

# A Guide to Selecting Manual Wheelchairs



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Assistive technology (AT) is a piece of equipment, device or system that provides people with practical solutions to everyday life activities. You can search our National Equipment Database [www.askned.com.au](http://www.askned.com.au) to view a range of products online.

Manual wheelchairs are designed for those who are only able to walk very short distances, or unable to walk at all. They allow you to access your local community, and remain independent in your own home, nursing home or retirement village.

## Type of Manual Wheelchairs

### Folding

Folding wheelchairs are easier to put in the car for outings and for transport. They are generally heavier.

### Rigid

Rigid or fixed frame wheelchairs are stronger, lighter and easier to self-propel. They have quick-release wheels for transport.

## Propulsion Methods

### Self-propelled

Have large wheels at the back of wheelchair so you can propel yourself using the push rims (handles on wheels). The rear wheels are generally removable via a quick-release axle to help with transport and storage.

### Transit

Have small rear wheels (approx. 30 cm in diameter) and are suitable if you cannot push yourself. They are easier to get into a car, but more difficult for the carer to push up curbs or over grass



## Other Propulsion Methods

If you cannot propel yourself in a standard manual wheelchair there are other options:

- **One Arm Drive** allows you to propel yourself using one hand. This method can cause additional strain on the upper limb.
- You may find it easier push yourself using your feet (foot propulsion). The seat height needs to be set at a height in which your feet are in contact with the ground.
- **Power assist devices** may be a suitable option if you find it difficult to propel over long distances.

## Standard wheelchair features

### Seat

Support for the user's body while seated. Made from materials like slung nylon upholstery or fully upholstered padding. Some wheelchairs have a solid seat for adding a specialised cushion.

### Armrests

Provide support for the user's arms and aid in transfers.

- **Height:** Can be adjustable to suit the user's posture and comfort.
- **Type:** Full-length armrests offer more support, while desk-length armrests allow the user to access tables or desks.
- **Removable:** Some armrests can be removed or flipped back to assist in transfers. Option of padded armrests for added comfort.

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## Backrest

Supports the user's back while seated.

- **Height:** Low backrests offer mobility, ideal for users needing independence, while high backrests provide more trunk postural support.
- **Adjustability:** Many backrests are height and angle adjustable. Some are removable or foldable for transport.
- **Material:** Canvas or fabric backrests are breathable, while solid backrests offer firm support.
- **Recline:** This feature is typically controlled by a lever or handle on the chair, and it allows the backrest to recline back by opening the seat to back angle. This provides a change in position and may increase comfort.
- **Tilt-in-space:** Allows the entire seating unit to tilt backwards, redistributing pressure and improving comfort without changing the user's relative position.
- **Headrests:** Offer additional head and neck support for users with limited head control. Headrests are required for users who remain seated in their wheelchair for transport.

## Leg rests

Provide support for the user's legs and help maintain good positioning.

- **Standard leg rests:** Fixed in place to provide basic support for the legs.
- **Swing-away leg rests:** These can be swung to the side to allow for easier transfers and access to the wheelchair. They can be removed for transport.
- **Elevating leg rests:** Allow the legs to be raised, which can help with circulation and comfort, particularly for users with oedema.

## Footplates

Positioned at the end of the leg rests to support the feet. Footplates can be a one-piece platform or two-piece to support each foot. Some have heel loops to keep the user's foot in position.

- **Adjustable footplates:** Height adjustable footplates and angle adjustable.
- **Flip-up footplates:** Fold up to ease transfers or access to the seat.

## Brakes

Stop movement of the wheelchair. Important consideration for user completing safe transfers:

- **Type of brakes:** Push-to-lock, pull-to-lock, attendant brakes to allow carer to apply.
- **Brake style:** Brakes should be easy to use for the user. Easy-to-reach brakes with extension levers for users with limited mobility and strength. Brakes with ergonomic handles can reduce strain for the user/caregiver.

## Accessories

Additional features that enhance the functionality, comfort, and convenience of the wheelchair.

### Safety accessories

Anti-tippers (to prevent wheelchair tipping back), spoke guards, and pelvic lap belt.

### Storage

Under seat bags and backpacks.

### Trays and Tables

Attach to the wheelchair to provide a stable surface for eating, writing, or other activities.

### Wheelchair Covers

Protect the wheelchair from weather or dust.

### Other

Oxygen bottle holder, cup holder, height adjustable push handles.

## Considerations

### Measuring for a Wheelchair

Properly sizing your wheelchair is crucial for comfort and posture. Key measurements include:

- Seat width and seat depth
- Seat-to-floor height and leg length (back of knee to bottom of foot)
- Backrest height
- Armrest height
- User weight and height

### User and carer needs

Consider the duration of seating and the type of

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cushion needed, as this affects the wheelchair's size and setup. For daily or long-term use, comfort is important. Ensure the wheelchair's load capacity is appropriate and that your carer can push it comfortably.

### **Environment**

Consider the distances you'll travel and the environments (home, workplace, shopping) where you'll use the wheelchair. Test its manoeuvrability and how easily it folds and fits in/out of a car. If you need to remain seated during transport, ensure the wheelchair is crash-tested (refer to our guide on 'Transportation of People Seated in Wheelchairs').

### **Postural Support**

If sitting upright is difficult, postural support can assist. Trunk and hip support can be integrated into the backrest or seat cushion or added separately.

### **Cushions**

Most wheelchairs come with a basic cushion. For long-term seating or if you have a history or risk of pressure areas, consider a specialised cushion.

### **Transfers**

Features like removable or swing-away footplates and flip-back armrests can make transfers easier. Always apply brakes when transferring in or out of the wheelchair.

### **Trials**

It's recommended to trial the wheelchair before purchasing to ensure comfort and suitability. Some suppliers offer in-store trials, while others may provide in-home trials or rental options.

### **Maintenance and support**

Account for warranty, servicing, and repair costs in your budget. Ensure local support is available for ongoing maintenance.

### **Professional advice**

With such a large range of wheelchairs and options available, it is a good idea to seek professional advice and arrange a product trial to ensure it will meet your needs.

Indigo can assist you in these areas by providing:

- Information on the range of wheelchairs and wheelchair features available, for both you and your carer.
- Allied Health Professionals to provide assessment, trials, prescription and training on manual wheelchairs.

Find out more about a wide range of helpful products and devices on NED, our National Equipment Database at [askned.com.au](http://askned.com.au). Need help with NED? Call our helpline on 1800 885 886.

Our experienced health professionals can also assist in providing strategies and advice on finding and using the right product for you. Call us on 9381 0600 or complete an appointment request form via our website at [www.indigo.org.au](http://www.indigo.org.au)

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