Inclusive Coaching Guidance for Wheelchair Athletes

Building confidence and supporting coaches to include athletes of all abilities.

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Inclusive Coaching Guidance for Wheelchair Athletes

This document contains information to support coaches to do what they do best - coach athletics to athletes of all abilities!

This guide has an event group focus as below:

- **Seated Throws**
- **Wheelchair Racing – Track & Road**

The seated throws guidance is directed at qualified throws coaches (shot, discus and javelin) and as such the technical aspects of the throwing events will not be covered here (as the expectation is that this is known already). This guidance will cover the issues of throwing that are relevant and important when working with disabled athletes that want to participate in seated throwing events. Technical throwing information can be found on the uCoach website [here](#).

More detailed information will be provided for the club event, as this is specific to disabled athletics.

The wheelchair racing track and road guidance highlights the important aspects associated with the introduction to this event group. It is intended for qualified coaches who have a knowledge of speed and/or endurance and who have an interest in this area. An online module for wheelchair racing has been created by UKA as an extension of the Athletics Coach course, which covers a series of technical teaching progressions and health & safety information. This can be accessed at the learn section of [www.ucoach.com](http://www.ucoach.com)

It is an interactive guidance document and is designed so you can move in and out of the sections you are interested in. Please note when clicking on the links that some may open in a window behind the current window.
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1. Introduction/Access

Disability athletics has an increasing profile in the UK and with the success of the GB athletics team at 2012 London Paralympic Games athletics has seen many more disabled participants entering the sport.

Disabled athletes should be encouraged and supported to join their local athletics club to access appropriate training and guidance to develop in their chosen event.

Many people think that to be able to coach a disabled athlete an extensive knowledge of the disability/impairment is needed. This is not the case, especially in the early stages.

Good coaches adapt and modify all aspects of their coaching practice to create an environment that caters for all individual needs, allowing everyone to participate and experience success within the activity. As the athlete progresses the coach may wish to know more about a particular impairment. Click here for Sports Coach UK impairment specific factsheets.

Advice from experts in their fields could be consulted at appropriate stages of athlete development, if required. Such experts might include:

- Neurologists
- Neuro and/or functional physiotherapists
- Orthopaedic specialists
- Prosthetists
- Orthotists.

The responsibility of inclusion rests with the coach.
2. Consistent Coaching Principles

British Athletics has a clear philosophy, it believes in:

• An **athlete centred approach** in which the needs of the athlete are placed before the interests of, and pressures imposed by, the club, school, parents or coach

• An **inclusive attitude** in which all athletes can take part, are valued and encouraged to explore their own potential

• The importance of providing a **fun and safe environment**

• Encouraging athletes to be **involved** in their own development and **empowered** to take greater responsibility for it

An athlete centred approach is one in which the needs of the athlete (especially a child, youth or a disabled athlete) is placed before everything else – the activity, the competition, your personal goals and ambitions. In this approach athletes are encouraged to be involved in their own development and empowered to take greater responsibility for it.

Working with athletes is a privilege, no matter their age or at what level they perform. If they are striving to improve then it is important that as a coach we too work hard to be the best that we can be. This can be both demanding and time consuming but extremely rewarding.
2.1 Adaptation & inclusion

Many people choose to take part in athletics, not just because of its high profile on the International stage, but also because there are so many diverse events, each requiring different abilities.

Running, jumping, throwing and pushing can be enjoyed by athletes of all abilities but activities must be organised appropriately to ensure that all do achieve success. This requires the recognition that athletes have very different needs and careful thought to be given to good differentiation.

Your coaching may involve children and young athletes, male and/or female athletes, disabled and/or non disabled athletes, adult recreational athletes, high performance and talented athletes, veteran and masters athletes, all at different stages of development and skill learning.

Each athlete you work with is an individual and has a unique set of motives, needs and aspirations. In being truly athlete centered, you as the coach will need skills to identify these needs and motivations and adapt training sessions to ensure these needs are fulfilled to encourage athlete satisfaction, retention, participation and performance development related to their stage of athlete development and skill learning.

British Athletics adopts an inclusive philosophy, welcoming all people to the sport. For more information and strategies for including all athletes within your sessions [click here](#) for guidance on the Inclusion Spectrum and STEP.
3. Classification Information

According to the International Paralympic Committee

“To ensure competition is fair and equal, all Paralympic sports have a system in place which ensures that winning is determined by skill, fitness, power, endurance, tactical ability and mental focus, the same factors that account for success in sport for able bodied athletes.”

For more information on general classification click [here](http://example.com) for ‘An Introduction to Classification’ video and downloadable factsheet

British Athletics are responsible for classification in the UK and further information can be found on the Parallel Success pages of the British Athletics Academy [here](http://example.com).
**Classification: What the letters and numbers mean**

- The lower the number the less functional the athlete (the greater the impairment)
- The higher the number the more functional the athlete (the lesser the impairment)

<table>
<thead>
<tr>
<th>Impairment</th>
<th>T = Track events</th>
<th>F = Field events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blind and Vision Impaired</td>
<td>T11, T12, T13</td>
<td>F11, F12, F13</td>
</tr>
<tr>
<td>Learning Disability</td>
<td>T20</td>
<td>F20</td>
</tr>
<tr>
<td>Cerebral Palsy (or similar)</td>
<td>T31, T32, T33, T34, T35, T36, T37, T38</td>
<td>F31, F32, F33, F34, F35, F36, F37, F38</td>
</tr>
<tr>
<td>Dwarf</td>
<td>T40, T41</td>
<td>F40, F41</td>
</tr>
<tr>
<td>Limb loss (or similar)</td>
<td>T42, T43, T44, T45, T46, T47</td>
<td>F42, F43, F44, F45, F46</td>
</tr>
<tr>
<td>Spinal injury (or similar)</td>
<td>T51, T52, T53, T54</td>
<td>F51, F52, F53, F54, F55, F56*, F57*</td>
</tr>
<tr>
<td>Lower limb loss (or similar)</td>
<td></td>
<td>F56*, F57*</td>
</tr>
</tbody>
</table>

*overlap exists between these categories which may be Spinal Injury or Amputee
4. Disabled Athlete Pathway

There are pathways and opportunities available for disabled athletes at all levels, from participating at club level for social reasons through to elite level representation at international competition.

Click on the document below to view the Disabled Athlete Pathway.
4.1 Paralympic Pathway

British Athletics have a Paralympic Pathway which forms the basis of their World Class Performance Programme (WCPP). This pathway usually includes the events/classes that are included in Paralympic Games and World Championships. They have been identified by the International Federation (IPC Athletics) as being suitable and safe for the relevant classes (impairments). The events are updated periodically by IPC Athletics, usually in line with a Paralympic Games and/or World Championships. The events listed here are valid for 2015.

