing skiers who have a lower limb amputation can use one or two skis and, because the athlete maintains balance on only one limb, competitors use two stabilizers (a type of crutch with a small ski that rests on the snow) instead of ski poles. Athletes with below-knee amputations can wear a prosthesis.

**Sitting:** Skiers with impairments that affect both limbs (double amputation) or with vertebral lesion (paraplegia or quadriplegia) use a sit-ski or ‘monoski’. This is a special piece of equipment that has a specifically designed seat with a shock absorber mechanism. Two stabilizers are used to help the athlete maintain balance.

Classification governance is handled by International Paralympic Committee Alpine Skiing. Prior to that, several sport governing bodies dealt with classification including the International Sports Organization for the Disabled (ISOD), International Stoke Mandeville Games Federation (ISMWSF), International Blind Sports Federation (IBSA) and Cerebral Palsy International Sports and Recreation Association (CP-ISRA). Some classification systems are governed by bodies other than International Paralympic Committee Alpine Skiing, such as the Special Olympics. The sport is open to all competitors with a visual or physical disability. It is not open to people with intellectual disabilities.

There are 9 standing classifications, on a gradient of most severe being LW1 and LW9 being the least severe.

Sitting Classifications have three classifications, LW10, LW11 and LW12. These are grouped from the most severe at LW10 to least severe at LW12. LW10 have T5-T10 paraplegia.
There are three vision impaired classifications, B1, B2 and B3. These classifications are based on a gradient with B1 being the most severe and B3 being the least severe, with B3 skiers having vision around 2/60 to 6/60.\endnote{81}

**Standing Classes**\endnote{81}

<table>
<thead>
<tr>
<th>Class</th>
<th>Description</th>
<th>Typical equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>LW 1</td>
<td>Double leg amputation above the knee, moderate to severe cerebral palsy, or equivalent impairment</td>
<td>Two skis, two outriggers</td>
</tr>
<tr>
<td>LW 2</td>
<td>Single leg amputation above the knee</td>
<td>One ski, two outriggers</td>
</tr>
<tr>
<td>LW 3</td>
<td>Double leg amputation below the knee, mild cerebral palsy, or equivalent impairment</td>
<td>Two skis, two poles</td>
</tr>
<tr>
<td>LW 4</td>
<td>Single leg amputation below the knee</td>
<td>Two skis, two poles</td>
</tr>
<tr>
<td>LW5/7-1</td>
<td>Double arm amputation above the elbow</td>
<td>Two skis, no poles</td>
</tr>
<tr>
<td>LW 5/7-2</td>
<td>Double arm amputation, one above and one below the elbow</td>
<td>Two skis, no poles</td>
</tr>
<tr>
<td>LW 5/7-3</td>
<td>Double arm amputation below the elbow</td>
<td>Two skis, no poles</td>
</tr>
<tr>
<td>LW 6/8.1</td>
<td>Single arm amputation above the elbow</td>
<td>Two skis, one pole</td>
</tr>
<tr>
<td>LW 6/8.2</td>
<td>Single arm amputation below the elbow</td>
<td>Two skis, one pole</td>
</tr>
<tr>
<td>LW9.1</td>
<td>Amputation or equivalent impairment of one arm and one leg above the knee</td>
<td>Choice of equipment</td>
</tr>
<tr>
<td>LW9.2</td>
<td>Amputation or equivalent impairment of one arm and one leg below the knee</td>
<td>Choice of equipment</td>
</tr>
</tbody>
</table>

**Sitting Classes (Monoskiers)**\endnote{81}

<table>
<thead>
<tr>
<th>Class</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LW10.1</td>
<td>Paraplegia with no upper abdominal function and no functional sitting balance</td>
</tr>
<tr>
<td>LW 10.2</td>
<td>Paraplegia with some upper abdominal function and no functional sitting balance</td>
</tr>
<tr>
<td>LW11</td>
<td>Paraplegia with fair functional sitting balance</td>
</tr>
<tr>
<td>LW12.1</td>
<td>Paraplegia with some leg function and good sitting balance</td>
</tr>
<tr>
<td>LW 12.2</td>
<td>Double leg amputation above the knees</td>
</tr>
</tbody>
</table>

