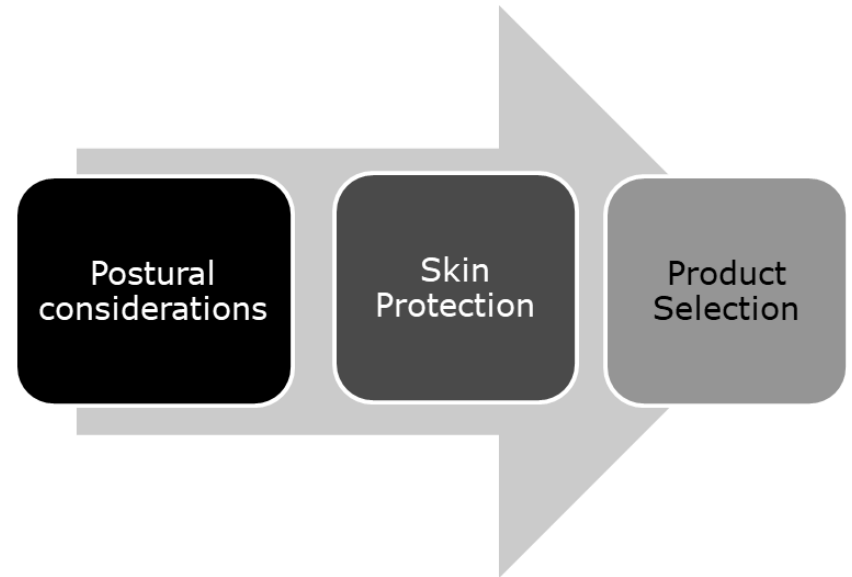


# MAT Assessments

**Effective**  
**Efficient**  
**Successful**



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Clinical Director  
Sunrise Medical

# 5 P'S FOR SUCCESS



**P**romote Function

**P**rovide Rest

**P**rotect the skin

Ensure **P**hysiologic function

**P**revent further deformities



# Making It Real



Encourage resting posture

REST IS BEST



# Making It Real

Allow transitions into task specific postures



# Making It Real



Allow for Gross Motor tasks



# THE WHOLE ASSESSMENT



## Patient Demographics

- Age
- Diagnosis / prognosis / co-morbidities

## Medications

## Special needs

- Respiratory, GI, orthotics
- Communication devices or other assistive technology

## Surgical History / plans

## Physical status

- Strength, neuromotor, tone
- ROM

## Sensation / skin integrity



# THE ASSESSMENT

## Cognition / behaviour

- Integrate, sequence, retain
- Judgement

## Visual limitations

## Performance requirements

- Home environment
- Types of terrain – indoors / outdoors
- Inclines, ramps
- Travel distance

## Transport

## Functional skills



A detailed form titled "Sunrise Medical - Internal Form" is shown at an angle. The form is divided into several sections with orange and blue headers. The sections include:

- Personal Details:** Fields for Name, Title, Address, and Contact.
- Product Details:** Fields for Product Name, Description, and Status.
- Order Details:** Fields for Order Number, Date, and Quantity.
- Customer Details:** Fields for Customer Name, Address, and Contact.
- Notes:** A large text area for additional information.

# THE ASSESSMENT





# THE ASSESSMENT





# MAT STEP 1 – REVIEW CURRENT CHAIR

- Look for areas of high pressure/shear
- What do you like most and least about the posture?
- What does the client like most and least?

**Create a problem list and a priority list!**







■ IMPROVING PEOPLE'S LIVES ■















# MAT STEP 2 – SUPINE ASSESSMENT

Assess available movement at the pelvis

- Anterior / posterior pelvic tilt
- Lateral superior / inferior movement
- Rotation

