



## **Explanatory guide to Paralympic classification**

**Paralympic summer sports**

July 2015

**International Paralympic Committee**

Adenauerallee 212-214 Tel. +49 228 2097-200  
53113 Bonn, Germany Fax +49 228 2097-209

[www.paralympic.org](http://www.paralympic.org)  
[info@paralympic.org](mailto:info@paralympic.org)



## 1 What is classification?

Classification provides a structure for competition. Athletes competing in para-sports have an impairment that leads to a competitive disadvantage. Consequently, a system has to be put in place to minimise the impact of impairments on sport performance and to ensure the success of an athlete is determined by skill, fitness, power, endurance, tactical ability and mental focus. This system is called classification.

Classification determines who is eligible to compete in a para-sport and it groups the eligible athletes in sport classes according to their activity limitation in a certain sport.

Please see the glossary in [section 8](#) for an explanation of medical terms used in this document.

## 2 Ten eligible impairments

The Paralympic Movement offers sport opportunities for athletes with physical, visual and/or intellectual impairments that have at least one of the following 10 eligible impairments:

Impairment	Explanation
Impaired muscle power	Reduced force generated by muscles or muscle groups, may occur in one limb or the lower half of the body, as caused, for example, by spinal cord injuries, Spina Bifida or Poliomyelitis.
Impaired passive range of movement	Range of movement in one or more joints is reduced permanently. Joints that can move beyond the average range of motion, joint instability, and acute conditions, such as arthritis, are not considered eligible impairments.
Limb deficiency	Total or partial absence of bones or joints, from birth or as a consequence of trauma (e.g. car accident or amputation) or illness (e.g. bone cancer).
Leg length difference	Bone shortening in one leg from birth or trauma.
Short stature	Reduced standing height due to abnormal dimensions of bones of upper and lower limbs or trunk, for example due to achondroplasia or growth hormone dysfunction.



Hypertonia	Abnormal increase in muscle tension and a reduced ability of a muscle to stretch, which can result from injury, illness or a health condition such as cerebral palsy.
Ataxia	Lack of co-ordination of muscle movements due to a neurological condition, such as cerebral palsy, brain injury or multiple sclerosis.
Athetosis	Generally characterised by unbalanced, uncontrolled movements and a difficulty in maintaining a symmetrical posture, due to cerebral palsy, brain injury, multiple sclerosis or other conditions.
Visual impairment	Vision is impacted by either an impairment of the eye structure, optical nerve/ pathways or the part of the brain controlling vision (visual cortex).
Intellectual Impairment	A limitation in intellectual functioning and adaptive behaviour as expressed in conceptual, social and practical adaptive skills, which originates before the age of 18.

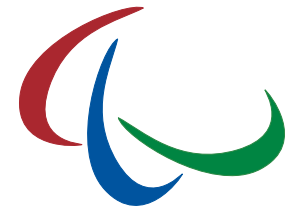
The presence of an eligible impairment must be proven by means of medical diagnostic information that must be presented no later than at the time of athlete evaluation.

### 3 Classification systems

Classification systems differ by sport and are developed by the International Federations (IF) governing the sport. The IF is also responsible to review the system from time to time.

IFs decide which eligible impairment types their sport will cater to. Some Paralympic sports are only designed for athletes with one eligible impairment type. Goalball, for example, is only open to athletes with visual impairment. Other sports, such as athletics and swimming, are open to athletes with any of the 10 eligible impairments.

IFs also decide how severe an impairment must be in order for an athlete to be eligible to compete in their sport. For an athlete to be eligible the impairment must be severe enough that it impacts his or her sport performance. This is called the 'Minimum Impairment Criterion'. If an athlete fails to meet the Minimum Impairment Criterion, it does not question the presence of a genuine impairment. It is only a ruling on the eligibility of the athlete to compete in a particular sport under the IF Sport Rules.



Since different sports require different abilities, each sport logically requires its own classification system. For example, an impairment of the arms affects performance in a running event in athletics to a lesser extent than it affects performance in swimming.

The only exception to the sport-specific character of Paralympic classification is the classification for athletes with visual impairment. This system is still a medical system and the sport class allocated therefore applies across all sports (but the naming of the class may differ).

## 4 Visual impairment

The following is the general structure used for the classification of athletes with a visual impairment.

**B1:** These athletes have a very low visual acuity and/ or no light perception.

**B2:** Athletes with a B2 sport class have a higher visual acuity than athletes competing in the B1 sport class and/ or a visual field of less than 5 degrees radius.

**B3:** Athletes with a B3 (or equivalent) sport class have the least severe visual impairment eligible for Paralympic sport. They have the highest visual acuity and/or a visual field of less than 20 degrees radius.

Although these are the standardised sport classes for athletes with a visual impairment the names they are given will differ by sport.

## 5 Sport classes

A sport class is a category which groups athletes depending on how much their impairment impacts performance in their sport. Therefore, a sport class is not necessarily comprised of one impairment type alone, but can be comprised of athletes with different impairments. However, these different impairments affect sport performance to a similar extent. For example, you will find athletes with paraplegia and double above-knee amputation competing in the same sport class in athletics because their different impairments have a comparable effect on their 1,500m wheelchair racing performance.

In individual sports, athletes compete against athletes in their own sport class to ensure the impact of impairment is minimised. In national events and smaller international competitions athletes in different sport classes may compete together for one medal, because there are not enough athletes for each sport class to create a competitive event. In these cases,



athletes in different sport classes may be given a ‘coefficient’ or correction score to account for the different levels of activity limitation.

Some para-sports only have only one sport class, such as powerlifting. To compete in these sports, the athletes only need to meet the minimum impairment criteria. In team sports, the players are allocated points, which indicate their activity limitation. A lower score indicates a more severe activity limitation than a higher score. A team is not allowed to have more than a certain maximum sum of points on the field of play at the same time in order to ensure equal competition with the opposing team.

