

# Manual Wheelchairs

- This module describes the basics regarding manual wheelchairs.
  - Components and set-up are discussed

# Standard Wheelchair

## Description:

- Heavy (more than 36 lbs.)
- Only comes in a few sizes
- Not adjustable
- Fabric seat and back
- Meant for indoor use only
- Typically a transport chair
- Low cost



# Standard Wheelchair

- Lower floor to seat height (17" to 18")
- Lighter weight (34-36 lbs.)
- Typically for short-term use



# High-Strength Lightweight

- A little lighter (less than 34 lbs)
- More sizes available
- Some adjustability



# Ultra-Lightweight Wheelchair

- Very light (20-30 lbs)
- Fully customizable to your body
- Quick release wheels



# Rigid Frame Ultralight

- Fabric and rigid backs and seats available
- Many frame designs
- Adjustable/custom to your body.
- Typically for active users



# Key Features of Ultralight Wheelchairs

- Durable
- The frame is adjustable and you can order a frame specific to your body dimensions
  - This type of wheelchair (when adjusted correctly) can provide postural support and help prevent pressure sores.
  - It is easier to push
  - It is lighter and can help prevent shoulder injuries.

# Heavy Duty Wheelchairs

- Heavy duty
  - Can be used for someone over 250 lbs.
    - Or severe spasticity
- Extra Heavy Duty
  - Can be used for someone over 350 lbs.
    - The wheelchair is heavy (100 lbs.)





# Other Manual Wheelchairs

- Adult Tilt
- Children size Tilt
- Pediatric tilt-n-space
  - folding or rigid frame
  - It can have special seating or not.

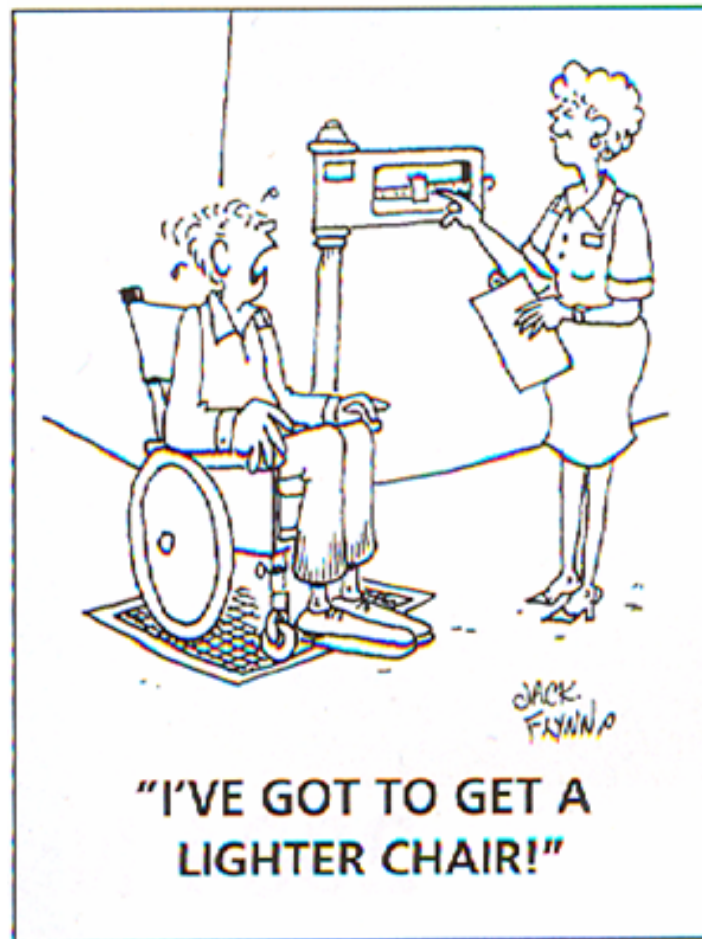


# Many MWC Options . . .



# Manual Wheelchair Configuration Recommendations

# Ultralights are the **ONLY** option for active, full-time users



# Rear Axle Position

- Moving axle forward
  - Brings seat “back”
  - Wheels closer to the front of the body
  - Can be more maneuverable, but could be tippy
  - A new user many want to start with the wheel further back



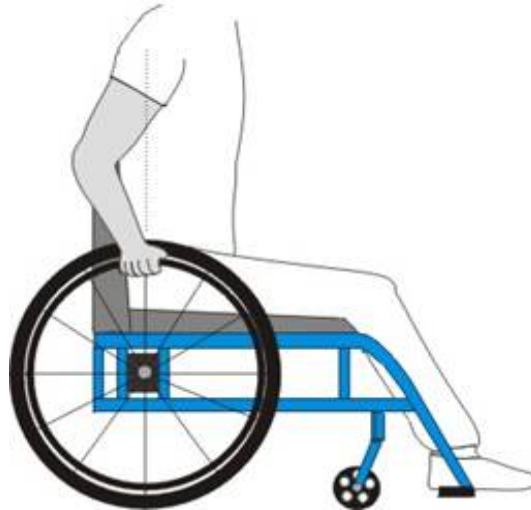


# Wheel position to hand

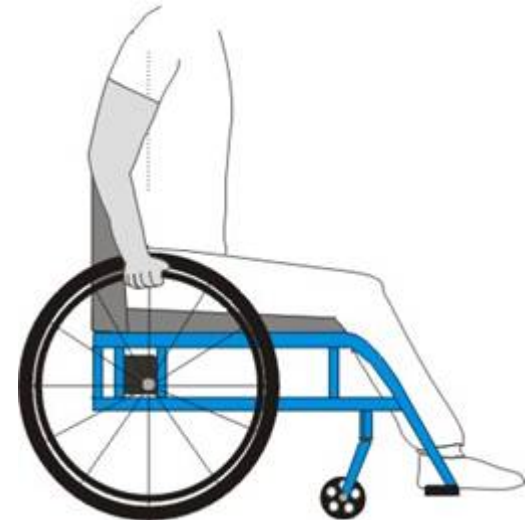
Seat too low



Seat just right



Seat too high



It is important the wheels be positioned where you can most easily push the chair.

# Camber = the top of the wheels are tilted towards your body

- Improves hand and arm access to the wheel
- Turns easier
- Makes the chair more stable
- Increases the width of the chair



# 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*





# 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 Angle (Slope back) some call it a “dump”

You can slope your seat back for stability in your trunk, but it may be more difficult to transfer. And you might be a little bit shorter. Many active users choose this option for the stability.



# Seat-to-Floor Heights

## Considerations:

It is important to think about where you are going to use your chair. Make sure you can get under the tables you want to use and be able transfer where you want to.





# Back Height



- A higher back gives more support, but less Freedom of movement for your arms.
- A lower back gives more freedom of movement for your arms, but less overall back support



# Pushing your chair - the recommended technique

Reach back  
and contact rim



Release rim in full  
elbow extension



# Manual Wheelchair Options & Accessories

- Arm supports
- Side guards
- Rear wheels
- Wheel locks
- Pushrims
- Casters
- Seating interface



- These are all items to discuss with your wheelchair team.



# Manual Wheelchair Maintenance

- Tires inflation
- Rear Wheel Alignment
- Front Caster Alignment
- Wheel & Caster Bearings
- Upholstery
- Wheel locks



These are issues to discuss with your wheelchair team.  
To learn more you can go to [www.usatechguide.org](http://www.usatechguide.org)