Assess effects on other body segments

Consider tone, spasticity

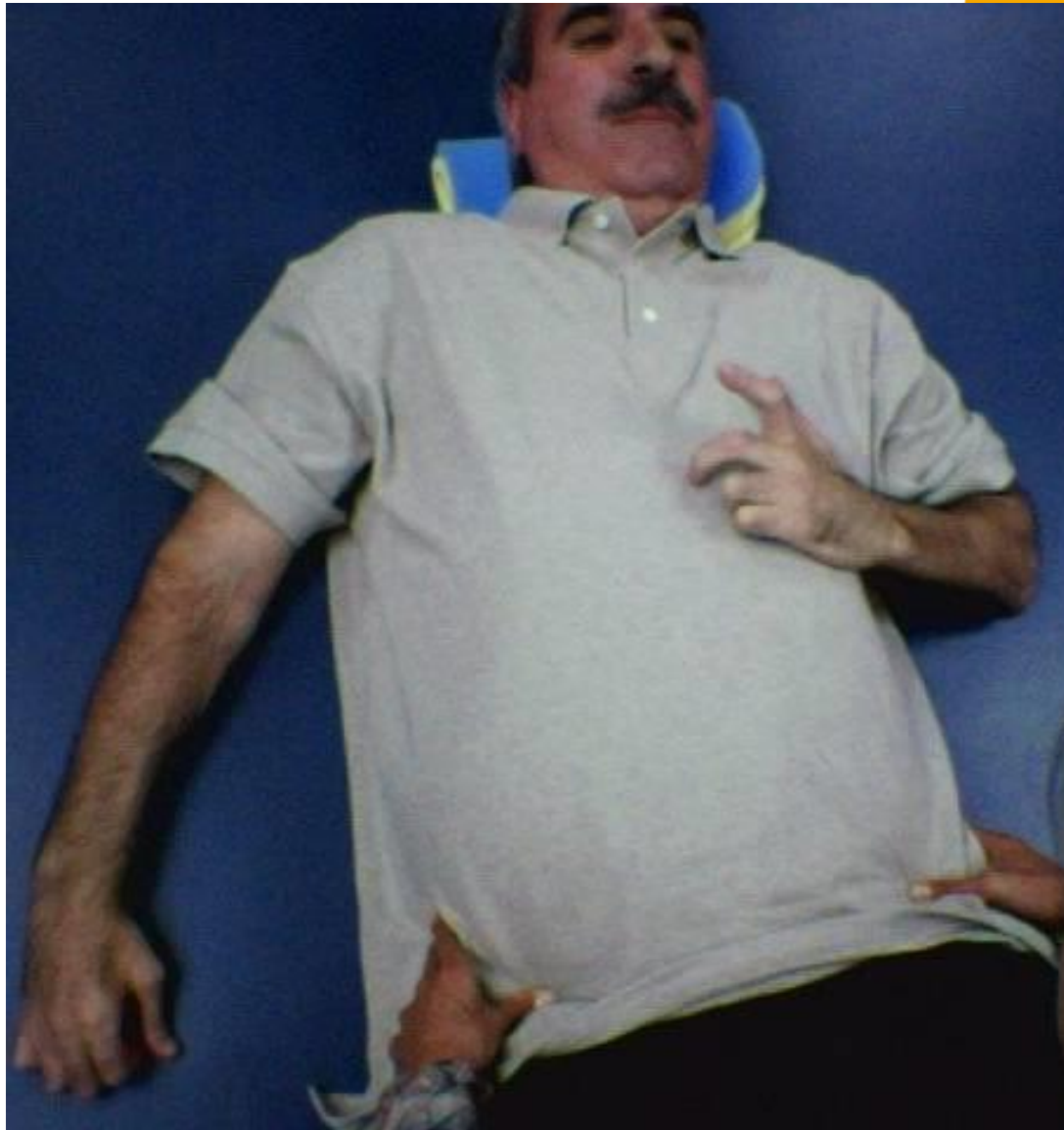
Assess comfort/ tolerance

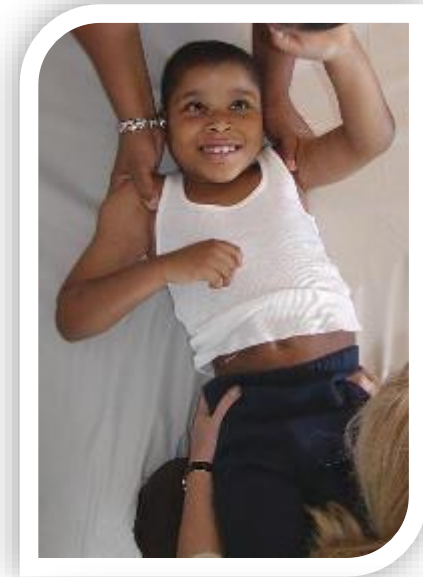
Assess ROM lower limbs



# CONSIDERATIONS FOR SUPINE MAT EVAL

- **Plinth is not available** - a full length transfer board on a soft bed can be used for a short duration. Consider their skin integrity and time taken for completion of this part of assessment
- **Current pressure injuries** - delay supine assessment until such time all wounds have healed
- **Urinary catheter** - should be emptied prior to supine assessment.
- **Bariatric clients** - Monitor breathing
- **Spasms** – may be common for clients with SCI when initially positioned in supine

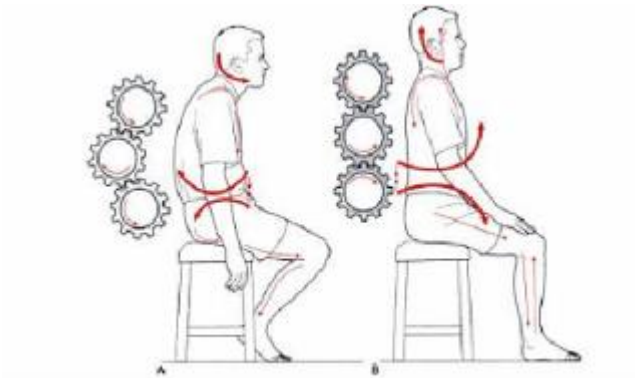






# SUPINE MAT ROM

- Hip flexion
- Hip ab/adduction
- Hip rotation
- Knee extension
- Ankle dorsiflexion













Right hip flexion ~ 120°

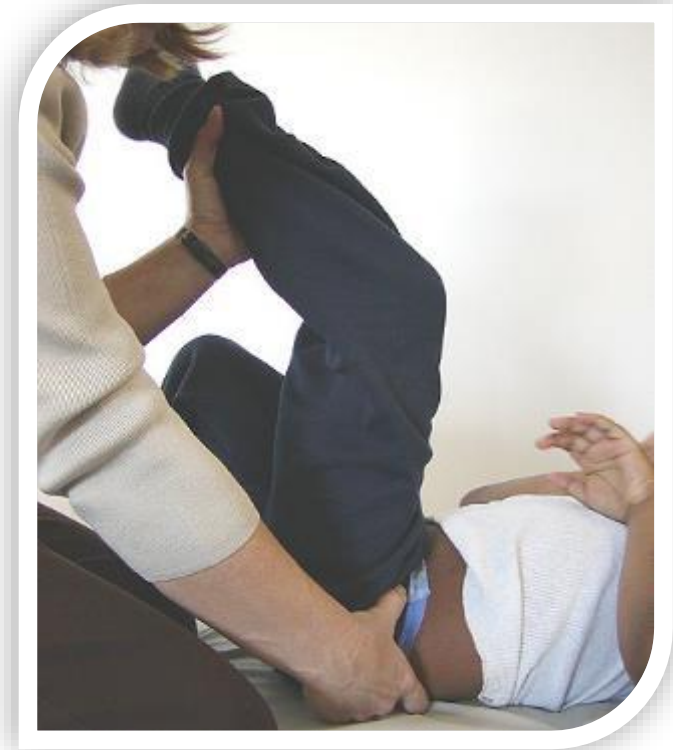


Left hip flexion ~ 145°





Right knee extension  
~ 110°



Left knee extension  
~ 120°





E  
L.





