



# A Guide to Selecting Manual Wheelchairs

Assistive technology 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.**

## Factors to consider:

- Abilities and limitations of the user
- Abilities and limitations of the carer
- Environments that the wheelchair will be used
- Transport needs
- Budget

## Type of Manual Wheelchairs:

### Rear Wheel Drive

Have large wheels on the back and swiveling castors at the front. The rear wheels are generally removable via a quick-release axle to help with transport and storage. Push rims are usually metal, however, to assist.

### Transit

Have small rear wheels (approx 30cm in diameter) and are ideal for those that cannot push themselves. Transit wheelchairs are also useful if the person in the wheelchair is likely to injure themselves or their carer by grabbing the wheel. They are easier to get into a car, but more difficult for the carer to push up curbs or over grass.

### One Arm Drive

Allow you to propel yourself using one hand by either:

- A push-pull lever action, or
- Two push rims located on one side of the chair, with the inner rim attached to the opposite wheel.

### Amputee set up

Accommodates for the change in the center of gravity of a person with an amputation. Other accessories such as a stump support are also available.

# A Guide to Selecting Manual Wheelchairs

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## Reclining Back

Increases the angle between the hip and back, allowing you to lie back in the wheelchair.

## Tilt-in-Space

Changes the person's orientation, without changing their hip to back angle.

## Measuring for a Wheelchair

Purchasing the correctly sized wheelchair is critical for the comfort and posture of both you and your carer. Measurements that should be taken include:

- Seat width, depth and height
- Armrest height
- Backrest height
- Footplate to seat
- Push handle height



## Standard Wheelchair Features

### Frame

Can be fixed or rigid, which is strong and efficient for the self-propeller, or folding which is easier to transport.

### Upholstery

This can be slung upholstery made of a material such as nylon. Other chairs can be fully upholstered like a car seat or offer an upholstered backrest with a solid seat on which a specialised cushion can be placed.

### Armrests

These may be full length or desk-style (enabling the user to get closer to a table). Can be removable, flip-up or height adjustable.

### Brakes

It is important that the brakes on a wheelchair are easily activated. Different styles are available to suit people with different abilities (for example brakes that push on, brakes that pull on, ones that are mounted down low on the wheelchair, or that swing out of the way under the seat).

Extension levers are available to make it easier for someone who has reduced strength or reach to apply the brakes.

### Footrests

Footplates can be single or in two pieces. They can be height adjustable, swing-away, removable or fixed. Some leg rests are able to be elevated.

# A Guide to Selecting Manual Wheelchairs

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## Front Castors

Larger castors make it easier to go over uneven terrain but require more effort to change direction. Smaller castors make it easier to change direction but are more suited to smoother terrain. Suitable if you can easily lift the front of the wheelchair from the ground whilst self-propelling.

## Rear Tyres

- **Pneumatic tyres:** Air-filled, providing a cushioned ride. More prone to punctures and you will need to check the air pressure regularly.
- **Puncture-proof tyres:** Similar to pneumatic tyres in that they provide a cushioned ride but instead of air they can be filled with foam, plastic or a rubber insert. Be aware that this will increase the weight of the tyre.
- **Solid tyres:** Easier to propel over a smooth surface but do not provide much shock absorption over an uneven surface, meaning a rougher ride for the user. Require minimal maintenance.
- **High-pressure sports tyres:** Very little tread and have less rolling.

## Postural Support

If you have difficulty sitting upright, postural support can be helpful. Support for the trunk and hips can form part of the backrest or seat cushion shape. Alternatively, this can be added on separately.



## Back Rests

These are designed to support your trunk and can vary in height depending on the functional ability of the wheelchair user.

Styles can vary (fixed, removable, folding or height-adjustable) as can the materials used (slung, tension-adjustable or solid).

Users with poor sitting balance may need a higher backrest than users with good upper body strength. It is important that the height of the back rest on a self-propelling wheelchair does not affect the ability of the user to propel the rear wheels.

## Head Rests

If you require head and neck support, a head rest can be mounted to the top of a back rest.

## Camber (angle of the rear wheel)

Increasing wheel camber involves setting the rear wheel so that the top is angled inwards towards the wheelchair user whilst the bottom is angled away from the chair. This increases the base width of the chair making it more stable and easier to maneuver. However, this can also make it harder to get through doorways or narrow corridors.

## Cushions

Most wheelchairs will come with a basic cushion. If you will be spending long periods of time in a wheelchair or have a history/risk of pressure issues it may be worth considering a better-quality cushion.

It is best to take into account the type of cushion that will be needed at the time of purchase, as it will have an impact on the size and set up of the wheelchair.

# A Guide to Selecting Manual Wheelchairs

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## Considerations

### Environment

Consider the distances to be travelled, and the type of environment in which the wheelchair will be used. In particular, how easy it will be to maneuver the chair around your home, workplace and local shopping areas.

Be aware that some floor coverings such as high pile carpet as well as outdoor terrain (steep inclines, uneven ground and sand etc.) may reduce your ability to self-propel.

A powered mobility device may be a more suitable option in some cases.

### Transfers

Certain features can make wheelchair transfers easier. For example, footplates that can be flipped up and removed or swung away, or arm rests that can be removed or flipped back.

Remember that brakes should always be applied when transferring on or off a wheelchair.

### Maintenance and support

Is local support available for servicing, maintenance and repair?



**Indigo has a large range of equipment on display and products available to trial. Our experienced health professionals can provide strategies and advice on the right product for you. Please contact us using the details below for further information or to book an appointment. Appointments can be conducted by phone, email, face-to-face or video call.**

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