**Visually Impaired Classes**\endnote{81}

<table>
<thead>
<tr>
<th>Class</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1</td>
<td>Totally blind</td>
</tr>
<tr>
<td>B2</td>
<td>Visual acuity of less than 2/60</td>
</tr>
<tr>
<td>B3</td>
<td>Visual acuity of 2/60 to 6/60</td>
</tr>
</tbody>
</table>
Picture of Alpine and Cross Country Skis
Paralympic Biathlon is an adaptation of biathlon for athletes with a disability. Paralympic biathlon is one of two Nordic skiing disciplines in the Winter Paralympic Games. It is governed by the International Paralympic Committee (IPC).

Paralympic biathlon includes standing events, sitting events (for wheelchair users), and events for visually impaired athletes. [82]

Biathlon for athletes with physical disabilities was introduced at the Innsbruck 1988 Paralympic games, and by 1992, athletes with visual impairments were also allowed to compete in the sport, which is a combination of physical endurance on skis and shooting accuracy.

Athletes with visual impairments are assisted by acoustic signals, which, depending on signal intensity, indicate when the athlete is on target, and shoots a laser beam at the target. [83]

Classification:

Skiers in Biathlon compete in several different sport classes, depending on the activity limitation that their impairment causes.

Sport Classes LW 2-9: Standing Skiers

Skiers with leg impairments:

- **Sport Class LW 2:** The skiers have an impairment affecting one leg, for example an amputation above the knee. They will use a prosthesis and ski with two skis.

- **Sport Class LW 3:** This sport class includes skiers with an impairment in both legs, such as muscle weakness in both legs.

- **Sport Class LW 4:** Skiers in this sport class include those with impairments in the lower parts of one leg, but with less impact on skiing compared to LW 2. Typical examples are amputations above the ankle or loss of muscle control in one leg. [84]

Skiers with arm impairments:

- **Sport Class LW 5/7:** This sport class is designated for athletes with impairments in both arms that prohibit them to use ski poles. Skiers, for example, have no hands or cannot grip firmly. Therefore, you will see them skiing without poles.

- **Sport Class LW 6:** Athletes competing in the LW 6 sport class have a significant impairment in one arm, for example a missing arm above the elbow. The impaired arm is fixed to their body and may not be used during the races. With the other hand they will use a ski pole.

- **Sport Class LW 8:** Skiers in this sport class have moderate impairments affecting one arm. Athletes, for example, cannot flex the elbow or fingers on one side or they have a below elbow amputation. They will use one ski pole only. [84]
Skiers with combined impairments in arms and legs:

- **Sport Class LW 9:** This sport class is designed for skiers who have an impairment in arms and legs. Some of the LW9 skiers have mild coordination problems in all extremities. Others have amputations affecting at one arm and one leg. Depending on their abilities, they will ski with one or two ski poles. [84]

**Sport Classes LW 10-12: Sit-Skiers:**

All sit-skiers have an impairment affecting their legs. They are allocated different sport classes depending on their trunk control, which is very important for acceleration and balancing during the races.

- **Sport Class LW 10:** Skiers have an impairment that limits their leg and trunk function. They would be unable to sit without supporting himself or herself with the arms, for example due to paraplegia.

- **Sport Class LW 10.5:** Skiers in this sport class also have limited trunk control, but they can keep their sitting balance when not moving sideways.

- **Sport Class LW 11:** Skiers have a leg impairment and fair trunk control, which enables them to balance even when moving sideways.

- **Sport Class LW 11.5:** Skiers in this sport class have near to normal trunk control.

