Adaptive Equipment: 101
Abduction– Where the legs rotate outward from the pelvis. Often caused by too wide or short of a seat or too deep an ischial well. Larger patients often have an issue here due to tissue. Leg troughs, thigh and hip guides are used to adduct the legs when this occurs.

Adduction– where the legs rotate inward at the knees. Often caused by sling seating as it promotes this posture. An abductor or pommel is used for adduction.

Anterior– Rotating forward.

Cervical– Top of the spine at the neck and shoulders.

Coccyx– Commonly referred to as your tail bone.

Ischials– The two lowest points on the sides of a pelvis.

Kyphosis– When the spine is bent forward creating a “hump”.

Lordosis– When there is a distinct inward curve in the lumbar area of the spine.

Lumbar– The lower area of the back.

Posterior– Rotating backward.

Obliquity– When the pelvis is not “even” in its position. Named for the low side.

Sacrum– the part of the pelvis above the coccyx.

Thoracic– Middle of the back and spine.
#1 GOAL FOR SEATING SURFACES

MAXIMIZE QUALITY OF LIFE

1. Prevent Pressure Sores
2. Control the head
3. Enable independence
What is a Decubitus Ulcer or Pressure Sore?

They are an injury to the skin and underlying tissue. They can range from mild reddening of the skin to severe tissue damage—and sometimes infection—that extends into muscle and bone.

- If capillaries in the skin are starved of oxygen for too long, they die
- You need adequate blood circulation to keep your cells alive. When circulation is cut off — as it is when you sit or lie in one place for a while — the cells cannot get blood and oxygen. They die and sores may develop.
- Pressure can come from outside the body. The pressure of your weight pushes your bones onto blood vessels and cuts off circulation. Cells can die in 30 minutes if they do not have proper circulation.
What causes them?

- **Pressure** – Pressure for an extended period of time
- **Shearing** – Shearing happens when two layers of skin are pulled in opposite directions. It can lead to skin breakdown and skin tears. Shearing can happen any time you slip down — either in a wheelchair or in bed. Shearing increases your risk of getting pressure sores.
- **Friction** – Friction happens when there is constant rubbing or pulling on the skin. This can create blisters. Friction can happen when you drag any part of your body across a surface. Spasms also can cause friction.
- **Temperature**
- **Humidity**
- **Continence**
- **Age**
- **Diet**
- **Smoking**
Pressure Sores

Where do they occur?
- Bony prominences: Ischial tuberosities (butt bones), Coccyx (tail bone), heels, ankles, elbow, back, etc.

Dealing with pressure sores
- There may be early warning signs that pressure is causing damage. These signs include redness and firmness. You should check for them when you do your skin checks.
- There are four stages of pressure sores, which are also known as decubitus ulcers. The deeper the pressure sore, the more serious the problem. Pressure sores can vary from redness, to wounds deep enough to involve tendons, bone, or muscle
Four Stages of Levels of Sores

- Superficial or **Stage 1** sores are not open wounds. The skin is closed and may be painful. The skin may appear reddened or darker than normal, like a bruise, and there are no breaks or tears in the skin. Skin temperature is often warmer, but can be cooler than the skin around it. And the stage 1 sore can feel either firmer or softer than the surrounding skin.

- Partial skin depth or **Stage 2**, the skin breaks open, wears away, or forms an ulcer, which is usually tender and painful. The sore expands into deeper layers of the skin. It can look like a scrape (abrasion), blister, or a shallow crater in the skin. Sometimes this stage looks like a blister filled with clear fluid. At this stage, some skin may be damaged beyond repair or may die.
Four Stages of Levels of Sores

- Full skin depth **or Stage 3**, the sore gets worse and extends into the tissue beneath the skin, forming a small crater. Fat may show in the sore, but not muscle, tendon, or bone.
- Full skin depth with muscle damage **or Stage 4**, the pressure sore is very deep, reaching into muscle and bone and causing extensive damage. Damage to deeper tissues, tendons, and joints may occur.
- In stages 3 and 4 there may be little or no pain due to significant tissue damage. Serious complications, such as infection of the bone (osteomyelitis) or blood (sepsis), can occur if pressure sores progress.
**Stage 1**: an area of redness that does not fade or blanch. The skin is intact.