## 6 How is a sport class allocated to an athlete?

A sport class is allocated through athlete evaluation by a group of classifiers. Each IF trains and certifies classifiers to conduct athlete evaluation in its sport.

Classifiers assessing athletes with the various physical impairments listed above either have a (para-) medical background or are technical experts in their sport. Classifiers for athletes with a visual impairment have a background in ophthalmology or optometry. Psychologists and sport experts are responsible for the classification of athletes with an intellectual impairment.

Athlete Evaluation takes place before competitions. Therefore, athletes who need to be classified arrive at the competition a few days early. Depending on the type and severity of the impairment an athlete might undergo athlete evaluation several times throughout his or her career. Some impairments change over time, e.g. visual acuity might decrease over time or hypertonia may increase. Also, junior athletes may not yet have reached skeletal maturity by the time of first classification (e.g. in swimming). In these cases, classifiers can decide that the athlete has to be seen again at the next competition or at set timeframes (e.g. (bi-)annual review).

Athletes have the right to challenge a decision taken by classification panels. The [IPC Classification Code](#) defines protest and appeal opportunities, which need to be adhered to by each sport.



## **7 Classification systems of Paralympic summer sports**

This section provides a general overview of the classification systems, the information and examples provided are not the sole profile of the sport class. Each sport system uses a numerical weighting system to divide athletes into classes. For further detail on the specifics of the classification systems please consult the relevant sport classification rules.



## Archery

### Eligible impairment types:

Impaired muscle power	✓	Athetosis	✓
Impaired passive range of movement	✓	Hypertonia	✓
Limb deficiency	✓	Ataxia	✓
Leg length difference	✓	Short stature	
Intellectual impairment		Visual Impairment	

### Sport classes:

Paralympic archers compete in two sport classes:

#### W1:

Archers in this sport class compete in a wheelchair because their impairment includes the loss of leg and trunk function. Also, their arms show a loss of muscle strength, co-ordination or range of movement. For example, one condition that might fit this sport class profile is tetraplegia.

#### Open:

Archers who historically competed in the W2 and ST sport classes have been merged together as their impairments have an equal impact on the outcome of competition.

Archers in this sport class may have a strong activity limitation in their trunk and legs and compete in a wheelchair. Their arms, however, show normal function. This profile would likely apply to paraplegic archers.

Also in this sport class athletes compete in a standing position, they require some standing support because of poor balance. They either have a leg-length difference, limb deficiency or impairments that also affect their arms and trunk.



## Athletics

### Eligible impairment types:

Impaired muscle power	✓	Athetosis	✓
Impaired passive range of movement	✓	Hypertonia	✓
Limb deficiency	✓	Ataxia	✓
Leg length difference	✓	Short stature	✓
Intellectual impairment	✓	Visual Impairment	✓

### Sport classes:

In athletics the sport class consists of a prefix “T” or “F” and a number. The prefix T stands for “track” and F stands for “field.” It indicates for which events the sport class applies, either for track or for field events.

### Visual impairment – Sport Classes T/F11-T/F13

Athletes with a visual impairment compete in 3 sport classes from T/F 11 (B1) to T/F 13 (B3) as described in [Section 4](#). In order to ensure a fair competition athletes in the T/F 11 sport class are required to wear eyeshades.

### Intellectual impairment - Sport class T20/F20

Athletes in this sport class have an intellectual impairment, which typically leads to the athletes having difficulties with regards to pattern recognition, sequencing, and memory, or having a slower reaction time, which impacts sport performance in general.

Moreover, the impairment of T/F20 athletes has been proven to have an impact on performance in the different disciplines. For example: 1,500m runners have difficulties in pacing, while in long jump the impairment makes the anticipation of the take-off board more difficult.

### Ataxia, athetosis and hypertonia - Sport classes F31, T32/F32-T38/ F38

The 30s sport classes are allocated to athletes with athetosis, ataxia and/or hypertonia – often conditions associated with cerebral palsy or traumatic brain injury. The impairments typically affect the ability to control legs, trunk, arms and/or hand function. The lower the number is, the more significant the activity limitation.

You will see athletes in the sport classes 31-34 compete in a seated position, e.g. in wheelchair racing or using a throwing chair. By 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.

### **Short stature - sport classes T40/ F40, T41/F41**

Athletes with short stature compete in the sport classes T/F40-41. There are two classes depending on the body height of the athlete and the proportionality of the upper limbs, with athletes in sport class T/F41 being taller than athletes in sport class T/F 40.

### **Limb deficiencies - Sport classes: T42/F42 - T46/F46, T47**

These sport classes are designated for athletes with limb deficiencies, such as amputations or dysmelia. In the sport classes 42-44 the lower limbs are affected by the impairment and in the sport classes 45-47 the upper limbs are affected, for example by above or below elbow amputations.

For example, a shot putter with a single above knee amputation competes in sport class F42. All athletes in the 40s classes compete standing and do not use a wheelchair.

### **Impaired muscle power or impaired range of movement - sport classes T51-54; F51-57**

In the 50s sport classes, all athletes compete in a seated position, either in wheelchair or on a throwing chair, due to impaired muscle power or restricted range of movement. Again, a lower number indicates a higher activity limitation.

Athletes competing in wheelchair racing events for T51-54 sport classes differ with regard to their trunk and upper limb 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, the group of wheelchair athletes competes in more differentiated classes.

Athletes in sport classes F51-53 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, but reduced trunk function.

Throughout the sport classes F55-57 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 F57 sport class.



## Boccia

### Eligible impairment types:

Impaired muscle power	✓	Athetosis	✓
Impaired passive range of movement	✓	Hypertonia	✓
Limb deficiency	✓	Ataxia	✓
Leg length difference		Short stature	
Intellectual impairment		Visual Impairment	

### Sport classes:

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 co-ordination and control.