# MAT EVALUATION STEP 3

## Sitting assessment

- Sitting balance
- Confirm findings from supine





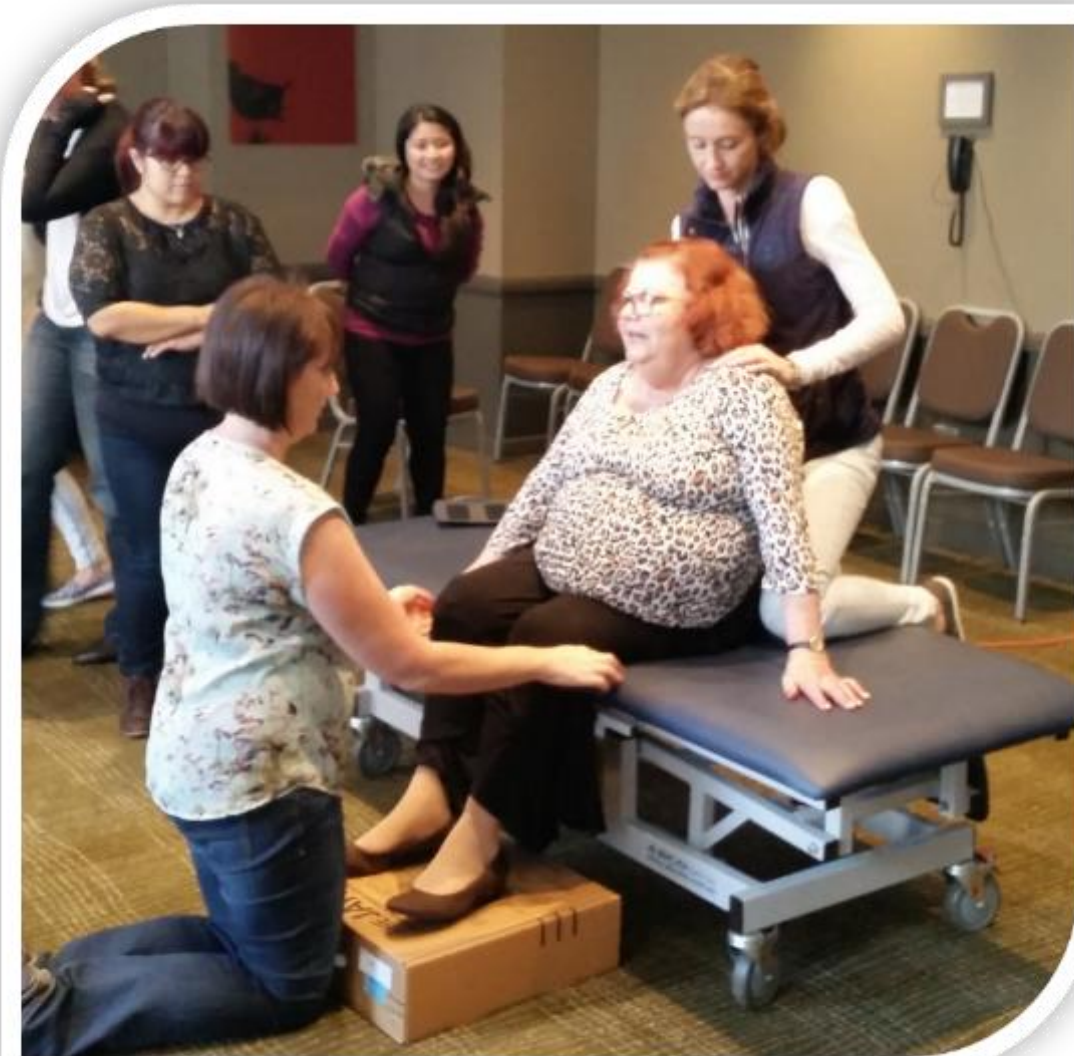


# MAT EVALUATION STEP 4



- Simulate postural supports
  - Skin protection
  - Postural support
  - temp/ humidity/ shear at seating interface
- Consider frame type
  - What can you delete from the list of options?
- Configure chair close to what you think the client will need

# HAND SIMULATION

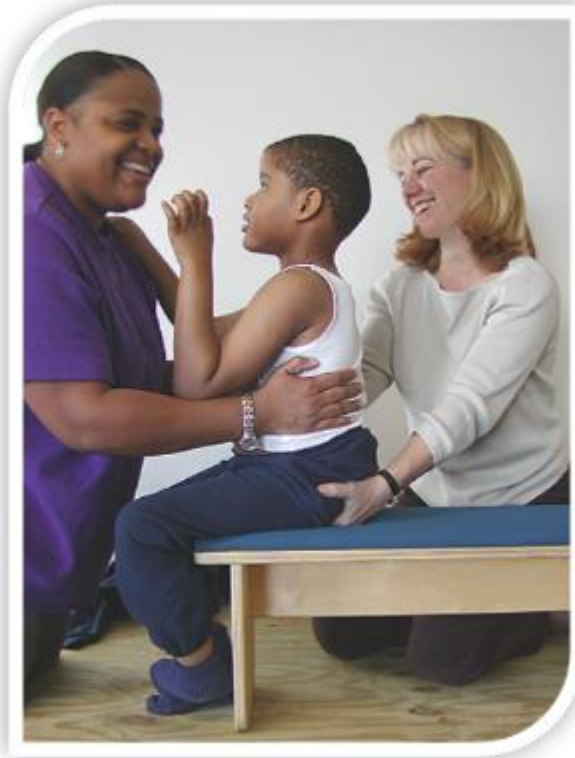






Simulate correction with lateral support and L build-up

# SITTING BALANCE









# MAT – STEP 4 SIMULATION



# WHY THE ASSYMETRY

Is it stability related?

Is it used for gross motor function?

Is it tone related?

Pain related?

Is it ROM / body shape related?



# WHAT MUST BE PRESENT TO IMPROVE POSTURAL ALIGNMENT AT REST

- Flexibility
- Tolerance of correction
  - Skin, function, comfort
- Ability to position or be positioned consistently



# FIXED OR FLEXIBLE

Flexible - which direction?

Toward correction?

Through midline?

To midline?

In the direction of destructive postural tendency?





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# Facilitating Posture



- Support posterior and lateral pelvis
- Support thoracic spine
  - Height and shape required
- Ischial contour in cushion
- Appropriate loading thru femurs

