THE RISKS OF IMMOBILITY IN THE SNF WORLD

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IMMOBILITY

**Immobility**: A limitation in independent, purposeful physical movement of the body or of one or more extremities.

**Can be related to:**
1. Reduced muscle strength or control
2. Movement induced shortness of breath
3. Movement induced discomfort
4. Joint stiffness
5. Mental confusion, inability to respond purposefully
6. Depression
7. Fearfulness;
   • falling,
   • humiliation,
   • loss of direction
RISK FACTORS FOR IMMOBILITY INCLUDE:

- Dementia: “Where should I go?”
- Chronic pain: “It hurts too much to move.”
- COPD: “I get too short of breath when I walk.”
- Stroke: “I can’t move my leg without help.”
- Hip fracture: “I’m afraid I’m going to fall again!”
- Arthritis: “My hands hurt too much to hold onto my walker.”
- Heart disease: “My ankles are too swollen to walk.”
- Neurologic impairment: Parkinson’s disease: “I walk too slowly.”
- Visual impairment: “I can’t see very well with my old glasses.”
BEDREST

• Bedridden patients are prone to dehydration, progressive heart weakening and postural hypotension.

• They show reduced lung function and increased susceptibility to respiratory tract infections.

BEDREST

- Prolonged bedrest often leads to *venous stasis* and pressure related ischemic *skin damage* which, together with increased blood coagulability, predisposes bedridden patients to *deep vein thrombosis* (DVT) and *pressure ulcers* of the skin.

HOW DOES THIS HAPPEN?

• I thought rest was good for people!
USE IT OR LOSE IT!!

• The human body is meant to be mobile!
  • as children we crawl, walk, run, skip, skate, play, kick balls, roll down hills
  • this motion assists blood flow therefore enhancing digestion, heart and lung function, and it keeps our muscles strong.

Did you know more than 300,000 older people fracture a hip each year, and

less than half will return to their previous level of mobility?

USE IT OR LOSE IT!!

- The immobile body loses muscle strength at a rate of 10-15% per week of immobility with a loss of up to 50% after 4 weeks.

- After 3–5 weeks of bedrest, almost half the normal strength of a muscle is lost!

- Disuse weakness is reversed at a rate of only 6% per week with exercise.

- We lose strength twice as fast as we can regain it!

Richardson J. Bedrest can set off a chain of complications. 2003. Advances in Phy Th. 12(4). P 31
IMMOBILITY AND EACH BODY SYSTEM

• Circulatory
• Respiratory
• Skin: **The largest organ of the body**
• Urinary
• Gastrointestinal
• Musculoskeletal
• Metabolic
• Psychological
IMMOBILITY: CIRCULATORY SYSTEM

• Heart must work harder to pump blood through a prone body.

• Blood pools in dependent sites

• Edema

• DVT

• Dizziness upon standing: episodic or permanent
IMMOBILITY: RESPIRATORY SYSTEM

- Lung expansion not stimulated
- More difficult to fully expand lungs when prone
- Lung secretions build up
IMMOBILITY: SKIN

• Weight bearing shifts off feet to bony prominences that are not designed to perform this function

• Prolonged pressure over a bony prominence leads to pinching of the blood vessels which normally bring nutrition and oxygen to the tissue. This results in tissue death and eventual ulceration.

• Dementia increases risk for pressure damage due to impairment in ability to purposefully respond to pressure induced sensation
IMMOBILITY: URINARY SYSTEM

- Urine does not fully drain from the bladder when supine.
- Loss of independence for toileting; increases incontinence risk
- Skin that is too moist is 5 times more likely to develop pressure damage

Illustrations by Lori Svikel Design

Allman, RM. Pressure ulcers among the elderly. JAMA. 1989. 320(13). 850 3
IMMOBILITY: GASTROINTESTINAL SYSTEM

- Decreased appetite
- Decrease GI peristalsis
- Constipation
- Impaction
IMMOBILITY: MUSCULOSKELETAL SYSTEM

• Contractures
• Muscle atrophy: 1 week of inactivity takes 2 weeks to recover
• Loss of balance and coordination leads to increased falls
• Promotes osteoporosis due to lack of weight bearing; and this increases the risk for fracture
IMMOBILITY: METABOLIC ACTIVITY

Decreased activity = decreased appetite and thirst.

- Dehydration
- Calcium from bones can lead to kidney stones
IMMOBILITY: MENTAL CHANGES

- Isolation
- Confusion
- Insomnia: *Day becomes night*  
  *... becomes day*
- Depression
IMMOBILITY: COMPLICATIONS

• Muscle weakness
• Pressure Ulcers
• Pneumonia
• Blood clot, pulmonary embolism
• Overflow UI and UTI
• Fall, Bone Fracture
• Constipation/impaction
• Depression

LESS MOBILE = MORE AT RISK!!!
PREVENTION OF IMMOBILITY

- Encourage nursing home residents to be as independent as possible.

- To support resident’s level of independence and function, let them do small tasks within their ability; *don't always do everything for them*. It's OK to let a resident struggle with a task, but intervene when the resident shows signs of frustration.

- Teach residents little ways to get *exercise even while in bed*, for example, some residents can be taught to *pull on the side rail when turning over*.
PREVENTION OF IMMOBILITY

• Help the resident be as active as possible, whether it's turning over in *bed* or moving the wheels on their *own wheelchair*.

• Avoid putting a resident on bedrest unless a physician orders it. *Even then, do so for the shortest amount of time possible.*

• If a resident is not progressing as expected, the nursing home staff should *find out why*.

• *Consider a rehab referral for all patients on bedrest.* This will allow development of a restorative program for range of motion exercises to maintain strength and limit risk for complications during this time.
PREVENTION OF IMMOBILITY

The nursing home should consider:

• Providing a well-balanced diet rich in proteins and minerals

• Developing and implementing a care plan that specifically addresses immobility. Progressive mobility, sitting up in bed, and range-of-motion plans should be included. Consider deep breathing exercises and promote regular change in position

• Promoting timely therapy consult to prescribe/guide leg exercises or passive movement if patient unable to move actively

• Documenting range-of-motion (ROM) exercises and progressive mobility activities in the medical record. They should periodically summarize the results, noting the resident's overall progress and whether the resident is using assistive devices.
“MOVEMENT IS THE SONG OF THE BODY”

VANDA SCARAVELLI