#### BC1

Athletes in sport class BC1 have severe activity limitations affecting their legs, arms and trunk due to co-ordination 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 origins. To help them propel the ball onto the court, they use a ramp and other assistive devices to roll the ball.

#### BC4

While the sport classes BC1-3 include athletes with hypertonia, athetosis or ataxia, sport class BC4 comprises athletes with impairments that have no cerebral origin. Among possible health conditions are muscular dystrophy, spinal cord injuries or amputations affecting all four limbs. Players throw the ball usually with a pendulum swing, sometimes using both hands or arms. They may use a glove to sustain their grip of the ball.



## Paracanoe

### Eligible impairment types:

Impaired muscle power	✓	Athetosis
Impaired passive range of movement	✓	Hypertonia
Limb deficiency	✓	Ataxia
Leg length difference		Short stature
Intellectual impairment		Visual Impairment

### Sport classes:

Athletes compete in kayaks propelled by a double blade paddle. These athletes all have a physical impairment and are grouped into three sports classes.

#### KL1

Athletes in this sports class have no or very limited trunk and no leg function.

#### KL2

Athletes in this sports class have partial trunk and leg function; they are able to sit upright in the kayak. Along with this, they will have limited leg movement during paddling.

#### KL3

Athletes in this sports class have trunk and partial leg function, they are able to sit with trunk in forward flexed position in the kayak and able to use at least one leg/prosthesis.



## Cycling

### Eligible impairment types:

Impaired muscle power	✓	Athetosis	✓
Impaired passive range of movement	✓	Hypertonia	✓
Limb deficiency	✓	Ataxia	✓
Leg length difference	✓	Short stature	
Intellectual impairment		Visual Impairment	✓

### Sport classes:

Athletes with physical impairments either compete on handcycles, tricycles or bicycles. Athletes with a visual impairment compete on tandems with a sighted “pilot.”

### Handcycling

#### Sport classes: H1- H5

There are 5 different sport classes for handcycling and lower numbers indicate a more severe activity limitation.

Cyclists in the sport classes H1-4 compete in a reclined position. While athletes competing in the H1 class have a complete loss of trunk and leg function and have limited arm function, e.g. because of spinal-cord injuries, athletes in the H4 class have no leg function but good trunk and arm function.

Cyclists in the H5 sport class sit on their knees and can thus use their arms and trunk to accelerate the handcycle. Athletes in this sport class might have leg amputations, paraplegia or mild to moderate athetosis or ataxia.

### Tricycle

#### Sport classes T1, T2

Tricycle athletes are divided into two classes, T1 and T2. Due to impairments affecting their balance and co-ordination they ride a tricycle to increase stability. The sport class T1 is allocated to athletes with more significant co-ordination problems or loss of muscle power than athletes competing in sport class T2.



## **Bicycle**

### **Sport classes C1-C5**

Athletes who are able to use a standard bicycle compete in the five sport classes C1-5. The sport class profiles include amputations, impaired muscle power or range of motion and also impairments affecting co-ordination, such as ataxia and athetosis. Sport class C1 is allocated to athletes with the most severe activity limitation, while the sport class C5 is allocated to athletes who meet the minimum impairment criteria.

For example, cyclists with a double below-the-knee amputation who use a prosthesis are likely to compete in the sport class C3, while an athlete with a below knee amputation and a prosthesis on one leg would compete in the sport class C4.

## **Tandem**

### **Sport class TB**

Cyclists with a visual impairment race tandem with a sighted cyclist (pilot) in front. Cyclists in this sport class must meet the criteria as set out in the B3 profile described in [section 4](#) to compete, therefore B1, B2 and B3 athletes compete together in one event.



## Equestrian

### Eligible impairment types:

Impaired muscle power	✓	Athetosis	✓
Impaired passive range of movement	✓	Hypertonia	✓
Limb deficiency	✓	Ataxia	✓
Leg length difference	✓	Short stature	✓
Intellectual impairment		Visual Impairment	✓

### Sport classes:

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.

### Physical impairments

#### Grade Ia

Athletes in grade 1a have severe impairments affecting all limbs and the trunk. The athlete usually requires the use of a wheelchair in daily life.

#### Grade Ib

Athletes in grade Ib have either a severe impairment of the trunk and minimal impairment of the upper limbs or moderate impairment of the trunk, upper and lower limbs. Most athletes in this class use a wheelchair in daily life.

#### Grade II

Athletes in grade II have severe impairments in both lower limbs with minimal or no impairment of the trunk or moderate impairment of the upper and lower limbs and trunk. Some athletes in this class may use a wheelchair in daily life.

### Physical or visual impairment

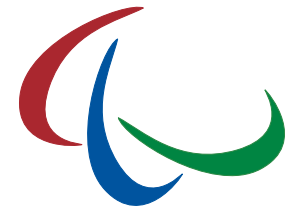
#### Grade III

Athletes in grade III have a severe impairment or deficiency of both upper limbs or a moderate impairment of all four limbs or short stature. Athletes in grade III are able to walk and generally do not require a wheelchair in daily life. Grade III also includes athletes with visual impairment as described in the B1 sport class in [Section 4](#).



## **Grade IV**

Athletes in Grade IV have a mild impairment of range of movement or muscle strength or a deficiency of one limb or mild deficiency of two limbs. Grade IV also includes athletes with visual impairment as described in the B2 sport class in [section 4](#).



## Football 5-a-side

### Eligible impairment types:

Impaired muscle power	Athetosis
Impaired passive range of movement	Hypertonia
Limb deficiency	Ataxia
Leg length difference	Short stature
Intellectual impairment	Visual Impairment ✓

### Sport classes:

Only athletes who have a B1 sport class as described in [section 4](#) may compete in Football 5-a-side. To ensure fair competition all players (except for the goal keeper) must wear eyeshades. This classification applies to the visually impaired field players. In addition, each team has a sighted, able-bodied goalkeeper, who does not need to undergo classification.





