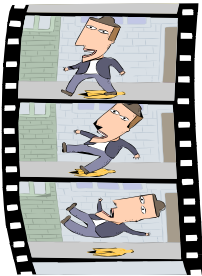


Eliminating Restraints without Increasing Falls	
	Betsy Willy MA, PT, FCCWS Pathway Health Services March 2010

Identify High Risk for Falls	
<ul style="list-style-type: none">■ Fall Risk Assessment<ul style="list-style-type: none">- On admission- Change of condition- Readmission■ Communication to ALL Staff■ Temporarily at high risk<ul style="list-style-type: none">- Change in meds- Infection- Communicate this to ALL Staff	

Moms have an incredible sense of responsibility for keeping their child safe	
<ul style="list-style-type: none">■ Moms know their child's routine<ul style="list-style-type: none">- How long they sleep- What they are likely to do when they wake up- When they are likely to need to be taken to the potty- Whether they will ask or just need to be taken to the potty- If they are likely to try to climb out of their crib	<ul style="list-style-type: none">■ Moms develop "eyes in the back of their head"■ They understand the meaning of every nuance of sound and every silence■ They develop a 6th sense for when to react and when things are normal■ A mom would never leave a toddler in the house alone while they take a coffee break with a neighbor


Consistent Staffing to Neighborhood	
<ul style="list-style-type: none"> ■ Allows staff to learn the routines, needs and behavior quirks of each of their elders 	<ul style="list-style-type: none"> ■ As they get to know their elders and engage with them, they develop this same "incredible sense of responsibility" for their safety


Communication	
<ul style="list-style-type: none"> ■ These CNAs would never change shift without telling the next shift when folks were last repositioned or toileted 	<ul style="list-style-type: none"> ■ These CNAs would never leave the floor on break without warning another staff member to "watch out for Mr. ___ he is due to wake up soon and might try to transfer himself"

Why does a toddler become agitated and try to climb out of the car seat on a long drive?	
<ul style="list-style-type: none"> ■ Hungry ■ Wet ■ Bored ■ Uncomfortable ■ Too much commotion ■ Trying to reach something 	<ul style="list-style-type: none"> ■ After trying to meet these needs and keep driving, we finally pull over to a rest stop, feed him, change his pants, and run his little legs off before reseating him in the car seat.

	<p>Why Do Unsafe Residents Try to Get Up on Their Own?</p>
	<ul style="list-style-type: none"> ■ Have to "pee"; Gotta go, gotta go, gotta go right now! ■ "I just don't want to bother anyone – they're so busy" ■ "My back hurts from sitting in this chair so long – I just wanted to lie down" ■ "I didn't get up, I just slid out" ■ "I couldn't reach my _____ (call light, phone, book, tv control)" ■ "She was rummaging in her bottom drawer again" ■ "I forgot I couldn't"

	<p>And what is our response?</p>
	<ul style="list-style-type: none"> ■ Repeatedly tell him to "sit down! You might fall"? ■ Put an alarm on him so when he shifts or tries to stand, it will make a lot of noise? ■ Put a seatbelt or lap buddy on him to prevent him from trying to stand?


	<p>Why DO folks attempt to get out of their chairs?</p>
	<ul style="list-style-type: none"> ■ Uncomfortable <ul style="list-style-type: none"> - Pain - Fatigue ■ Boredom <ul style="list-style-type: none"> - Lack of engagement with others - Left for long periods in front of TV or in their rooms ■ Confusion <ul style="list-style-type: none"> - Agitation/anxiety <div style="text-align: right;">  </div>

How can we maintain their safety?	
<ul style="list-style-type: none">■ How are we maintaining their<ul style="list-style-type: none">- Muscle strength- Balance- Endurance■ How are we supporting Hydration?	


Why automatically assign new residents a wheelchair?	
<ul style="list-style-type: none">■ Wheelchairs were never meant to be used for all day seating■ They provide convenience for staff to move someone quickly from one place to another■ They prevent the elder from maintaining balance, strength and endurance	<ul style="list-style-type: none">■ When done for the convenience of staff not benefit of the resident, it is wrong.■ Instead, leave chair outside room, or outside dining room and assist ambulation■ Encourage active exercise at whatever level the elder is capable


Provide Alternative Options – YOU don't sit in one chair all day long!	
	