The Paralympic Pathway events are identified within the event group information in this guide, click here (or see Appendices).
5. Event Specific Information

Athletics events for disabled athletes are usually divided into the following event groups:

- **Seated Throws**
- **Wheelchair Racing** (track and road)
- **Ambulant Sprints**
- **Ambulant Jumps**
- **Ambulant Throws**
- **Ambulant Endurance** (running & race walking)

This coaching guidance document will cover the wheelchair event groups (Seated throws and Wheelchair racing) only.

Ambulant sprints, jumps, throws and endurance can be found in a separate coaching guidance document specific to ambulant athletes.
5.1 Wheelchair (seated) throwing and racing

Wheelchair athletes are able to compete in seated throwing and wheelchair racing events.

Seated Throwing events (shot, javelin, discus and club) are available to those athletes who are unable to stand and/or have balance and stability problems that make throwing from an ambulant position difficult.

Athletes in the seated throwing events throw from either their day chairs or from custom made throwing frames, which are secured to the ground by straps.*

Wheelchair racing events (100m, 200m, 400m, 800m, 1500m, 5000m, 10000m, marathon) are available for those athletes that primarily are wheelchair users, or walk with aids such as sticks, frames and prosthetics.

Wheelchair racers use bespoke racing wheelchairs for competition.

Seated throwing and wheelchair racing events are available for:

- **Athletes with cerebral palsy** (or similar)
- **Athletes with spinal injury**
- **Athletes with lower limb loss** (or similar)

* Frossard L, O’Riordan A, Goodman
5.2 Ambulant Sprinting, Jumping, Throwing and Endurance

There are sprinting (100m, 200m, 400m), jumping (long jump, triple jump, high jump), throwing (shot, javelin and discus) and endurance (800m up to Marathon) events available to ambulant athletes.

Ambulant athletes (those able to walk/run) unassisted consist of:

- **Blind and vision impaired athletes**
- **Athletes with a learning disability**
- **Athletes with cerebral palsy** (or similar)
- **Athletes with limb loss** (or similar)

This coaching guidance document will cover the seated throws and wheelchair racing event groups only. Ambulant event groups can be found in a separate inclusive coaching document specific to ambulant athletes.
6. Introductory Coaching Considerations

Coaching disabled athletes is simply about best coaching *practice*. Coaching disabled athletes involves working with the individual athlete, assessing their function i.e. what they can do, and identifying ways and methods to encourage and enhance movement in areas that are problematic.

There is a need for all coaches to become better informed so that all athletes have access to the best possible coaching practices.
6.1 Coaching Seated Throws – an introduction

Seated throws events include:

- **Club Throw**
- **Shot Put**
- **Discus**
- **Javelin**

The athlete impairments/classifications associated with Seated Throws are:

<table>
<thead>
<tr>
<th>Impairment</th>
<th>Classification</th>
<th>Recommended Events</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cerebral Palsy</strong></td>
<td>F31</td>
<td>Club</td>
</tr>
<tr>
<td>(or similar)</td>
<td>F32</td>
<td>Club, Discus, Shot</td>
</tr>
<tr>
<td></td>
<td>F33, F34</td>
<td>Discus, Shot, Javelin</td>
</tr>
<tr>
<td><strong>Spinal Injury</strong></td>
<td>F51</td>
<td>Club, Discus</td>
</tr>
<tr>
<td></td>
<td>F52, F53, F54, F55, F56*, F57*</td>
<td>Discus, Shot, Javelin</td>
</tr>
<tr>
<td><strong>Lower Limb Loss</strong></td>
<td>F56*, F57*</td>
<td>Discus, Shot, Javelin</td>
</tr>
<tr>
<td>(or similar)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*overlap exists between these categories which may be Spinal Injury or Amputee

Paralympic Pathway throwing events can be found [here](#)
Coaching Seated Throws – an introduction

The basic principles of throwing are the same for all athletes. No two athletes are the same having differing physiques, strength, balance, physical or learning ability.

Generally, the first step when working with seated throwers is to establish the seating/body position that works best with the athlete’s functional abilities. However, every athlete has a unique style regardless of ability and what works with one athlete may not work with another similar functioning athlete.

An effective coach will experiment to find out what works best for each individual athlete. As a basic rule, when working with disabled athletes, more time is needed for skills to be practised, developed and achieved to maximum ability.

The same throwing drills as for a non disabled athlete will be relevant within the functional boundaries of the athlete. As seated throwers throw from a seated position, throwing drills involving the upper body will be the most prominent.

However, a holistic approach to training is encouraged, and drills and movements involving leg and hip function should be included for those athletes that have this available function.
Coaching Seated Throws – Getting Started

Beginner seated throwers can and should use their day chairs to throw from. These can be secured with ratchet straps and pegged into the grass, and provides a good starting point for all clubs and coaches.

For training purposes, less functional, weaker and younger athletes may be able to be pegged into grass using stakes. Stronger and more functional athletes will need to be secured into concrete.

More information on methods of securing athletes for throwing can be found in the Seated Throws Funding and Guidance Document, found here.

There are recommended implement weights for all ages and classifications. It is important from a safety point of view that coaches work with these recommendations. Implement weights can be found here.
Coaching Seated Throws – Getting Started

As the athlete progresses (or for those who do not use a wheelchair on a daily basis) there maybe the need for more specialised equipment to aid athletic performance. A throwing frame works with the athlete’s available function to assist with the throwing action.

Generally, throwing frames are individually designed assistive devices which are scaffold-like chairs made of metal bars and plates welded together.

The main purpose of the throwing frame is to assist in weight bearing.

Consequently, it contributes to the performance of the athlete by enabling the optimal throwing action (range of movement, velocity of body segments, final body position at release etc.). *

A variety of different classes are eligible to compete in seated throws, consequently, there is likely to be a range of throwing frames within and between the different classes of athletes.

Coaching Seated Throws – Getting Started

A fully adjustable throwing frame, the Protean STF, is now available for purchase through England Athletics. It enables athletics clubs to provide training opportunities for new and beginner athletes who want to try seated throwing. The throwing frame meets the IPC Athletics rule specifications and has anchor points for securing it to the ground when throwing. It is easily adjustable so multiple athletes are able to use it, and will also assist the coach with developing the functional template for those athletes that commit to the sport and may need a more bespoke throwing frame.