## Football 7-a-side

### Eligible impairment types:

Impaired muscle power	Athetosis	✓
Impaired passive range of movement	Hypertonia	✓
Limb deficiency	Ataxia	✓
Leg length difference	Short stature	
Intellectual impairment	Visual Impairment	

Athletes competing in Football 7-a-side have ataxia, hypertonia or athetosis - three impairment types that are most commonly associated with individuals with cerebral palsy and/or traumatic brain injury. They have a neurological impairment, with a motor control impairment of a cerebral nature, causing a permanent and verifiable activity limitation.

### Sport classes:

As Football 7-a-side is a team sport, athletes from different sport classes together make up a team. This is managed through sport-technical rules, explained below. Each athlete is allocated one of the following four sport classes:

#### FT5

In this sport class, athletes have hypertonia in both lower limbs and to some degree in both upper limbs. The players have difficulties when running, turning and stopping because of an activity limitation in the lower limbs.

#### FT6

Athletes are affected by co-ordination and balance difficulties in all four limbs and trunk due to ataxia or athetosis. FT6 players typically have difficulties in dribbling the ball when running, accelerating and stopping.

#### FT7

This sport class is designated to hemiplegic players, meaning that only one side of their body is affected, causing the players to walk and run with a limp. The player has limited knee pick up when sprinting and also has an asymmetrical stride length. The player has difficulty pivoting and balancing on the impaired side and therefore often pivots on the unaffected side and may kick with the affected foot.



## **FT8**

This sport class describes the minimum impairment eligible for football 7-a-side. These are athletes with minor degrees of activity limitation from any of the above classes. Therefore, you may not see the impact of the impairment when watching the athlete run or control the ball. However, involuntary muscle contractions and hesitation before explosive movements do constitute activity limitations in comparison to able-bodied players.

### **Sport Technical Rules**

In order to ensure a fair game between two teams, each team (seven players) has to have one FT5 or FT6 player on the field at all times and is not allowed to have more than one FT8 players on the field.



## Goalball

### Eligible impairment types:

Impaired muscle power	Athetosis
Impaired passive range of movement	Hypertonia
Limb deficiency	Ataxia
Leg length difference	Short stature
Intellectual impairment	Visual Impairment ✓

### Sport Class:

Athletes competing in Goalball all have varying degrees of visual impairment ranging from the B1-B3 sport classes as described in [Section 4](#). In order to ensure a fair competition between the teams, all players must wear eyeshades during the game.



## Judo

### Eligible impairment types:

Impaired muscle power	Athetosis
Impaired passive range of movement	Hypertonia
Limb deficiency	Ataxia
Leg length difference	Short stature
Intellectual impairment	Visual Impairment ✓

### Sport classes:

Judoka all have varying degrees of visual impairment ranging from the B1-B3 sport classes as described in [section 4](#). Therefore B1, B2 and B3 athletes compete together in one event.



## Powerlifting

### Eligible impairment types:

Impaired muscle power	✓	Athetosis	✓
Impaired passive range of movement	✓	Hypertonia	✓
Limb deficiency	✓	Ataxia	✓
Leg length difference	✓	Short stature	✓
Intellectual impairment		Visual Impairment	

### Sport class:

There is only one sport class in Powerlifting, but the athletes compete in different weight categories just like their able-bodied counterparts in weightlifting.

Powerlifting is open to athletes with all eight eligible physical impairments. All athletes have an impairment in their lower limbs or hips, which would prohibit them from competing in able-bodied (standing) weightlifting. In Powerlifting, they therefore compete in bench press. Athletes with leg amputations above the ankle or stiffness of the knee joint would, for example, be eligible to compete.

Aside from classification, there are some sport-technical rules regarding safety that require the classifiers to also verify e.g. a safe grip of the lifting bar and the ability of the athlete to extend the upper limb in full. Failure to do so will lead to exclusion from the sport for safety reasons.



## Rowing

### Eligible impairment types:

Impaired muscle power	✓	Athetosis	✓
Impaired passive range of movement	✓	Hypertonia	✓
Limb deficiency	✓	Ataxia	✓
Leg length difference		Short stature	
Intellectual impairment		Visual Impairment	✓

### Sport Classes:

For athletes with physical impairment there are three different sport classes in place:

#### AS

Athletes in sport class AS primarily use their arms and shoulders to accelerate the boat. These athletes have minimal or no leg and trunk function, which can be caused by spinal cord injuries for example.

#### TA

The sport class TA comprises athletes who can use their arms and trunk when rowing, but are not able to utilise the sliding seat when performing the strokes. These athletes typically have good trunk and arm function. For example, athletes with a double around the knee amputation would fit this sport class profile.

#### LTA-PD

This sport class includes athletes with a physical impairment who can use their legs, trunk and arms to accelerate the boat and can use the sliding seat. Athletes who miss three fingers on one hand or have a foot amputation might be eligible to compete in this sport class.

#### LTA-VI

Rowers in this sport class have varying degrees of visual impairment ranging from the B1-B3 sport class as described in [section 4](#).



## **Events**

There are four different events in para-rowing.

### **LTA Mixed coxed four**

Two male and two female rowers from the sport classes LTA-PD and LTA-VI form a team. Due to their physical strength, only two rowers in the team may have a visual impairment and no more than one may have the sport class LTA-VI B3. All athletes with a visual impairment are blindfolded during training and competition.

### **TA Mixed double sculls**

One female and one male rower of sport class TA form a team.

### **AS women's single sculls and AS men's single sculls**

In sport class AS there are separate events for men and women and the athletes compete in single boats.



## Sailing

### Eligible impairment types:

Impaired muscle power	✓	Athetosis	✓
Impaired passive range of movement	✓	Hypertonia	✓
Limb deficiency	✓	Ataxia	✓
Leg length difference		Short stature	
Intellectual impairment		Visual Impairment	✓

### Sport classes:

The sport classes are different for the different competition formats in sailing. The sailors either compete on their own or in crews of two or three.

