

on one leg every day when you are waiting in line at the grocery store or brushing your teeth is a good time to practice your balance. Make sure you have something sturdy to hold if you feel unsteady. Avoid planting your feet and twisting in place or doing strong hip rotation stretches like the pigeon pose in yoga to prevent hip fractures. Add exercises that strengthen the buttocks and extend the hip.

**Wrist Protection:** The wrist often fractures with falls onto outstretched arms. Practice single leg standing balance to minimize risk of falling. Doing quadruped (All 4's hands and knees) exercises will help to strengthen your wrist.

For more information on specific exercise programs, consult a licensed Physical Therapist with expertise in working with osteoporosis conditions.

**Now, you are on the road to better bone health!**

Sherri R. Betz, PT



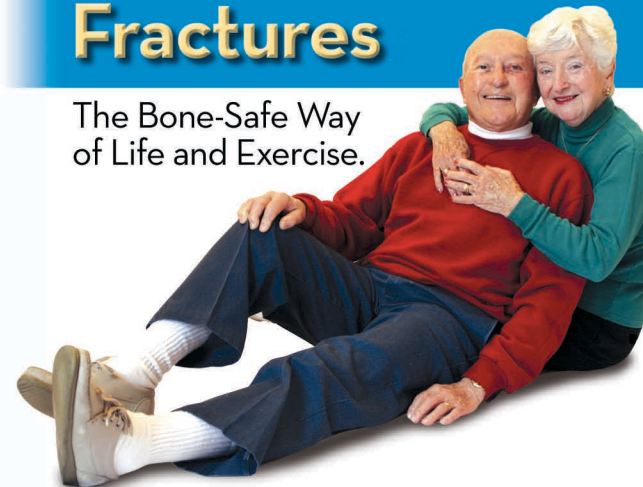
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## Do It! But Do It Right, and Prevent Fractures

The Bone-Safe Way  
of Life and Exercise.



Sherri R. Betz, PT

### Fracture Prevention

It's frightening when you find that you have fragile bones. There's not a lot of information about the types of movements and exercises you should avoid. But there are a lot of recommendations to do more weight bearing exercise, walking, tai chi, strength training, etc.

First and foremost, you will need to protect yourself from fractures especially of the spine (vertebral bodies), the hip (neck of the femur) and the wrist.

**Spine Protection:** Avoid all forward bending of the mid back or the waist. Avoid rapid twisting of the spine, sidebending and lifting heavy objects with a rounded back. Learn to lift objects with a neutral spine posture (straight back). Avoid getting out of bed with a rounded back. Roll to your side first then push yourself to sitting with your elbow. Avoid sitting on the toilet in a slumped position. Avoid all abdominal crunches, curl-ups, oblique rotations, roll ups, roll overs and plough. Add exercises that extend or arch the mid back.

**Hip Protection:** Hip fractures occur when you have a fall. So, the best way to prevent hip fractures is to improve your balance. Standing

# Prevent Fractures!

What to do, when you find out that you have low bone density or osteoporosis.

## Keep Your Back Straight.

Many daily activities involve lifting and reaching. Proper posture is crucial for these movements when you have low bone density.

When you find yourself:

- Lifting from the floor
- Making the bed
- Tying your shoes
- Getting groceries out of the trunk
- Backing up in the car
- Washing your face and brushing your teeth

**AVOID ROUNDING your SPINE and SHOULDERS.**



Keep spine straight, check lifted and knees bent.



Keep chest lifted, tailbone lifted and brace knees against bed.



Keep chest lifted, tailbone lifted and hinge at the hip joint, not the waist.



Keep spine straight, chest lifted, knees bent and pull shoulder blades back.



Reach right hand behind passenger headrest to brace yourself and keep chest lifted as you rotate.



Avoid rounding your middle back to reach sink. Bend knees, keep chest and tailbone lifted.

## Considerations for Exercise.

Many exercises involve movements that could cause fractures to the spine or hip. Avoid or modify exercises that involve rounding the spine such as:

- Crunches
- Curl ups
- Oblique abdominals
- Toe touches - seated or standing
- Yoga: • Spine twists
- Forward folds
- Ploughs
- Shoulder stands
- Pilates: • Roll ups
- Roll overs
- Short Spine

**AVOID ROUNDING and TWISTING your SPINE.**



Hinge at the hips, not the waist, support spine with arms behind and lift chest.



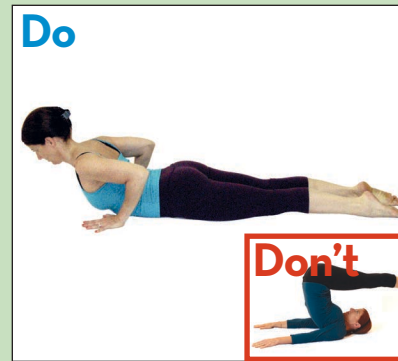
Avoid all forms of crunches. Draw in abdominals as you bring legs to 90° angle and press lower back down.



Avoid all twisting crunches. Practice lower abdominal control by dropping toes to the floor one at a time.



Avoid extreme seated or supine spinal twists. Gently rotation of the pelvis and legs with shoulder blades remaining on the floor.



Avoid the yoga plough and the Pilates roll over. Instead, do prone upper back extensions with a pillow under the ribs.



Avoid yoga shoulder stands, Pilates Bicycle and Short Spine. Instead, practice back extensions.