



MANUAL WHEELCHAIR PARTS INFORMATION SHEET

Understanding the different parts of a manual wheelchair is important for selecting the right model, performing routine maintenance, and ensuring maximum comfort and efficiency during use.

This factsheet provides a detailed overview of the key parts of a manual wheelchair, including their functions and significance. Whether you're a wheelchair user, healthcare professional or supporting someone living with spinal cord injury (SCI) this information will help you make informed decisions about customisation, adjustments, and repairs.

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TYPES OF MANUAL WHEELCHAIR

There are two main frame types for a manual wheelchair: rigid or folding frame.

Rigid frame



A rigid frame wheelchair is unable to be folded in half. It usually has a box style frame and the backrest can be collapsed down. It is often recommended for full time, active wheelchair users.

Pros

- Generally lighter weight due to fewer moving parts.
- Will last longer (due to lack of moving parts)
- Easy to lift into and out of a car

Cons

- Often more expensive
- Takes up more space when stored

Folding frame



A folding frame wheelchair typically has a cross brace, 'X' design so it can be folded in half (see image above). It's mostly recommended for part-time wheelchair users.

Pros

- Folds flat for easier storage.
- Allows for swing away footrests which can make standing from the chair easier

Cons

- Moving parts and cross brace add weight to the wheelchair
- Difficult for user to lift wheelchair into and out of car

Back rest

A fabric backrests comes as standard but a 'tension adjustable' is better. This can be tightened/loosened for better support. Specialist moulded backrests are available for greater postural support and control (see accessories on page 5 and 6)

Push rim

There are designs which help to protect your hand and wrist from overuse. Some people prefer a closed in hand rim to stop their thumb/fingers from getting trapped between the rim and the wheel. This is particularly important if you have reduced sensation in your hands and fingers.

Rear wheel

Most rear wheels are 24" unless you are a child or taller than average. You can choose either solid or air filled tyres. Solid are easier to maintain but do not cushion on rough surfaces. Air filled tyres need to be changed if punctured but provide some cushion against rough terrain.

Hanger angle

The hanger is the front frame of the chair that holds the footrest up. The angle of this affects your foot position (behind your knees, below them or in front of them). Common angles are either 70, 80 or 90°. The angle you choose will affect the length of the chair and the space it takes to turn around. If you have tight muscles in the back of your legs, you may struggle to have your feet in front of you without making you slouch in your chair.





Front end

The front end can be:

- straight
- tapered or 'V' shape
- squeeze/'T' shape

You may choose different front end shapes depending on whether you need to support your lower leg position, or provide room to prevent skin marking.

Footplate

The footplate is there to support your foot position. They can be individual pieces or one solid bar or plate. Individual footplates can be flipped up. A bar or plate can be fixed or can also flip up out of place.

Front castor

They come in varying sizes and materials. The smaller the castor the easier to manoeuvre and change direction. However, it is also easier for the castor to get stuck in holes/uneven ground so you need to have good wheelchair skills to manage with these. Larger front castors can accommodate rough terrain more easily but are harder to turn quickly with.

OTHER ACCESSORIES

Armrest

Usually made from plastic and/or metal, they can be taken in and out or be flipped back behind the wheelchair when needed. They can provide support for a person who needs to stand up from their wheelchair. They can also help someone who has weak/no trunk muscles to maintain their posture when sitting by pushing through their arms. However, they do add to the weight of a wheelchair and may need removing for transfers or pressure relief, for instance.



Push handles

If you think you may need as assistance to push you in your wheelchair at any time then you might want to consider push handles. These can be integrated into the wheelchair or be attached to the frame. Some can be flipped down out of the way when not needed. Some are at a fixed height and some can be height adjustable.



Side/skirt guards

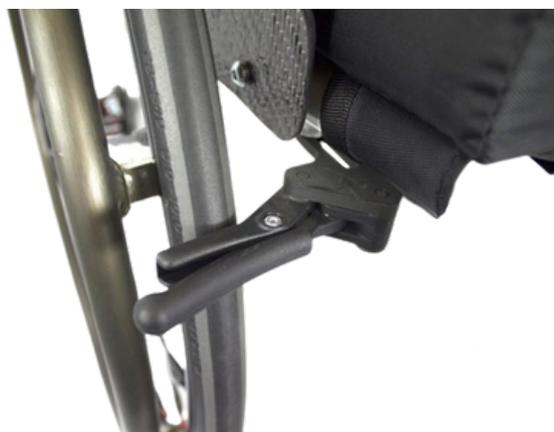
Usually made from plastic, these can help to maintain leg position and also protect your clothes from getting wet/dirty from the wheels. The downside is that they may need to be removed each time you transfer.



OTHER ACCESSORIES

Brakes

There are a number of types of wheelchair brakes, such as push-to-lock, pull-to-lock, and scissor brakes. Push and pull-to-lock brakes are operated by pushing or pulling a lever. Extension tubes can be added to these to help users with limited arm movement or poor balance. Scissor brakes sit under the frame, reducing the risk of injury during transfers. They need less force to use but require more reach and hand control.



Backrests

Your wheelchair will be provided with a standard fabric backrest. If you require more support, then you may be provided with a third-party backrest. This can help support any postural deformities, for example a scoliosis. They are more adjustable and can have additional supports added into them.



For more information, visit our [Travel Hub](#) or contact us at:

Spinal Injuries Association, SIA House, 2 Trueman Place, Oldbrook, Milton Keynes, MK6 2HH

e: travel@spinal.co.uk t: 0800 980 0501 (freephone support line: Monday - Friday 10.00am-4.00pm)