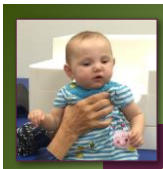

Challenges & Solutions in Seating for Infants and Toddlers

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International Seating Symposium March 4, 2017 Nashville, TN

ADAPT Shop

Learning Objectives

1. List 4 benefits of sitting that are denied a non-sitting infant.

2. Compare and contrast 3 differences between infants and adults to consider when providing seating devices.

3. Describe 2 techniques used to keep an infant upright in their seat.

Disclosure of Conflicts

I have no relationships with proprietary entities producing healthcare goods or services.

- Southwest Human Development's ADAPT Shop provides custom adaptive devices free of charge to the client.
- Insurance is billed for PT or OT time to evaluate, design, fit, and train.

Normal Growth and Development

1. Milestones proceed in predictable sequence.

Growth is FASTEST during first few years compared to any other time in the life cycle.

Builds on previous skills in STEPWISE progression.

Normal Growth and Development

2. Skills are developed simultaneously in multiple domains.

- Domains = musculoskeletal, sensory, social, cognitive, language, etc.
- To fail in one domain will negatively impact the others.

… like the stones of a bridge

Normal Growth and Development

3. Skipping milestones can promote problems later in development.

- For example, Children who didn't crawl are more prone to reading difficulties.
- Seating system (or any AT) should enable the child to master each milestone.

If development lags (sit, crawl, stand) intervention is needed (therapy, AT, surgery).

Stages of Sitting

NOT SITTING

PROP SIT

- About 4 months old
- Need BOTH hands
- Falls if weight is shifted
- Neck muscles too weak to hold head up

ONE ARM PROP

- Frees one hand

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Stages of Sitting

HANDS FREE

- Collapse if reach too far or rotate head/trunk

SITS INDEPENDENTLY

- About 6-8 months old
- Can turn, reach out, pick up objects, all without threatening stability
- Some include transition in and out

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Seating the Small Child

Why has this population been overlooked?

- Multiple severe medical issues; Parents are overwhelmed.

  Most ADAPT Shop cancellations are because the child was hospitalized.
- Healthcare team unaware of the benefits.
- Hard to find expert providers (OT, PT, Supplier)
- Equipment is sparse; Special order; Few trials
- Poor funding by insurance and state providers

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Seating the Small Child

But it's legally required !

Individuals with Disabilities Educational Act (IDEA) entitles all children who are eligible to receive

1. Early Intervention (EI, 0-3 years) services, or
2. Special Education (SPED, 3-21 years)

are also eligible to receive assistive technology (AT), if it is included as part of their

1. Individualized Family Service Plan (IFSP) (§636), or
2. Individualized Education Plan (IEP) (§614(d))

— Federal Registry

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Historical Seating for E.I.

1994 at Thames Valley Children's Centre in London

Before After

Sommerfreund & Wighton, 1994

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Cardboard, Foam, Plastic, or Wood?

What can you afford?

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Benefits of Sitting

1. Engagement. Face-to-face interaction, communication, social skills.(Pain et al 2000)
2. Visual skills. Visual exploration, curiosity, eye muscles strengthen, eye-hand coordination.
3. Cognitive Development. spatial dimension, object permanence, and many other cognitive advances. (Woods 2013)

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Benefits of Sitting

4. Arm Movement. Reaching improves co-contraction, coordination and strength in the shoulder girdle, neck and upper back. Crossing midline is promoted.(Washington et al 2002)

5. Manipulation (Hand) Skills. Sitting up with both arms free allows baby to handle bigger heavier toys.

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Benefits of Sitting

6. Hip Growth. As baby leans forward to reach objects the bones and muscles of the hip mature to carry the weight of the upper body.

7. Core Strength and Balance Recovery. To get into and out of sitting, and prevent toppling over, baby must fight the force of gravity. This develops strength, balance, and protective reactions which will be even more important for future skills of standing and walking.

