# Layman's Guide to Paralympic Classification

# 1. What is Classification?

Classification provides a structure for competition. Athletes competing in Paralympic sports have an impairment that leads to a competitive disadvantage in sport. Consequently, a system has to be put in place to minimize 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 Paralympic sport and it groups the eligible athletes in sport classes according to their activity limitation in a certain sport.

# 2. Ten eligible impairments

The Paralympic Movement offers sport opportunities for athletes with physical, visual and intellectual impairments and these can be divided into 10 eligible impairment types.

There are eight different types of physical impairments in the Paralympic Movement:

- <u>Impaired muscle power</u>: With impairments in this category, the force generated by muscles, such as the muscles of one limb, one side of the body or the lower half of the body is reduced, e.g. due to spinal-cord injury, spina bifida or polio.
- Impaired passive range of movement: Range of movement in one or more
  joints is reduced in a systematic way. Acute conditions such as arthritis are
  not included.
- <u>Loss of limb or limb deficiency</u>: There is a total or partial absence of bones or joints as a consequence of amputation due to illness or trauma or congenital limb deficiency (e.g. dysmelia).
- <u>Leg-length difference</u>: Significant bone shortening occurs in one leg due to congenital deficiency or trauma.
- Short stature: Standing height is reduced due to shortened legs, arms and trunk, which are due to a musculoskeletal deficit of bone or cartilage structures.
- Hypertonia: Hypertonia is marked by an abnormal increase in muscle tension and reduced ability of a muscle to stretch. Hypertonia may result from injury, disease, or conditions which involve damage to the central nervous system (e.g. cerebral palsy).

- <u>Ataxia</u>: Ataxia is an impairment that consists of a lack of co-ordination of muscle movements (e.g. cerebral palsy, Friedreich's ataxia).
- <u>Athetosis</u>: Athetosis is generally characterized by unbalanced, involuntary movements and a difficulty maintaining a symmetrical posture (e.g. cerebral palsy, choreoathetosis).

In addition to athletes with physical impairment, athletes with a visual or intellectual impairment are also included in the Paralympic Movement.

<u>Visual impairment</u>: Visual Impairment occurs when there is damage to one or more of the components of the vision system, which can include:

- impairment of the eye structure/receptors
- impairment of the optic nerve/optic pathways
- impairment of the visual cortex

<u>Intellectual Impairment</u>: Athletes with an intellectual impairment are limited in regards to intellectual functions and their adaptive behaviour, which is diagnosed before the age of 18 years.

# 3. Classification Systems

Classification systems differ by sport and were developed by the International Federations (IF) governing the sport.

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

IFs also decide how severe an impairment has to 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.

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.

# 4. 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-the-knee amputation competing in the same sport class in IPC 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 minimized. In Rowing, for example, athletes compete in three sport classes, depending on whether they use their arms only, their arms and trunk only, or their arms, trunk and legs to accelerate the boat.

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, the different sport classes are replaced by coefficients to take the different levels of activity limitations into account.

Some Paralympic sports only have one Sport class, such as Powerlifting. To compete in these sports, the athletes only need to meet the minimal impairment criteria.

In team sports such as Wheelchair Rugby, 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.

# 5. How is a sport class allocated to an athlete?

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

Classifiers for athletes with the various physical impairments listed above either have a (para-) medical background or are technical experts in their sport. Athletes with visual impairment are classified by classifiers with a background in ophthalmology or optometry. Psychologists and sport experts are involved with classification for athletes with intellectual impairment.

Classification takes place before competitions. Therefore, athletes who need to be classified arrive at the competition a few days earlier to undergo classification and to be allocated a sport class. During the evaluation process, classifiers follow the Classification Rules of the IF.

Depending on the impairment an athlete might undergo classification 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. IPC Swimming). In these cases, classifiers can decide that the athlete has to be seen again at the next competition or later.

# 6. Classification systems of Paralympic summer sports

# **Archery**

# Included impairment types:

Physical Impairment	✓
Visual Impairment	
Intellectual impairment	

# Sport Classes:

Paralympic archers are divided into three sport classes:

# Sport Class ARW 1:

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.

# Sport Class ARW 2:

Similar to archers in the sport class ARW1, archers in this sport class 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.

## **Sport Class ARST:**

The sport class ARST includes athletes competing in a standing position and those who 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**

Physical Impairment	✓
Visual Impairment	✓
Intellectual 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.

# 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 disability 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 disability 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.

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. 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 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, the group of wheelchair athletes competes 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.

# Boccia

Physical Impairment	✓
Visual Impairment	
Intellectual 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 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.

