

Wheelchair and Seating

Basic Considerations

Seat Depth = the length of the seat

- This part of the wheelchair is important so your legs are supported well.
- If too short your legs may move apart too much and not give you enough support
- If too long, the seat may irritate the back of your knees.



Seat & Back Width

- The back should not be too tight (it will be uncomfortable and could cause skin irritation)
- *If it is too wide, it will not give you enough support*



Hip Position

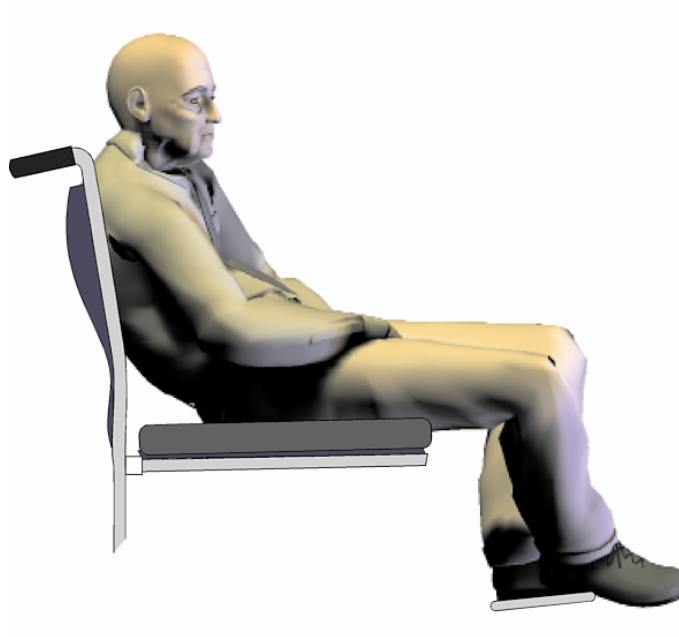
If your hips are not positioned well, it might be hard to use your arms and it could make you tired.

Basically, your hips are the base of your support when you are sitting, it is important to know what the best position is for you to be as independent as possible.

Different Hip positions on the next few slides



Sitting back (posterior)



This posture makes it difficult to use your arms, breath and look up.

Sitting with one side of your hip up and the other down can cause scoliosis

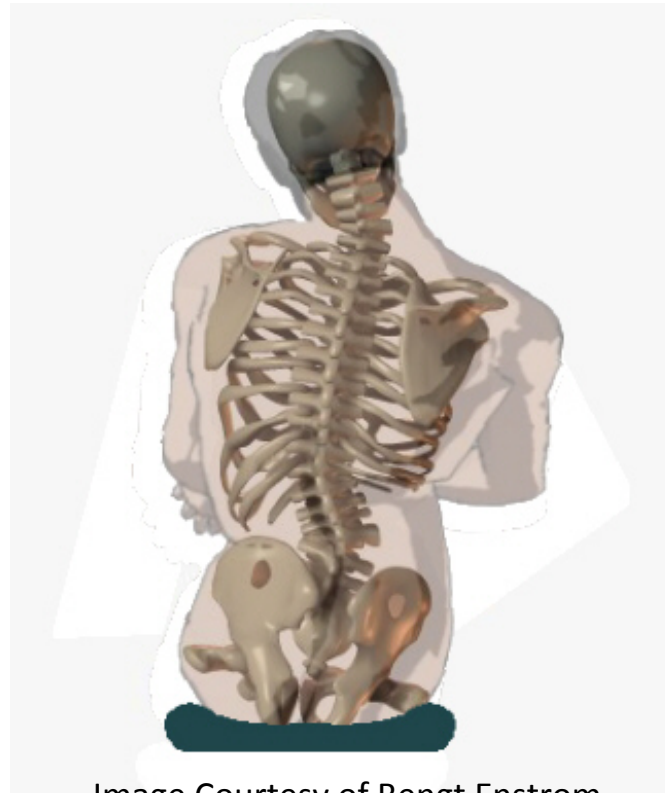


Image Courtesy of Bengt Enstrom

- This posture can make it difficult to use your arms

Slumped forward



- This posture can make it difficult to breath, look up and use your arms well.

