

## Gait Training & Progression:

Pre-ambulation activities

Rehab 537-Week 4

July 14, 2008

### Objectives:

- ❑ Be able to identify the goals of a progressive mat program preparing a patient/client for ambulation
- ❑ Be able to identify the four stages of motor control and how they can be incorporated into a preambulation mat program
- ❑ Be able to take a patient/client through the developmental sequence

### Pre-ambulation mat program and progression goals:

- ❑ To increase strength, coordination and ROM
- ❑ Increase postural stability
  - sitting and standing
- ❑ Increase control during transitional movements
- ❑ Improve both static and dynamic balance

### Sequenced according to the four stages of motor control

- ❑ Mobility
- ❑ Stability
- ❑ Controlled mobility
- ❑ Skill

### Four Stages of Motor Control

Mobility	Stability	Controlled Mobility	Skill
PROM	Muscle Stability	Weight Shifting	Locomotion
AROM	Postural Stability	Transitional Movements	Manipulation
			Communication

**Large BOS → Smaller BOS**

**Low COG → Higher COG**

## Rolling

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- ▣ Log rolling
- ▣ Segmental rolling

## Hooklying and bridging

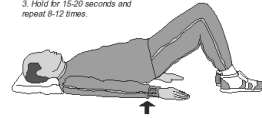
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### Bridging Exercise

*This exercise helps strengthen buttock, abdominal, and hamstring muscles.*



1. Lie on your back, with your knees bent and your feet flat on the floor.
2. While tightening your abdominal and buttock muscles, lift your pelvis slightly upward until it's in a straight line with your knees.
3. Hold for 15-20 seconds and repeat 8-12 times.



## Prone

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- ▣ Prone on elbows



- ▣ Prone on hands



## Quadruped position

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## Sitting

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- ▣ Short sitting
- ▣ Long sitting



## Kneeling and Half-kneeling

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## Modified plantigrade/plantigrade

## Standing

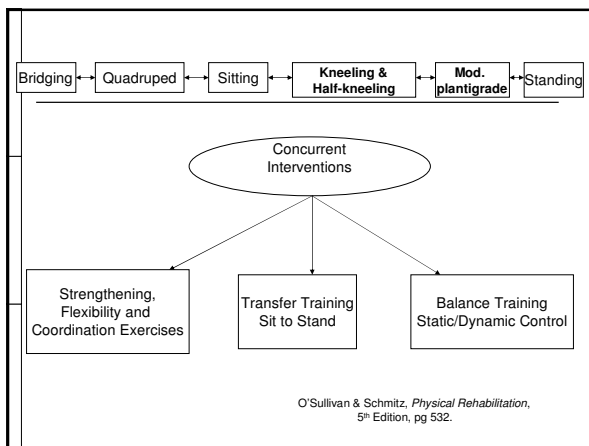


## Mat/bed mobility for non-ambulatory patients

- ❑ Rolling without LE assistance
- ❑ Supine → prone
- ❑ Prone on elbows
- ❑ Supine → long sitting
- ❑ Long sitting with and without UE support
- ❑ Long sitting push-ups and scooting
- ❑ Short sitting (edge of mat or EOB)

## Mat/bed mobility for non-ambulatory patients (cont.)

- ❑ Quadruped position
- ❑ Kneeling
- ❑ Assistive devices (loops, push-up blocks)
- ❑ SCI mobility handout



## Moving forward and getting out of chair

- ❑ Try to stand up sitting far back in the chair
- ❑ Now scoot forward and try standing up
- ❑ **Is there a difference?**
- ❑ Try having both feet even
- ❑ Stand up with one foot in front and one in back
- ❑ **Why is this difference important?**