# Cycling

Physical Impairment	✓
Visual Impairment	✓
Intellectual impairment	

#### Sport Classes

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

#### Handcycle Sport Classes H1-4:

There are four different sport classes for handcycle racing and lower numbers indicate a more severe activity limitation.

Cyclists in the sport classes H1-3 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 H3 class have no leg function but good trunk and arm function.

Cyclists in the H4 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 T1-2:

Tricycle athletes are divided into two classes, T1 and T2. Due to an impairment affecting their balance and coordination they cannot ride a bicycle. The sport class T1 is allocated to athletes with more significant coordination problems or loss of muscle power than athletes competing in sport classT2.

#### Biclycle C1-5:

Athletes who are able to use a standard bicycle compete in the 5 sport classes C1-5. The sport class profiles include amputations, impaired muscle power or range of motion and also impairments affecting coordination, 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 disability 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 TB:

Cyclists with visual impairment race on a tandem with a sighted cycler sitting in the front. Cyclists with visual impairment either have a low visual acuity or a visual field restricted to a diameter of 40 degrees.

# Equestrian

Physical Impairment	✓
Visual Impairment	<b>✓</b>
Intellectual 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.

#### Grade la: Physical impairments

Athletes in Grade 1a 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.

#### Football 5-a-Side

Physical Impairment	
Visual Impairment	✓
Intellectual impairment	

#### **Sport Classes**

There is only one sport class for Football 5-a-Side and all players are visually impaired. The players have a very low visual acuity or no light perception and during the game all players must wear eyeshades. With all players having the same activity limitation, a fair competition between two teams can be assured.

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

Physical Impairment	✓
Visual Impairment	
Intellectual impairment	

Athletes competing in Football 7-a-Side have ataxia, hypertonia or athetosis - three impairment types that are most commonly associated with cerebral palsy.

### **Sport Classes**

As Football 7-a-Side is a team sport, classification aims at ensuring fairness with regard to the impact of impairment between both teams. To accomplish this, the players are firstly allocated one of 4 sport classes, which are described below.

#### FT 5

In this sport class, athletes have hypertonia or spasticity in both lower limbs and to some degree in both upper limbs. The players have difficulty running, turning and stopping because of a lack of lower limb control.

# FT 6:

Athletes are affected by coordination and balance problems in all four limbs and trunk. FT6 players typically have difficulties in dribbling the ball when running, acceleration and stopping.

#### <u>FT7:</u>

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. On the impaired side the athlete might have problems balancing, so that often the impaired leg is used to shoot the ball.

#### <u>FT8</u>:

This is this sport class describes the minimum impairment eligible for Football 7-a-Side. You may not see the impact of 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.

#### Fairness between two teams

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 two FT8 players on the field.

## Goalball

Physical Impairment	
Visual Impairment	✓
Intellectual impairment	

Athletes competing in Goalball all have varying degrees of visual impairment. Some are completely blind and have no light perception and some have a low visual acuity. Athletes with a visual field of a maximum diameter of less than 40 degrees are also eligible to compete in Goalball.

In order to ensure a fair competition between the teams, all players must wear eyeshades during the game.

# Judo

Physical Impairment	
Visual Impairment	✓
Intellectual impairment	

#### **Sport Classes**

#### B1:

Judoka in this sport class are diagnosed with visual impairment and 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.

### B2:

The B2 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.

#### B3:

The B3 sport class profile describes the least severe visual impairment eligible for Judo. Eligible athletes either have a restricted visual field of less than 40 degrees diameter or a low visual acuity.

# **Powerlifting**

Physical Impairment	✓
Visual Impairment	
Intellectual impairment	

Powerlifting is open to 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 from competing 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.

This one sport class is not to be confused with the different weight categories the athletes compete in. Athletes compete in different weight categories just like their able-bodied counterparts in weightlifting.

# Rowing

Physical Impairment	✓
Visual Impairment	✓
Intellectual impairment	

#### **Sport Classes**

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

#### Sport Class AS:

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

## Sport Class TA:

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

## Sport Class LTA-PD:

This sport class includes athletes, 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 class.

Moreover, there are three sport classes for visual impairment:

#### LTA-VI B1, B2 and B3:

Rowers in this sport class have varying degrees of visual impairment. Athletes in sport class B1 are nearly or completely blind. Athletes in the B3 sport class have the least severe eligible visual impairment.