- **Sport Class LW 12:** Skiers in this sport class have impairments similar to those described for the sport classes LW 2-4: They have a leg impairment, but normal trunk control. They are eligible to compete standing or sitting and can chose their preferred way of skiing at their first Classification. [84]

**Sport Classes B1-3: Skiers with visual impairment**

- **Sport Class B1:** Skiers in this sport class are either blind or have very low visual acuity. By way of explanation, their level of visual acuity is such that the athlete cannot recognize the letter “E” (15x15cm in size) from a distance of 25cm. During the race they wear eyeshades.

- **Sport Class B2:** This sport class profile includes athletes with a higher visual acuity than athletes competing in the B1 class, but they are unable to recognize the letter “E” from a distance of 4m. Moreover, athletes with a visual field of less than 10 degrees diameter are eligible for this sport class.

- **Sport Class B3:** The B3 sport class profile describes the least severe visual impairment eligible for Nordic Skiing. Eligible athletes either have a restricted visual field of less than 40 degrees diameter or a low visual acuity.

For B1 skiers a guide is obligatory and B2 and B3 skiers may choose to ski with a guide. The guide skis immediately ahead of the athlete and verbally informs the athlete of course specifics such as corners, inclines, and declines. In Biathlon, athletes with visual impairment shoot at the target by following sound signals. [84]
Biathlon Equipments


Pic Courtesy: [http://www.talismancoins.com/catalog/Biathlon_Dual.jpg](http://www.talismancoins.com/catalog/Biathlon_Dual.jpg)
CROSS COUNTRY SKIING

Paralympic cross-country skiing is an adaptation of cross-country skiing for athletes with a disability. Paralympic cross-country skiing is one of two Nordic skiing disciplines in the Winter Paralympic Games. It is governed by the International Paralympic Committee. [85]

Cross-country skiing first appeared at the 1976 Winter Paralympic Games in Örnsköldsvik, Sweden. The competition is open to athletes with a physical impairment and blindness/visual impairment. Depending on functional impairment, a competitor may use a sit-ski, a chair equipped with a pair of skis. Athletes with blindness/visual impairment compete in the event with a sighted guide. Male and female athletes compete in short distance, middle distance and long distance (ranging from 2.5km to 20km) or participate in a team relay using classical or free techniques. Cross-country Skiing is governed by the IPC with co-ordination by the IPC Nordic Skiing Technical Committee following modified rules of the International Ski Federation (FIS) and is practiced by athletes in 24 countries. [86]

Classification:

Skiers in Biathlon compete in several different sport classes, depending on the activity limitation that their impairment causes.

Sport Classes LW 2-9: Standing Skiers

Skiers with leg impairments:

- **Sport Class LW 2:** The skiers have an impairment affecting one leg, for example an amputation above the knee. They will use a prosthesis and ski with two skis.

- **Sport Class LW 3:** This sport class includes skiers with an impairment in both legs, such as muscle weakness in both legs.

- **Sport Class LW 4:** Skiers in this sport class include those with impairments in the lower parts of one leg, but with less impact on skiing compared to LW 2. Typical examples are amputations above the ankle or loss of muscle control in one leg. [87]

Skiers with arm impairments:

- **Sport Class LW 5/7:** This sport class is designated for athletes with impairments in both arms that prohibit them to use ski poles. Skiers, for example, have no hands or cannot grip firmly. Therefore, you will see them skiing without poles.

- **Sport Class LW 6:** Athletes competing in the LW 6 sport class have a significant impairment in one arm, for example a missing arm above the elbow. The impaired arm is fixed to their body and may not be used during the races. With the other hand they will use a ski pole.

- **Sport Class LW 8:** Skiers in this sport class have moderate impairments affecting one arm. Athletes, for example, cannot flex the elbow or fingers on one side or they have a below elbow amputation. They will use one ski pole only. [87]
Skiers with combined impairments in arms and legs:

- **Sport Class LW 9**: This sport class is designed for skiers who have an impairment in arms and legs. Some of the LW9 skiers have mild coordination problems in all extremities. Others have amputations affecting at one arm and one leg. Depending on their abilities, they will ski with one or two ski poles. [87]

**Sport Classes LW 10-12: Sit-Skiers:**

All sit-skiers have an impairment affecting their legs. They are allocated different sport classes depending on their trunk control, which is very important for acceleration and balancing during the races.