**Stage 2**: the skin is broken. It may look like a scrape, blister, or shallow crater.

**Stage 3**: a deeper crater. It goes all the way through to soft tissue.

**Stage 4**: to the muscle, bone, or tendon.

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**What you can do to prevent sore**

- In the wheelchair seating and positioning world, we can make sure the user has the correct size and product type for:
  - Wheelchair
  - Wheelchair seat cushion
  - Wheelchair backrest
  - Wheelchair foot rest
  - Wheelchair armrest

- Keeps these in mind to protecting against pressure sores:
  - Sheering
  - Heat
  - Moisture
  - Nutrition/ diet
  - Smoking
Control the head

- Controlling the head is critical to allow for:
  - Social interaction
  - Preventing a sore neck
  - Maintaining proper posture over time

- Kyphosis:
  - Front-to-back curvature

- Scoliosis
  - Side-to-side curvature
Enable Independence

- Propel themselves to
  - The bathroom without help
  - The food center
  - The activity center
  - Get outside

- Transfer in/out of wheelchair
  - Use the toilet/shower without help
  - Safety in case of emergency

- What is needed?
  - Proper seat-to-floor height
  - Axle-to-shoulder alignment
  - Proper wheelchair width
  - Proper seat and back angle
• There are different materials that help make up a wheelchair cushion.

• Foam
  • Helps with support and breakdown
  • These are the primary foam types:
    • Single-Density Foam – This is used in our least expensive cushions and offers a very limited amount of pressure reduction.
    • Two-Density and Four-Density Foam – Soft foam on top for increased user comfort, and firm foam underneath for structure and support. A little better pressure reduction as compared to single-density, and allows for better positioning of the user.

• Gel
  • Offers cooling effect
  • Distributes body heat
  • The more gel compartments the better the gel stays in place.
  • Key is for the gel to surround the area to
  • Come is sheets and water based bladders.
Components of a Cushion.

• Air
  • Found in High End cushions.
  • Used for patients with a high risk of skin breakdown
  • Distributes pressure
  • Limits Sheer and Friction

• Covers
  • It protects the cushion. Covers can be washed, but most cushions cannot. If the user is incontinent it is important to use a cushion with an incontinent-resistant cover, because urine will ruin a cushion. It reduces the shearing forces on the user. Unlike cushions, covers are designed to stretch, so when a user shifts in their seat the cover will move with the user. This friction can lead to a breakdown of the affected tissue.
Foam Types:

- **Single-Density Foam** – This is used in our least expensive cushions and offers a very limited amount of pressure reduction.

- **Two-Density** and **Four-Density Foam** – Soft foam on top for increased user comfort, and firm foam underneath for structure and support. A little better pressure reduction as compared to single-density, and allows for better positioning of the user. Memory foam also falls within this category.
Gel

• Types of Gel Cushions:

• **Single-Chamber Gel in the Middle** – These cushions have a gel bladder sandwiched in between two foam cushions. The gel improves the pressure reducing qualities of the cushion. This construction is used in the least expensive gel-foam cushions.

• **Single-Chamber Gel on Top** – The gel bladder is on top of the foam cushion, so the user sits directly on the gel. This direct contact with the gel reduces the amount of heat build-up that a user experiences when sitting. Heat and the resulting perspiration both contribute to skin breakdown.

• **Four-Chamber Gel on Top** – With these cushions, the gel bladder is divided into four separate sections. This minimizes the possibility of the gel migrating to one spot on the cushion, as can happen with single-chamber gel cushions. Because the four chambers keep the gel distributed evenly, these cushions will provide the user with superior pressure reduction and more appropriate positioning as compared to the single-chamber ones.
• Types Air Cushions:

• Some use a rubber bladder like an inner tube on a bicycle. They come with an air pump and release valve allowing the user to adjust the amount of pressure in the cushion. A four-inch high air cushion offers superior pressure relieving qualities, because the user will sink down three inches into the cushion when the pressure is properly adjusted. This distributes their weight over a greater surface area than would a gel or foam cushion.