#### Fairness between the teams

To ensure that races are fair, rowers compete only against rowers in the same sport class. Consequently, there are four different events in adaptive rowing:

#### • LTA Mixed coxed four:

Two male and two female rowers from the sport classes LTA-PD and LTA-B1/2/3 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 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

Physical Impairment	✓
Visual Impairment	✓
Intellectual impairment	

#### Sport Classes:

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

#### Three-Person Keelboat:

The sailors are classified with a sport class from 1 to 7, with 7 indicating the least severe and 1 indicating he most severe eligible impairment.

For example, a sailor with complete tetraplegia is likely to compete in sport class 1 and a sailor with a single above knee amputation is likely to compete in sport class 7.

Moreover, athletes with visual impairment are also classified with the same sport classes. Depending on their visual ability, they compete in sport class 3, 5 or 7, with 7 indicating the highest eligible visual ability.

To make sure that no crew has an advantage or disadvantage in the 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 classified as "TPB."

The sport class TPA includes athletes with more severe impairments, which are equivalent to a sport class 1 or 2 on a Three-Person Keelboat. Examples for impairments included in this sport class profile would be complete quadriplegia or a double above-the-elbow amputation.

The sport class TPB means that an athlete only has to meet the minimum impairment criteria for sailing. Athletes of all seven sport classes of the Three-Person Keelboat 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 disability criteria, but there is no further sport class distinction. Thus, this classification is equivalent to the TPB sport class on the Two-Person Keelboat.

# **Shooting**

Physical Impairment	✓
Visual Impairment	
Intellectual impairment	

#### Sport Classes:

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 therefore you will see most of them compete in a seated position.

# Sport Class SH1:

Athletes in this sport class shoot with either pistol or 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 rifles only and not with pistols.

# Sitting Volleyball

Physical Impairment	✓
Visual Impairment	
Intellectual impairment	

#### **Sport Classes**

There are two sport classes in Sitting Volleyball, called "Minimally Disabled" (MD) and "Disabled" (D). 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 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.

#### 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.

# **Swimming**

Physical Impairment	✓
Visual Impairment	✓
Intellectual impairment	✓

#### **Sport Classes**

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

# 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.

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-theknee 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.

#### 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.

#### Sport Classes 14: Intellectual impairment

Swimmers with intellectual impairment who also meet the sport-specific criteria compete in sport class 14.

# **Table Tennis**

Physical Impairment	✓
Visual Impairment	
Intellectual 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 the ones with sport classes 6-10 compete in a standing position. In more detail, the sport classes for athletes with physical impairment can be described as follows:

#### 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.

# 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.

Sport class 11 includes athletes with intellectual impairment who also meet sport-specific criteria for table tennis.

# Wheelchair Basketball

Physical Impairment	<b>→</b>
Visual Impairment	
Intellectual 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 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.

#### 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.

# Wheelchair Fencing

Physical Impairment	<b>→</b>
Visual Impairment	
Intellectual impairment	

#### **Sport Classes**

All wheelchair fencers have an impairment of their legs or feet that prohibits them from competing against standing, able-bodied fencers. Loss of or deficiencies in legs or feet or neuromuscular conditions (e.g. paraplegia) make them eligible for wheelchair fencing.

There are two sport classes in Wheelchair Fencing, called Category A and B.

# Category A:

Fencers in Category A have good trunk control, allowing them to move forward and sideways when attracting their opponent or dodging an attack. Also, their fencing arm is fully functional.

#### Category B:

Fencers in Category B either have worse trunk control than described in category A and a normal fencing arm, or they have normal trunk control and minimally reduced function in their fencing arm.

# Wheelchair Rugby

Physical Impairment	✓
Visual Impairment	
Intellectual impairment	

#### **Sport Classes**

The players are also 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.

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 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.

#### 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.

# Wheelchair Tennis

Physical Impairment	✓
Visual Impairment	
Intellectual 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 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.

#### 7. Want to learn more?

If you would like to learn more about classification, please have 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

# 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, explains what evidence based classification means and how this can be achieved. It shows how classification systems should be based on scientific evidence. The IPC has officially committed to the aim of evidence based classification with the approval of this position statement by the Governing Board in 2009.

#### Available at:

http://www.paralympic.org/sites/default/files/document/120203171258165 Sec\_ii\_ch\_apter\_4.4\_Position\_Statement\_on\_Classification.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 can be highly recommended.

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.

#### **IPC** Website

For news and videos about the Paralympic Movement, information about the IPC structure and classification, please visit the IPC website: <a href="www.paralympic.org">www.paralympic.org</a>. You may also find the section on Classification of the website interesting: <a href="http://www.paralympic.org/Classification/Introduction">http://www.paralympic.org/Classification/Introduction</a>.