- **Sport Class LW 10**: Skiers have an impairment that limits their leg and trunk function. They would be unable to sit without supporting himself or herself with the arms, for example due to paraplegia.

- **Sport Class LW 10.5**: Skiers in this sport class also have limited trunk control, but they can keep their sitting balance when not moving sideways.

- **Sport Class LW 11**: Skiers have a leg impairment and fair trunk control, which enables them to balance even when moving sideways.

- **Sport Class LW 11.5**: Skiers in this sport class have near to normal trunk control.

- **Sport Class LW 12**: Skiers in this sport class have impairments similar to those described for the sport classes LW 2-4: They have a leg impairment, but normal trunk control. They are eligible to compete standing or sitting and can chose their preferred way of skiing at their first Classification. [87]

**Sport Classes B1-3: Skiers with visual impairment**

- **Sport Class B1**: Skiers in this sport class are either blind or have very low visual acuity. By way of explanation, their level of visual acuity is such that the athlete cannot recognize the letter “E” (15x15cm in size) from a distance of 25cm. During the race they wear eyeshades.

- **Sport Class B2**: This sport class profile includes athletes with a higher visual acuity than athletes competing in the B1 class, but they are unable to recognize the letter “E” from a distance of 4m. Moreover, athletes with a visual field of less than 10 degrees diameter are eligible for this sport class.

- **Sport Class B3**: The B3 sport class profile describes the least severe visual impairment eligible for Nordic Skiing. Eligible athletes either have a restricted visual field of less than 40 degrees diameter or a low visual acuity.

For B1 skiers a guide is obligatory and B2 and B3 skiers may choose to ski with a guide. The guide skis immediately ahead of the athlete and verbally informs the athlete of course specifics such as corners, inclines, and declines. In Biathlon, athletes with visual impairment shoot at the target by following sound signals. [87]
The Percentage System in Nordic Skiing:

The percentage-system is an adjusted time formula, which is used to determine overall place of each competitor relative to all other racers. This formula assigns a percentage to each competitor based on each individual's particular race class. The athlete's actual time is multiplied by this percentage to determine his/her adjusted finishing time. Each class has different percentage for the different techniques, classic and free technique.

Pic Courtesy: http://visual.merriam-webster.com/images/sports-games/winter-sports/cross-country-skiing/cross-country-skier.jpg

Pic Courtesy: http://visual.merriam-webster.com/images/sports-games/winter-sports/cross-country-skiing/cross-country-ski.jpg
ICE SLEDGE HOCKEY

Ice Sledge hockey (known as sled hockey in the United States) is a sport that was designed to allow participants who have a physical disability to play the game of ice hockey. Ice sledge hockey was invented in the early 1960s in Stockholm, Sweden at a rehabilitation centre. It is currently one of the most popular sports in the Paralympic Games. [88]

Since its debut at the Lillehammer 1994 Winter Games, the Paralympic version of ice hockey has quickly become one of the largest attractions for spectators. It is fast-paced, highly physical and played by male athletes with a physical disability in the lower part of the body. The sport is governed by the IPC with co-ordination by the IPC Ice Hockey Technical Committee.

It follows the rules of the International Ice Hockey Federation (IIHF) with modifications. Instead of skates, players use double-blade sledges that allow the puck to pass beneath. Players use two sticks, which have a spike-end for pushing and a blade-end for shooting. [89]

**Competition Description:**

As in ice hockey, each team attempts to outscore its opponent by shooting the puck across the ice and into the opposing team's goal while preventing the opposing team from scoring. Six players (including the goalkeeper) from each team are on the ice at one time.

