



MOUNTAIN VALLEY REGIONAL
REHABILITATION HOSPITAL

MAINTAINING BALANCE

FALL PREVENTION
FOR
SENIORS

WHAT IS BALANCE

- * The ability to control ones center of mass in respect to their base of support
- * Occurs when stationary or moving
- * Triggered by either conscious or unconscious decision



WHY DO MANY OLDER ADULTS FALL?

- * Chronic medical conditions- Parkinson's, arthritis, stroke dementia, osteoporosis, neuropathies
- * Behavioral- footwear, poor diet, alcohol, physical inactivity, risk taking behaviors
- * Environment- clutter, unsecured rugs, poor lighting, varying curb heights, weather conditions, poorly maintained sidewalks/parking lots/streets
- * Medications

STRATEGIES IN FALL PREVENTION

- * The control of balance depends on a series of complex processes.
 1. Learning to control your center of mass in a stationary or moving base of support
 2. Learning and or strengthening balance recovery strategies
 3. Strengthen sensory systems used to control balance
 4. Exercise- importance of strength and flexibility!!



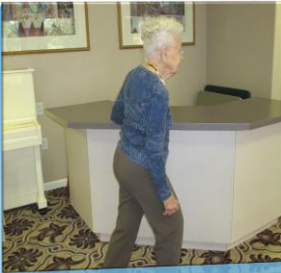
ANKLE STRATEGY

Used to control voluntary and involuntary sway
 Largely dependent on ankle strength and flexibility
 Decreased fall risk with increased functional reach or sway



HIP STRATEGY

Used when the center of mass must be moved back over the base of support quickly
Example of counter balance
Dependent on larger hip muscles and hamstring flexibility



STEPPING STRATEGY

Used when center of mass exceeds base of support
Occurs in all directions
Requires lower body strength, power and flexibility to establish a new base of support

MOVEMENT IN ALL DIRECTIONS

LATERAL STEPPING



BACKWARD STEPPING





HOW CAN I REDUCE MY FALL RISK?

- Stay active
- Get out into the community
- Exercise!!



STANDING UP FROM CHAIR

- Scoot to edge of chair
- Place feet hip width apart
- Move feet back behind knees
- Lean forward, "nose over toes"
- Keep feet flat to floor



UP AND DOWN STEP OR CURB

- Use the rail if available
- Is a ramp an alternative?
- Movement strategy
- Up with the good
 - * shift weight forward
- Down with the bad
 - *clear the heel

FLOOR RECOVERY

- Many are unaware of safe techniques
- Mortality rate increases with time spent on floor after a fall
- 2 strategies
 - upper body strength
 - lower body strength
- Easiest- crawl to external support
- More difficult- "baby crawl"
- More difficult- half kneeling
- Most difficult- squat position
- Use of furniture, MacGyver

TIPS

- Listen to your inner voice ☺
- Recognize your limitations- "I used to....."
- Risk to benefit
- Use an assistive device if recommended by a therapist or MD and learn to use it properly