8. Transition to standing. Baby must learn to sit before the body will tolerate standing.

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Benefits of Sitting

9. Respiration.
   - Opens rib cage and counteracts trunk collapse from scoliosis.
   - Optimizes diaphragmatic breathing, reduces accessory muscle breathing.
   - Better oxygen profusion improves health, reduces rapid muscle fatigue, and stimulates alertness.
   - Take care not to impede respiration with restrictive components (anti-scoliosis lateral chest supports).
10. Speech.
   - Unobstructed airways allow more and louder vocalizations.

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Benefits of Sitting

11 Safe Swallow. Head and neck alignment allows efficient swallowing, less drooling, and reduced risk of aspiration.

Best Position? Ask the child's Feeding Therapist.

"… The best option for feeding individuals with severe neurological impairment is to begin with classic 90-90-90 sitting, but with head flexion that is not rigidly maintained." — Joyce West & Fran Redstone, 2004

12. Digestion improves. Erect spine reduces reflux problems (GERD) and compression of internal organs. Gravity helps Gastro-Intestinal movement.

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Benefits of Sitting

No child should be denied the developmental opportunities that sitting upright can provide simply because …

seating support was not available to them.

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Hallmarks of a Therapeutic Seat

What makes a seat "therapeutic"?

1. Developmentally Appropriate
2. Promotes Functional Goals
3. Enables a Specific Task
4. Time Limited
5. Promotes Postural Stability
6. Promotes Motor Development

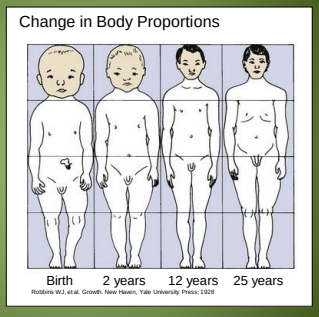
Infants are NOT Miniature Adults

- Infants are not miniature adults (Huelke 1998).
- Techniques must be modified for measurements, simulation, and intervention.
- Mat exam for infants needs to address their anatomical, neurological, reflex, sensory and motor control differences.

Infant vs Adult Head:Body

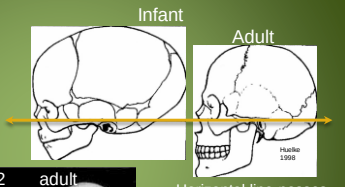
Newborn's head = 1/4 body height

Adult head = 1/7 body height



Infant vs Adult Skull Shape

Compared to adult, infant's jaw is very small but the brain case is huge.



Horizontal line passes through the same anatomical landmarks.

— Huelke 1998

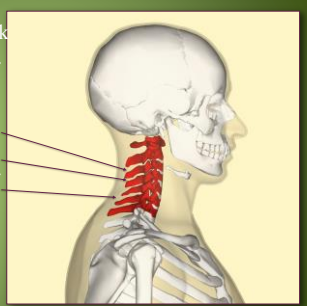
Neck

Infant's neck flexion is higher than adult's, so neck support design is different.

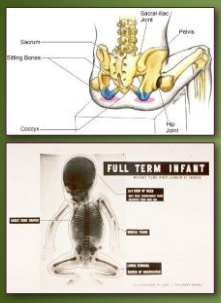
Fulcrum for Flex/Ext:

Birth to age 4	C2-C3
Age 5 or 6	C3-C4
In adults	C5-C6

(Baker and Berdon, 1966)



Infant vs Adult Pelvis



Pelvis = Base of Support

Infant pelvis offers little to grab:

- Wrapped in fat tissue, thickness peaks at 9 months) (Huelke 1998)
- Thick diaper.
- Mostly cartilage at birth including ASIS, PSIS, and IT
- Belts and straps are safety, not for positioning.

Spine - Adult Curves

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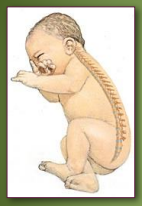
Spine - Infant Curves

0-3 months



The spine is a single kyphotic curve in infancy.

Huelke 1998

3-6 months

Cervical lordosis develops at 3-6 months as baby lifts his head.

18-24 months

Lumbar lordosis develops as a result of vertical weight bearing.

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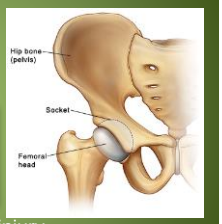
Hip Joint

- Infant hip is a very immature version of adult hip.
- Ball (femoral head) and Socket (pelvic acetabulum)
- Unstable in 1st year when acetabulum is shallow.



