



International
Osteoporosis
Foundation

Stand tall, speak out for your bones!

2008 – 2009
years of bone health activism



Why is osteoporosis a concern?

Osteoporosis is a chronic, debilitating disease in which the density and quality of bone is reduced, leading to weakness of the skeleton. As the bones become more porous and fragile, there is an increased risk of fracture – even after a minor bump or in the course of normal daily activities.

Bone loss takes place “silently” and progressively and there are usually no symptoms until the first fracture occurs. Fractures, particularly those of the hip and vertebra, cause untold suffering, lasting disability, and a greatly diminished quality of life.



Aside from its personal and human cost, osteoporosis is a major public health problem, which has enormous social and economic impact.

- Around the world, it is estimated that one out of every three women over the age of 50 will have a fracture due to osteoporosis (more than breast cancer), as will one out of five men (more than prostate cancer).
- Between twelve and twenty percent of people die within one year following a hip fracture.
- Women who develop a vertebral fracture are at substantial risk of additional fracture within the next year.
- Despite these worrying figures, studies have shown that 80% of those who are at high risk of osteoporosis, and have suffered at least one fracture, have not been identified or treated for the disease.
- In women over 45, osteoporosis accounts for more days spent in hospital than many other diseases, including diabetes, heart attacks and breast cancer.

“Although we have effective treatments for osteoporosis, each year millions of our grandmothers are crippled and disfigured because they don’t have easy and sufficient access to diagnosis and medication.”

Her Majesty Queen Rania of Jordan, IOF Patron

Osteoporosis is a worldwide problem

Osteoporosis knows no geographic or social boundaries – it is a global health problem.

- An estimated nine million fractures due to osteoporosis occurred worldwide in 2000, with 1.6 million of these fractures occurring at the hip.
- As the world's population ages and lives longer, the number of fractures due to osteoporosis is predicted to rise dramatically.
- By 2050 hip fracture rates in North America and Europe are predicted to double. In Asia they are predicted to increase fivefold, and in Latin America they could increase by as much as sevenfold.
- Many national governments do not treat osteoporosis as a major health priority and fail to provide adequate resources for its detection and treatment.
- Many health insurance schemes (private and public) do not cover diagnosis and treatment prior to the first fracture – even when it is cost effective to do so.

It is time to speak out to change this situation. We must grasp opportunities to educate the health policy decision makers, health professionals, the media and the public about osteoporosis and its burden on society. People at risk of osteoporotic fractures must be assured timely and affordable access to proven treatments – before the first fracture occurs.

“Osteoporosis is a major public health problem with serious medical and economic impact. While there have been many advances in the management of osteoporosis over the past 10 years, important care gaps still exist.”

John A. Kanis, IOF President

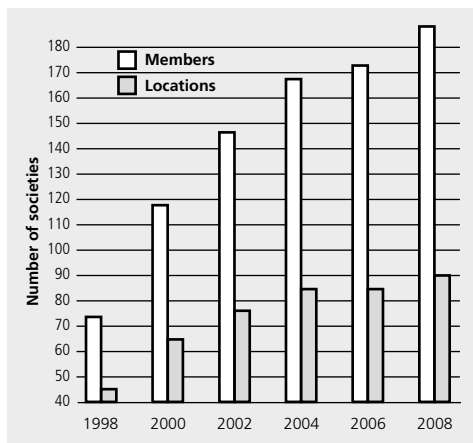


The global osteoporosis movement

Although osteoporosis affects millions of people all over the world, awareness of the disease is still low, doctors often fail to diagnose it, diagnostic equipment is often scarce, or not used to its full potential, and treatment is not always accessible to those who need it. Therefore, the International Osteoporosis Foundation and its member societies lobby policy makers and health authorities for policy change, and conduct education and awareness raising programs for health professionals.

Fortunately, we have come a long way since 1994, when the World Health Organization officially acknowledged osteoporosis as a disease and established a standard practical definition. The fight against osteoporosis has become a large global social movement, with corresponding advances in the fields of science, healthcare, public awareness, and policy change. Members of the IOF Committee of National Societies are located in countries, regions or territories that represent more than 80% of the world's population.

Members of the IOF Committee of National Societies



The growth of the global osteoporosis movement reflects the increasing burden of this disease on people and societies around the world.

Left: World Osteoporosis Day activities organized by the Serbia Osteoporosis Society; Right: In Bangkok, Thailand, beauty queens from four continents urged women to practice good bone health at an international IOF media event.



Support your national osteoporosis society

Much of the strength of the osteoporosis movement comes from the people in national patient and scientific societies. These dedicated individuals fight on the frontlines to generate public awareness, and mobilize support. The majority of these societies are small, often volunteer-based organizations, while others are large and professionalized. No matter what their size, osteoporosis societies can play a key role on many levels: they provide patient support and education, and are catalysts for change through their lobbying efforts and media outreach.

More than 180 national osteoporosis societies in some 90 locations around the world are members of IOF. As members of a large global umbrella organization the national societies are able to learn from one

another, exchange ideas and experiences, and profit from the professional support offered by IOF. Activities of these societies include lobbying for better prevention and treatment, promoting early diagnosis for those at high risk for the disease, educating health professionals, and empowering people with osteoporosis through support groups that offer independent information about treatment options and psychological support.

Make your voice heard and support the fight against osteoporosis by joining your national osteoporosis society.

