

Osteoporosis in Older Adults

At least 30% of women and 20% of men will suffer a fracture due to Osteoporosis in their lifetime. These fractures occur more frequently than heart attacks, strokes, and breast cancer combined.

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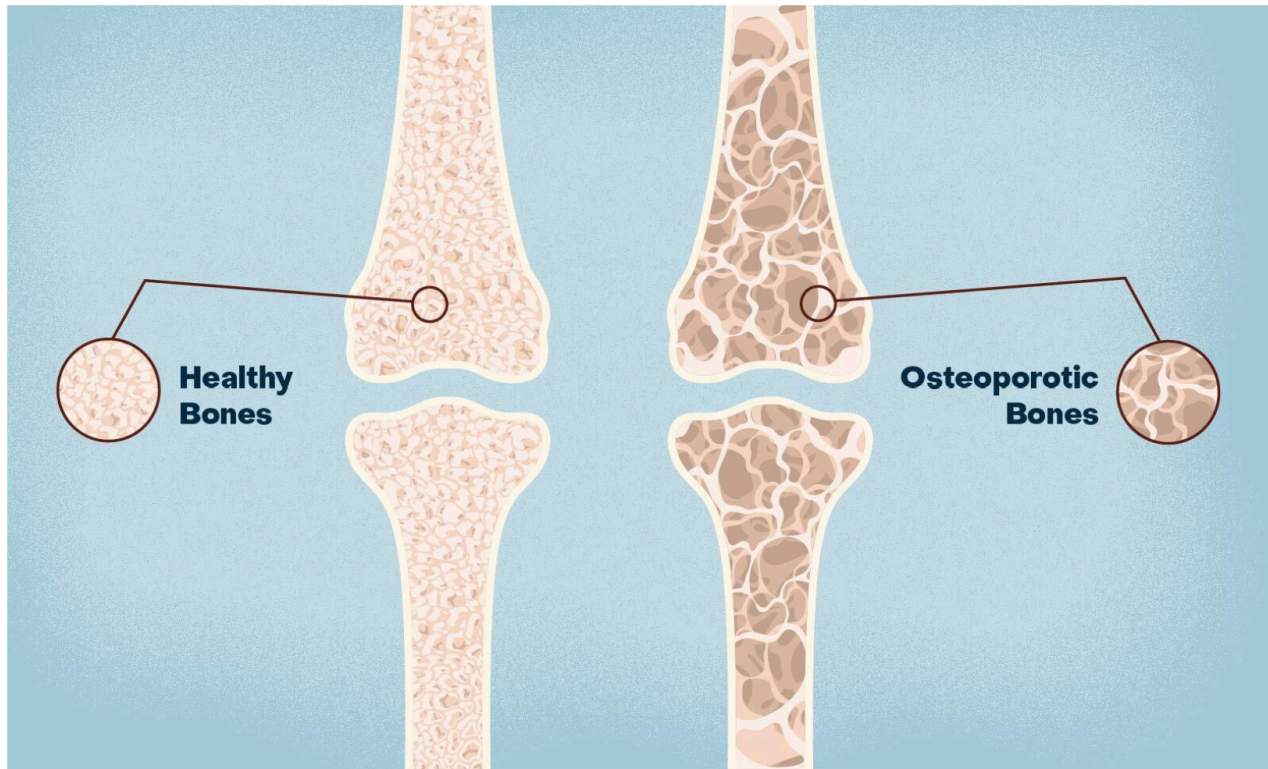
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What is Osteoporosis?

Osteoporosis is a disease that weakens bones, making them thinner and less dense.

Older Adults with Osteoporosis have a significantly higher risk of fractures. The most common fractures associated with Osteoporosis are in the hip, spine, wrist, and shoulder.