Double-blade sledges that allow the puck to pass underneath replace skates, and the players use sticks with a spike-end and a blade-end. Therefore, with a quick flip of the wrist, the players are able to propel themselves using the spikes and then play the puck using the blade-end of the sticks. A player may use two sticks with blades in order to facilitate stick handling and ambidextrous shooting. Ice sledge hockey games consist of three 15-minute periods. [89]

**Sport Equipment:**

**Protective Gear:** Because of the physical nature of the game, all players are required to wear a helmet with a full cage or mask as well as a protective collar or bib. Players are also encouraged to wear protective padding, including shoulder pads, shin guards, elbow pads and large padded gloves. In addition, the goalkeeper wears leg pads, body pads, a helmet with a visor and a catcher glove to protect the athlete from pucks flying up to 100 km/h. [89]

**Puck:** Made of vulcanized rubber or other approved material, the puck is 2.54cm thick, with a diameter of 7.62cm and weighs 156 to 170 grams. [89]

**Sledge:** Made of aluminium or steel, sledges are 0.6m to 1.2m in length with a curved front end and one of two different seating systems. The sledge is set on two blades, which are usually made of tempered steel and are each 3 mm thick. The puck must be able to pass underneath the sledge. The height of the main frame must be between 8.5cm to 9.5cm above the ice, and the length of the blade may not be more than one-third of the total length of the sledge. The sledge may be equipped with a backrest, but it must not protrude laterally beyond the armpits when the player is properly seated. Straps secure a player’s feet, ankles, knees and hips to the sledge. [89]
**Stick:** In ice sledge hockey, players use two sticks with a hooked wooden blade at one end (for puck handling and ambidextrous shooting) and a pick at the other end. Each stick has a maximum length of 1m and is made of wood, plastic or aluminium/titanium. The blade has a maximum length of 25cm, except for the goaltender's blade, which has a maximum length of 35cm. The pick end of the stick must not damage the ice surface or inadvertently puncture or slash other players, so the following rules apply: No part of the pick or teeth may come to a sharp point. [89]

The pick must not extend more than 1cm anywhere beyond the stick.

The pick must have at least six teeth, each with a maximum length of 4mm.

The goaltender may have an additional pick at the base end of his stick. The goaltender may also use an additional stick with a blade or a trapper glove with teeth. [89]

**Classification:**

In Ice Sledge Hockey there is only one sport class. Athletes have to have an impairment in the lower part of their body that would prevent them from competing in able-bodies Ice Hockey. Players, for example, have amputations affecting their legs, stiffness of the ankle or knee joint, or a leg length difference of at least 7cm. Some players also have muscle weakness in their legs, for example due to Paraplegia.

All players of a team must meet the impairment criteria to compete in Ice Sledge Hockey, so that the impact of impairment on the competition outcome is minimized. [90]

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**Pic Courtesy:**
http://www.usahockey.com/uploadedImages/USAHockey/Menu_Players/Menu_Disabled/Menu_Sledge_Hockey/sled.gif
Wheelchair Curling is an adaptation of curling for athletes with a disability affecting their lower limbs or gait. Wheelchair curling is governed by the World Curling Federation, and is one of the sports in the Winter Paralympic Games.

Wheelchair curling is played with the same rocks and on the same ice as regular curling, though the rocks are thrown from a stationary wheelchair and there is no sweeping. Rocks may be thrown by hand while leaning over the side of the wheelchair, or pushed by a delivery stick. This is a pole with a bracket that fits over the rock handle, allowing the rock to be pushed while applying correct rotation.

Stones delivered between the house and the near hogline must be placed within 18 inches either side of the centre line and must be released prior to reaching the near hogline.

National and international competitions are played under rules devised by the World Curling Federation. These rules mandate that teams be of mixed gender, and that games be eight ends in duration. Time limits of 68 minutes for each team with one 60 second time out will be enforced by time clocks. Eligibility is limited to people with disabilities such that a wheelchair is used for daily mobility – more specifically, those who are non-ambulant or can walk only very short distances.