- Acetabulum deepens as muscles pull it
- Deep acetabulum is stronger, less injury
- Femoral neck straightens & rotates in first few years.

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Pelvis

Start at the pelvis.

What can stabilize the pelvis?

- Deep contours
- Wedged seat so ITs are 2"-3" lower
- Firm vertical surface against the sacrum
- Lateral support up to iliac crest

Note: Pommel is to help position the buttocks during transfers. Not an abductor wedge.

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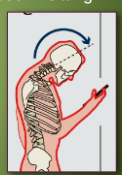
Kaleb still has a single C curve …

… because he does not yet lift his head or stand.

Mom must do gentle stretching to straighten his spine before he can be placed in sitting.



Text Neck Syndrome

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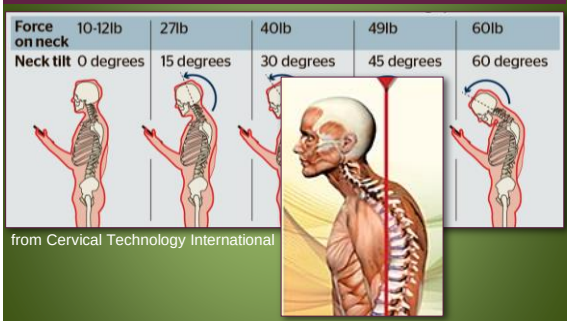
Spine - Cervical Flexion



from Cervical Technology International

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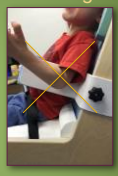
Trunk - Lateral Support

Arm Propping is better than trunk supports, also strengthens shoulder girdle.

Short infant trunk, difficult keep pressure on ribs, not belly.

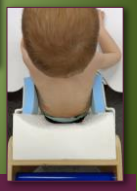


Allow arms to move forward and midline.

Offset to reduce scoliosis.

Sides of backrest can grow forward.

Simple curve in foam back.



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Trunk - Anterior Support

- Chest strap of stretchy neoprene allows some movement.
- Harness may slip off shoulders, rub neck, but keeps trunk still.
- Avoid tracheostomy and G-tube.

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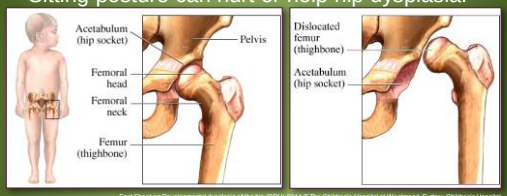
Hip Dysplasia

Sitting posture can hurt or help hip dysplasia.



Fact Sheet on Developmental dysplasia of the hip (DDH) 2014 © The Children's Hospital at Westmead, Sydney Children's Hospital

Dysplasia = Defect causes instability

Subluxation = Femur moves in and out of the acetabulum

Dislocation = Femur completely out

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Kaleb

Leg Length Discrepancy ?

or

Hip Dislocation ?

Can't decide without touching!

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Early Positioning Effects Dysplagia

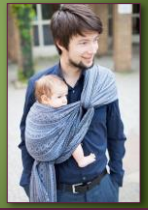
"Any device that restrains a baby's legs in an unhealthy position should be considered a potential risk for abnormal hip development."

(International Hip Dysplasia Institute)

MOST UNHEALTHY
Legs extended and adducted (together)

LESS HEALTHY
Unsupported in a "container"

HEALTHY =
Legs flexed and abducted (spread)



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Hip Positioning in Carriers

- Only top of thigh is supported.
- Force can push femur out of socket.

- Full thigh is supported.
- Force is distributed.
- Femur is well aligned in socket.

(International Hip Dysplasia Institute)

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Hip Positioning in Seats

Legs too tight.

Legs spread, puts hips in a better position.

Children need more abduction (spread) than adults.

Hips

- Leg abduction determines position of femoral head in acetabulum. Optimum abduction not determined yet.

  Birth to 3 — about 10-20° abduction on each leg
  — inseam divided by 2 = knee spread
  — more/less if known hip issues
  3 - 5 yrs — knees in line with shoulders.

