

# Exercise Guidelines for Osteoporosis and Low Bone Mass

## Why Exercise?

Exercise can decrease bone loss, increase bone density, and reduced the risk of fractures. Choosing the wrong exercise can be harmful and should be avoided.

A safe and effective exercise program includes weight-bearing, resistance, postural, and balance exercises.

**Exercise Tips:** *Check with your health care provider before you begin any exercise program.*

- ◆ Avoid exercises that require you to bend your spine forward (toe touches, sit-ups, or crunches). These exercises can increase the incidence of spinal fractures.
- ◆ Avoid exercises involving excessive twisting (windmill toe touches). This movement puts too much force on your spine.
- ◆ Avoid any exercise that causes or increases pain.
- ◆ Stop exercising if you feel dizzy or short of breath.
- ◆ Never hold your breath while exercising.
- ◆ Use good posture while exercising.
- ◆ Wear shoes with good cushioning and support.

## Body Mechanics & Tips

Lifting, doing laundry, vacuuming and other daily activities can be harmful if done incorrectly. Simple tips include: bend from the hips and knees, not your waist; sit without slouching; and stabilize your back while coughing or sneezing by placing your hand in the small of your back, keeping your spine straight.

**A Physical Therapist** can help you design a safe, appropriate exercise program that can help prevent fractures.

**Weight-bearing exercises** transmit the weight of the body through the bones working against gravity. Walking, dancing, and hiking are examples. Aim for at least 30 minutes or more per session. *Perform at least 3 to 5 times per week. If this is difficult, perform shorter sessions throughout the day.*

### Walking:

Warm up by walking at a slow pace for 5 minutes. Increase speed gradually to a brisk pace. Walk at a speed you can maintain for at least 20 minutes. To check your intensity, make sure you can carry on a conversation while walking. Gradually work up to a 30-45 minute walk. Cool down with a 5-minute slow walk. Perform gentle stretches after walking.

**Resistance exercises** generate muscle tension on the bones to strengthen muscles and stimulate bones to grow stronger. Examples are free weights, exercise machines and resistance bands. Start exercising without weights.

Begin with 1 set of 8 to 10 repetitions of each exercise increasing gradually to 2 or 3 sets. When that becomes easy, add weights 1 lb. at a time. *Perform 2 to 3 times a week but not on consecutive days.*



### Stick 'Em Up

Sit or stand, bringing arms into a "W" position without hunching shoulders. If sitting, place feet on the floor with knees apart. If standing, bring your navel up and in, keeping knees soft (not locked). Draw your arms backward to a comfortable position by squeezing your shoulder blades down and together. Slowly return to the starting position. Work up to 10 repetitions. When you can do this 10 times without difficulty, add 1-lb. weights to each hand or wrist. Increase weight gradually.

**Postural exercises** stretch and strengthen muscles to improve posture. They decrease harmful stress on the back, reduce the risk of spinal fractures, and minimize rounded shoulders seen in osteoporosis. *Perform several times daily to reinforce good posture.*



### Shoulder Stretch

Sit at the edge of a chair. Draw shoulders back to a comfortable position by squeezing your shoulder blades down and together. At the same time, visualize your spine stretching up and lengthening while keeping your neck relaxed. Hold for 3 seconds. Perform 3–5 repetitions.

**Balance exercises** improve equilibrium, increase muscle strength and reduce the risk of falling. *Perform these*



### Balancing on One Leg

Stand in a comfortable, balanced position near a counter or sturdy chair for support. Keep knees soft (not locked) and toes facing forward. Bring your navel up and in. Maintain this position while you lift your left knee to a comfortable height. Hold 5 to 30 seconds. Alternate legs and perform 1-3 repetitions with each leg.

New Jersey Interagency Council on Osteoporosis and "Osteoporosis: An Exercise Guide," Margie Bissinger, 2010.

The Interagency Council on Osteoporosis  
and the

NJ Department of Human Services  
[www.state.nj.us/humanservices/doas/healthy/osteoporosis](http://www.state.nj.us/humanservices/doas/healthy/osteoporosis)  
2014