At their April 2010 semi-annual meeting, the World Curling Federation lifted their ban on the use of power chairs at WCF sanctioned events.

Wheelchair curling can be played by people with a wide range of disabilities. All that is needed is the co-ordination to exert a measured pushing force, and a tolerance for cold. It is not an aerobic activity. Without the need for sweepers, wheelchair curling is well suited to two-person formats such as stick-curling. [91]

Rules [92]:

Each team must include male and female players. The team is made up of four players: the Lead, the Second, the Third (Vice Skip) and the Skip.

The object of the sport is to slide stones with handles across the ice, aiming for them to come to a stop on a target, called the house, which is marked by four concentric circles. The lead delivers the first stone and the play continues with each athlete delivering two stones alternating with the opposing team. Placing the stone inside the house means earning a possible point.

The team that places the most stones closest to the centre of the house wins the point.

The stones made for Curling are made of smooth granite and have to conform to very precise parameters: a circumference of 91.44cm and a height of not less than 11.43cm. The weight including the handle must not exceed 19.96kgs. Delivery of the stone may be undertaken by the conventional arm/hand release or by the use of an extender cue.

The sport is governed by the rules of the World Curling Federation (WCF) with one major modification for Wheelchair Curling – no sweeping is permitted.
Each game is played over eight ‘ends’ with an extra end played should the teams be tied.

Ten teams compete in Wheelchair Curling at the Paralympic Games, a rule change brought in ahead of Vancouver and an increase from eight in Turin.

**Classification:**

Wheelchair Curling is for individuals with significant impairments in lower leg/gait function (e.g. athletes with a spinal injury, cerebral palsy, multiple sclerosis, double leg amputation etc) who usually require a wheelchair for daily mobility use. \(^{[92]}\)

**Rules:**

**Objective:**
- To score the most points against an opposing team by sliding rocks on a sheet of ice towards a target.

**Competitors:**
- Team
- Mixed Gender

**Location:**
- Indoor Curling Rink: Ice sheet 45 m to 46 m long and 4.4 m to 5 m wide.
- At each end of the ice is a 3.7 m (12’) diameter painted target consisting of three coloured rings (called the 4 foot, 8 foot and 12 foot rings), known as the house. The centre of the house is 4.9 m from the end of the sheet.

**Equipment:**
- Two sets of eight - 19.1 kg curling stones or rocks, no more than 910 mm in diameter, with handles on top.
- Delivery sticks (if required): pole with a bracket that fits over the rock handle, allowing the rock to be pushed while applying correct rotation

**Rules:**
- Two teams compete against each other.
- Each team (which must be mixed male and female) consists of four players plus an alternate.
- A game is composed of eight ‘ends.’ An end consists of athletes from each team sliding rocks towards the house at the far end of the sheet. Once each athlete has thrown two rocks, the end is complete.
- Each game is a maximum of 68 minutes for each team with one 60 second time out.
- The team which gets a rock to stop closest to the centre of the house wins the end. The winning team scores one point for each rock it has closer to the centre of the house (the button) than the opposing team’s closest rock to the button.
- The team that wins the game is the team that scores the most points over the course of eight ends, not necessarily the team that wins the most ends.
Eligibility:

- Wheelchair Curling is generally open to individuals who are non-ambulant or can only walk short distances. This includes athletes with significant impairments in lower leg/gait function (i.e., spinal injury, cerebral palsy, multiple sclerosis, double leg amputation, etc.), who usually require a wheelchair for daily mobility.

Modifications:

- In Paralympic Wheelchair Curling, there are eight ends instead of the ten played in Olympic curling.
- The rock is thrown from a stationary position by leaning over the side of a wheelchair or pushed with a delivery stick or push stick.
- There are no sweeps and no sweeping in Wheelchair Curling.

SOURCE:

Wheelchair Curling Ring

Pic Courtesy:
http://www.paralympieducation.ca/Images/Photos/Wheelchair%20Curling%20Rink.jpg
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