- Better for hips + broader base of support.
- Always ask about hip issues.
- Never push knees to get child in seat.

Head

Challenges

- Large for body, skull projects rear
- Jaw bone not developed.
- Short neck
- Tracheostomy
- Torticollis

Torticollis

'Blinder' used to encourage child to turn her head left.

Head

4 Strategies for use of head supports:

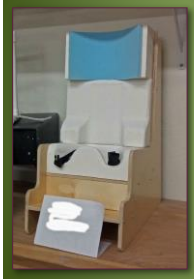
1. Provide Support (rest)
2. Limit Banging (Hyperextension)
3. Cue Self Correcting
4. Hold Still

Head: Flat Support

- Perch
  - For mild weakness & rapid fatigue
  - Provides intermittent rest
- Suboccipital Ridge
  - Provides lift + rest
- Set-back
  - Accommodates hydrocephalus
- Set-forward
  - Accommodates kyphosis

Head: Curved Support

Movable as child grows and gains control



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Head: Prompts to Self Correct


- Head supports for prompting to self correct
  - About 1" from surface
  - Trains neck strengthening
  - Some kids are just lazy, will lean onto any surface
- Head supports with/without lateral projections
  - Allow side bending
  - Avoid ears

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Head: Hold Still

- Limited selection of headrests
  - Tri-panel style
  - Head Pod
  - Switch mounting pads
- Short tolerance time
- Pressure & tissue damage
- Hydrocephalis tube in scalp

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Head Pod


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Feet

- Avoid dangling
- Use footrest or floor
- Restrain or free to kick
- Infants have Stepping Response
- Accommodate Ankle Foot Orthotics
- Is more knee flexion needed? Tight hamstrings could pull pelvis into sacral sitting

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Muscle Tone

- Tone is tension in the muscle at rest.
- Typical infants are more hypotonic (low) than adults.
- Medically complex child may have:
  - hypotonic (low)
  - hypertonic (high)
  - mixed tone
- Tone increases when the child is attempting to move or stressed.

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Abnormal Movement Patterns

Some children just don't want to sit still!

Strategies are similar to adults:

- For Athetosis - Try handles, lock down
- For Dyskinesia - Try protection
- For Spasticity - Try removing triggers (Herman & Lange 1998

Controlling Extension Patterns

- Variations = Thrust, Arching, Forward Slide
- Each child is unique.
- Explore triggers on mat. Use 4 hands!
- Try multiple control strategies:
  - Lock down the upright pelvis, no sacral sitting.
  - Flex and abduct legs

Controlling Extension Patterns

- No footrest to push off.
- Too young for lordosis? Then no lumbar bi-angular back.
- Nothing to head bang against.
- Pad top of backrest if they are going to arch over it; and use anti-tippers.
- Try Dynamic Back. Bend ABS plastic.

Reflexes

- Primitive reflexes may still dominate an infant's posture
  - ATNR (asymmetrical tonic neck reflex)
  - STNR (symmetrical tonic neck reflex)
  - TLR (tonic labyrinthine reflex)
- When present, these should be integrated by therapy, but accommodated by seating.

Review their impact on seating at www.toolstogrowot.com

Sensory System

Sensory system determines tolerance to seat.

- » Tactile (touch)
- » Proprioception (pressure)
- » Temperature

- Swaddled and cuddled vs air space
- Contours may cause overheating, too tight
- Headrest can encourage head banging

Observe how the parents hold the child; ask the parents how tolerant their child will be in a confining seating system.

Skin Integrity

Skin Integrity is concern because child may not complain. Even if not in the seat for long periods.

- Spina Bifida, surgical scarring must be respected.
- Avoid pressure near G-tubes, central lines, ventricular drains.
- Check for pressure where fit is snug (distal thighs, head supports, thoracic pads)
- Look for chronic pressure bruises

Comfort

- Infants are poor communicators
- Want feedback about comfort and sensory tolerance?
  Ask parents what that cry means.
- This child was hungry, not hurting or mad.

- Falling asleep in the device should not be mistaken as contentment.
- This child was simply exhausted.

Tweaking

- Single appointment = 'moment in time'.
  Ask if today is typical.
- Expect frequent modifications for growth.
- 'Tweak' as new skills develop.
- Let parents know you EXPECT them back each year for growth adjustments.