Our bones are continuously renewed through a natural process where new bone cells replace old ones. However, as we age, this process becomes less efficient, leading to a gradual loss of bone tissue. While it is more prevalent among older adults, Osteoporosis can impact people of all ages.



source: <https://spinehealth.org/article/osteoporosis/>

Prevalence

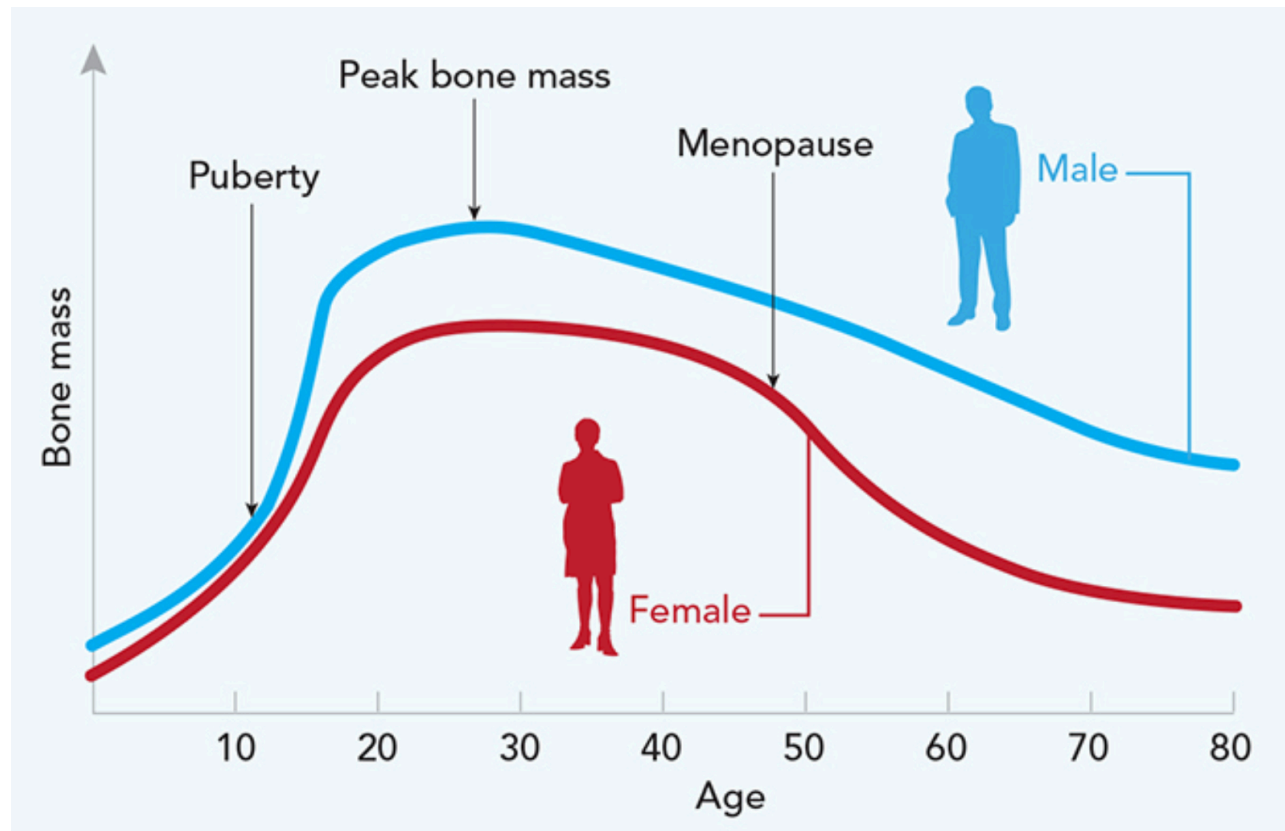
Osteoporosis primarily affects Canadians aged 50 and older, with over 2 million currently living with the condition. At least 30% of women and 20% of men will suffer a fracture due to Osteoporosis in their lifetime. These fractures occur more frequently than heart attacks, strokes, and breast cancer combined.

The Impact of Osteoporosis

Older adults living with Osteoporosis often experience a diminished quality of life, lowered self-esteem, reduced or lost mobility, physical deformities, a lack of independence, and, in some cases, even death. For instance, 22% of women and 33% of men who suffer a hip fracture will die within the following year.

Risk Factors

Age is a significant factor in determining osteoporosis risk. As women approach menopause, they experience an increased rate of bone loss. For men, bone loss typically accelerates at age 65 and older. Additionally, the risk of fractures rises with advancing age.