Bespoke frames are designed and engineered around an individual athlete that has committed to training and competing. Currently, the construction of each individual throwing frame is mainly driven by an empirical approach, relying on the feedback from coaches and athletes as well as apparent functionality and of comfort *.

The Protean STF now makes this process simpler by assisting with the development of an individual athlete’s functional template. This functional template can then be taken to local welders/fabricators for design and manufacture.

Coaching Seated Throws – Basic Technical Models

All athletes must start in a seated position and remain seated throughout the throwing action until the throw has been marked. Athletes must sit so that both legs are in contact with the seat surface from the back of the knee to the back of the buttock (ishial tuberosity). Strapping across the upper thighs and/or pelvis is encouraged.

NB: this represents a change to IPC athletics Rule 36, effective from 1st January 2014. The intention of this rule is to minimize the contribution of the legs to the athlete’s performance. The amended rule can be viewed [here](#).
Coaching Seated Throws – Basic Technical Models

Consequently the following basic technical models regarding body position are created.

<table>
<thead>
<tr>
<th>Body Position/Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Front On</strong></td>
</tr>
<tr>
<td>The athlete sits in a position where the hips are parallel to the direction of the throw</td>
</tr>
<tr>
<td><strong>Side On</strong></td>
</tr>
<tr>
<td>The athlete sits in a position where the hips are perpendicular to the direction of the throw</td>
</tr>
<tr>
<td><strong>Diagonal</strong></td>
</tr>
<tr>
<td>The athlete sits in a position with one leg parallel and the other perpendicular to the direction of the throw</td>
</tr>
<tr>
<td><strong>Back On</strong></td>
</tr>
<tr>
<td>The athlete sits in a position where the back facing the direction of the throw. This position is only utilised by athletes with cerebral palsy (F31 and F32) when throwing the Club</td>
</tr>
</tbody>
</table>

Go to Club Throw
Coaching Seated Throws – Basic Technical Models

The table below details the body positions that each of the classification are more likely to use:

<table>
<thead>
<tr>
<th>Impairment</th>
<th>Classification</th>
<th>Body Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cerebral Palsy (or similar)</td>
<td>F31</td>
<td>Front On Side On Back On (for Club Throw)</td>
</tr>
<tr>
<td></td>
<td>F32</td>
<td>Front On Side On Diagonal Back On (for Club Throw)</td>
</tr>
<tr>
<td></td>
<td>F33, F34</td>
<td>Front On Side On Diagonal</td>
</tr>
<tr>
<td>Spinal Injury</td>
<td>F51, F52, F53,</td>
<td>Front On Side On</td>
</tr>
<tr>
<td>Spinal Injury</td>
<td>F54, F55, F56</td>
<td>Front On Side On Diagonal</td>
</tr>
<tr>
<td>Lower Limb Loss (or similar)</td>
<td>F57</td>
<td>Front On Side On Diagonal</td>
</tr>
</tbody>
</table>
Coaching Seated Throws – Body Position

This is an important aspect of setting the athlete in a position that will allow optimal throwing position in relationship to function.

<table>
<thead>
<tr>
<th>Consideration</th>
<th>Description</th>
<th>Functional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Body Position: Front On</td>
<td>The athlete sits in a position where the hips are parallel to the direction of throw</td>
<td>Athletes that have limited and/or no leg function and abdominal/back muscles are more likely to sit in a Front On position e.g. F31, F32, F51-F56</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Most athletes with this kind of functional limitation will need a holding bar/pole for support and balance. They may also use straps around chest, hips, legs.</td>
</tr>
</tbody>
</table>
Coaching Seated Throws – Body Position

Examples of Front On Throwing Positions
## Coaching Seated Throws – Body Position

<table>
<thead>
<tr>
<th>Consideration</th>
<th>Description</th>
<th>Functional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Body Position Side On</strong></td>
<td>The athlete sits in a position where the hips are perpendicular to the direction of throw</td>
<td>Low functioning athletes with spinal injury with limited to no abdominal/truck function, are more likely to sit in a side on position e.g. F51-53. The aim would be to involve body momentum into the throwing action, as trunk rotation is not possible due to abdominal and back muscle dysfunction.</td>
</tr>
</tbody>
</table>
Coaching Seated Throws – Body Position

Examples of Side On Throwing Positions
## Coaching Seated Throws – Body Position

<table>
<thead>
<tr>
<th>Consideration</th>
<th>Description</th>
<th>Functional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Body Position Diagonal</strong></td>
<td>The athlete sits in a position with one leg parallel and the other perpendicular to the direction of the throw.</td>
<td>Higher functioning athletes from spinal injury, cerebral palsy and limb loss classes are more likely to sit in a diagonal on position e.g. F55-57, F33-34.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The aim would be to get the upper body into a strong and long power position. Sitting diagonally allows the hips to be more open allowing greater rotation of the trunk.</td>
</tr>
</tbody>
</table>
Coaching Seated Throws – Body Position

Examples of Diagonal Throwing Positions
Coaching Seated Throws – Technical Model Analysis

When working with seated throwers the same technical throwing models as for non disabled throwers are applied. However, as all seated throwers start from a seated position it is only the components of a ‘standing throw’ that need to be considered.

A good place to start with beginner seated throwers is to consider five basic body positions throughout the throwing action:

- **Starting position**
- **Build-up of momentum**
- **Power position**
- **Block**
- **Release**

### Overview

<table>
<thead>
<tr>
<th>Starting Position</th>
<th>Momentum Build-up</th>
<th>Power Position</th>
<th>Block</th>
<th>Release</th>
</tr>
</thead>
</table>

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Coaching Seated Throws – Technical Model Analysis

Starting Position

This can be Front On, Side On or Diagonal depending on athlete function and preference.

F33 Shot – Front On
F52 Discus – Side On
F56 Javelin – Diagonal
Coaching Seated Throws – Technical Model Analysis

Build-up of Momentum

This will involve the movement of the body (usually in a forward direction) to generate momentum and has the same objective as in non-disabled throwing.

F33 Shot – Front On
F52 Discus – Side On
F56 Javelin – Diagonal
Coaching Seated Throws – Technical Model Analysis

**Power Position**

This will be where the athlete’s body is in a position to generate the most power and has the same objective as in non-disabled throwing.

- **F33 Shot – Front On**
- **F52 Discus – Side On**
- **F56 Javelin – Diagonal**
Coaching Seated Throws – Technical Model Analysis

Block Position

This will be where the athlete braces (blocks with the non throwing side of the body) and has the same objective as in non-disabled throwing.

F33 Shot – Front On

F52 Discus – Side On

F56 Javelin – Diagonal
Coaching Seated Throws – Technical Model Analysis

Release

This is the point where the athlete releases the implement and has the same objective as in non-disabled throwing.