If parents don't feel welcome to return for help, they will abandon the device.

Southwest Human Development
Assistive Technology Program
ADAPT Shop

Assistive Technology Consultation Report

Client: John (fictitious)
Date of birth:
Date of service:

Current Care/Service Team

Parent:
Physical Therapist:
Occupational Therapist:
Feeding Therapist:
Service Coordinator:
Physician: PMR: Ortho:

Background

John was seen today at the ADAPT Shop with his mother and father. John was referred by his physical therapist for an assistive technology (AT) assessment, particularly equipment for sitting within his home setting. At XX months of age on xxxx, John was seen at the ADAPT shop for a seating system that he has outgrown. John is currently XX inches tall and weighs about XX pounds. John has a medical diagnosis of Spastic Quadriplegic Cerebral Palsy (GMFCS V), Cytomegalovirus, and Cortical Vision Impairment. John also has seizures and a g-tube for nutrition. He does not do any feeding by mouth at this time. John has received Botox to his adductor muscles and upper extremities. Parents report subluxation of the hips. Mother reports surgery is being considered to address his hip subluxation but she is not sure what type, which leg, or when.

Family lives in a small apartment on the second story. John does not attend a daycare or preschool. His time is spent at home with mother when not at medical appointments or therapy. John sleeps on his back. Parents report that John enjoys music, but vision limits computer or TV activities.

Current Equipment

At home John is usually held in an adult's arms or propped with cushions. Parents straddle John over their leg and prop him against their body to provide support for his trunk and head. John arrived today in a XXX stroller. The XXX is in poor repair and parents report that it is difficult to use. He requires it for mobility, transportation, and appointments. John also has a car seat. Parents have attempted to obtain a stander unsuccessfully for several months. Parents are continuing to pursue this acquisition through XXX. John wears bilateral AFO's that were fabricated at XXX and bilateral soft thumb XXX splints.

Parent's Goals and Concerns

Parents would like John to sit better to engage more with people and toys. They would like the seat position to accomplish these goals:

- Properly align body parts and strengthen trunk and neck control.
- Prevent risk of injury from falling over or collapsing.
- Reduce risk of further orthopedic deformities.
- Encourage reach and hand use.
- Keep head up for vision, hand-eye control, and communication skills.
- Reduce abnormal tone and movement patterns.
- Help him to relax.
- Easy to carry and fit in their small apartment.
- Adapt as he grows taller.

These goals are also being supported by John's Individual Family Service Plan (IFSP)

After discussing tradeoffs, parents agree that a more controlling therapeutic seat that holds John in a position for function would be better than one designed principally for comfort. They also agree that the seat may be confining and should only be used during interactive sessions with an adult and for short durations.

Functional Status

John appears happy and easy to work with throughout the assessment. He is non-verbal but smiles and giggles with his parents. John is a slender child with delayed motor skills which are dominated by hypertonic muscles throughout his body.

SUPINE: Resting in supine he appears to have mild pectus carinatum, a scoliotic curve to his right, and a leg length discrepancy. His legs scissor and cross, while his arms are held tight to his chest with hands fisted. His head is well formed, round, and slightly small. Although he made an effort, his head lagged on Pull to Sit Test and his elbows remained flexed.

PRONE: When placed in prone John struggled to achieve prone on elbows but he does tolerate the position and with a little support under his chest he briefly maintained the position and move his head from side to side. The cold mat does seem to increase the hypertonia in his muscles.

EXAMINED: On examination John's overall tightness required a few minutes of passive flexibility exercises to stretch out and relax his body before he could be manually positioned (bent) into a sitting posture on the mat or on the therapist's lap. Range of motion limitations are pervasive and his seating will need to accommodate tight hamstrings, tight hip adductors, tight cervical flexors, and the rotation component of his scoliosis that creates a slight right rear rib hump. With moderate manual pressure his right side-bending spinal curve can be reduced to almost straight. His high thoracic and cervical kyphosis is difficult to reduce manually and will need to be accommodated by his chair. His pectoral muscles are very tight and shortened bilaterally causing his shoulders to protract and elevate. They have been treated with botox years ago but not recently. Overall, it appears that John's hips and spine have sufficient range of motion for seating purposes given a few accommodations.

