

What is Osteoporosis?

Osteoporosis, or "porous bone disease," is a condition that arises from numerous factors and is simultaneously responsible for two processes: the progressive loss of bone density and the deterioration of "bone architecture."

People who are afflicted by osteoporosis can experience changes in back alignment that may be very painful, height loss, and, at a more advanced stage, fractures of the wrist, hip or vertebrae.

Osteoporosis—which can be seriously debilitating—should not be confused with the loss of bone mass or density, a natural process that begins in a person's thirties, is related to aging, and has no effect on an individual's quality of life.

Why does osteoporosis mainly affect women? Women generally acquire less bone mass than men with the result that deterioration is more rapid.

According to the Society of Obstetricians and Gynaecologists of Canada (2006), 6% of women aged 50 develop osteoporosis and the rate climbs to 50% in women over 80.

Osteoporosis is not a curse that strikes all menopausal women, but rather a lifestyle-related condition: almost exclusively, it affects women in countries of the North (Europe and North America). Factors such as diet, physical activity, and sunshine play a major role in the development and maintenance of healthy bones.

The new "epidemic" of industrialized countries

In recent years there has been an explosion of information about osteoporosis, its risks and screening methods. The tone is alarmist, at times leaving the impression that few menopausal women will be spared the condition.

"I'm told my bones are practically going to disintegrate. I'm really worried!"

Participant in a focus group in L'Annonciation, Québec

Fractures: risk factors

- Fine bone structure, small stature
- Family history of osteoporosis
- Immobilization over a long period
- High tobacco or alcohol consumption
- Stress
- Sedentary lifestyle
- Poor diet or one that lacks variety
- Certain chronic diseases of the lungs, liver, gastrointestinal system, thyroid gland
- Certain drugs, corticosteroids, thyroid hormones, cancer drugs, anticonvulsants, anticoagulants, antidiabetics
- Hormonal contraceptives (Depo-Provera)
- Mobility problems
- Sight, hearing or balance problems
- Non-adapted living environment
- Attention-altering drugs (antidepressants, sleeping pills)
- History of falls, fractures or discomfort
- Cognitive impairment

Are you at risk?

Take the test at www.rqasf.qc.ca.



How did a condition that was fairly rare 20 years ago become a public health problem? Because the definition of "illness" changed.

Before, osteoporosis was characterized by fragile and porous bones that broke easily. Since 1994, osteoporosis is diagnosed based on the result of a bone mineral density (BMD) test. Consequently, people who have never had a broken bone and who may never break a bone are now deemed to have an "illness" because their test result shows bone density at a level below the established norm.

Yet, low bone mineral density is only one risk factor for osteoporosis, which is itself only a risk factor for fractures.

There have been many repercussions of this shift in meaning.

- » On women: starting at menopause many women live in fear of breaking a bone; women are prescribed medication on a large scale.
- » On the health system: screening tests and drugs are expensive.
- » On the pharmaceutical industry (very involved in developing the new definition of osteoporosis and in its promotion): considerable profits are being made because increasing numbers of women are considered to be "at risk" and are being prescribed drugs.

We have the right to raise questions about possible conflicts of interest when a company whose purpose is to make profits is charged with the promotion, screening, prevention and treatment of an illness.

Drugs to prevent osteoporosis: effective and risk-free?

Bisphosphonates or BP (Fosamax, Actonel, Didronel, etc.)

Relatively ineffective for women under 60 who have never suffered a fracture. For women who have already suffered fractures due to weakened bones, risk is reduced with alendronate and risedronate. Generally speaking, efficaciousness increases with age.

Due to possible side effects and the risk of complications (especially heart-related), many organizations recommend caution and to refrain from using BP drugs unless there is a high risk of fracture.

Hormone treatment (HT)

Boosts bone density but is relatively ineffective in protecting against fractures. HT is also linked to numerous complications (breast cancer, stroke, blood clots, dementia and urinary incontinence) and should only be prescribed, with the patient's informed consent, in cases of severe menopausal symptoms. In such situations, the treatment should be prescribed at the minimum dose for a limited period.

Calcitonin (Miacalcine)

Reduces pain related to spinal fractures and the risk of vertebral fractures but has no effect on other types of fractures.

Raloxifen (Evista)

Reduces the risk of vertebral fractures but is not effective in preventing other types of fractures. Thought to increase the risk of stroke.

Teripatide (Forteo)

Administered by injection and reserved for women over 65 suffering from advanced osteoporosis who have already experienced bone fractures and cannot tolerate BP drugs. Significant side effects and risks of complications. Maximum prescription length: 18 months. It has not been shown that teripatide's effectiveness surpasses that of the BP drugs, nor that it can reduce the incidence of hip fractures.

Taking action

Move your body more. During childhood and in our teens physical exercise enables our body to develop a stronger skeleton and builds a reserve of bone mass for when you reach adulthood. In menopausal women, exercise slows the rate of bone mass loss and can even increase bone mass. And, regardless of their age, women who do Tai-chi fall less often and suffer fewer hip fractures than other women.

From a public health perspective, it is important to ensure that the entire population has access to adapted and affordable athletic facilities (particularly disabled and low-income people).

Develop a healthy lifestyle and diet. Reduce your consumption of tobacco, alcohol and "mineral thieves" (carbonated drinks, processed foods, sugar, salt, animal proteins and caffeine). Maintain a proper diet by eating a wide variety of foods that provide your body and bones with everything it needs to stay healthy. Get more sleep and relaxation, etc.

To obtain the full benefits of food, eat locally grown, seasonal produce treated with a minimum of fertilizer and pesticides. It tastes better, benefits the environment and supports local producers.

Adapt your living environment. To reduce the risk of fractures, it is important to take precautions. If necessary, install ramps and non-slip mats, attach anti-slip studs to your shoes or boots and use a cane or walker. Remember that most elderly people who suffer fractures do not have osteoporosis!

Get regular medical check-ups. Check your eyesight and hearing and find out whether your drug dosage may potentially affect your perception and sense of balance.

Consider alternative therapies such as phytotherapy, traditional medicines, holistic approach, etc.



As we age, and after menopause, bone loss is natural and can be tolerated by most women. No treatment is required unless the loss is so great that bones become fragile and at risk for fractures.

National Institute of Arthritis and Musculoskeletal and Skin Diseases



Osteoporosis can be prevented at all stages of life. Healthy diet, an active lifestyle and good overall health contribute to the development of strong bones from childhood to adulthood and slow their deterioration after 30.

For more information

Read the Osteoporosis section of *Notre soupe aux cailloux : Une œuvre collective pour la santé des femmes au mitan de la vie* (Our Stone Soup: A collective work to promote the health of women in the mid-life), available on RQASF's website: www.rqasf.qc.ca

Additional references:
DIONNE, J.-Y. *S.O.S. Os, des os solides à tout âge !*, Toronto, Ed. Wiley, 2008
Center for Medical Consumers website: www.medicalconsumers.org




Réseau québécois d'action pour la santé des femmes, 2010
www.rqasf.qc.ca

Research and writing: Magaly Pirotte and Isabelle Mimeault
Graphic design: ATTENTION design+

Produced with the financial support of
 Health Canada Santé Canada



Osteoporosis

Women's Health at Midlife

This pamphlet is the translation of an abridged version of the Osteoporosis section of our kit entitled *Notre soupe aux cailloux : Une œuvre collective pour la santé des femmes au mitan de la vie*.

Produced by the Réseau québécois d'action pour la santé des femmes (RQASF), this kit presents a wide selection of information and tools to help women make informed choices about their health as they enter menopause.