F33 Shot – Front On  
F52 Discus – Side On  
F56 Javelin – Diagonal
Coaching Seated Throws – Club Throw

The generic throwing events of shot, discus and javelin are also events for seated throwers. However, there is an additional event specific to the sport of athletics, called the Club Throw. It is for athletes in the lower functioning classes that do not have the strength or ability to hold and throw a javelin.

The Club is a wooden skittle like object which must weigh 397gms for national and international competition.

The rules for throwing the club follow the same IPC Athletics rules as the other seated throwing events, and can be viewed [here].
Club Throw – Technical Model Analysis

The table below details the body positions that each of the classifications may be able to use:

<table>
<thead>
<tr>
<th>Impairment</th>
<th>Classification</th>
<th>Body Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cerebral Palsy (or similar)</td>
<td>F31</td>
<td>Front On Side On</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Back On</td>
</tr>
<tr>
<td></td>
<td>F32</td>
<td>Front On Side On</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Back On</td>
</tr>
<tr>
<td>Spinal Injury (quadriplegia)</td>
<td>F51</td>
<td>Front On Side On</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Definitions of each of the basic technical models can be found [here](#).
# Club Throw – Technical Model Analysis

The same Front On or Side On body positions as for the other Seated Throws also apply for the Club Throw. However, there are a number of technical models that are used within the Club Throw, some of which mimic the techniques of discus and javelin, but there are others that are specific to the Club Throw.

<table>
<thead>
<tr>
<th>Technical Model Analysis</th>
<th>Coaching considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pull action – like a javelin</strong></td>
<td>Athlete may throw Front On, Side On or Diagonal seating positions. Athletes may use a holding bar/pole on their non-throwing side. Coaching principles of pull action would be the same as for Javelin. To view videos of the Athletics 365 Javelin challenges (including Tennis Ball, Howler &amp; Turbo Jav Throw) click here.</td>
</tr>
<tr>
<td><a href="image.png">Image</a></td>
<td></td>
</tr>
<tr>
<td><strong>Sling action – like a discus</strong></td>
<td>Coaching principles of sling action would be the same as for the discus. To view videos of the Athletics 365 discus challenges (including soft discus, bean bag and quoit) click here. Grip will be different due to the nature of the club implement and athlete function.</td>
</tr>
<tr>
<td><a href="image.png">Image</a></td>
<td></td>
</tr>
</tbody>
</table>
## Club Throw – Technical Model Analysis

<table>
<thead>
<tr>
<th>Technical Model Analysis</th>
<th>Coaching considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overhead from a backwards position</td>
<td>Likely to be used by F31 and F32 athletes. Athlete to be positioned with their back facing the direction of the throw. Generic overhead throwing action would be practised but likely to have single arm involvement only. Consideration to be given to non-throwing arm whether it is free or uses a holding bar/pole for support.</td>
</tr>
</tbody>
</table>
6.2 Coaching Seated Throws – Throwing Frame Characteristics

The performance of elite seated throwers depends on the interaction between the design of the athletes’ throwing frame and their throwing technique*

A new athlete who has committed to the sport may need a bespoke throwing frame so athletic performance can be improved.

Athletes are entitled to use their own throwing frame usually made of iron or steel. Most frames feature up to four legs, foot rests, and strapping systems to anchor the athlete to the seat and the frame to the ground. The typical seat area is composed of a flat surface with some form of cushioning that must be no higher than 75 cm from the ground.

Athletes are also allowed to use a back rest, and a holding bar/pole at their discretion for balance purposes and/or to generate driving forces. Footplates and/or holding bars are permitted for those athletes that have limited function and/or proprioception in their lower limbs and feet.

IPC Athletics Rule 35, relating to throwing frame specifications can be found here.

# Coaching Seated Throws – Throwing Frame Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Seating Area** | • The maximum seat height is 75cm from the ground (including seat padding)  
• The seating area must be square or rectangle in shape  
• Each side to be at least 30cm in length  
• The seat surface of the throwing frame must be level or with the front higher than the back (i.e. inclined backwards)  
• The athlete must sit so that both legs are in contact with the seat surface from the back of the knee to the back of the bottom (ischial tuberosity). |
Coaching Seated Throws – Throwing Frame Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Back &amp; Side rests</td>
<td>• Non-elastic material (e.g. non-elastic canvas)</td>
</tr>
<tr>
<td></td>
<td>• Rigid construction (must not move)</td>
</tr>
<tr>
<td></td>
<td>• No springing mechanisms</td>
</tr>
<tr>
<td></td>
<td>• Cushioning no more than 5cm thickness</td>
</tr>
</tbody>
</table>

Athletes that have limited and/or no abdominal/back function may need to use a throwing frame with a back and/or side rest e.g. F31, F32, F51-F56.

Athletes with near to full abdominal/back function may choose not to have a back rest e.g. F33, F34, F57.
Coaching Seated Throws – Throwing Frame Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Non-throwing arm action**     | • Athletes are able to use a rigid holding bar/pole to assist with balance, if needed.  
• The holding bar must be a single, straight, vertical piece of material without curves or bends, and with a cross-sectional profile that is circular or square, not oval or rectangular.  
• It must not incorporate springs or movable joints or any other feature that could assist with propulsion of the throwing implement. |

They are used mainly for support and stability, and mostly used by low class spinal injury athletes and athletes with cerebral palsy (F51-55, F31-34). Other athletes may choose to have a free non-throwing arm.
## Coaching Seated Throws – Throwing Frame Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Free arm</strong></td>
<td>The non-throwing arm is free to move and is used to assist with blocking action. More functional athletes with full abdominal and back muscle function are more likely to have a free non-throwing arm action e.g. F33, F34, F56, F57.</td>
</tr>
<tr>
<td><strong>Holding Bar/Pole</strong></td>
<td>The non-throwing arm is gripping a bar/pole. Athletes with limited and/or no abdominal and back muscle function are likely to use the holding bar/pole to assist the throwing action and for support and balance e.g. F31-33, F51-56.</td>
</tr>
</tbody>
</table>

Further information can be found [here](#)
Coaching Seated Throws – Throwing Frame Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feet positioning</td>
<td>Athletes are able to have feet on and off the ground as long as they maintain contact with the seat surface from the back of the knee to the back of the bottom (ischial tuberosity).</td>
</tr>
<tr>
<td></td>
<td>• Athletes are able to use footplates and/or bars to assist with securing one or both feet</td>
</tr>
<tr>
<td></td>
<td>• Footplates, if used, are for support and stability only.</td>
</tr>
<tr>
<td></td>
<td>• Footplates must stay behind the front of the throwing circle.</td>
</tr>
</tbody>
</table>

Athletes with good leg and foot function are likely to just place their feet on a footplate e.g. F57

Less functional athletes with no, or poor to fair leg and foot function in one or both legs may want to secure/hook their feet in place to limit extra movement e.g. F31-34, F51-56.