The sailors are classified with a sport class from 1 to 7, with 7 indicating the least severe and 1 indicating the most severe eligible impairment. The following are the benchmark profiles of athletes in each sports class

#### Sport class 1

Athletes in sport class 1 may have complete Quadriplegia, a double through shoulder amputation or an equivalent activity limitation in sailing caused by the other eligible impairment types

#### Sport class 2

Athletes in sport class 2 may have a double above elbow amputation, single above elbow amputation and single below elbow amputation or an equivalent activity limitation in sailing caused by the other eligible impairment types.

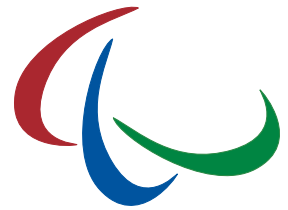
#### Sport class 3

Athletes in sport class 3 may have a single above knee amputation and single above elbow amputation, double below elbow amputation or an equivalent activity limitation in sailing caused by the other eligible impairment types. These athletes may also have a visual impairment equivalent to B1 as described in [section 4](#) above.

#### Sport class 4

Athletes in sport class 4 may have a single through shoulder amputation, double above knee amputation, double below knee amputation without prostheses, single above knee and





single below knee amputation without prostheses or an equivalent activity limitation in sailing caused by the other eligible impairment types.

### **Sport class 5**

Athletes in sport class 5 may have a single above elbow amputation, single above knee amputation and single below knee amputation with prostheses or an equivalent activity limitation in sailing caused by the other eligible impairment types. These athletes may also have a visual impairment equivalent to B2 as described in [section 4](#) above.

### **Sport class 6**

Athletes in sport class 6 may have a double below knee amputation with prostheses, single below elbow amputation or have an equivalent activity limitation in sailing caused by the other eligible impairment types.

### **Sport class 7**

Athletes in sport class 7 may have a single above knee amputation, single below knee amputation without prosthesis (excluding Symes amputation or equivalent) or an equivalent activity limitation in sailing caused by the other eligible impairment types. These athletes may also have a visual impairment equivalent to B3 as described in [section 4](#) above.

## **Events:**

### **Three-person keelboat**

To make sure that no crew has an advantage or disadvantage in competition due to impairment, each crew is only allowed a maximum of 14 points.

### **Two-person keelboat**

One sailor has to be allocated the sport class “TPA” and the other one has to be allocated the sport class “TPB.” One of the crew members must be female.

The sport class TPA includes athletes with more severe impairments, which are equivalent to a sport class 1 or 2. Athletes with complete tetraplegia or a double above-the-elbow amputation could, for example, compete in the TPA sport class.

The sport class TPB means that an athlete only has to meet the minimum impairment criteria for sailing. Therefore, athletes of all seven sport classes could compete in the TPB sport class, including athletes with visual impairment.



### **Single-person keelboat**

To sail on the single-person keelboat athletes only have to pass the minimum impairment criteria.



## Shooting

### Eligible impairment types:

Impaired muscle power	✓	Athetosis	✓
Impaired passive range of movement	✓	Hypertonia	✓
Limb deficiency	✓	Ataxia	✓
Leg length difference		Short stature	
Intellectual impairment		Visual Impairment	

### Sport classes:

In shooting, there are three different sport classes. These sport classes are specific to the event the athlete competes in – either pistol or rifle events.

#### Sport class SH1 (pistol)

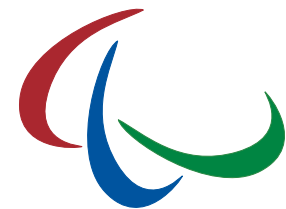
In this sport class athletes are able to support the full weight of the pistol themselves. As the pistol is held with one hand only, athletes in this sport class have an impairment affecting one arm and/or the legs, for example resulting from amputations or spinal cord injuries. Some shooters compete in a seated position, while others will compete in a standing position as defined in the sport rules

#### Sport class SH1 (rifle)

In this sport class athletes are able to support the full weight of the rifle themselves. As the rifle is held with both hands, athletes in this sport class have an impairment in their legs, for example amputations or paraplegia. Some athletes will compete in a seated position, while others will compete in a standing position.

#### Sport class SH2 (rifle)

In this sport class athletes have an impairment that affects their arms, meaning they are not able to support the full weight of the rifles themselves. Athletes therefore compete using a shooting stand to support the weight of the rifle. Athletes competing in this sport class have impairments such as arm amputations or congenital impairments affecting the muscle power/movement in their arms. Some SH2 shooters have impairments in both the arms and legs, such as tetraplegia. The majority of athletes in this sport class compete in a seated position.



## Sitting Volleyball

### Eligible impairment types:

Impaired muscle power	✓	Athetosis	✓
Impaired passive range of movement	✓	Hypertonia	✓
Limb deficiency	✓	Ataxia	✓
Leg length difference	✓	Short stature	
Intellectual impairment		Visual Impairment	

### Sport classes:

There are two sport classes in sitting volleyball, called MD for “Minimally Disabled” and D for “Disabled”. The impairment of athletes in sport class MD is generally less severe than the impairment of athletes competing in sport class D.

For example, with an amputation through the foot a player would be classified as MD, whereas athletes with above knee amputations would be allocated sport class D. Impairments can affect the lower and the upper limbs, for example causing stiffness of joints or shortening of extremities.

### Sport-Technical Rules

To ensure a fair competition between two teams, a team may only have one MD player on the court. The other five players must have sport class D.