• Others use comfort cells that you can add and remove to customize the cushion to fit the individual persons needs. These cushions often have several compartments so you can add and remove the comfort cells is the exact area for added customization.
Types of Covers:

- **Poly/Cotton** – Very soft to the touch, stretchable, but not incontinent-resistant.

- **Polyester** – Very soft to the touch, stretchable, but not incontinent-resistant.

- **Vinyl** – Incontinent-resistant, but not stretchable and does not "breath". This can lead to increased perspiration, and moisture is a contributing factor to decubitus ulcers.

- **Sure-Chek Vinyl** – A better grade of vinyl. A little more stretchable than standard vinyl, and has anti-bacterial properties.

- **Solace** – Soft to touch, stretchable, incontinent proof, latex free, flame retardant (Ca 117), anti bacterial, antifungal

- **Stretch-Air** – Soft to the touch, a two-ply fabric with a high-stretch top layer and a waterproof, breathable lower layer (Gore-tex).
General Foam Cushion

- General Use
- One of our top selling cushion
- Polyurethane foam
- Extra Strong Poly/Cotton removable covers
- Ties to attach to wheelchair
CURVE

Suitable up to wound stage 1.

Mild anti-thrust shelf prevents forward migration.

Kwik Strap loops around vertical canes to securely attach cushion to wheelchair during transfers.

High density, molded foam increases surface area reducing potential high-pressure areas.

Medial and lateral thigh supports promote proper leg alignment.

PRODUCT FEATURES -

- Molded foam construction with mild anti-thrust shelf to prevent forward migration of the pelvis.

- Tapered adductors and mild abductor encourage proper leg alignment.

- Large radius bottom provides versatile surface for sling or flat seated wheelchairs.

- Low profile contoured cushion provides optimal distribution of pressure without significantly increasing seat to floor height.
Jay Basic Cushion

- General Use
- One of our top selling cushion
- Beveled front to help with positioning
- Durable molded urethane open cell foam
- Removable incontinent covers
- Ties to attach to wheelchair
SUPPORT PRO 7 SERIES

Suitable up to wound stage 2.

Kwik Strap loops around vertical canes to securely attach cushion to wheelchair during transfers.

Non-contoured seating surface allows for easy transfers.

Coccyx relief area unloads bony prominences.

Waterfall front eliminates pressure points in leg trough.

750 lb. weight capacity foam provides increased comfort and reduces potential high-pressure areas.

- This cushion’s waterfall front increases comfort and reduces pressure behind the knees.
- Easy to clean Solace cover straps to wheelchair using kwiK straps, and provides multi-directional stretch and protect against shear force.
- High density Molecule molded foam specially designed for high weight capacity.
- Features large flat bottom and coccyx cutout for improved positioning.

Optional QuadraGel® pack insert.

The QuadraGel pack regulates body temperature and redistributes pressure for comfort.
Skil–Care Econo Gel Pad

- High-Density foam layers on top and bottom provide stability and cushioning
- The gel-filled center adds pressure-relieving floatation
- Vinyl covers the entire cushion (incontinent resistant)
- Polyester outer cover reduces skin shear
C-GEL CUSHION

Suitable up to wound stage 1.

PRODUCT FEATURES -

- New C-Gel for comfort and not all the cost. Designed for maximum comfort and pressure relief.
- Single-layer foam with a dual gel pack.
- Available in a 2 or 3 inch thickness.
- Attaches to the chair with strap.
- Cover is fluid-proof and can easily be cleaned or removed.
Lacura Q–Gel

- Two-Density foam structure, soft top layer for comfort, firm bottom layer for support
- Contains a four quadrant gel pack
  - Four quadrants keeps the gel in the required vicinity to provide pressure redistribution
  - Gel pack reduces seated temperature and shear forces
- Sure-Check vinyl cover (incontinent resistant)
Roho Moasic

- Provides a comfortable, functional and stable sitting environment. 3" high poly vinyl interconnected air cells are easy to setup, inflate and adjust.
- Includes lycra cover with nonskid mesh bottom and hand pump. 250-lb. weight capacity. 16"D.
- Great for Stage 2 Wounds!!!
Four individual sections are uniformly inflated through one valve. A simple push of the ISOFLO® Memory Control™ knob locks the air in place in each of the four quadrants.