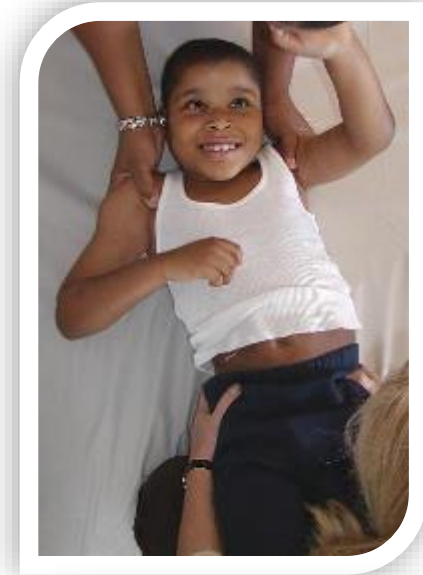


## Shapes, Angles, Orientation

# APPROPRIATELY CONFIGURED ACTIVE MWC

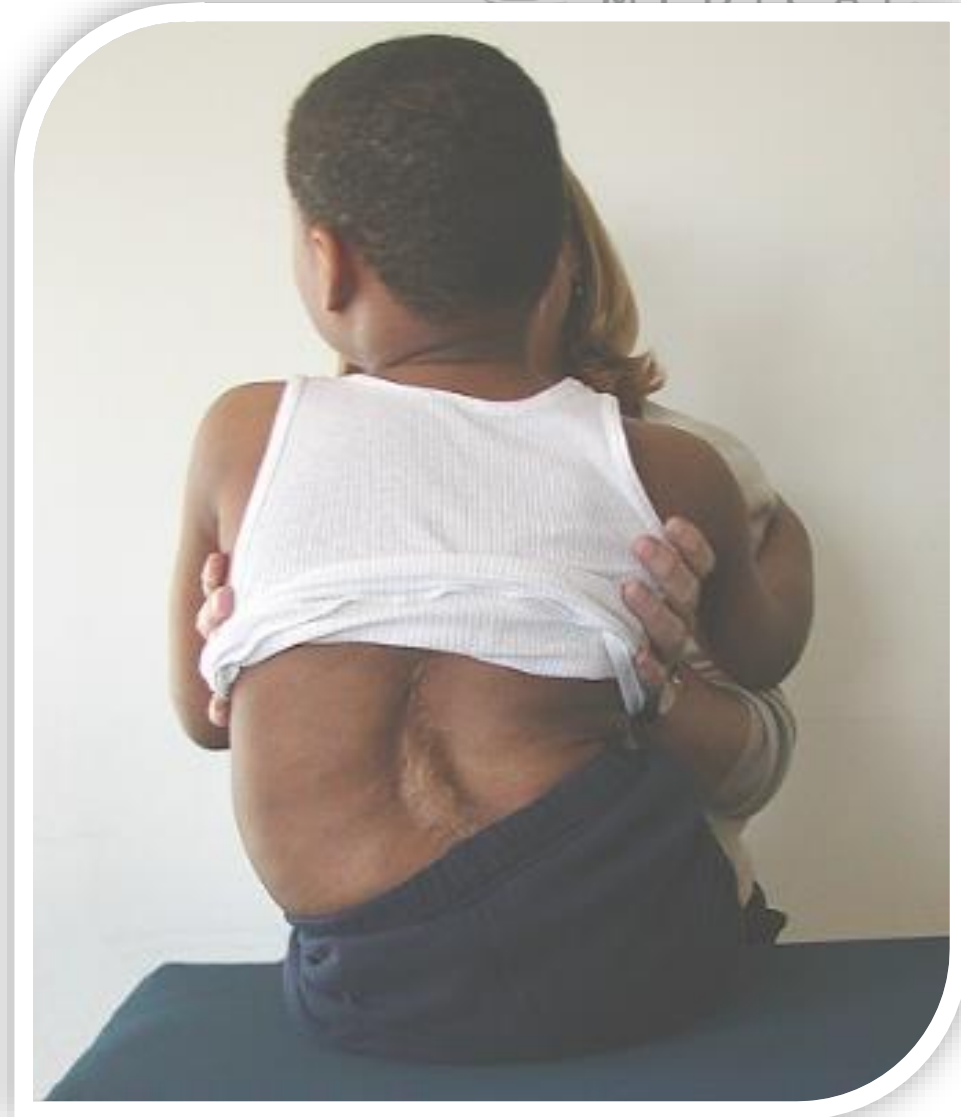


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# PELVIC OBLIQUITY



# ADD OBLIQUITY BUILD UP





## Amber

- T8 Paraplegia
- Active – going to Uni
- Living independently

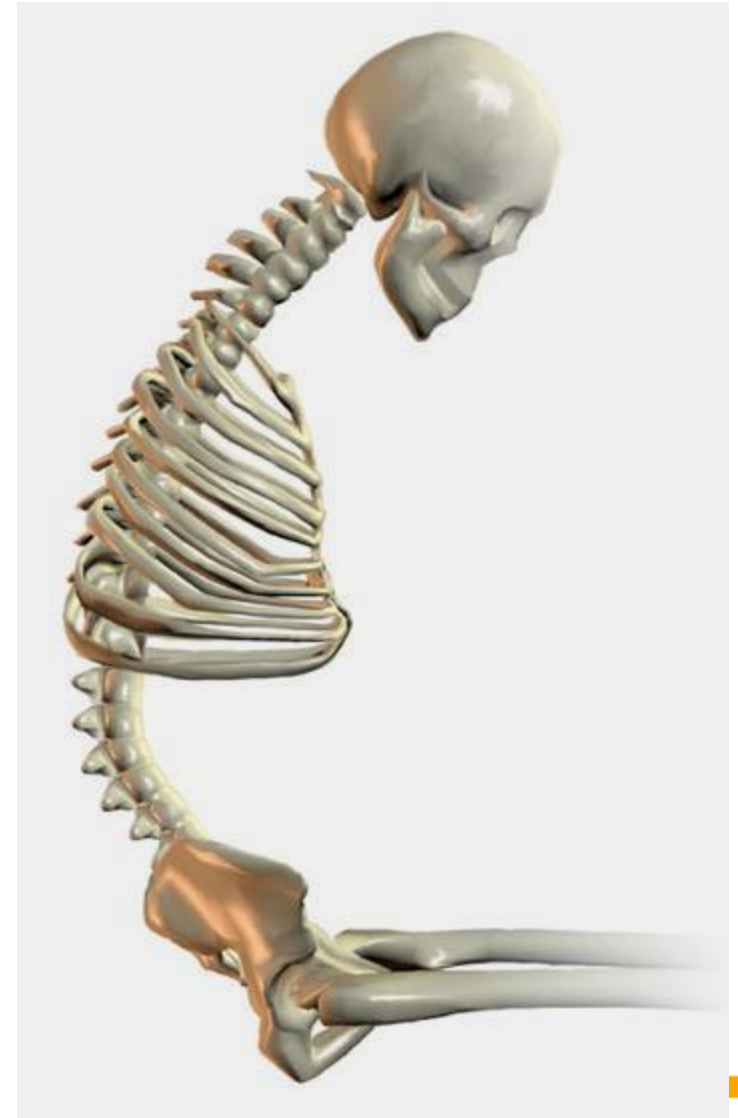
## Key points:

- Jay 3 with Shims
- Jay X2 with fluid 1" obliquity build up





# POSTERIOR PELVIC TILT



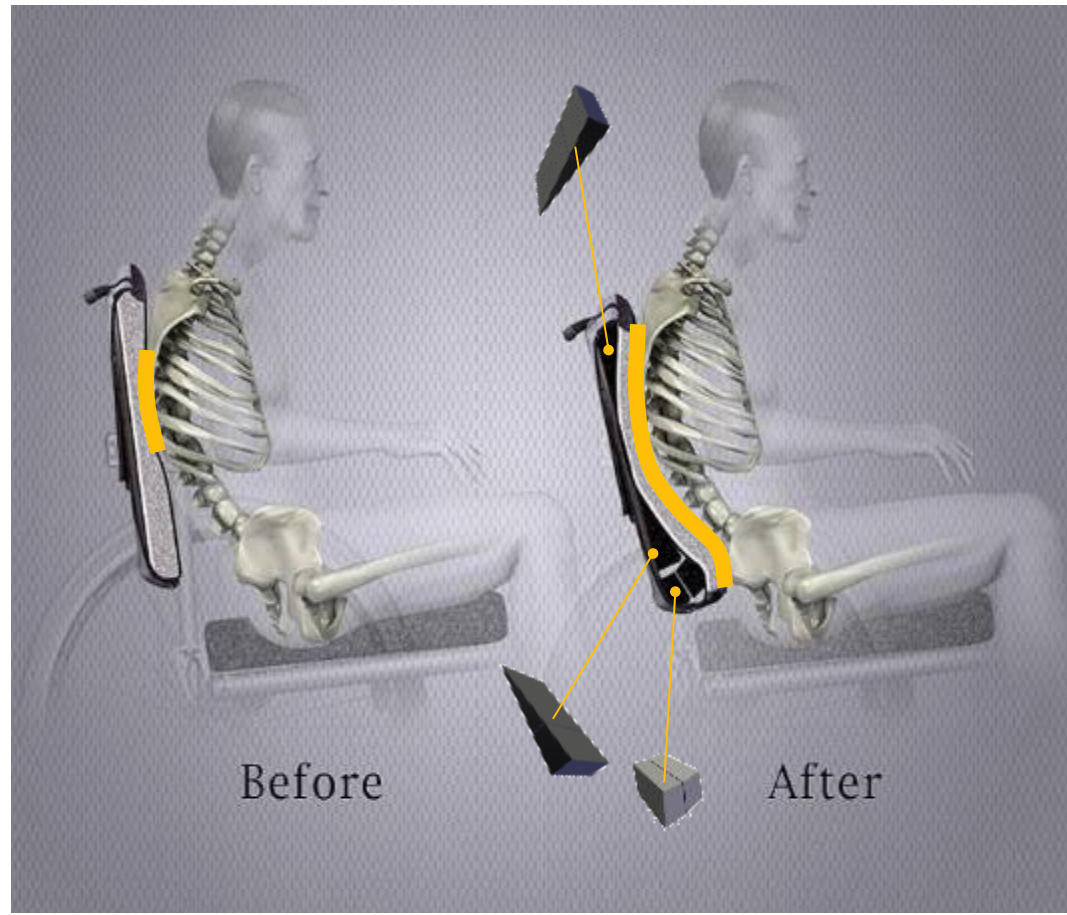
# REDUCE POSTERIOR PELVIC TILT



Don't Forget:  
you need the  
Ishial shaping in  
the cushion



# FIXED POSTERIOR PELVIC TILT

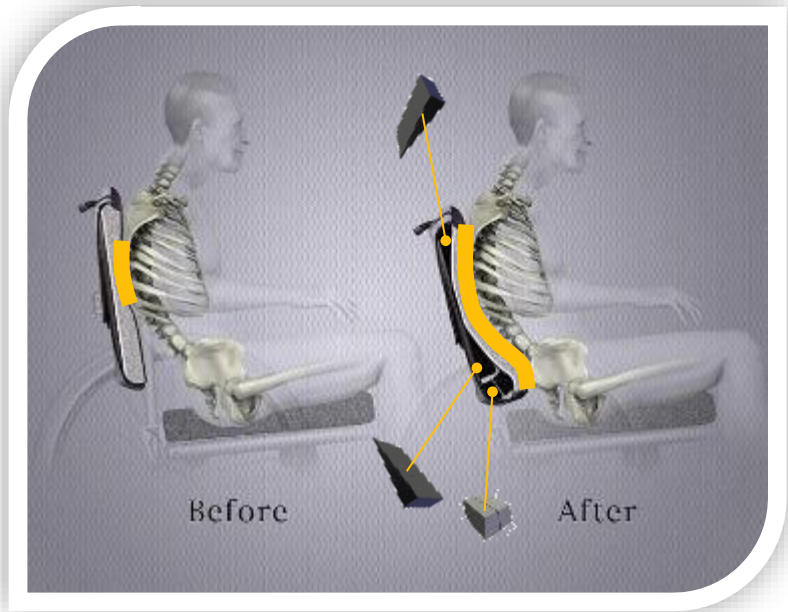




# FIXED POSTERIOR PELVIC TILT



## Accommodate





- Neck and back pain
- Skin issues
  - GT
  - Sacral
- Poor mobility

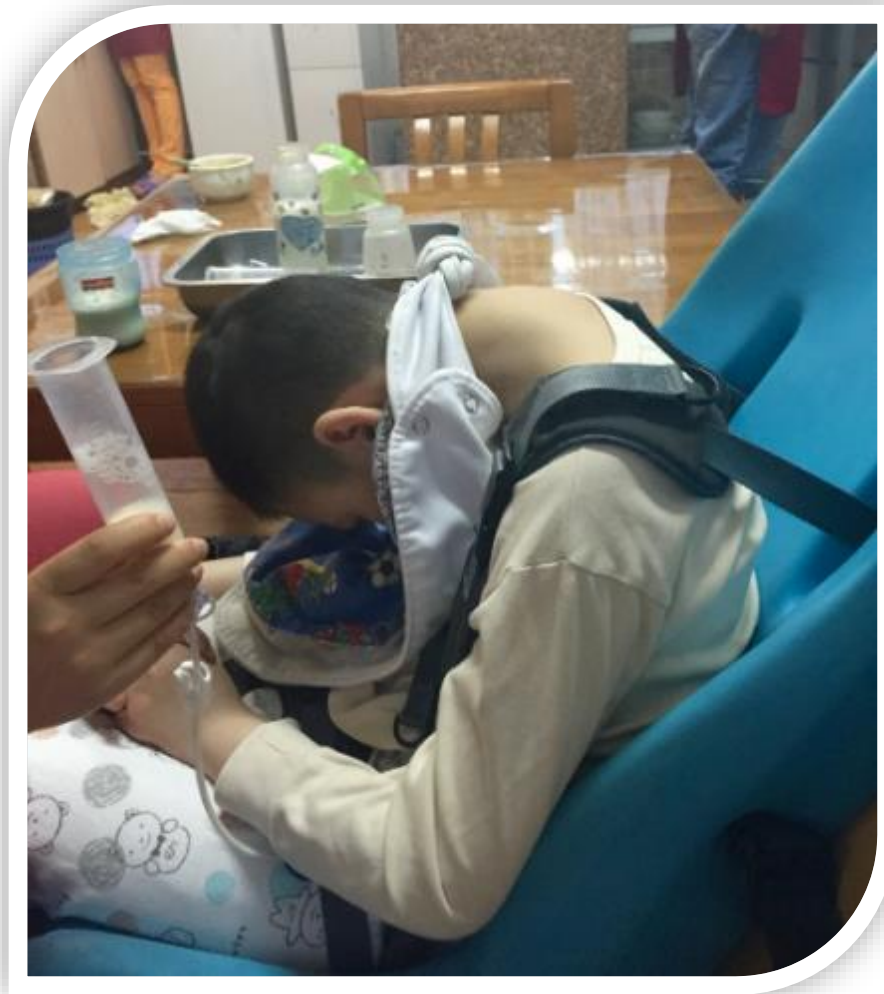


## Key points:

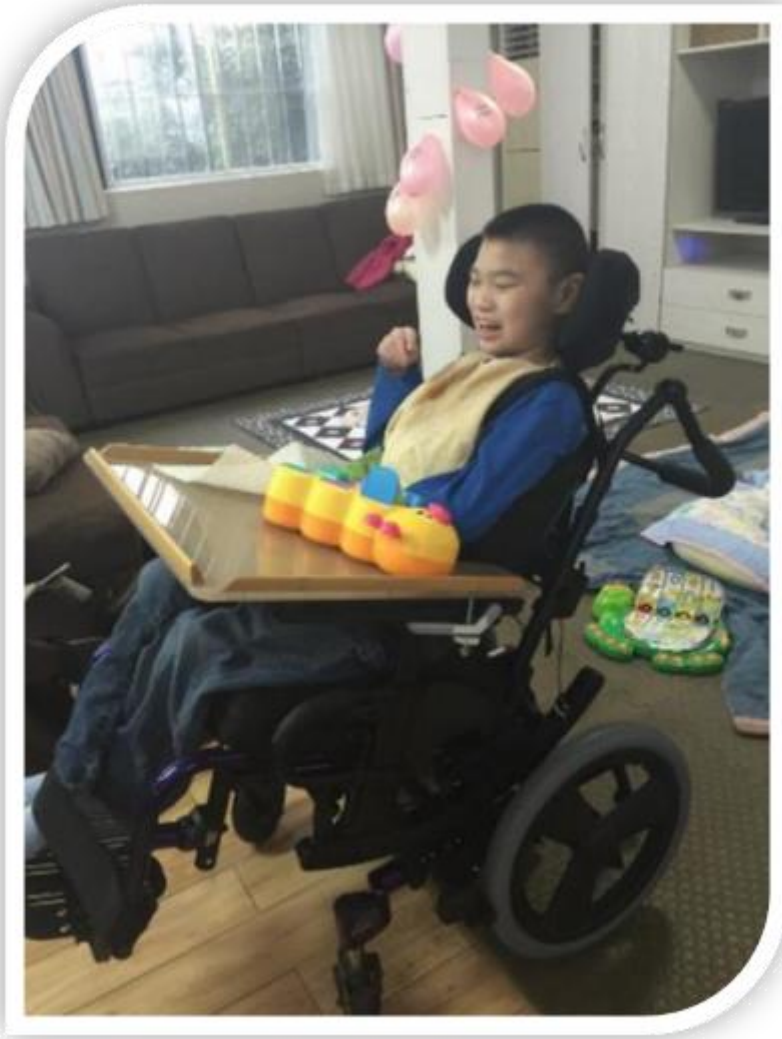
- Jay 3 PAM™ backrest sacral shims
- Jay J2 cushion
- GT cutouts
- New Chair!!!