## Swimming

### Eligible impairment types:

Impaired muscle power	✓	Athetosis	✓
Impaired passive range of movement	✓	Hypertonia	✓
Limb deficiency	✓	Ataxia	✓
Leg length difference	✓	Short stature	✓
Intellectual impairment	✓	Visual Impairment	✓

### Sport classes:

The sport class names in swimming consist of a prefix “S” 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
- SB: breaststroke
- SM: individual medley. The prefix “SM” is given to athletes competing in individual medley events. It is not a sports class, but an entry index and calculated as  $(3xS + SB)/4$ ; for classes S1-4 who have a 3-discipline medley, the formula is  $(2S + SB)/3$ .

### 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.

Athletes with different impairments compete against each other, because sport classes are allocated based on the impact the impairment has on swimming, rather than on the impairment itself.

To evaluate the impact of impairments on swimming, classifiers assess all functional body structures using a point system and ask the athlete to complete a water assessment. The total number of points then determines the athlete’s S and SB sport classes. Due to the different demands of S and SB events, swimmers are often allocated different S and SB sport classes. The SM sport class is calculated from the S and SB sport class.

The following are general examples of impairments and resulting functional abilities described in each sport class profiles. The below combinations of S and SB sport classes are the most common combinations, but it is possible that that athlete has another combination of sport classes, for example S7 and SB 7.



### **S1 SB1**

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. This may be caused by tetraplegia, for example. Swimmers in this class usually use a wheelchair in daily life.

### **S2 SB1**

Swimmers in this sport class mainly rely on their arms for swimming. Their hand, trunk and leg function is limited due to tetraplegia or co-ordination problems, for example.

### **S3 SB2**

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

### **S4 SB3**

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

### **S5 SB4**

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**

This sport class includes swimmers with short stature or amputations of both arms, or moderate co-ordination problems on one side of their body, for example.

### **S7 SB6**

This sport class is designated to athletes with one leg and one arm amputation on opposite sides, 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**

Swimmers who have an amputation of one arm are eligible to compete in this sport class. Also, athletes with significant restrictions across hip, knee and ankle joints could compete in this sport class.



### **S9 SB8**

Athletes in this sport class, for example, swim with joint restrictions in one leg or with double below-the-knee amputations.

### **S10 SB9**

This class describes minimal physical impairments of eligible swimmers. These include the loss of one hand or a movement restriction in one hip joint.

### **Sport Classes S/SB11-13 Visual Impairment**

Athletes with a visual impairment compete in 3 sport classes from S/SB11 (B1) to S/SB13 (B3) as described in [section 4](#). In order to ensure a fair competition athletes in the S/SB11 sport class are required to wear blackened goggles. To ensure safety all S/SB11 swimmers must use a tapper, swimmers in the S/SB12 and S/SB13 sport classes may choose whether or not they wish to use one.

### **Sport Classes S/SB14 Intellectual impairment**

S14 swimmers have an intellectual impairment, which typically leads to the athletes having difficulties with regards to pattern recognition, sequencing, and memory, or having a slower reaction time, which impact on sport performance in general. Moreover, S14 swimmers show a higher number of strokes relative to their speed than able-bodied elite swimmers.



## Table tennis

### Eligible impairment types:

Impaired muscle power	✓	Athetosis	✓
Impaired passive range of movement	✓	Hypertonia	✓
Limb deficiency	✓	Ataxia	✓
Leg length difference	✓	Short stature	✓
Intellectual impairment	✓	Visual Impairment	

### Sport classes:

In table tennis, players with physical impairments compete in sport classes 1-10 and athletes with an intellectual impairment compete in sport class 11.

Athletes in the sport classes 1-5 compete in a wheelchair and athletes in sport classes 6-10 compete standing. In more detail, the sport classes for athletes with a physical impairment can be described as follows:

### Sitting classes:

#### Sport class 1

Class 1 players have no sitting balance and a significantly affected playing arm, for example due to tetraplegia. Players would often support their sitting balance with the non-playing arm.

#### Sport class 2

Players in this sport class also have no sitting balance, and their playing arm is moderately affected. Like the players in sport class 1, they tape the racket to the hand to make up for limited grip function.

#### Sport class 3

Players in sport class 3 have full hand and arm function. With their good arm function, they can manoeuvre the wheelchair while maintaining good balance of their upper body. The athlete's impairment may result from spinal cord injuries or neurological conditions, such as cerebral palsy.

#### Sport class 4

Class 4 players have some sitting balance and fully functional arms and hands. They can move to the front to meet their opponent's serve.





### **Sport class 5**

This sport class includes athletes who compete in a wheelchair, and have normal sitting balance, arm and hand function. With the good trunk function, they can stretch out to the sides to hit the ball. The sport class includes athletes with lower spinal cord injuries.

### **Standing classes:**

#### **Sport class 6**

Class 6 players have impairments affecting both arms and legs and play standing. The sport class includes, for example, athletes with ataxia, athetosis or hypertonia which affects the legs and the playing arm. These impairments impact the balance and the quality of strokes.

#### **Sport class 7**

Class 7 players either have significant impairments of both legs or the playing arm, or impairments affecting arms and legs moderately. 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. An athlete with muscle weakness in one leg due to polio would for example compete in this sport class.

#### **Sport class 9**

Class 9 players have mild impairments affecting the legs or the playing arm. Athletes with a stiff knee or restricted elbow of the playing arm compete in this sport class. Also, athletes who have significant impairments in the non-playing arm compete in this sport class. This will impact serving the ball.

#### **Sport class 10**

Players in this sport class have relatively mild impairments, such as a stiff ankle or wrist of the playing arm. Players with short stature may also play in sport class 10

#### **Sport class 11 intellectual impairment**

Table tennis players with an intellectual impairment typically have difficulties with: pattern recognition, sequencing, and memory, or having a slower reaction time, which all have an impact on table tennis skills, tactics and performance.