Perfect for asymmetric posture, unusual body shapes or for users with poor balance but needing air circulation and superior pressure relief.

Flame–resistant neoprene rubber with cover to reduce shear. Cushion is soap and water cleanable; cover machine washable.
ADJUSTER & ADJUSTER LOW

Suitable up to wound stage 4.

Five fully adjustable compartments provide custom fit with maintenance free air cells.

- Newly designed Comfort Cells are softer & thinner. This allows the user to immerse into the cushion more than ever before.
- Attaches with Kwik strap.

Add or remove Vicair® Comfort Cells as needed to customize the cushion to fit each patient’s individual needs.

WEIGHT
1.8 LBS

Adjuster is 4” Tall, Adjuster Low is 2.3” Tall

Leg troughs may be adjusted to elevate legs to control forward leaning or lower legs for foot propulsion.

Rear compartments allow deep immersion, keeping the user from sliding forward.

Medial band prevents forward migration of the pelvis.

THE COMFORT COMPANY
Patterson Medical
Aids of Daily living products designed to help children and adults achieve their goals.

Categories of Aids of Daily living:

• Mobility – Walkers, Rollators, and Canes
• Dining
• Bathing & Toileting
• Reachers
• Stocking Aids
• Dressing Aids
• Grooming and Oral
**Aids for Daily Living**

- **Rigid Leg Lifter**: Reinforced wiring around a rigid, yet adjustable metal rail in the center and foot portion.
  - A946-21 41" long (most adults) $68.95
  - A946-23 34" long (for small adults and pediatrics) $13.99

- **Sock and Stocking Aid with Built-Up Foam Rollers**: Easy to use aid helps individuals pull socks or stockings. Flexible plastic core sock aid.
  - 2083 Adult, 43" x 54", Hodge 35" $13.99
  - 2086-04 FlexiSock Equipment Package with 21" Reacher $34.99

- **Free Fall/Freedom Grip**: Adjustable Travel Handle. Slides between mattress and box spring.
  - 5636-24 $94.95

- **Transfer Pole & Transfer Pole Swing Grip**: Constructed of heavy gauge 17 ga. steel and steel swivel knob. Requires no tools to install. 20 lb. weight capacity. 206S-05 Transfer Pole $219.95

- **FMP**: For those who lack the fine motor skills needed to thread the lanyard.
  - 6645-01 White $9.99
  - 6645-02 Black $9.99

- **Soup Ladle**: For those who have difficulty using a normal ladle.
  - A715-2 24" long $7.90
  - A715-1 18" long $7.90

To order, call us at 1-800-323-5547 or see our online e-Catalog at www.pattersonmedical.com

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**Your Daily Living Aids Checklist**

1. Identify your therapist or discharge planner if the Sammons Preston products you need.
2. Call Sammons Preston at 1-800-323-5547 to place your order or place an order on our website at www.pattersonmedical.com.
3. To receive the discounted price, make sure you mention Key Code ADL910 before placing your order. Without this code, your order will reflect standard retail pricing.

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**Dining**

- **Antipodes™**: Easy to hold, closed-cell foam grip covers extra shaft. Measures 24" long, weighs 5.5 oz. Laterite.
  - 2102 $21.99

- **Sure Grip™ Flexible Urethane**: Grips and helps reduce trash in and metal shaft that provides easy bending to any angles to accommodate reduced range of motion.
  - 4003-20 $3.00

- **Success™**: Reduces the amount of liquid to swallow. 8 oz capacity. 20 oz. $55.10
  - 5518-45 10oz Premier Cup $64.99

- **PROVIALE™ Regulating Drinking Cap**: Delivers a fixed amount of liquid with every drinking motion. 8 oz capacity. 20 oz. $55.10
  - 5518-45 10oz Premier Cup $64.99

- **Dyntex® Non-Slip Products**: Helps solve many stability and gripping problems. 16" x 2 yd. roll
  - Gun Blue $57.99
  - Black $52.99

- **Dyntex® Non-Slip Products**: Assorted assorted colors: tan, blue, and red (3 oz) $14.00

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**Additional shipping charges will be calculated at time of order.**

**Dyntex®**: Made from a durable, non-slip material that provides easy bending to any angles to accommodate reduced range of motion.