# POSTURAL COLLAPSE





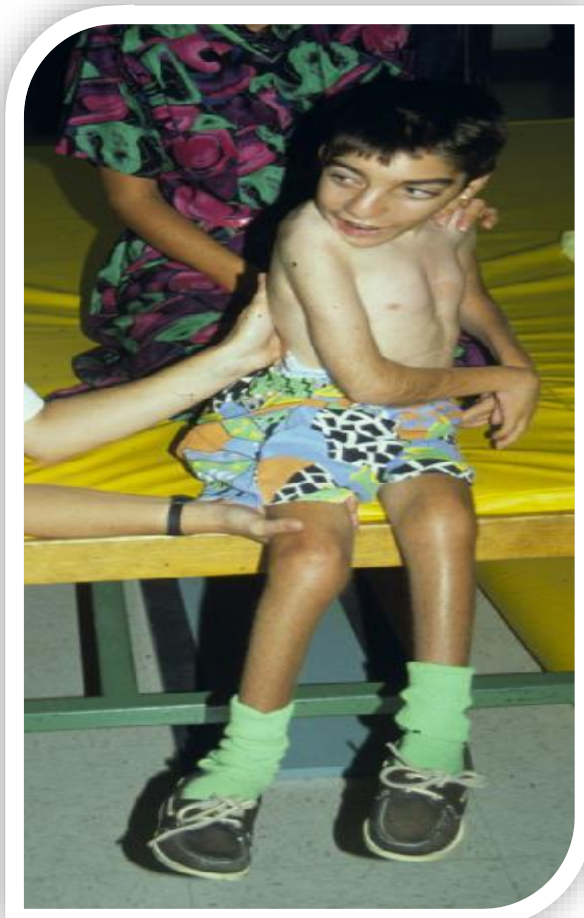


## Key points:

- Jay 3 PDL backrest
- Sacral block
- Jay Fusion
- Large Adjusta-plush



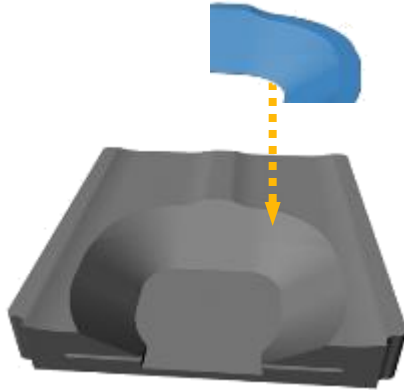
# PELVIC ROTATION







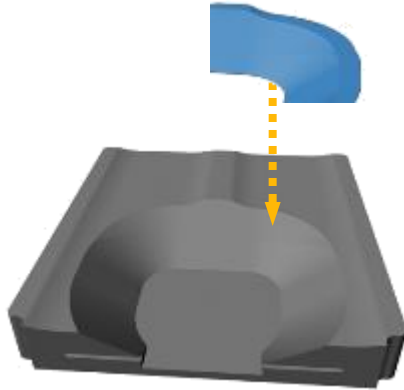
# REDUCE THE ROTATION



- Posterior lateral wedge in backrest
- Anterior well reducer in cushion



# ACCOMMODATE FIXED ROTATION



- Adjust well shape to match pelvic shape
  - Reduction ring
  - Fluid supplement pads

