

# PRECAUTIONS & SAFETY CONSIDERATIONS of POSTURE CARE MANAGEMENT in LYING

## Tissue Integrity

### Causes of Skin/Tissue Breakdown

Also known as: pressure injuries/ulcers/sores, bed sores, etc.

- Common areas: heels, pelvis, back of head, vertebrae
- Prolonged pressure on a small area or bony prominence<sup>4</sup>
- Friction between skin & support surface<sup>4</sup>
- Decreased mobility: impaired ability to readjust self or change position<sup>4</sup>
- Moisture: sweat, humidity, bodily fluids<sup>4,5</sup>
- Thinner body: more bony prominences<sup>4</sup>
- Poor circulation<sup>4,5</sup>
- Sensory impairment: unable to feel pressure or friction<sup>4,5</sup>

### Body Temperature

- If user is too hot, they will sweat, & the excess moisture will increase risk of skin breakdown<sup>4</sup>
- Core body temp decreases when lying supine<sup>2</sup>

### Elderly Population

- Tissues are thinner, more fragile<sup>3</sup>
- Less body fat to protect from tissue breakdown<sup>3</sup>
- Decreased ability to maintain comfortable body temperature
- Highly prone to skin tears from shear/torsion<sup>3</sup>

### Reducing the Risk of Tissue Trauma

- Distribute load of pressure across supporting surface<sup>4,5</sup>
- Prevent shear force (if body is sliding against surface or friction is preventing sliding)<sup>4</sup>
- Breathable materials (decrease moisture & help control temperature)<sup>5</sup>
- Surface should not be hard or slippery, using a two-way stretch fabric ensures better load distribution<sup>5</sup>
- Ensure that materials beneath user are smoothed out, as wrinkles cause pressure<sup>4</sup>
- Frequently check skin for redness
- If pressure injuries develop, pressure must be offloaded from the area during healing, regardless of wound dressing<sup>4</sup>
- For updated resources regarding pressure injuries, visit the National Pressure Injury Advisory Panel (NPIAP)

## Additional Medical Concerns

### Respiration & Digestion

- Prone to aspiration, reflux, and/or respiratory infections?
  - May do well lying supine with a wedge support beneath the head & upper body<sup>4</sup>
  - Caution: excess incline will increase shear pressure as body slides down
  - Therefore, place supports under the legs to keep the user in place & prevent sliding<sup>4</sup>
  - If using a hospital bed, elevate the legs first, then raise the head to limit sliding
- Prone to sleep apnea or hypoxemia?<sup>5</sup>
  - Check & monitor O<sub>2</sub> levels or respiration rate in different positions<sup>5</sup>
  - (completely supine, supine with an incline, etc.)
  - Consult medical personnel to determine safe O<sub>2</sub> levels for the user

### Seizures

- Do not lie prone<sup>7</sup>
- Are vomiting & aspiration a concern?
  - Position the user in supine with head elevated or on their side<sup>4,7</sup>
  - If this is not an issue, supine is the ideal position for lying with respect to body symmetry
- Postural supports around the torso & head should be placed beneath the sheets & between the two non-slip materials
- These secured supports will prevent the user from rolling off the bed

## Postural Supports VS. Restraints

### Protective Restraints

- “A device, including but not limited to a wristlet, anklet, vest, mitt, straight jacket, body/limb holder, or other type of strap that is intended for medical purposes & that limits the patient’s movements to the extent necessary for treatment, examination, or protection of the patient or others”<sup>6</sup>
  - Defined by the FDA (21 CFR Section 880.6760)
- “A restraint does not include devices, such as orthopedically prescribed devices...”<sup>6</sup>
  - Dept. of Health & Human Services (42 CFR Part 482.13(e)(1)(i)(C))
- “Does not apply to wheelchairs, seating systems & secondary supports when used to provide postural support, stability, pressure distribution & pressure relief for improved function
  - as opposed to intentionally immobilizing or reducing movement”<sup>6</sup>

### Unsafe & Unlawful Use of Restraints

- “All patients have the right to be free from restraint or seclusion, of any form, imposed as a means of coercion, discipline, convenience, or retaliation”<sup>6</sup>
  - Dept. of Health & Human Services (42 CFR Part 482.13 (e) (Patient Rights))

### Secondary Supports

- “Help maintain a very specific posture or position of a certain body part or area”<sup>6</sup>
- “Most commonly used to limit specific movements or posture which are maladaptive, nonfunctional, or unsafe for the user”<sup>6</sup>
- “Actually intended to block or limit movement”<sup>6</sup>

### Clinical Use of Secondary Supports

- Limit risky body postures that can:
  - Cause skin breakdown<sup>6</sup>
  - Increase pain<sup>6</sup>
  - Cause orthopedic complications (contractures, postural deviations & asymmetries)<sup>6</sup>
- “Support or maintain a specific posture or alignment”<sup>6</sup>
  - Which cannot be achieved or maintained by the user independently<sup>6</sup>
  - and is “necessary to optimize their health, comfort, or overall functional abilities”<sup>6</sup>

### Postural Supports Used in Lying Position

- Leg supports may be mistaken as a restraint if using a buckle or Velcro strap to secure legs
- However, the leg support’s purpose is to:
  - Position legs in alignment
  - Prevent hip adduction (risk of hip dislocation)
  - Prevent excessive hip abduction & windswept posture
  - Prevent pressure injuries at bony prominences of the knees
  - If user can typically reach down to their knees from a lying position, then the support can be removed

*For further information and a decision guide regarding mechanical supports, visit:*

*<https://dphhs.mt.gov/assets/dsd/DDP/MedicalDirector/MechanicalSupportsGuidelines.pdf>*

## REFERENCES

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