Additional strapping can be used around legs and/or knees for stability and support.
## Coaching Seated Throws – Throwing Frame Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Off Ground</strong></td>
<td>Both feet are off ground during the throwing action. Athletes are allowed to use footplates, bars and/or straps to secure feet. Less functional athletes with no, poor to fair leg and foot function in one or both legs are likely to throw with both feet off the ground e.g. F31-34, F51-56.</td>
</tr>
<tr>
<td><strong>On Ground</strong></td>
<td>Both feet are on the floor at all times during the throwing action. This is unlikely as unless the athlete is extremely tall they will need to lower the height of the throwing frame to maintain contact with the seat surface from the back of the knee to the back of the bottom (ischial tuberosity). More functional athletes with fair to good leg and foot function in one or both legs are likely to throw with both feet on the ground e.g. F32, F33, F34, F57.</td>
</tr>
</tbody>
</table>
Coaching Seated Throws – Throwing Frame Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Other</strong></td>
<td>Athlete has no lower limbs or does not wear prosthesis. These athletes would have full upper body function and would need to be secured with a strap around the hips to ensure the ischial tuberosity remains in contact with the seating area at all times. e.g. F56, F57.</td>
</tr>
</tbody>
</table>

Impairment specific information from Sports Coach UK can be found [here](#).
### Seated Throwing – Examples of Best Practice

<table>
<thead>
<tr>
<th>Impairment</th>
<th>Video</th>
</tr>
</thead>
</table>
| **Cerebral Palsy**  
(or similar)                | F32 (F51) Female Club Throw  
F33 Male Shot  
F34 Female Javelin         |
| **Spinal Injury**  
(quadriplegia)            | F51 (F32) Female Club Throw  
F52-53 Male Shot            |
| **Spinal Injury**  
(paraplegia)               | F55-56 Female Javelin  
F55-56 Male Discus          |
| **Limb Loss**  
(or similar)               | F57 Male Javelin  
F57 Female Discus          |

Impairment specific factsheets from Sports Coach UK can be found [here](#).
6.3 Coaching Wheelchair Racing – Track & Road – an introduction

The basic principles of wheelchair racing are the same for all athletes. No two athletes are the same having differing physiques, strength, balance, physical or learning ability.

A good coach will experiment to find out what works best for each individual athlete. Generally, when working with disabled athletes, more time is needed for skills to be achieved, practised and developed to maximum ability.

Every athlete has a unique style regardless of ability. The only difference likely to be that disabled athletes may progress at a slower rate and may need drills to be broken down into smaller parts.

As the athlete progresses, gets stronger and more functional there may be the need for more specialised equipment to aid athletic performance. Such equipment would include the use of a bespoke racing wheelchair that works with athlete function to assist with the pushing action.

Introductory guidelines on seating position and racing chair choice will be included in this document.
Coaching Wheelchair Racing Track & Road – an introduction

Wheelchair Track and Road events include:
- 100m
- 200m
- 400m
- 800m
- 1500m
- 5000m
- 10000m
- 4x400m relay
- Marathon
- Half Marathon
- Mini marathon (junior athletes)

The athlete impairments/classifications associated with Wheelchair Racing – Track and Road are:

<table>
<thead>
<tr>
<th>Impairment</th>
<th>Classification</th>
<th>Recommended Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cerebral Palsy (or similar)</td>
<td>T32, T33, T34</td>
<td>100m, 200m, 400m</td>
</tr>
<tr>
<td>Spinal Injury</td>
<td>T51, T52</td>
<td>100m, 200m, 400m</td>
</tr>
<tr>
<td></td>
<td>T53 (N.B. Events over 800m T53 athletes will compete as T54s)</td>
<td>100m, 200m, 400m, 800m, 1500m, 5000m, 10,000m, Marathon, Half Marathon</td>
</tr>
<tr>
<td>Spinal Injury and / or Lower Limb loss</td>
<td>T54</td>
<td>100m, 200m, 400m, 800m, 1500m, 5000m, 10,000m, Marathon, Half Marathon</td>
</tr>
</tbody>
</table>

Paralympic Pathway events for wheelchair racing can be found [here](#).
Coaching Wheelchair Racing – Getting Started

Beginner athletes interested in wheelchair racing can use their day chairs if a racing chair is not available. Generic wheelchair agility and speed drills can be conducted from a day chair. Examples drills might include:

- Short, fast sprints (30m)
- Sprint relays
- Weaving in and out of cones

It is likely a beginner athlete will start initially in a borrowed or low cost racing chair that a club may have acquired or purchased. Additional straps and cushioning may be required to fit the athlete to the racing chair to improve stability and comfort. Both England Athletics and British Athletics can help signpost new athletes to local clubs with chairs and suitable introductory events.

For a list of England Athletics Wheelchair Racing Start-Up Groups who have equipment for beginners to get started click here
Coaching Wheelchair Racing – Getting Started

When the athlete shows commitment to the event it will then be necessary to source a personal racing chair. Details on funding and some of the leading racing chair manufacturers can be found in the England Athletics Equipment and Funding Guidance document by clicking here.

Each racing wheelchair is bespoke to the athlete who will need to be measured up to ensure the chair fits correctly.

The main design characteristics of a racing wheelchair are:

- Cage
- Wheels
- Compensator

Push rim—used by athlete to move the chair

Cage — made to measure according to athlete body measurements

Compensator — used for steering purposes

2x large rear wheels with axle between

1x small front wheel
Coaching Wheelchair Racing – Getting Started

Beginner athletes may need assistance transferring into an out of their racing chair, with helpers to hold down the front of the chair to prevent tipping backwards.

**Key pointers** for transferring into a racing wheelchair

- Ensure day chair is close to racing chair, with brakes on.
- Keep weight forward.
- Use wheel guards to lift and support (not push rims).
- Transfer from side to side (pivot) or forwards (sliding) with front wheel lifted up.
- If kneeling in racing chair, transfer is nearly always from the side and both legs need to be across before transferring. Shoes are not usually worn when kneeling.
- If using a footrest, one or both legs should be in position first before transfer.
- Wear appropriate clothing to be able to fit into the racing chair, i.e. leggings and tight fitting long sleeve top.