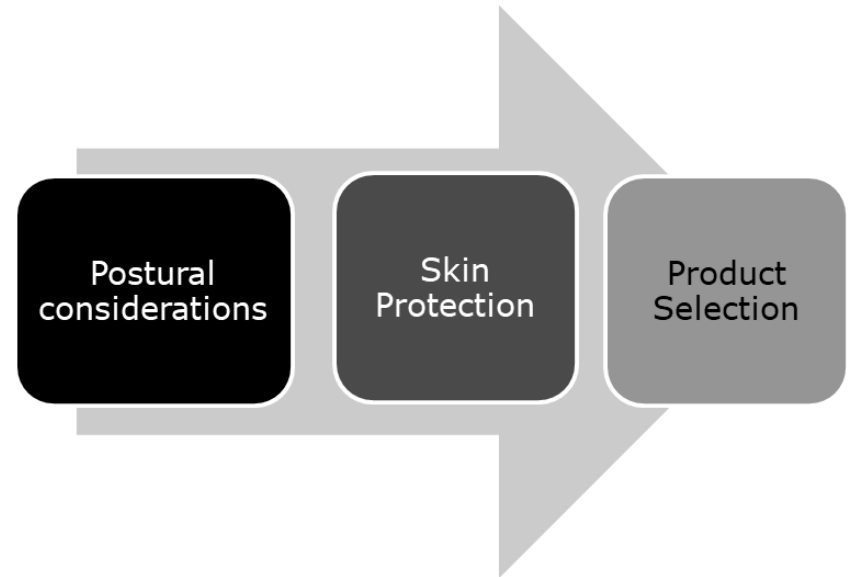


# Case #1

7 yo male

Cerebral Palsy

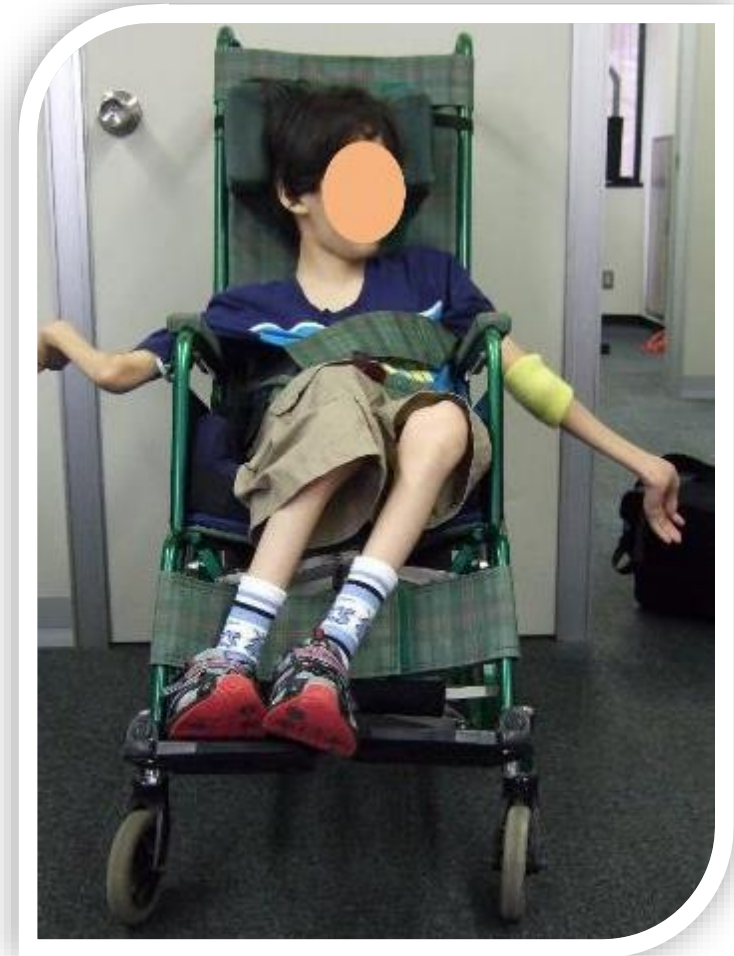
Lives in group home



# 7 year old CP - Adam

Using standard stroller

- Skin breakdown pelvis
- Trouble breathing
- Not able to sit >2 hours
  - Lies in bed
- Increasing tone and motor control issues
- Please see assessment form





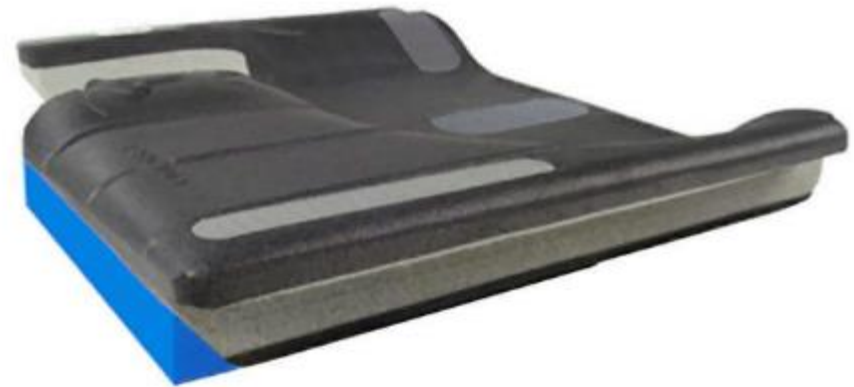


# CONTRACTURE CUT



Leg length Cut - right

Contracture Cut



## Clinical Approach

**Provide TIS wheelchair for increased sitting tolerance, participation, and management of spasticity and posture**

### Products Used

Zippie IRIS folding - allows reduction spasticity, improved body control

Asymmetric hangers to accommodate for ROM deficits

Jay GS

- Postural control and fluid protecting skin from shear and pressure
- Stability and immersion from materials and lateral thigh and hip supports to decrease tone and spasticity
- Able to sit for longer durations with fewer outbursts and enhanced comfort. Sitting tolerance improved by ~50% from 3 hours to 4.5 hours
- JYW modifications – leg length cut and anterior slope to accommodate contractures

Jay Fit backrest and Whitmyer 3 pad head system with lateral support

- Accommodate head position and provide secure support - allows for safe breathing and eating