FUNCTION: Parents report John is beginning to roll though this was not observed today. He does not yet hold quadruped or crawl. Parents report that he has recently played at kicking his feet and uses this in supine to scoot himself around on the floor. The new leg movement has made him unsafe positioned on the sofa due to risk for falling. On the mat today John keeps his hands fisted and his arms tight to his chest. While sitting on his mother's lap with his legs straddled he is able to relax his arms and his hands do open. John does not yet use his arms purposefully to reach, grasp, or release.

SEATING: During seating simulation, John holds his head up momentarily when placed in sitting at the edge of the mat with full manual support. Even with support of a Hensinger collar and shoulder retractors, his shoulders round forward and he quickly drops his head into a forward flexed position. After his head is lifted for him he drops it back into high cervical extension. His thoracic and cervical kyphosis places his head forward of his line of gravity so he is inclined to hyperextend at the top of his spine creating a "gooseneck" posture. This upper trunk rounding will need to be respected and accommodated in his chair, with the effort being on achieving a face-forward head position. Without strong pelvic support he immediately falls over in any direction. He has difficulty holding a long sit posture because his hamstrings are shortened forcing him into sacral sitting, and he is unable to use arms to prop. When moved into ring sitting to relieve the hamstrings, John again sacral sits with a rounded back and flexed head position.

Seating Challenges and Needs

1. CUSTOM SEAT. John's primary position during the day is reclined or propped semi-reclined which delays and limits development of skills that depend on upright posture. Commercially available seating devices lack the specific supports John needs, requiring a custom seating system. Without this device John would be denied the opportunity to further develop skills that require upright posture including reaching, eye hand coordination, visual perception, and communication.

2. PELVIC STABILIZATION. Sitting stability relies on a stable pelvic base. To stabilize the pelvis in neutral (not tipped forward or back) the closed-cell Ethafoam seat cushion has a deep bowl under the ischial tuberosities (butt bones) ramping up in front under the thighs. The rear of the pelvis presses against the rear of the seat bowl to restrict posterior (rearward) pelvic tilt. Likewise the high sides of the bowl restrict lateral (sideways) movement of the pelvis.

3. THIGH ALIGNMENT. Troughs are cut in the seat to keep John's thighs slightly abducted with his knees 10" apart (measured from medial surface) just outside his shoulder width. In the seat's center front a slight rise will help to guide placement of John' bottom in the seat as well as act as an abductor wedge. The front edge of the thigh troughs is rounded slightly so John can pull is feet under the seat.

4. SEATBELT. A pelvic strap is included for safety, acknowledging that it will have little effect on pelvic positioning.

5. FOOTREST. Typically, feet are supported with ankles and knees at about 90 degrees to keep the legs in good alignment. Ankles alignment is maintained by his AFO's which he wears daily. Acknowledging that dangling legs can trigger abnormal tone, in John's case he is being given the freedom to move his knees in order to continue motor development. So there is no heel block behind the footrest.

6. SEAT TO BACK. Keeping John's hips flexed inhibits his lower extremity extensor tone, so his back-to-thigh angle is about 95°-100° (slightly acute).

7. ADJUSTABLE TILT IN SPACE. John will need the entire seating system (not just the back) tilted back (tilt-in-space) slightly, about 20 degrees from vertical. This will align his head just behind the line of gravity. At 20 degrees John will be in a "working" (task-ready) position to interact with an adult. In this position John falls forward and to the left, but with assistance he can work to hold himself upright.

   At 30 degrees, John is able to hold his head upright and in midline. By tipping John in different angles it was determined that this position encourages relaxation and energy conservation for John. Parents have been instructed how to change the tilt of the chair and when it is appropriate to use this more restful angle.

8. BACK HEIGHT. Support that extends to the shoulders promotes an erect trunk and provides contact support behind the shoulder girdle for stable counter-pressure when reaching. For John the perception of 'safe' contact against his scapular region may encourage him to relax his excessive shoulder protraction.

