

# Day 2: Muscle & Bone Health

- As we age, we naturally lose bone and muscle mass
- These changes start to occur as early as 30 years of age.
- We lose approximately 5-10 % of our muscle mass and 3-11 % of our bone mass every decade
- This is problematic, since strong muscles and bone are required to live independently, and to reduce the risk of falling
- Sarcopenia: The loss of muscle mass (muscle mass declines are greater when we have osteoporosis)
- Osteoporosis: The loss of bone mass
- Both sarcopenia and osteoporosis put us at risk for a fall, and increase the potential for injury.
- The most common sites for osteoporosis fractures are hip, wrist and vertebrae.
- Vertebral Fractures are very common in people over 50 years of age, they tend to go undiagnosed because we cannot feel them or we have back pain that we do not seek medical treatment for.
- We all need to be more aware of our posture and how it can affect the incidence of vertebral fractures.
- Movements that should be avoided are repeated, forceful, or sustained.
- When twisting and flexing (forward and laterally) the spine we have to keep our spine neutral to protect the bones
- To strengthen our bones and maintain bone strength, it is important to do weight bearing exercises
- It is important that we strengthen our bones as well as the muscles surrounding the bones so that if we do fall, our bones are protected against injury



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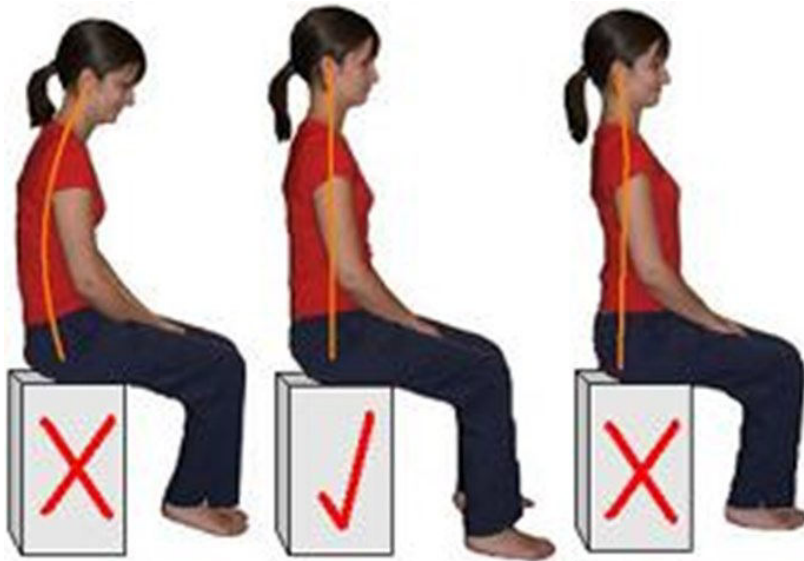
***Good news! We can slow down the rate of muscle and bone loss!***

- Follow these helpful tips to increase your muscle and bone mass, and to decrease your risk of falling
  - ◊ Aerobic exercise (walking, cycling, marching): at least 3 times each week for 30 minutes
  - ◊ Strengthening exercise (lifting weights, weight bearing activity, and balance exercises): 2-3 times per week
  - ◊ Research shows us that we can improve our muscular strength at all ages, and having lean muscle mass helps us live longer!
  - ◊ Ensure that all activities of daily living (such as bathing, getting dressed, doing laundry, lifting objects, etc.) are performed safely to decrease the risk of a vertebral fracture
  - ◊ Being active does not mean only doing group exercise class: we can add physical activity to our every day lives by making active choices (for example, taking the stairs instead of the elevator, parking farther away to increase the walking distance, walking up and down the hallway, walking to a friend's room or activity room)
  - ◊ Ensure that you are getting enough protein (from meats, cheese, eggs, etc.)
  - ◊ Ensure that you are getting enough calcium (from milk, cheese, yogurt, etc.)
  - ◊ Also, take a vitamin D supplement! This helps with our balance and muscle coordination



# Maintaining Good Posture As We Age

## Perfect Posture-Sitting



## Perfect Posture-Standing

