



Exercising to Prevent Osteoporosis

What is Osteoporosis?

- Osteoporosis causes bones to become weak and brittle, literally means “porous bones”
- Bones may become so weak that even a fall, bending, or coughing could result in a fracture

Why is Osteoporosis dangerous?

- Bones become weaker which puts an individual at greater risk for suffering a fracture
- Most fractures due to osteoporosis occur in the spine, wrist, or hip

What are signs and symptoms of osteoporosis?

- Symptoms in the early stages are rare, with most people, symptoms appear after a fracture has occurred
- Back pain – May be the result of a fractured or collapsed vertebrae
- Loss of height over time
- Stooped posture

What are some risk factors that may lead to osteoporosis?

Changeable Risk Factors	Unchangeable Risk Factors
<ul style="list-style-type: none">• Low calcium intake• Tobacco use• Eating disorders• Sedentary lifestyle• Excessive alcohol consumption• Corticosteroid medications	<ul style="list-style-type: none">• Gender• Age• Race• Family History of osteoporosis• Frame size• Thyroid hormone

Who should get tested for osteoporosis?

- Women older than 65 or men older than 70, regardless of risk factors
- A woman who is postmenopausal with at least one risk factor
- Men between that ages of 50 and 70 with at least one risk factor
- Men and Women older than 50 with a recent history of a broken bone
- Men and Women who take medications such as prednisone, aromatase inhibitors or anti-seizure drugs that are associated with osteoporosis
- A postmenopausal woman who has recently stopped taking hormone therapy

How can an individual prevent osteoporosis?

- Appropriate levels of calcium intake such as:
 - Low-fat dairy products, dark green leafy vegetables, canned salmon, soy products
- Appropriate vitamin D and Vitamin K intake
- Regular exercise for building strong bones and slowing bone loss
 - Regular weight-bearing exercises should be performed for 30 minutes a day for 5-6 days per week
 - Muscle strengthening exercises – work each major muscle group 2-3 times per week
 - Weight-bearing exercises include walking, jogging, running, stair climbing, dancing and other weight bearing sports
 - Exercise also decreases the risk of falls by improving balance

STANDING EXERCISES



One-Leg Balance

Balance on one leg.
Repeat on the other leg.
Begin on a firm surface.

Calf Raise

Balance on one leg.
Go up onto your toes.
Repeat on the other leg.



Hip Raise

Balance on one leg.
Lift your hip upward.
Repeat on the other leg.

Hip Extension

Balance on one leg.
Extend your hip behind
your body.
Repeat on the other leg.



Knee Bend

Balance on one leg.
Bend your knee.
Repeat on the other leg.

***** Perform all exercises by
holding onto a chair for
safety*****

Balance: Repeat 3 reps on each leg for 30 seconds

Calf Raise: Hold each Raise for 3-5 seconds

Repeat 15 times on each leg

Build up to 3 sets

Hip Raise: Hold for 1-3 seconds

Repeat 30 times on each leg

Hip Extension: Hold for 1-3 seconds

Repeat 30 times on each leg

Knee Bend: Hold 1-3 seconds

Repeat 30 times on each leg

Seated Stability

- Tighten core muscles prior to moving limbs
- For beginners: keep core tight and raise one arm or leg at a time
 - Repeat 15 times for each limb
- Advanced: Raise the opposite arm and leg simultaneously while keeping your core tight
 - Repeat 15 times and switch sides.
(DO NOT lift both legs together as pictured)

Minisquats

- With a chair behind you for safety, clasp hands around a pole and lower body weight as if you are about to sit in a chair
- Return to an upright position after lowering to an angle of 90 degrees
- Be sure to not allow knees to bend over toes.
- Do 2 sets of 15

