

Medication Treatments

Fewer than 20% of fracture patients in Canada currently undergo diagnosis or adequate treatment for osteoporosis



Did You Know...

Osteoporosis leads to fragility fractures. These are broken bones that happen from a minor injury but have major consequences such as pain, disability and sometimes death. Osteoporosis Canada supports the use of medications that have been proven, in clinical trials, to significantly reduce a person's risk of fracture. **The primary goal of treatment is to reduce the risk of fracture.**

For those living with osteoporosis, there are a variety of treatment options available. Everyone is different – some people respond better to one drug than another, while some experience side effects that others don't. You may need to explore several treatment options before you find one that works for you.

It's important to speak to your doctor to assess the benefits and risks of each treatment to determine which is best for you.

Learn more about how treatments work, how effective they are,
who can take them, how they are taken and any potential side effects.

osteoporosis.ca/treatments

Specific drug treatments to treat osteoporosis include:

Bisphosphonates are the most common family of drugs used to treat osteoporosis. They are part of the group of osteoporosis medications known as anti-resorptives. There are three bisphosphonates currently approved for use in Canada: alendronate (Fosamax[®]), risedronate (Actonel[®]) and zoledronic acid (Aclasta[®]). Also available are: Actonel DR[™] (DR = delayed release), Fosavance[®] (alendronate with vitamin D) and several generic versions.

There are very specific instructions about how bisphosphonates must be taken. Following the directions will allow your body to absorb the drug properly and may help you avoid side effects. Because calcium interferes with the absorption of bisphosphonates, calcium supplements must be taken at other times of the day.

Denosumab is a type of osteoporosis treatment called a human monoclonal antibody that inhibits the development and activation of osteoclasts (the cells that eat away bone). It is an anti-resorptive like the bisphosphonates (see above). It is very important not to miss, delay or stop denosumab injections, unless directed by your doctor.

Missing or delaying a denosumab injection can lead to rapid bone loss and risk of spine fractures. If stopping denosumab, it is recommended to transition to a bisphosphonate to reduce the risk of rapid bone loss and spine fractures.

Parathyroid hormone analogues (PTH) belong to a class of osteoporosis medications which can promote bone growth (also known as bone formation or anabolic agents). In Canada, there are currently three commercially available products in this class. The generic name of these medications is teriparatide. Teriparatide injections have been shown to increase bone density and reduce the risk of vertebral, hip and other fractures associated with osteoporosis.

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Romosozumab (Evenity™) is a new class of osteoporosis treatment, a sclerostin inhibitor that both increases bone formation and decreases bone resorption. Romosozumab increases bone mineral density in both the lumbar spine and total hip, and in both trabecular and cortical bone, leading to an increase in bone strength and reduced risk of fracture. Romosozumab reduces the risk of fractures at the spine, hip and other sites in women with postmenopausal osteoporosis.

Menopause Hormone Therapy (MHT), with estrogen/progesterone, is commonly used to relieve the symptoms of menopause. Because estrogen plays such an important role in maintaining bone, MHT is another option to consider to treat osteoporosis if you are also seeking relief from symptoms of menopause.

Raloxifene (Evista®) is from a family of drugs called **SERMs (Selective Estrogen Receptor Modulators)**. During their reproductive years, women produce significant amounts of estrogen in their body. Estrogen helps to build and maintain bone density. During menopause, a woman's estrogen level decreases as her ovaries cease to function and this leads to a loss in bone density. In some women, this loss in bone density is significant enough to cause osteoporosis.

Although SERMs are non-hormonal, they act like the hormone estrogen in some parts of the body, such as the bones. In other parts of the body, such as the uterus and breast, they block the effects of estrogen. SERMs are not a first-line treatment for osteoporosis but may be considered in cases when other medications cannot be used.

A **Biosimilar** medication works the same way in the body. It goes through very strict testing to prove it is just as safe and effective. A biosimilar medication is not a generic medication which is identical to the originator molecule.

The original biologic medication is referred to as the “reference biologic drug”.

Examples of biosimilars include:

Denosumab (Brand name Prolia®): A monoclonal antibody, with a specific target (RANK ligand).

Teriparatide (Brand name Forteo®): A synthetic form of our natural parathyroid hormone.

Romosozumab (Brand name Evenity®): A monoclonal antibody, which targets sclerostin.



Provincial and Formulary Public Drug Benefits

Each provincial and territorial government offers a drug benefit plan for eligible groups.

Find information about the drug treatments available and coverage provided in each province and territory by visiting the Osteoporosis Canada website

osteoporosis.ca/drug-coverage