Source: <https://my.clevelandclinic.org/health/diseases/4443-osteoporosis>

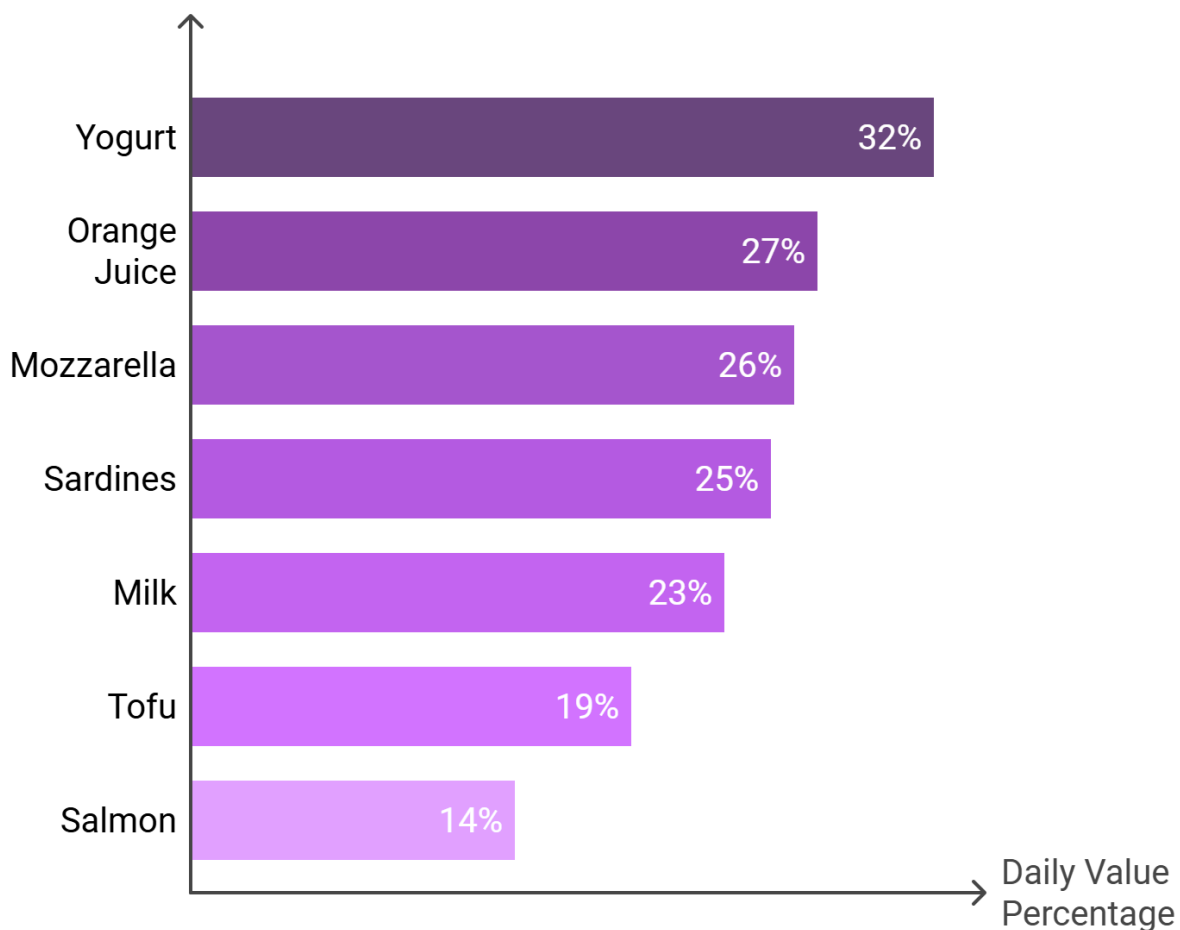
Gender: Osteoporosis affects both men and women, but lowered estrogen levels after menopause increase the risk in women. One in three women and one in five men will experience a bone fracture due to Osteoporosis.

Calcium deficiency: When the body doesn't get enough calcium from food, it pulls calcium from the bones, harming bone health. If you're not getting enough calcium, consider taking a supplement.