Athletes should be encouraged to transfer independently once they are confident and understand the requirements.

It is possible that T51 athletes may need assistance all the time.

Further information on transferring can be found [here](#) and [here](#).
## Basic Design Characteristics of Racing Wheelchairs

<table>
<thead>
<tr>
<th>Component</th>
<th>Image</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cage</strong></td>
<td>![Cage Images]</td>
</tr>
</tbody>
</table>

This is the seat of the racing chair and is fitted with a sling into which the athlete kneels/sits. The width of the cage is custom made and takes into account the hip and shoulder widths of the athlete. The cage is often designed so that the wheels are cambered (angled in from ground to seat). This increases chair stability especially going around bends and allows athlete to sit lower in cage without compromising reaching the push rim. Most common camber is 11 – 13 degrees.

| **Wheels** | ![Wheels Images] |

Racing chairs have 1 small front wheel (standard 20” tyre) and 2 large rear wheels (standard 26” tyre for women/children or 28” tyre for most adults/elite athletes). Both rear tyres are fitted with a single push rims which the athlete uses to propel the chair. There are a variety of rear wheels (pictured) including spokes, tri or quad spokes carbon fibre or disc wheels. Beginner and younger athletes can use smaller wheels if necessary.
## Basic Design Characteristics of Racing Wheelchairs

**Component**

**Steering/Compensator**

This is the steering mechanism of the racing chair. It is used for setting the steering heading into bends and straight in track races so athletes can concentrate on pushing in a straight line.

Settings are specific to each individual track, allocated lane (i.e. 200m and 400m), speed, dominant arms etc.

Athletes are allowed to push a lap of the track before their race, to set their compensators accordingly. Controlling the compensator is a technical skill in itself, and should be practised during technical sessions.

Also used for cornering in road races.

There is also a brake.
Wheelchair Racing – Other Equipment

Gloves

Gloves are needed when making contact with the push rim. Beginners can make use of gardening/cycling gloves initially but are encouraged to purchase custom made gloves. Experienced racers often end up making their own hard gloves.

Helmet

Must be commercially available and cycling helmets are the most commonly used. Compulsory for athletes to wear in all track and road races.

Rollers

Rollers are useful for training purposes when the weather is too bad to train outdoors. Manufactured rollers are available. Some rollers allow for adjustments for resistance / over-speed training.
Wheelchair Racing – Basic Technical Models

This involves the seating position of the athlete in their racing chair. The exact seating position varies between athletes and is largely determined by athlete comfort, preference and impairment restrictions.

There are two types of seating positions:

- **Kneeling** – Athlete’s legs are positioned so feet point behind back of racing chair. The athlete can actually sit on their knees or they can fit between the underside of the cage and the axle.
- **Sitting (feet down)** - Athlete is positioned with legs and feet facing towards the ground.

<table>
<thead>
<tr>
<th>Basic Technical Model</th>
<th>Functional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Kneeling</strong></td>
<td>Generally considered the better body position as more aerodynamic and favours a more powerful pushing position. Preferred position for paraplegic athletes (T53, T54), higher functioning quadriplegic athletes (T52), CP athletes (T33, T34) with minimum spasticity and those with excellent upper body strength.</td>
</tr>
<tr>
<td><strong>Sitting (feet down)</strong></td>
<td>Those athletes that experience transfer or breathing difficulties or excessive spasticity (some CP athletes) in a kneeling position might be more suited to a seating position. Generally used more by quadriplegic athletes with less function (e.g. T51) and athletes with severe spasticity (e.g. T33, T34). Leg amputee athletes may also prefer to kneel due to comfort issues.</td>
</tr>
</tbody>
</table>
Wheelchair Racing – Basic Technical Models

The table below details the basic technical models that each of the classifications may choose to use:

<table>
<thead>
<tr>
<th>Impairment</th>
<th>Classification</th>
<th>Basic Technical Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cerebral Palsy (or similar)</td>
<td>T32, T33, T34</td>
<td>Kneeling Sitting</td>
</tr>
<tr>
<td>Spinal Injury (quadriplegic)</td>
<td>T51, T52</td>
<td>Kneeling Sitting</td>
</tr>
<tr>
<td>Spinal Injury (paraplegic)</td>
<td>T53, T54</td>
<td>Kneeling Sitting</td>
</tr>
<tr>
<td>Lower Limb Loss (or similar)</td>
<td>T54</td>
<td>Kneeling Sitting</td>
</tr>
</tbody>
</table>
Wheelchair Racing – Seating Position

Obtaining a correct seating position is essential to the athlete in generating optimum power onto the push rim.

The main considerations of the seating position include:
- Knee height
- Shoulder position in relation to rear wheels
- Arm position in relation to push rims
- Arm position in relation to compensator (steering)

<table>
<thead>
<tr>
<th>Seating position</th>
<th>Coaching considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knee height</td>
<td>The best streamlined position is for the athlete to be as low as possible in the racing chair, and to be able to reach the bottom of the push rim with extended arms. Streamlined positioning will be dictated by athlete function, with those with full abdominal and back function (T33, 34, T54) being able to lift up from lower positioning. Lower functioning athletes (T51, T52) are more likely to have their knees in a higher position so the athlete can rest on them during the push technique. T51 and T52 athletes do not have abdominal and back function so will not be able to raise up from lower more streamlined positions.</td>
</tr>
</tbody>
</table>
## Wheelchair Racing – Seating Position

<table>
<thead>
<tr>
<th>Seating position</th>
<th>Coaching considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Shoulder position – rear wheels</strong></td>
<td>Athlete shoulders should be positioned 1-2 inches in front of the push rim. This will allow for a more powerful catch position at the 1 o’clock position.</td>
</tr>
<tr>
<td><strong>Arm position – push rims</strong></td>
<td>Arms should be in extension but with a slight bend in the elbows at the bottom of the push rim (6 o’clock position). The athlete’s height can be adjusted to allow for this arm positioning by using foam or cushioning within the sling.</td>
</tr>
<tr>
<td><strong>Arm position – steering</strong></td>
<td>Athlete needs to be able to easily reach the compensator for steering and safety purposes. Consider a shorter frame length if reach is an issue</td>
</tr>
</tbody>
</table>
Wheelchair Racing – Seating Position

Seating position may change over time, once the athlete has mastered the push technique and may also due to physical changes in the athlete.
Wheelchair Racing – Push Technique

There are 5 main phases to the push technique:
• Catch (or contact) phase
• Drive (or push) phase
• Release phase
• Lift & Stretch phase
• Acceleration (or drive) phase

Technical Model Analysis – Push Technique

Catch                Drive               Release            Lift & Stretch      Acceleration