	


Impact Absorption: It's not the fall that hurts, It's the landing	
<ul style="list-style-type: none">■ Hipsters■ Fall Mats■ Shock Absorption Flooring<ul style="list-style-type: none">- Aerobic flooring- Gymnastic flooring- Playground impact absorption surfaces	

Antilock Brakes	
<ul style="list-style-type: none">■ Advantages: prevents roll back during attempts to independently transfer■ Disadvantages: Must be carefully adjusted to prevent excess pressure on ischial tuberosity	

Fit The Chair to Resident and keep it well maintained	
	

Exhaustion: COPD or CHF	
<ul style="list-style-type: none">■ Wheelchair weighs 35-50 pounds plus weight of oxygen tank■ Rugs create resistance■ Wheels don't turn equally pulling wc to side	

Falls Related to Seating	
<ul style="list-style-type: none">■ Unlocked Brakes■ Over reaching■ Sliding■ Tipping chair■ Unassisted transfers	

Over Reaching	
<ul style="list-style-type: none">■ Center of gravity must remain within the base of support■ Leaning forward will tip this guy■ Chair must fit	

	Overreaching
	<ul style="list-style-type: none">■ Cognitively intact:<ul style="list-style-type: none">- Use Reacher■ Cognitively impaired<ul style="list-style-type: none">- Arrange commonly used items within easy reach<ul style="list-style-type: none">■ Between shoulders and knees- Clear visual clutter- Reduce auditory clutter- Good lighting- Lower clothing rod in closet- Reduce rummaging<ul style="list-style-type: none">■ Items in easily reached drawer

	Modify to fit needs of Resident
	


	Start with Ideal Position
	


If it looks wrong – It probably is wrong - Refer	
<ul style="list-style-type: none"> ■ Knees level with hips – thighs horizontal to floor ■ Feet flat on floor if self propelling ■ Back comes up to mid scapula ■ Elbows rest on armrests without leaning and without tucking them inside armrests 	<ul style="list-style-type: none"> ■ Two finger rule <ul style="list-style-type: none"> – Width: Two fingers of space between hip and side arm – Seat depth: Two fingers of space behind back of calf and edge of seat

Gravity Assisted Seating – Eliminate Restraint Need	
<ul style="list-style-type: none"> ■ Seat the pelvis first <ul style="list-style-type: none"> – Down and back into the chair – Tip chair using dual axel option – Recess back 	<ul style="list-style-type: none"> ■ Let gravity help keep the individual in the chair not slide them out of the chair

When is a device a restraint?	
<ul style="list-style-type: none"> ■ Defined by the effect the device has on an individual <ul style="list-style-type: none"> – Does it prevent ease of movement? – Does it prevent access to body parts? 	<ul style="list-style-type: none"> ■ Is a seat belt used by a dependent resident a restraint? <ul style="list-style-type: none"> – NO ■ MDS Coding accuracy is important


Reducing Restraint Use	
<ul style="list-style-type: none">■ Assess each individual<ul style="list-style-type: none">- Replace restraint with anticipation of need, supervision, engagement in activity- Reduce cause of discomfort and agitation■ Care plan progressive reduction	<ul style="list-style-type: none">■ Reduce the restraint incrementally<ul style="list-style-type: none">- Off when visually supervised<ul style="list-style-type: none">■ Meals and activity- Off during most lucid part of day- Finally off all day■ Document progressive reduction

What's wrong with this picture?	
	