## Paratriathlon

### Eligible impairment types:

Impaired muscle power	✓	Athetosis	✓
Impaired passive range of movement	✓	Hypertonia	✓
Limb deficiency	✓	Ataxia	✓
Leg length difference		Short stature	
Intellectual impairment		Visual Impairment	✓

### Sport classes:

In Paratriathlon there are four different sport classes for athletes with physical impairment, numbered 1-4. There is one fifth sport class for athletes with vision impairment named PT5.

In one sport class you can find athletes with different impairment types and severity, compete against each other. As a general principle, the impact of impairment on the performance within one class is similar. The reason being that sport classes are allocated based on the impact the impairment has on triathlon rather than on the impairment itself.

To evaluate the impact of impairments on triathlon, classifiers assess all functional body structures through a physical and technical assessment using a point system and a weighing factor for each discipline of the sport (swimming, cycling and running). The total score determines the athlete's sport class.

### PT1 (Wheelchair user Paratriathletes)

Paratriathletes in this class swim, cycle on a handbike and compete in a racing wheelchair for the run section. This class includes athletes with, but not limited to, impairments of muscle power, range of movement, limb deficiency such as unilateral or double leg amputation, spinal cord injuries resulting in paraplegia or tetraplegia.

### PT2-4 (Ambulant Paratriathletes)

Paratriathletes in this sport class swim, cycle on a conventional bike with or without approved adaptations and run with or without the use of an approved prosthesis and/or supportive devices and can fall into 3 different sport classes. These sport classes include but are not limited to Paratriathletes with impairment of muscle power, range of movement, limb deficiency, hypertonia, ataxia, athetosis.



## **PT2**

This sport class includes athletes with severe activity limitation resulting from the following impairments, but not limited to: unilateral above knee or double below knee limb deficiency; athletes with a significant combined upper and lower limb loss of range of movement or muscle power; or severe neurological impairment such as ataxia, hypertonia, athetosis.

## **PT3**

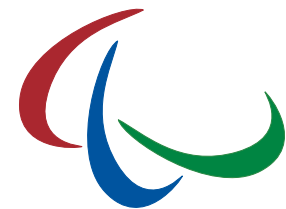
This sport class includes athletes with a moderate degree of activity limitation resulting from the following impairments, but not limited to: a through shoulder limb deficiency; complete loss of muscle power, and/or loss of range of movement for one upper limb; athletes with a moderate combined upper and lower limb loss of muscle power and/or range of movement; or moderate neurological impairment such as ataxia, hypertonia, athetosis.

## **PT4**

This sport class includes athletes with a mild degree of activity limitation resulting from the following impairments, but not limited to: below elbow and below knee limb deficiency; partial loss of muscle power or range of movement in the upper or lower limb; mild neurological impairment such as hypertonia, ataxia, athetosis.

## **PT5 Athletes with Visual Impairment**

Paratriathletes in this sport class swim, ride a tandem bicycle and run and swim with a guide. Those athletes described in the B1, B2 and B3 sport classes in [section 4](#) compete together in one event, but with a time factor between the B1 and B2/3 sport classes.



## Wheelchair basketball

### Eligible impairment types:

Impaired muscle power	✓	Athetosis	✓
Impaired passive range of movement	✓	Hypertonia	✓
Limb deficiency	✓	Ataxia	✓
Leg length difference	✓	Short stature	
Intellectual impairment		Visual Impairment	

### Sport classes:

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. Players, for example, have amputations or paraplegia. Not all the players are wheelchair users in daily life.

While most athletes have normal arm and hand function, the main differences between athletes of different sport classes are trunk control and sitting balance, which allows them to lean forward and sideways to catch and pass the ball:

#### Sport class 1.0

Players in sport class 1.0 have no trunk control and thus cannot bend 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 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 who can fully rotate and lean forward, but cannot 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.

### **Sport-technical rules**

Each team of five players is only allowed to have 14 points on the field of play at the same time.



## Wheelchair fencing

### Eligible impairment types:

Impaired muscle power	✓	Athetosis	✓
Impaired passive range of movement	✓	Hypertonia	✓
Limb deficiency	✓	Ataxia	✓
Leg length difference	✓	Short stature	
Intellectual impairment		Visual Impairment	

### Sport classes:

All wheelchair fencers have an impairment of their legs or feet that prohibits them from competing against standing, able-bodied fencers. They all compete in wheelchairs, and are allocated one of the below sport classes depending on their trunk function. This is because the wheelchairs cannot be moved during competition to get closer to the opponents or to avoid the opponent's attack, so that the athletes rely on moving their upper body while sitting in the chair.

#### Category A

Fencers in category A have good trunk control, allowing them to bend forward and sideways explosively when attacking their opponent or dodging an attack. Also, their fencing arm is fully functional. Fencers in this sport class have lower limb deficiency or paraplegia, for example. Not all of fencers in this category use a wheelchair in their daily life.

#### Category B

Category B fencers have an impairment that impacts their legs as well as their trunk or their fencing arm. Some of the fencers, for example, have incomplete tetraplegia. You will see them support their trunk movements with their non-fencing arm to effectively attack the opponent.



## Wheelchair rugby

### Eligible impairment types:

Impaired muscle power	✓	Athetosis	✓
Impaired passive range of movement	✓	Hypertonia	✓
Limb deficiency	✓	Ataxia	✓
Leg length difference		Short stature	
Intellectual impairment		Visual Impairment	

### Sport classes:

The sport was originally designed for athletes with tetraplegia. Today, the team sport also includes players with other impairments that cause limited arm and leg function.

Athletes with an eligible impairment are allocated a sport class based on their abilities in performing the wheelchair rugby skills of ball handling, such as passing, catching, carrying, and dribbling the ball; and wheelchair skills including pushing, starting, stopping, directional changes, tackling and blocking. Therefore, one sport class includes athletes with different eligible impairments, but the impairments lead to a similar activity limitation in wheelchair rugby.

There are 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.

Below you will find a short description of four out of seven sport class profiles.