The recommended dietary allowance for calcium is 1,000 mg for men under 70, 1,200 mg for women over 51, and 1,200 mg for men over 70.

Some Top Food Sources for Calcium:

1. Yogurt, plain, low fat, 8 ounces = 32% daily value
2. Orange juice, calcium-fortified, 1 cup = 27% daily value
3. Mozzarella, part skim, 1.5 ounces = 26% daily value
4. Sardines, canned in oil, with bones, 3 ounces = 25% daily value
5. Milk, nonfat, 1 cup = 23% daily value
6. Tofu, made with calcium sulfate, $\frac{1}{2}$ cup = 19% daily value
7. Salmon, pink, canned, 3 ounces = 14% daily value



Selected Top Food Sources for Calcium

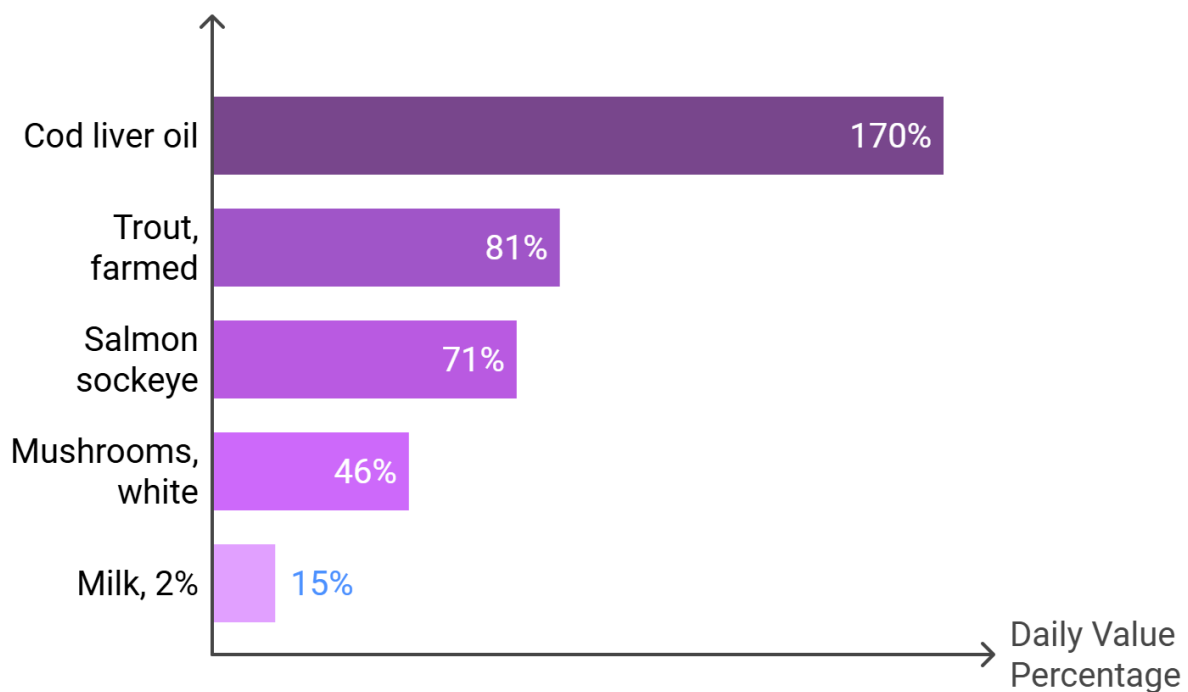
For more information: <https://ods.od.nih.gov/factsheets/Calcium-HealthProfessional/>

Vitamin D deficiency: Vitamin D helps strengthen bones by increasing calcium absorption. Some individuals may need higher doses than recommended due to issues with poor absorption or other risk factors/conditions associated with vitamin D deficiency.

Vitamin D is a fat-soluble vitamin found in some foods and available as a supplement. It is also produced when sunlight's ultraviolet rays hit the skin.