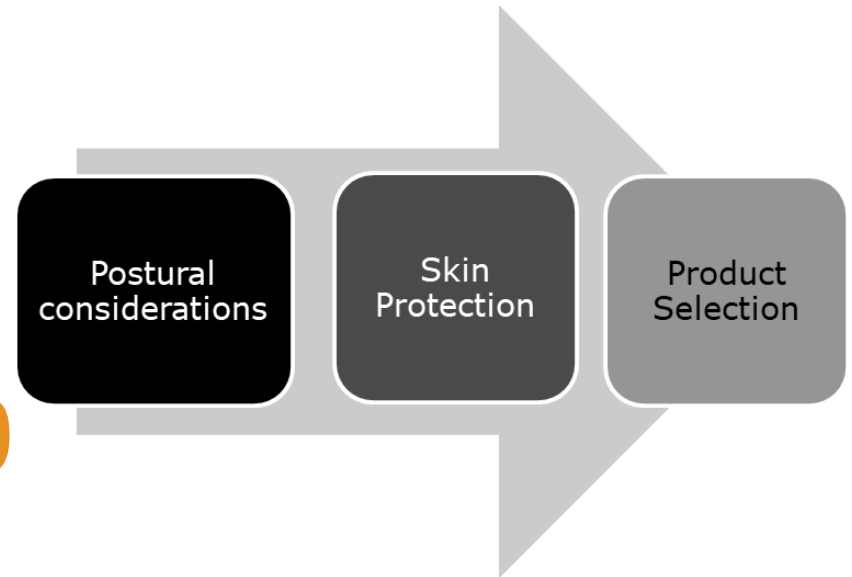


## Case #2

45 yo male

s/p brain injury x10  
years

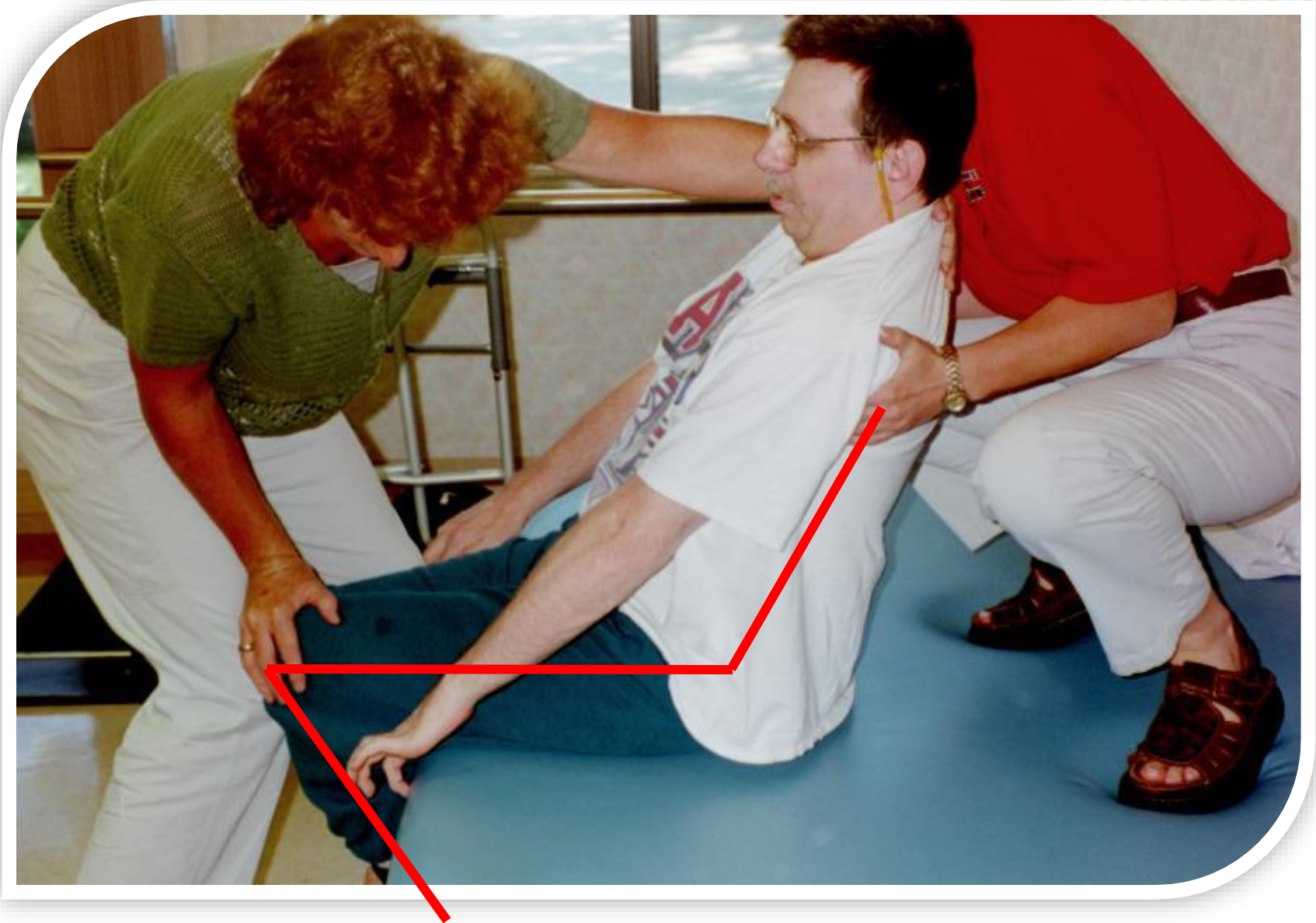
Lives in group home



# 45 YEAR OLD TBI - RAY



- Standard wheelchair
- Sliding out, injuring self and staff
- Not able to propel/dependent in mobility
- Sitting 6+ hours
- Some grade 1 pressure injuries
- Please see assessment form



# LEG TROUGH CUT



## Clinical Usage

- Accommodate hip extension contracture
- Protect residual limb
- Increase contour around upper leg



JAY J2<sup>®</sup> Series Cushions

JAY Fusion<sup>®</sup> Cushion

JAY Easy<sup>®</sup> Cushion

JAY J3<sup>®</sup> Cushion

JAY Lite Cushion

JAY GS<sup>®</sup> Cushion

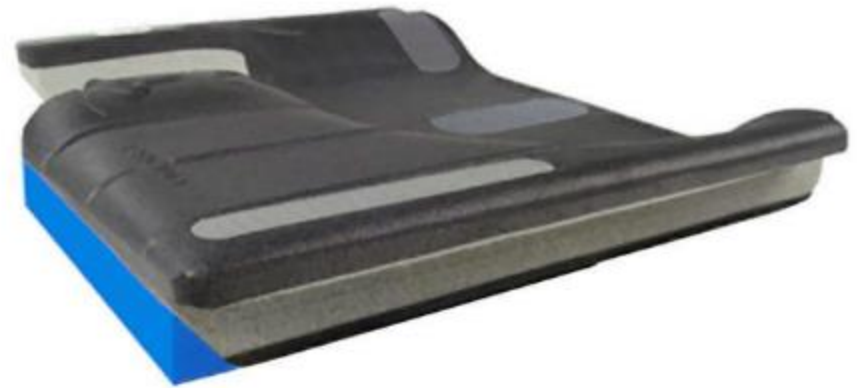
# CONTRACTURE CUT



## Clinical Usage

Accommodate tight  
hamstrings

Allow bent knee position



[JAY X2<sup>®</sup> Cushion](#)

[JAY J2<sup>®</sup> Series Cushions](#)

[JAY Zip<sup>®</sup> Cushion](#)

[JAY Ion<sup>®</sup> Cushion](#)

[JAY Union<sup>®</sup> Cushion](#)

[JAY Fusion<sup>®</sup> Cushion](#)

[JAY BasicPRO<sup>®</sup> Cushion](#)

[JAY Basic Cushion](#)

[JAY GO Cushion](#)

[JAY Soft Combi<sup>®</sup> P Cushion](#)

[JAY Easy<sup>®</sup> Cushion](#)

[JAY J3<sup>®</sup> Cushion](#)



## Clinical Approach

**Provide TIS wheelchair for increased safety, sitting tolerance, participation, management of posture**

### Products Used

Quickie IRIS - allows for accommodation of contractures

### Jay Fusion

- Postural control and fluid protecting skin from shear and pressure
- Stability and immersion from materials and lateral thigh and hip supports to decrease tone and spasticity
- JYW modifications – anterior slope to accommodate contractures

### Jay 3 PD backrest and Whitmyer Plush

- Provide secure stable midline positioning

- Tolerating sitting majority of day
- Stable, less sliding

Quickie IRIS with contracture platform

- Jay 3 PD backrest
- Jay Fusion  
Contracture cut  
Leg troughing



# 32 YEAR OLD T<sub>12</sub> PARAPLEGIC



## FLO

Due to size, configuration and weight of standard wheelchair

- Unable to get in and out of wheelchair by herself
- Unable to get out of bed by herself
- Skin breakdown on her buttocks due to poor sitting position
- Unable to push independently
- Unable to go back to work





# WITH RGK TIGA WHEELCHAIR



- Skin healed
- Able to get in and out of bed independently
- Able to transfer in and out of the car independently
- Back to work

# 25 YEAR OLD C7 TETRAPLEGIC



## - EDEN



- Standard wheelchair was too heavy for Eden to push or lift into car
- Standard wheelchair was too long to maneuver in her small home

### Quickie Nitrum with J3 back

- Independent in wheelchair skills
- Posture supported despite high level of injury (no trunk control)
- With new wheelchair - attending school

# 20 year old SCI - Grant



- Standard wheelchair created skin breakdown – tolerated sitting 3 hours
- Unable to load standard wheelchair into his car – needed assistant to travel with him

## With RGK wheelchair

- Independent pushing and loading into car
- Skin breakdown healed
- Able to sit all day in RGK wheelchair

# 40+ year old SCI - Matt



- Injured 25+ years ago
- Pushing independently - active, no skin issues
- Quickie wheelchair – independent pushing and loading into car
- Active lifestyle

# 60 YEAR POST POLIO AGEING IN A WHEELCHAIR



Aging in a wheelchair

Requires light weight wheelchair to remain independent in wheelchair due to overuse injuries, aging issues

With Quickie Xenon - remaining active, skin healthy





Requires light weight wheelchair due to strength issues, prior overuse injuries, body shape

With RGK TIGA - remaining active, driving

# POWER ASSIST



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Seating / JAY / JAY Your Way

## JAY Your Way

Your seat is an important factor in your overall comfort, and we have made it a priority to provide seating designed to meet your specific needs. With JAY Your Way, JAY products are easily modified to meet your comfort needs and also your individual styles. From clinical improvements to colored covers, JAY Your Way modifies cushions and backs specifically to address unique individual needs and preferences. Do you need additional support? A cushion to fit perfectly on your chair?



# JAY Your Way | Sunrise Medical



# Thanks for Attending

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