

# How to choose a cushion for a wheelchair...

Angie Maidment, OTReg(MB)  
Corinna Klassen, OTReg(MB)  
September 2009



# Goals of Seating

- Promote function (provide support and control)
- Promote comfort
- Enhance appearance
- Promote body symmetry and prevent deformity
- Prevention of pressure sores
- Enhance respiratory function
- Promote sitting tolerance
- Control spasticity
- Decrease work of caregivers

# How can you spot a problem with a seating system?

- Poor sitting posture
- Deformity, skin breakdown, impaired function, etc.
- Seating or functional goals are not being met



# Ideal Sitting Posture

## **Pelvis**

- Slight anterior tilt
- No obliquity or rotation
- Centred in seat

## **Legs**

- Well supported thighs
- Hips, knees and ankles near 90
- Neutral hip rotation and abd/add
- Feet even on footrests

## **Trunk**

- Symmetrical side to side
- Sl. lumbar lordosis, sl. thoracic kyphosis, sl. cervical lordosis
- Lumbar support
- Neutral trunk rotation

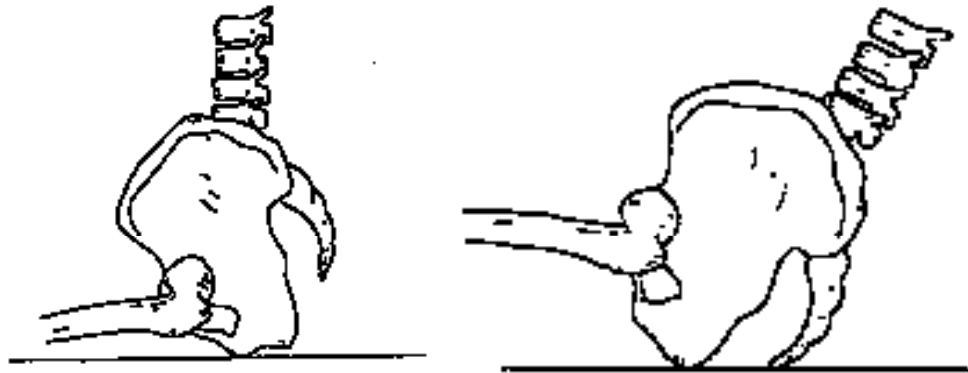
## **Upper extremities**

- Shoulder neutral protraction/retraction
- Supported hand arches

# Ideal Sitting Posture

## Pelvis

- Slight anterior tilt
- No obliquity or rotation
- Centred in seat



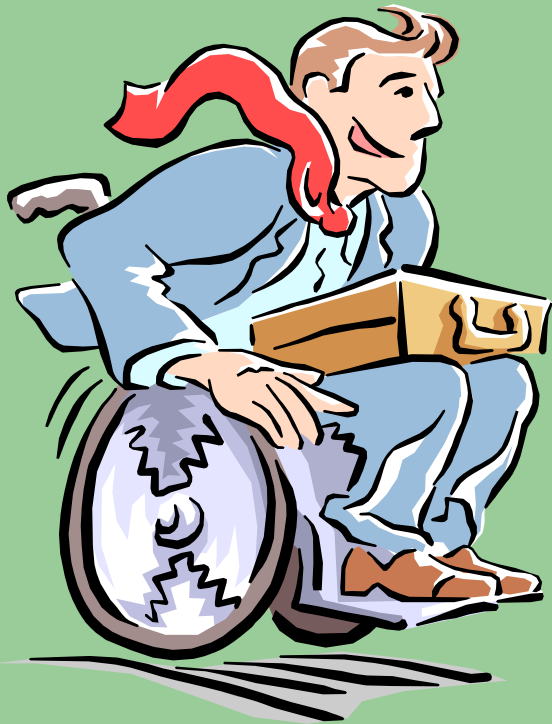
# Considerations when choosing a cushion

This client has a pressure sore...

Dear OT, please help...

“QUICK, get a ROHO!”

Maybe it is NOT the wheelchair's  
fault!



## Determine client needs...

- Comfort
- Pain reduction
- Pressure reduction
- Temperature control
- Positioning
- Mobility
- Function



# Determine client's risk factors

- Poor mobility
- Decreased sensation
- Decreased muscle mass
- Decreased strength
- Incontinence
- Poor hygiene
- Malnutrition/  
Dehydration
- Circulatory problems
- Other...

# Considerations when choosing a cushion

- Comfort
- Weight
- Appearance
- Durability
- Support/
- Contour
- Stability
- Cleanability
- Cover options
- Temperature control
- Match with wheelchair
- Maintenance needs
- Size
- Removable
- Ease of use
- Incontinence
- Proof
- Pressure
- Reduction
- Cost
- Adaptability

# Types of cushions

- Foam
- Fluid
- Air
- Combination
- Honeycomb
- Other



Cushion shows without cover



# Properties of foam

- Most supportive
- Can contour to body
- Different densities for different regions
- Relatively inexpensive
- Lightweight
- Can be cut to individual's shape
- Fair shock absorption
- Warm/hot
- May be difficult to clean
- Breaks down/wears out relatively quickly
- Least pressure reducing

# Properties of fluid

- Less supportive than foam
- Easier to clean because it has a closed surface
- Fair pressure reduction properties
- Takes and holds temperatures (hot and cold)
- Can leak
- Relatively heavy
- Relatively expensive

# Properties of air

- Most pressure reducing
- Easier to clean because it has a closed surface. Waterproof.
- Absorb impact
- Least supportive
- Requires a lot of maintenance and frequent pressure checks
- Relatively expensive

## Properties of honeycomb cushions

- Fair pressure reduction
- Relatively easy to clean
- Lightweight
- Good support
- Strange sensation on buttocks
- Can wear out in 2-3 years

# Properties of combination cushions

- May provide some support and some pressure reduction
- Features vary according to cushion style



# Assess... Don't Guess



<http://www.academic-answers.com/process.htm>


# Assessment Techniques

- **Interview**
  - Self care
  - Productivity
  - Leisure
  - Roles
  - Environment
- **In chair assessment**
- **Mat assessment**
  - Sitting – supported and unsupported
  - Lying
- **Simulation or assessment in trial system**




# Funding

- **Manitoba Health**
  - SMD – Wheelchairs only
  - individual purchases own seating
- **Third Party (eg. MPI and WCB)**
  - vendors
- **EIA**
  - SMD
  - prefers Materials Distribution Agency for seating
- **Medical Services**
  - SMD
  - vendors with justification



**Call Therapy First  
with more questions**



(p) 204-612-0398