9. TRUNK PADS. Bilateral trunk supports were considered to prevent falling to the side and to correct the scoliosis. However at the fitting he demonstrated upright spinal alignment without them. If John's spinal curves progress, these supports should be re-considered. The back rest has slots already built in to accommodate this possibility.

10. FLEXIBLE CHEST STRAP. Although not needed at the fitting, a stretchy neoprene Velcroed chest strap is available to limit movement of the trunk. As John develops control, the strap can be loosened and eventually removed if not needed. Parents have one from a previous seat provided by ADAPT shop.

11. ARMRESTS and TRAY. Wide armrests and a tray/support surface that wraps around the front and sides allow forward leaning, weight bearing through forearms (propping), and hands to midline. It also provides a platform for toys, therapy tools, and visual stimulants. A black (rather than white) background surface enhances visual contrast. Having a 'safe' place to rest his arms may encourage John to lower his shoulder elevation and relax his a rms. Acknowledging that John is hunching his shoulders, the height is set at ½" below his hanging olecranon (elbow). The belly cutout is slightly larger to avoid irritating his G-tube, and a pull pin locks it in place.

12. HEADREST. John's weak trunk and neck muscles fatigue rapidly causing his head to flop forward. His headrest incorporates 3 support components: sub-occipital, posterior cervical, and posterior occipital. To support below the occiput (rear skull) and behind the upper cervical spine, a c-shaped headrest was created by scanning John's body and head while he was held in the desired therapeutic alignment. The images were then used to inversely print on a 3-D printer to create a custom shape that exactly matches his upper neck and occiput and

holds the weight of his head. It is attached with screws in slots to allow adjustment as he grows taller. To accommodate his kyphosis, the top portion of the back rest was extended taller and thickened 1" bringing the surface forward for posterior skull support.

Other AT Challenges and Needs

1. SLANT BOARD. When John looks down at toys on a tabletop, head drops forward, shoulder stabilization weakens, and reach is compromised. By using Velcro on a slant board toys and stimulants can be propped up at eye level to promote head up and upward eye-gaze. Black slant board was provided for better visual contrast.
2. A.T. LENDING PROGRAM. Parents were introduced to the ADAPT Shop AT Equipment Lending Program which allows them to borrow commercial AT devices to try at home with their treating therapists. Parents and this therapist will follow-up with John's therapy team about the program.
3. PARENT TRAINING. Parents are unfamiliar with this type of assistive technology. They were given instruction in therapeutic use, safety, and care/maintenance. John's treating therapists will also need to instruct family in therapeutic activities using this AT equipment, as well as monitor growth and fit.

Functional Goals Achieved

1. John was provided with Assistive Technology to meet the IFSP and parents' stated goals (above).
2. John independently sat in a position that supports function.
3. Parent demonstrated skill in positioning John in the AT and agree to use it to actively participate in daily therapeutic activities with John.

Intervention

1. An AT assessment was completed by the ADAPT Shop Physical/Occupational Therapist signed below.
2. A custom contoured seating system with the components listed above was fabricated by the SWHD ADAPT Shop. The device was then adjusted to fit John.
3. Parent took home a special seating chair, table, toy bar, and slant board.
4. Parent was instructed in therapeutic use, safety, and care/maintenance. The signature below confirms their agreement to:
    a. Use only when an adult is interacting with John for short durations to do therapeutic activities as directed by prescribing or treating therapists. Never leave John alone in this device.
    b. Never use device on an elevated surface (sofa, chair, table) or as a car seat, bath seat, or carrier.
    c. Never move the device with John in it. Take John out first.
    d. Clean the device with a sponge and dish soap. Do not immerse in water.
5. No further intervention is scheduled at this time. However, parents were asked to contact ADAPT shop if and when hip surgery occurs so his seating system can be adjusted.

Follow-up phone contact will be made within 8 weeks, but if any questions or concerns arise before then, please contact our ADAPT Shop intake and referral specialist, Alexis Choppi, at 602-633-8372, or the therapist that worked with you.

Janice Herman, PT, MS	Beth Rank, OTR/L	Parent Signature
Physical Therapist	Occupational Therapist	
ADAPT Shop	ADAPT Shop	
JHerman@SWHD.org	BRank@SWHD.org	