More information on the Push Technique can be found [here](#)
## Wheelchair Racing – Push Technique

<table>
<thead>
<tr>
<th>Seating position</th>
<th>Coaching considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Catch (or contact) phase</strong></td>
<td>Push begins with hand in clenched fist position with wrist flexed to thumb side. Contact with push rim made between 1 &amp; 2 o’clock.</td>
</tr>
<tr>
<td><strong>Drive (or push) phase</strong></td>
<td>In push phase base of thumb is squeezed against tip of index finger. Thumb rides around outside of push rim. Arms moving to forcefully squeeze onto push rim using arm &amp; chest muscles. Contact with push rim from 1 – 2 o’clock to 6 – 7 o’clock.</td>
</tr>
</tbody>
</table>

If athlete is seated incorrectly (too far forward or back) both catch and drive phases will be compromised resulting in reduced force being applied to the push rim.
## Wheelchair Racing – Push Technique

<table>
<thead>
<tr>
<th>Seating position</th>
<th>Coaching considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Release phase</strong></td>
<td>Stroke ends with tips of fingers riding around bottom of push rim.</td>
</tr>
<tr>
<td><strong>Lift &amp; Stretch phase</strong></td>
<td>Elbows are lifted up and behind the shoulder.</td>
</tr>
<tr>
<td></td>
<td>N.B. T51 athletes do not have triceps function and will be unable to lift and stretch their arms. They have a modified technique which involves keeping their hands on the push rim at all times.</td>
</tr>
<tr>
<td><strong>Acceleration (or drive) phase</strong></td>
<td>When shoulders are extended, power &amp; speed builds in the hands to enhance the force of catch &amp; drive phases</td>
</tr>
</tbody>
</table>
# Wheelchair Racing – Examples of Common Faults

<table>
<thead>
<tr>
<th>Common Fault</th>
<th>Correction</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gripping with hands or unable to hold fist</strong></td>
<td>Using glove with tabs.</td>
</tr>
<tr>
<td><strong>Pushing with thumbs</strong></td>
<td>Point thumbs forwards and then down during drive phase.</td>
</tr>
<tr>
<td><strong>Pushing to 3°/c (and not to 6 or 7°/c) with hands going forward during recovery without backward extension / recovery</strong></td>
<td>Athletes are using day chair pushing technique / pushing on top of rims.</td>
</tr>
<tr>
<td><strong>Not pushing to or through 6°/c</strong></td>
<td>Seating position is incorrect. Wheels or push-rim too large, chair too wide etc. Coming up with shoulder/trunk too early i.e. before release and extension</td>
</tr>
<tr>
<td><strong>Front wheel bouncing</strong></td>
<td>Seating position is incorrect (too far back/too high). Excessive trunk movement. Coming up too soon with shoulders (before 6°/c).</td>
</tr>
<tr>
<td><strong>Athlete struggling to maintain direction.</strong></td>
<td>Ensure front wheel is on ground at all times so compensator can be used.</td>
</tr>
</tbody>
</table>
## Drills for Wheelchair Racing – Track & Road

Each of the drills below are for practicing and cementing the push technique. As with all skill learning it is important that good technique is emphasised at all times.

<table>
<thead>
<tr>
<th>Beginner - Technique Drills</th>
<th>Description</th>
<th>Coaching Considerations &amp; Functional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>One arm drills</strong></td>
<td>Practise on straights only. Using one arm at a time, work through all the phases of the push technique. Alternate arms. A double armed push action should be used into and around the bends.</td>
<td>Lower functioning (T51 and T52) and CP athletes (T33, T34) may find one arm drills more challenging due to lower strength levels and co-ordination issues. Limit time spent doing one arm drills if necessary.</td>
</tr>
<tr>
<td><strong>One arm extension</strong></td>
<td>Practise on straights only. This drill emphasises the lift &amp; stretch phase particularly. Usually used in a general preparation phase as encourages a slower push action due to the focus on extension.</td>
<td>Intersperse with double arm action on the bends. Work both arms equally. Look out for flexibility issues in the shoulders and pectorals. T51 athletes will not be able to get into a lift &amp; stretch position due to no triceps function.</td>
</tr>
</tbody>
</table>
Drills for Wheelchair Racing – Track & Road

Each of the drills below are for practicing and cementing the push technique. As with all skill learning it is important that good technique is emphasised at all times.

<table>
<thead>
<tr>
<th>Beginner - Technique Drills</th>
<th>Description</th>
<th>Coaching Considerations &amp; Functional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fast arms</strong></td>
<td>Working through all phases of push technique but emphasising a fast arm action. This is related to the power of the athlete and can be used in wind assisted conditions.</td>
<td>Be aware of fatigue issues for low functioning and CP athletes. Provide plenty of rest or alternative activity if technique is failing due to fatigue.</td>
</tr>
<tr>
<td><strong>Alternate arms</strong></td>
<td>Practise on straights only. This drill is for focusing on the contact phase. It involves a boxing type action of both arms to contact arms onto the push rim.</td>
<td>A short, sharp, and powerful contact onto push rim needed. Emphasise rhythm of action. Some CP athletes may find the co-ordination and timing of this drill difficult.</td>
</tr>
</tbody>
</table>
Drills for Wheelchair Racing – Track

Each of the drills are specific to racing on the track taking into account the bends and straights.

<table>
<thead>
<tr>
<th>Wheelchair Track Drills</th>
<th>Description</th>
<th>Coaching Considerations &amp; Functional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cornering</strong></td>
<td>This involves reaching for the compensator to set it for entering bends and straights. Aim is to maintain speed throughout the transitions. Consider also reverse 200m’s, starting on straight and entering bend at top speed.</td>
<td>Athletes with co-ordination issues will find this challenging so start at low speed. Emphasise smooth, decisive transitions and timing – not anticipating. Ensure correct hand is used, and learn to use ‘free’ hand to put in ½ push.</td>
</tr>
<tr>
<td><strong>Starts</strong></td>
<td>Individual practice of the start. Including setting front wheel on start line, and all aspects of “on your marks, set and go”.</td>
<td>Keeping front wheel down is essential. Athlete should not lift excessively with the shoulders and avoid pushing from too high. Timing can be an issue. Start pushes should be short and punchy, not long and slow. Ensure that beginners check compensators beforehand (common mistake).</td>
</tr>
</tbody>
</table>
## Drills for Wheelchair Racing – Track

Each of the drills are specific to racing on the track taking into account the bends and straights.