Chair Modifications	
	<ul style="list-style-type: none">■ Longer wheel base■ Angled seat■ Wedge Seat■ Anti tippers■ Seat Belt■ Low seat for self propelling

Be Cost Conscious – but achieve functional safe seating	
<ul style="list-style-type: none">■ Get the right wheelchair under the right resident<ul style="list-style-type: none">– Reshuffle current wheelchair stock– Wheelchair rodeo<ul style="list-style-type: none">■ Shuffle multiple chairs	<ul style="list-style-type: none">■ Wheelchair rodeo<ul style="list-style-type: none">– Theme day<ul style="list-style-type: none">■ Activities – western■ Lunch – western■ Therapy, CNAs and Maintenance refit, repair and clean multiple chairs in one day

Modification of current chair without purchases	
<ul style="list-style-type: none">■ Dual axel chairs<ul style="list-style-type: none">– Changing wheel position<ul style="list-style-type: none">■ Can lower or raise seat■ Can tip seat– Replace wheels with smaller diameter – lowers seat	<ul style="list-style-type: none">■ Some recliner frames have multiple width positions■ Some chairs have telescoping backs<ul style="list-style-type: none">– Can increase or decrease height of back

Cushion Too Short Excess pressure over Ischial Tuberosities	
	

	Cushion Too Long-Pulls resident into sacral sitting
	

	Too wide, Just Right, Too Narrow
	

	Arm rest too high
	

	<h3>Arm Rest Too Low</h3>
	

	<h3>Footrest</h3>		
	<table border="0"><tr><td style="vertical-align: top;"><ul style="list-style-type: none">■ Too Low<ul style="list-style-type: none">- Slides into sacral sit- Arches Low Back■ Too Short<ul style="list-style-type: none">- Pressure on Coccyx■ Elevating footrests<ul style="list-style-type: none">- Pull individual into sacral sitting if<ul style="list-style-type: none">■ Knees hurt■ Hamstrings tight</td><td style="vertical-align: top;"><ul style="list-style-type: none">■ "foot drop" contractures – pressure ulcers<ul style="list-style-type: none">- Angled footrests available on special order■ Knee Flexion Contractures<ul style="list-style-type: none">- Footrests behind front wheel</td></tr></table>	<ul style="list-style-type: none">■ Too Low<ul style="list-style-type: none">- Slides into sacral sit- Arches Low Back■ Too Short<ul style="list-style-type: none">- Pressure on Coccyx■ Elevating footrests<ul style="list-style-type: none">- Pull individual into sacral sitting if<ul style="list-style-type: none">■ Knees hurt■ Hamstrings tight	<ul style="list-style-type: none">■ "foot drop" contractures – pressure ulcers<ul style="list-style-type: none">- Angled footrests available on special order■ Knee Flexion Contractures<ul style="list-style-type: none">- Footrests behind front wheel
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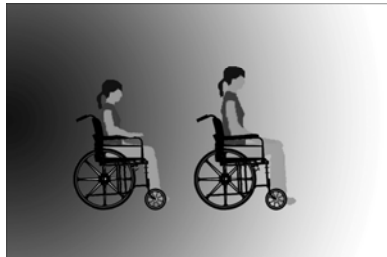
	<h3>No Footrests</h3>		
	<table border="0"><tr><td style="vertical-align: top;"><ul style="list-style-type: none">■ Advantage:<ul style="list-style-type: none">- If correct wheelchair seat height - can propel self</td><td style="vertical-align: top;"><ul style="list-style-type: none">■ Disadvantage<ul style="list-style-type: none">- When pushed risk of trauma to feet- Seat height too high with no foot rests<ul style="list-style-type: none">■ Slides into sacral sitting – fall risk■ Arches low back – pain and discomfort</td></tr></table>	<ul style="list-style-type: none">■ Advantage:<ul style="list-style-type: none">- If correct wheelchair seat height - can propel self	<ul style="list-style-type: none">■ Disadvantage<ul style="list-style-type: none">- When pushed risk of trauma to feet- Seat height too high with no foot rests<ul style="list-style-type: none">■ Slides into sacral sitting – fall risk■ Arches low back – pain and discomfort
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Bariatric Seating

- Extra depth wheelchair seat
- Support low back above buttocks
- Extra width
- Heavy duty chair
- Consider large wheels in front of chair with casters in back for easier propelling





Tall lean folks: deeper seat, higher off ground, taller back



What's wrong with this picture?

