

## Manual Wheelchair Set Up Guide

Choose frame of wheelchair: recliner/ tilt-in-space/ folding frame/ rigid frame.

### Considerations:

- Fatigue
- Orthostatic hypotension
- Independence and ability to self-propel
- Type of transfer (hoist, horizontal pivot or stand transfer)

### Measurements:

- Hip width \_\_\_\_\_ (from GT (Greater Trochanter) to GT)
- Thigh length \_\_\_\_\_ (GT to Femoral condyle).
- Lower limb length \_\_\_\_\_ (popliteal fossa to calcaneus)
- Trunk width \_\_\_\_\_ (axilla to axilla)

### Match patient dimensions to size of wheelchair:

- Seat width \_\_\_\_\_
- Seat depth \_\_\_\_\_ (3-5cm finger gap between front seat edge and individual's knee with bottom back against backrest)
- Seat to footplate height \_\_\_\_\_
- Front seat height \_\_\_\_\_
- Rear seat height \_\_\_\_\_
- Back height \_\_\_\_\_

### Add in basic accessories:

- Backrest (if required): type \_\_\_\_\_; size \_\_\_\_\_.
- Other accessories: anti-tippers / side guards / arm rests / head rest / wheel lock extensions/chest strap/heel strap / adjustable back upholstery etc

### Adjust the chair

- Footrest height (thighs should be well supported on the cushion)
- Angle and/or height of footplates
- Squeeze – seat to back angle
- Rake – the differences between the front and rear seat height
- Angle of backrest
- Position of axle/back wheels and degree of camber (ease of propulsion, ease of tipping)
- Position of wheel locks, addition of extensions etc
- Armrest height

Please note: an appropriate pressure redistribution cushion should always be used on the wheelchair (refer to Posture and Seating handout).

## Features of the wheelchair

### Wheel size

- The standard wheel size for a manual wheelchair is 24".

### Castor size

- The size of the castor affects comfort and the amount of effort needed to propel. Smaller/thinner castors are more easily caught on uneven surfaces and larger/wider castors decrease manoeuvrability of the wheelchair.

### Camber

- This is used to make propulsion easier, particularly for individuals with impaired upper limb function.

### Pneumatic vs solid tyres

- Pneumatic tyres provide shock absorption and therefore a more comfortable ride but require maintenance and can be punctured.
- Solid tyres are maintenance free but can be less comfortable on rough terrain.

### Armrests vs side guards

- Armrest can be used for comfort, to assist with positioning or transfers. Sideguards will protect clothing from being caught in the tyres or the cushion moving during transfers. They allow for a more efficient propulsion.

### Tray tables

- These are other devices that can be added to assist for positioning and comfort.

### Push handles

- May be required for an attendant to be able to assist with mobility and obstacle negotiation.

### Anti-tippers

- These are recommended for new wheelchair users for safety but can be removed from the wheelchair to teach higher level wheelchair skills.

### Wheel lock extensions

- There are different styles of wheel locks for manual wheelchairs and wheel lock extensions can be used to assist the user in independently applying and removing their wheel locks.

## Resources

[Education in Motion | Sunrise Medical](#)