#### Sport class 0.5

Players in sport class 0.5 have significantly limited function in their shoulder, arms and hands, for example due to tetraplegia. The player would typically catch the ball by tapping it into their lap and throw the ball with a scoop pass. Their main role on the court is as a blocker.

#### Sport class 1.5

A player in sport class 1.5 has fair arm function, which makes him or her an excellent blocker. A 1.5 player will also handle the ball on occasion, but typically they show some instability in the wrist, which leads to limited ball security. Some athletes also have asymmetrical arm function, so that they mainly handle the ball with their strong arm only.



### **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 effectively. In the team they are ball handlers and fairly fast playmakers.

### **Sport class 3.5**

A 3.5 player has good arm and hand function, which makes him or her a major ball handler in the team. They have some trunk function, which helps them to rapidly accelerate the wheelchair. They will typically have a high and upright sitting position. Also, an athlete with above knee amputations of both legs and with a loss of fingers and hand surface on both sides may play in this sport class. You will see 3.5 players perform controlled one-handed, long-distance passes.

### **Sport-technical rules**

Players with different sport classes play together in a team of four. The total number of points in a team on court for four players may not exceed 8 points. This way the impact of the impairment on the game is balanced between the two teams.





## Wheelchair tennis

### Eligible impairment types:

Impaired muscle power	✓	Athetosis	✓
Impaired passive range of movement	✓	Hypertonia	✓
Limb deficiency	✓	Ataxia	✓
Leg length difference	✓	Short stature	✓
Intellectual impairment		Visual Impairment	

### Sport classes

There are two sport classes in wheelchair tennis and all players have in common that they have an impairment that affects their legs.

#### 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, for example.

#### Quad Class

Players in this class have an impairment affecting their playing arm as well as their legs. This limits their ability to handle the racket and to move in the wheelchair. You will find that players may use tape to securely grip the racket.



## 8 Glossary of medical terms

**Achondroplasia-** A common form of short stature, which is an eligible impairment in the Paralympic movement.

**Ataxia-** An eligible impairment in the Paralympic movement. It is generally characterised by a lack of co-ordination of muscle movements due to a neurological condition, such as cerebral palsy, brain injury or multiple sclerosis, among others.

**Athetosis-** An eligible impairment in the Paralympic movement. It is generally characterised by unbalanced, involuntary movement of muscle tone and a difficulty in maintaining a symmetrical posture, due to cerebral palsy, brain injury, multiple sclerosis or other conditions.

**Cerebral palsy-** A health condition which may lead to one of the following eligible impairments: ataxia, athetosis or hypertonia.

**Hypertonia-** It is an eligible impairment in the Paralympic movement causing an abnormal increase in muscle tension and a reduced ability of a muscle to stretch, which can result from injury, illness or a health condition such as cerebral palsy.

**Multiple sclerosis-** A health condition with impaired transmission of nerve signals between the brain, spinal cord and the rest of the body which may lead to spasticity or impaired muscle power, both of which are considered an eligible impairment in the Paralympic movement.

**Poliomyelitis-** A health condition which may lead to impaired muscle power, which is considered an eligible impairment in the Paralympic movement.

**Spasticity-** A term used to describe muscle tension, commonly associated with hypertonia, an eligible impairment in the Paralympic movement.

**Spina bifida-** A health condition commonly leading to impaired muscle power, an eligible impairment in the Paralympic movement.

**Visual cortex-** Is the portion of the brain controlling the perception of visual information. An impairment here may lead to an eligible impairment in the Paralympic movement.



## 9 Want to learn more?

If you would like to learn more about classification, please take a look at the following documents.

### **IPC Classification Code**

This is the most important document governing the Paralympic Movement in regards to classification. It helps to support and co-ordinate the development and implementation of accurate, reliable and consistent sport-focused classification systems. It was published in 2007 and is part of the IPC Handbook.

Available at:  
[http://www.paralympic.org/sites/default/files/document/120201084329386\\_2008\\_2\\_Classification\\_Code6.pdf](http://www.paralympic.org/sites/default/files/document/120201084329386_2008_2_Classification_Code6.pdf)

### **IPC Position Statement on Background and Scientific Rationale for Classification in Paralympic Sport**

This position statement, which was written by Sean Tweedy and Yves Vanlandewijck (leading researchers in classification), explains what evidence-based classification means and how classification systems can be based on scientific evidence. The IPC officially committed to evidence-based classification, when this position statement was approved by the Governing Board in 2009.

Available at:  
[http://www.paralympic.org/sites/default/files/document/141113170628158\\_2014\\_10\\_13+sec+ii+chapter+4\\_4\\_pos+stat+scientific+rationale+classification+paralympic+sport.pdf](http://www.paralympic.org/sites/default/files/document/141113170628158_2014_10_13+sec+ii+chapter+4_4_pos+stat+scientific+rationale+classification+paralympic+sport.pdf)

### **Introduction to the Paralympic Movement**

If you want to learn more about the history of the Paralympic Movement and classification, from the beginnings in Stoke Mandeville to today's London 2012 Paralympic Games, then the article "Introduction to the Paralympic Movement" by Sean Tweedy and P. David Howe will be interesting for you.

The article is available in the following book:

Y.C. Vanlandewijck & W.R. Thompson (Eds.): The Paralympic Athlete. Wiley-Blackwell: IOC Handbook of Sports Medicine and Science.



## **Sport-Specific Classification Rules**

Each IF has a responsibility to publish the classification rules and regulations. You can find these from the respective IF websites. A link can be found on the IPC website at <http://www.paralympic.org/classification/sport-specific>

For news and videos about the Paralympic Movement, information about the IPC structure and classification, please visit the IPC website: [www.paralympic.org](http://www.paralympic.org).

You may also find the classification section on the website interesting: <http://www.paralympic.org/classification>

The website also provides links to the Paralympic sports' websites (<http://www.paralympic.org/sports>), where you can learn more about classification for the different sports.