Some Top Food Sources for Vitamin D:

1. Cod liver oil, 1 tablespoon = 170% daily value
2. Trout (rainbow), farmed, cooked, 3 ounces = 81% daily value
3. Salmon (sockeye), cooked, 3 ounces = 71% daily value
4. Mushrooms, white, raw, sliced, ½ cup = 46% daily value
5. Milk, 2% milkfat, vitamin D fortified, 1 cup = 15% daily value



Selected Top Food Sources for Vitamin D

for more information: <https://ods.od.nih.gov/factsheets/VitaminD-HealthProfessional/>

Physical Inactivity: Aim for at least 2.5 hours of moderate to vigorous physical activity each week.

Alcohol: Research indicates that individuals who regularly consume three or more alcoholic drinks per day have an increased risk of Osteoporosis.

Additionally, higher alcohol intake raises the likelihood of falls.

Smoking: In addition to numerous other health risks, smoking can have a negative impact on bone health.

Height loss can signal a spine fracture. Many people may not realize they have a broken bone in their back, as 66% of these fractures are painless. Therefore, if you are over 50 years old, knowing your height and having a healthcare professional measure it annually is essential. (Have you lost 2 cm (3/4") or more in height as assessed by your healthcare provider, or a total of 6 cm (2 1/2") or more since you were a young adult?)

Genetics: Having a parent who has suffered a hip fracture increases your risk of developing Osteoporosis and experiencing fractures.

Previous broken bones: Have you fractured a bone from a minor fall or bump since age 40? Healthy bones shouldn't break from such falls, even on concrete or ice. These are called fragility fractures and indicate a risk for Osteoporosis. One fracture is the best predictor of future fractures.

Medications: Long-term use of certain drugs can increase bone loss and, as a result, increase the risk of fracture. Some examples include steroids, aromatase inhibitors, androgen deprivation therapy, some anti-convulsant medications, Depo-Provera, proton pump inhibitors, and some antidepressants.

Medical conditions: Some medical conditions are associated with an increased risk of Osteoporosis, known as secondary Osteoporosis. Some examples include Rheumatoid Arthritis, Crohn's Disease, Ulcerative Colitis, and Celiac Disease.

Take the Osteoporosis Canada online risk quiz at <https://osteoporosis.ca/risk/>

How is Osteoporosis diagnosed?

A healthcare provider diagnoses Osteoporosis using a bone density test, which measures bone strength through X-rays that assess calcium and mineral content. This test is also known as a DEXA, DXA, or bone density scan.

A bone density test uses low levels of X-rays to measure your bones' density and mineral content. It's an outpatient procedure so that you can go home right after the test, and there are no needles or injections involved.

How is Osteoporosis treated?

Your healthcare provider will recommend a treatment plan that helps slow down bone loss and strengthens your existing bone tissue.

The most common treatments include:

- **Regular exercise** strengthens your bones and connected tissues. Your healthcare provider may suggest weight-bearing activities like walking, yoga, pilates, and tai chi to improve muscle strength and balance without stressing your bones.
- **Increased calcium and vitamin D** intake through changes to your diet and over-the-counter or prescribed supplements.
- **Healthy lifestyle behaviors** that take a holistic approach to bone health and reduce inflammation and improve gut health.
- **Medications:** Common medications for osteoporosis treatment include hormone therapies like estrogen or testosterone replacement and bisphosphonates. For severe cases or high fracture risk, injections of parathyroid hormone analogs, denosumab, or romosozumab may be necessary.

Early detection of Osteoporosis prevents fractures.

Osteoporosis weakens bones, increasing the risk of fractures, often without any prior warning. To prevent fractures, detect Osteoporosis early by scheduling regular check-ups and asking your healthcare provider about bone density tests.

Sources:

Osteoporosis

<https://www.canada.ca/en/public-health/services/chronic-diseases/osteoporosis.html>

Osteoporosis

<https://my.clevelandclinic.org/health/diseases/4443-osteoporosis>

Osteoporosis Canada

<http://www.osteoporosis.ca/>

Food Sources of Calcium

<https://www.dietaryguidelines.gov/sites/default/files/2024-08/Food-Sources-Calcium-Standard-508C.pdf>

Osteoporosis

<https://spinehealth.org/article/osteoporosis/>

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