Common Seat Cushion Requirements

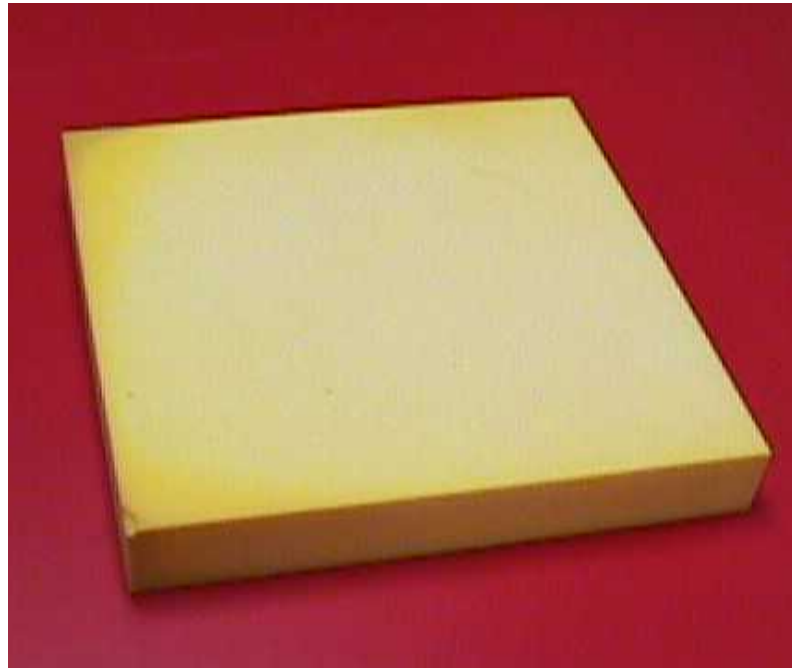
- Easy to transfer on and off
- Comfortable
- Not too heavy
- Easy to Use / Maintain
- Stability
- Help to avoid pressure sores

See different types of cushions



Flat Foam Cushion

- Good stability
- Offers little pressure reduction
- May not be suitable for long-term use
- Low cost



Generically Contoured Foam

(General Use Cushion)

- Better Pressure reduction
- Foam density and stiffness must be considered
- Low cost



Generically Contoured Foam Cushions

- Provides more foam to match your unique shape
- May be difficult to slide on it during transfers
- Light weight



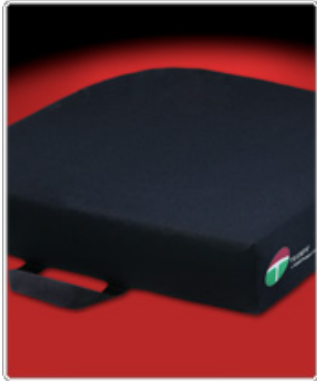
Skin Protection Cushion

- Can be used if you already have a pressure sore or history of a sore
- Light weight
- 4in tall
- Air filled
- May be difficult to slide during transfers
- You must keep air in it.



ROHO Single Valve High Profile

Skin Protection Cushions



ROHO Triumph

- You can review these different types of cushions with your wheelchair team.

Varilite Reflex



Viscous Fluid

- Good weight distribution
- Low shear – easy to move on
- Contours to your body
- You may have to kneed the fluid so you don't “bottom out”
- Can be heavy

Skin Protection & Positioning Cushion

- Combines stability of solid base & Viscous Fluid



Jay2 Deep Contour



Otto Bock Cloud

Air Filled Cushions

- Low weight
- Good immersion
- Good dynamic properties
- Absorbs impact & Vibration
- Reliability may be a problem
- Sensitive to initial inflation
- Instability issues

ROHO Air Cushion

- Interconnected flexible air chambers
- Equalizes pressure
- Insulates heat



Custom Fabricated Seat & Back Cushions

- The custom mold is done with a specialized machine and a seating professional.
- The seat and back are molded specifically to one's body shape.



Plastic Honeycomb Cushion

- Properties similar to precontoured foam
 - pressure distribution sensitive to fit
- Good dynamic properties
- Very light weight
- Ventilation qualities
- Moisture benefits



Leg-rests

- The leg-rest is in the front of the chair and positions your feet and legs.
- It is important to have proper support so you can sit as well as possible.
- You have choices about how and where your feet will be positioned

See different types of leg-rests



Foot/leg-rests



Feet under the chair



Feet neutral



Feet out front a little

More feet/leg-rests





Standard-type chair – feet out front



Tilt wheelchair

More feet/leg-rests





Power elevating leg-rests



Power elevating leg-rests

Wheelchair seat backs

You might need a low back or a high back. A low back will give you more room to move your arms, but has less back support. A high back will provide more support, but might limit your arm movement.

High back



Low back



Headrest

There are different types of headrests available. You and your team will determine which one works best for you. Here are some examples:



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