**Sammons Preston®**: Reinforced wiring around a rigid, yet adjustable metal rail in the center and foot portion.
Length of Patient Use and Type of Attachment

- **Short Term**
  - Donut Style
  - No Locking Device
  - Built-In Lock-On
    - With Arms
      - 5" Lock-On™ For Standard & Elongated 5592-52, Page 1276
    - Without Arms
      - Basic Open Front w/ Closed Front Option 081504331, Page 1278

- **Medium Term**
  - Locking Device
    - Lok-In-E® Bracket
      - With Arms & Legs
        - Slip-In Bracket or Bolt-Down Bracket
      - With Arms
        - 4" Extra Wide Tall-Elte® For Standard and Elongated 5593-31
          - Aluminum Frame with Slip-In (up to 400 lbs.) 5575-79, Page 1272
        - 4" Push-Up Standard Only 9203-15, Page 1276
      - Without Arms
        - 4" Hinged Seat Standard Only 4071-01 Elongated 5657-91 Page 1278
    - 4" Lock-On™ For Standard & Elongated 5592-53, Page 1276

- **Long Term**
  - Bolt Onto Toilet Use Regular Seat & Lid
    - 4" Bolt-On
      - Special Order Only 72575-3211 Elongated 72575-3311
      - 4" Push-Up Standard Only 9203-15, Page 1276
    - 4" Hinged Seat
      - Standard Only 4071-01 Elongated 5657-91 Page 1278
    - With Arms
      - 4" Extra Wide Tall-Elte® For Standard and Elongated 5581-23, Page 1275
    - 3" Secure Bolt™ Standard Only 081504349, Page 1278

Special Needs Toilet Seats

- **Bariatrics**
  - Up to 600 lbs.
    - With Arms & Legs
    - Left
    - Right
    - Both
  - No Arms/No Legs
    - 4" Extra Wide Tall-Elte® with Steel Frame For Standard & Elongated 5593-31, Page 1272

- **Leg, Hip, Knee Injuries/Post Surgery**
  - Up to 400 lbs.
    - With Arms & Legs
    - 4" Arthro® Tall-Elte® Standard 6677-01, Page 1279
    - 4" Arthro® Tall-Elte® Standard 6777-02, Page 1279
    - 4" Arthro® Tall-Elte® Standard 6777-91, Page 1279
    - 3" Secure Bolt™ Standard Only 081504349, Page 1278

The Right Fit, Everytime
Elevated Toilet Seats Overview

Purpose
- Elevated toilet seats raise the toilet seat height to make it easier to get on and off a toilet and reduce the risk of falls.

Target Populations
- Seniors
- People with arthritis
- People suffering or recovering from hip or knee injuries
- People with lower leg weakness or instability
- Pregnant women

Different Types
- Donut
  - For short term use and people not requiring a lot of assistance
  - Least expensive models
  - Usually no locking device; seat stabilizes itself with an inner ring that sits inside the bowl
  - Lift toilet lid and seat up and place donut on toilet
- Locking Toilet Seats
  - For medium term use and people who may need more assistance due to instability or lower extremity weakness of a temporary nature
  - Available without arms or with arms for people needing more assistance rising and lowering
  - Locking mechanism might be built in to the elevated seat or might be a separate device
- Seats that bolt onto the toilet and use the regular toilet seat and lid
  - For more permanent use, ie: people with MS, arthritis, seniors, etc.
  - Available without arms or with arms for people needing more assistance rising and lowering
  - Hinged model available that lifts and lowers like a regular toilet seat
- Special Needs Seats
  - Bariatric – For larger individuals, usually 400 lbs. +
  - Leg, hip, knee injuries/post surgery – Individuals recovering from surgery
Transfer Boards