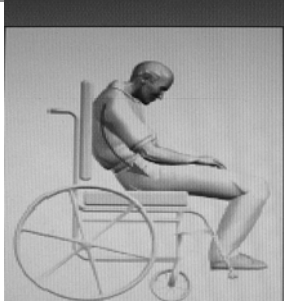


<h2>Pressure Redistribution Support Surfaces</h2>	
<ul style="list-style-type: none">■ Pressure Maps<ul style="list-style-type: none">- Foam<ul style="list-style-type: none">■ Bottoms out■ Limited life span – when it no longer rebounds to original position, it needs to be tossed- Gel: to achieve total contact resulting in lower pound per square inch- Air : sit in the air cushion not on it to redistribute pressure – not as stable as gel/foam combo but better pressure redistribution.	 

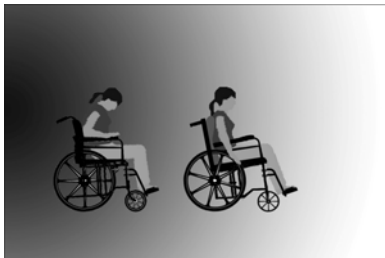
<h2>The "Oozer"</h2>	
<p>Pulls self from chair propelling down the hall</p> <p>Slumped sitting - oozes from chair</p> <p>Effect is worse if seat is too high and knees are lower than hips</p>	

<h2>The "Flopper"</h2>	
<p>Forward Face Plant</p> <ul style="list-style-type: none">■ Fatigue■ Poor Back Strength■ Severe Kyphotic Curve■ Seat not deep enough to keep the center of gravity over the base of support when the individual leans forward	

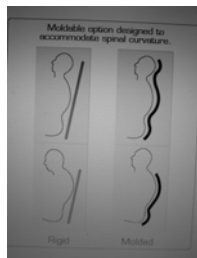
Sacral sitting – high pressure points and pain



Kyphotic Back

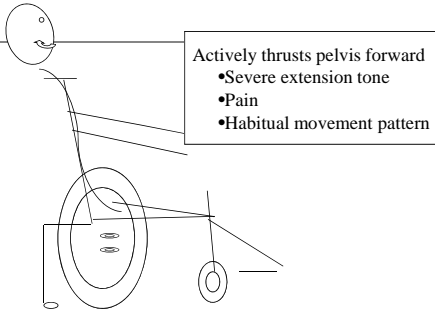


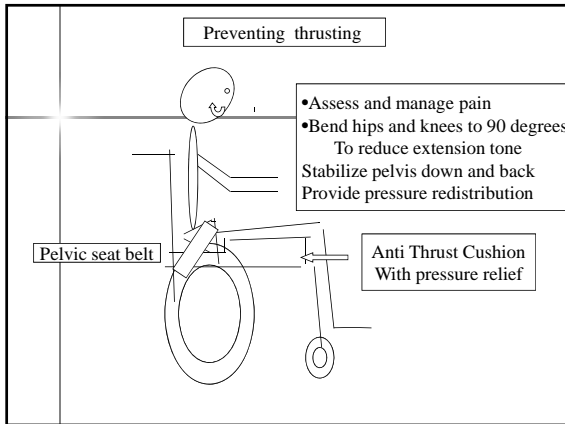
Moldable back – Total Contact

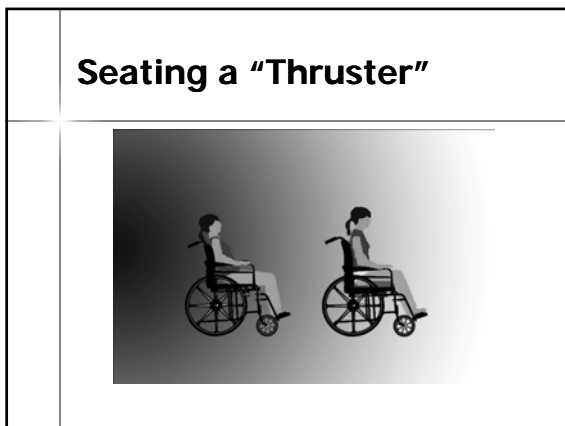


Recessed deep surround back


The "Thruster"
<ul style="list-style-type: none">■ High Extension Tone<ul style="list-style-type: none">■ Parkinson's■ Stroke■ Traumatic Brain Injury■ Cerebral Palsy■ MS■ Reduce tone by maintaining 90 degree bend at hips and knees