<table>
<thead>
<tr>
<th>Wheelchair Track Drills</th>
<th>Description</th>
<th>Coaching Considerations &amp; Functional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Drafting</strong></td>
<td>Important for races of 800m and above. Athlete tucks in behind another athlete to take benefit of drafting effect. Can also be used for speed training.</td>
<td>Athletes take it in turns to lead group. Athlete to maintain speed with minimal effort when taking advantage of draft effect. Also gives them time to look around at other athletes and race situations. May not be suitable for T51s, and/or T52s to lead pack if unable to push at faster rate</td>
</tr>
<tr>
<td><strong>Sprinting</strong></td>
<td>Sprints of varying distances (dependent on event) with emphasis on getting to top speed. Include the use of tailwinds and flying starts.</td>
<td>Be aware of fatigue issues for low functioning and CP athletes. Provide plenty of rest or alternative activity if technique is failing due to fatigue.</td>
</tr>
<tr>
<td><strong>Rain</strong></td>
<td>Being prepared for racing and training in rain – adapting technique, experimenting with gloves and resins for additional friction.</td>
<td>Gloves will slip if not suited or prepared for rain. If pushing technique has minimal surface area or poor contact angles then likely to have slipping issues too.</td>
</tr>
</tbody>
</table>
## Wheelchair Racing – Beginner Programmes for Track

<table>
<thead>
<tr>
<th>Session 1 – Basic Pushing Technique/Baseline fitness development</th>
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<tbody>
<tr>
<td><strong>Activity</strong></td>
</tr>
<tr>
<td><strong>Warm-up</strong></td>
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<tr>
<td><strong>Pick-Ups</strong></td>
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<tr>
<td><strong>Starts</strong></td>
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<tr>
<td><strong>Main session</strong></td>
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<td><strong>Cool Down</strong></td>
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</table>
## Wheelchair Racing – Beginner Programmes for Track

### Session 2– Technique drills

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<th>Coaching and functional considerations</th>
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<tr>
<td></td>
<td>2-3 laps general pushing</td>
<td></td>
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</table>

<table>
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<tr>
<th>Main session</th>
<th>Activity</th>
<th>Coaching and functional considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2-3 laps Revise one arm drills</td>
<td>One arm drills on straight only. Reduce distance/time spent on one arm if athlete is weak and/or fatigued.</td>
</tr>
<tr>
<td></td>
<td>1 lap general pushing for recovery</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3-4 laps one arm extensions</td>
<td>One arm extensions on straight only. Limited range suggests tightness in shoulders and pectorals. Incorporate specific stretching into warm-up and cool-down.</td>
</tr>
<tr>
<td></td>
<td>2-3 laps slow general pushing</td>
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<tr>
<td></td>
<td>1 lap: 100m on, 100m recovery</td>
<td>Re-emphasise the technical aspects of the push technique</td>
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</table>

<table>
<thead>
<tr>
<th>Cool Down</th>
<th>Activity</th>
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</table>
## Wheelchair Racing – Beginner Programmes for Track

<table>
<thead>
<tr>
<th>Session 3 – Speed</th>
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<tbody>
<tr>
<td><strong>Warm-up</strong></td>
<td>2-3 laps general pushing</td>
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<tr>
<td><strong>Pick-Ups</strong></td>
<td>3-4 x 80m rolling (with 300m recovery)</td>
<td>Gradual accelerations with good technique (i.e. Strides). Use wind behind where possible.</td>
</tr>
<tr>
<td><strong>Main session</strong></td>
<td>Starts 10-30m x 4</td>
<td>Recommend starts at beginning of session when fresh. Especially for CP athletes.</td>
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<tr>
<td></td>
<td>2-3 laps Revise one arm drills</td>
<td>One arm drills on straight only.</td>
</tr>
<tr>
<td></td>
<td>Rolling 40-60-80m sprints x 6</td>
<td>Continuous around track – building up speed.</td>
</tr>
<tr>
<td><strong>Cool Down</strong></td>
<td>2 laps</td>
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Wheelchair Racing – Examples of Best Practice

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<th>Impairment</th>
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<td>T34 Female 100m</td>
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<tr>
<td>Spinal Injury (quadriplegia)</td>
<td>T51 Male 200m</td>
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<tr>
<td></td>
<td>T52 Male 100m</td>
</tr>
<tr>
<td>Spinal Injury (paraplegia)</td>
<td>T54 Male 100m</td>
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<tr>
<td></td>
<td>T54 Male 5000m</td>
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<tr>
<td>Limb Loss (or similar)</td>
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<tr>
<td></td>
<td>T54 Female 100m</td>
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<tr>
<td></td>
<td>T54 Female 800m</td>
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Impairment specific factsheets from Sports Coach UK can be found [here](#).
## 7.1 Paralympic Pathway Events – Seated Throws

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<td>Club* (F31/32)</td>
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<td>Discus* (F51/52) Club</td>
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*Indicates a combined class competition i.e. where 2 classes compete in the same competition. No points score to be used, with longest thrown distance winning the competition.

[Back to Coaching Seated Throws] [Back to Paralympic Pathway]
### 7.2 Paralympic Pathway Events — Wheelchair Racing — Track and Road

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</table>

*Indicates a combined class competition i.e. where 2 or more classes compete in the same competition. No points score to be used, with first athlete across the finish line winning the competition.
### 7.3 Seated Throws – Implement weights

**For athletes with Cerebral Palsy (or similar)**

<table>
<thead>
<tr>
<th>Class</th>
<th>Age Group</th>
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<th>Shot</th>
<th>Javelin</th>
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[Back to Coaching Seated Throws](#)
# Seated Throws – Implement weights

For athletes with Spinal Injury (quadriplegia)

<table>
<thead>
<tr>
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<th>Age Group</th>
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<th>Shot</th>
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[Back to Coaching Seated Throws]
Seated Throws – Implement weights
For athletes with Spinal Injury (paraplegia)

<table>
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Back to Coaching Seated Throws
Seated Throws – Implement weights
For athletes with Lower Limb Loss (or similar)

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Back to Coaching Seated Throws
7.4 Useful Links

- England Athletics
- British Athletics Parallel Success
- International Paralympic Committee (IPC)
- IPC Athletics
- Paralympic Sport TV
- Sports Coach UK Impairment Specific Factsheets
- uCoach disability pages

Seated Throws Specific

- Para Shot Project
- Remap
- Seated Throws Funding Resource

Wheelchair Racing Specific

- World’s First Wheelchair Racing Qualification!
- Bromakin (UK)
- Draft (UK)
- Top End (USA)
- Sportaid (USA)
- Motivation (UK)
- Equipment and Funding Document – Wheelchair Racing