<p>Thruster – Extends Hips and Knees = Sliding board to floor</p>







The "Thrasher"

- Huntington's Chorea
 - Uncontrolled movements thrust the individual out of the chair
- Wider and longer wheel base needed
 - If self propelling, lower the seat

	Longer and wider wheel base, tilted seat
	

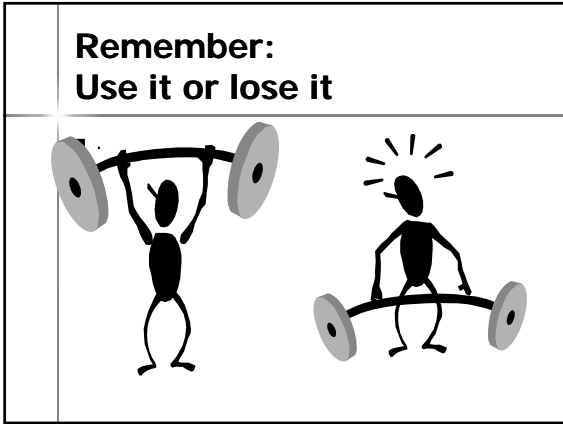
	The "Rocker"
	<p>Elder with Dementia</p> <ul style="list-style-type: none">■ Pacing in a sitting position■ Self Stimulation through movement <p>Solutions: Provide opportunity for movement</p> <ul style="list-style-type: none">■ Stationery glider■ Frequent opportunities to walk with staff■ Stimulation class■ Anti-tipping devices - front and rear

	Safety and Merry Walkers
	<ul style="list-style-type: none">■ Appropriate use as a bridge between independent ambulation and wheelchair dependency for individual with poor balance 

Merry Walker Safety	
<ul style="list-style-type: none"> ■ Therapy assess and document <ul style="list-style-type: none"> - Is this the most appropriate means of ambulation? - Fit – center of gravity must be lower than side bars ■ Risk of Tipping <ul style="list-style-type: none"> - Do not use in area with uneven surface at doorways or between tile/carpet - Use wide base of support 	<ul style="list-style-type: none"> ■ Do not allow residents to fall asleep while using device – it's not a playpen! ■ Use only during visual supervision ■ Use for limited time alternating with other seating options ■ Watch for exhaustion – some folks will walk till they drop ■ Do not allow more than one merry walker in use in a limited area at a time. ■ Seats = board plus 1 inch foam – NO Pressure Relief

Seat and Bed Alarms	
<ul style="list-style-type: none"> ■ Do not prevent falls – only alert staff that resident has already fallen ■ Staff become desensitized to sound ■ Select resident carefully <ul style="list-style-type: none"> - Adds to the agitation of elder and those in the same area - Punishes the resident who tries to move ■ Allows staff to feel comfortable leaving resident in an area where they are not supervised ■ Reduce or eliminate their use 	

Change in Behaviors	
<ul style="list-style-type: none"> ■ Confusion or lethargy <ul style="list-style-type: none"> - infection – don't forget teeth - impaction - change in medications - change in routine - electrolyte imbalance - drug toxicity - TIA's 	



Eliminate Falls and Restraints
<ul style="list-style-type: none">■ Engage resident in life■ Know, anticipate and meet their needs■ Recognize discomfort due to seating■ Reduce agitation due to chaos in environment■ Look for physiologic issues■ Folks - This is not business as usual, this is about the quality of life of our ELDERS!

With Kudos to these folks for their contributions	
To the folks in the Pioneer Network and Eden Alternative for helping us view the world from the bottom up	To Joanne Rader and her coworkers for rethinking alarms and stressing safe functional wheelchair seating
To Naomi Feil for her incredible work	To all of you for your hard work!