Contact information for osteoporosis societies worldwide is available on the IOF website www.iofbonehealth.org



Information on osteoporosis for the public and health professionals, provided by the Hellenic Society of Osteoporosis Patient Support.

People with osteoporosis speak out



Renu, India

After experiencing back pain since 40, and seeing doctors who were unaware of osteoporosis, Renu went to a bone densitometry camp being organised by Osteoporosis Society of India. She had a bone densitometry test, shortly after she was diagnosed with osteoporosis and she started treatment. Since joining a local osteoporosis support group, Renu says, "My outlook on life is much better."



David, UK

David was diagnosed with osteoporosis after experiencing excruciating back pain during a volleyball match. "The National Osteoporosis Society has helped me tremendously," he says. "I'm secretary of the local osteoporosis support group and I see other people my age or younger with osteoporosis."



Ciara, Ireland

Ciara, 23, first realized that something was amiss when she visited her local G.P. because of her concern about the amount of weight she had lost while travelling overseas. After receiving a DXA scan, she was diagnosed with osteoporosis. "I had been participating in combat sports, whilst walking around with the bones of an 80-year old woman. I have joined the Irish

Osteoporosis Society and am learning of the huge amount of work they are putting into educating the general public about the risk factors of osteoporosis."



Sergio, Mexico

Several years ago, Sergio, a bus driver and mechanic, started feeling pain in one arm. After a long period of uncertainty, he finally was diagnosed with osteoporosis. "I was very frustrated and getting desperate because I thought there was no real solution, until the day my wife heard a radio program where they spoke about osteoporosis and gave a phone number. She called COMOP, our local Mexican Committee for Prevention of Osteoporosis. Treatment began right away but I was very scared. After some months I had a lab test which showed that the treatment was working."



Jamal, Bahrain

It was only ten months after Jamal established the Bahrain Osteoporosis Society (BOS) that he discovered he also had osteoporosis. "I am an active orthopedic surgeon, but when I started working to establish the BOS six years ago I never thought that I would be a patient with the disease I was working to prevent - certainly not at the age of 41. Now osteoporosis is not only the disease I dedicated myself to fight, but also a personal challenge."

7 Actions to maintain strong bones

You can take many steps to promote good bone health. Regular exercise, a diet rich in calcium and vitamin D, healthy lifestyle habits, and check ups to ensure early diagnosis are the cornerstones of prevention.

Nutrition

- Ensure an adequate calcium intake at all ages.
- Dairy foods, some green vegetables (e.g. broccoli, kale and bok choy), nuts, small canned fish with soft bones (e.g. sardines) and calcium-set tofu provide the most readily-available sources of dietary calcium.
- Be sure to get enough vitamin D through sufficient exposure to the sun, what you eat, or through supplements.
- Ensure an adequate protein intake. Protein malnutrition is an important risk factor for hip fracture, and can also contribute to poor recovery in people who have had a fracture.
- Include plenty of fruits and vegetables in your diet, as these are beneficial for both bone and overall health.

Weight-bearing exercise

Bone mass and exercise are inextricably linked. Exercise, in addition to a healthy diet and lifestyle, can help to maintain your bone density and slow down the process that leads to osteoporosis. In older people, exercise also improves balance, strength, and agility, helping to prevent falls that lead to fractures.

Impact and weight bearing exercises are best – sports that involve lifting weights, running, sprinting, jumping and skipping are good. Here are some examples of exercises for healthy bones: walking, jogging, dancing, tennis, volleyball, soccer, basketball, tai chi, and strength training or resistance-training programs through a local gym. It is never too late to start exercising, but if you have a medical condition or you have not been exercising regularly consult your doctor before starting any exercise program.

“Osteoporosis is a disease in which the bones become fragile and fracture easily. My advice to young girls and boys is to play sports and exercise. “Move it or Lose it!”

Gregory Coupet, footballer,
French national team



Know your risk factors

Recognizing osteoporosis risk factors early in life and taking appropriate action can have enormous positive impact on bone health in later years. Over the last few decades, doctors and researchers have compiled vast amounts of information on osteoporosis risk factors.

Genetic factors largely determine whether an individual is at heightened risk of osteoporosis. In addition, secondary risk factors, such as various medical disorders and their treatments, have a negative affect on bone health, as do lifestyle factors such as poor nutrition, lack of weight-bearing exercise, smoking and excess alcohol intake.

If you think you may be at risk of osteoporosis, consult your doctor about a bone mineral density scan. You could also ask your doctor to use the free FRAX™ fracture risk assessment tool to evaluate your personal risk of getting an osteoporotic fracture. Many people who find out that they are at increased fracture risk modify their lifestyle and so can reduce their risk in that way.



Modifiable Risks

- Alcohol**
- Smoking**
- Low body mass index**
- Poor nutrition**
- Eating disorders**
- Insufficient exercise**
- Low dietary calcium intake**
- Vitamin D deficiency**
- Frequent falls**

Fixed Risks

- Age**
- Female gender**
- Family history**
- Previous fracture**
- Race/ethnicity**
- Menopause/hysterectomy**
- Long term glucocorticoid therapy**
- Primary/secondary hypogonadism in men**

Take the IOF One-Minute Osteoporosis Risk Test



If you answer “yes” to any of these questions, it does not mean that you have osteoporosis. Diagnosis of osteoporosis can only be made by a physician through a bone density test. We recommend that you show this test to your doctor, who will advise whether further tests are necessary. The good news is that osteoporosis can be diagnosed easily and treated. Talk to your local osteoporosis society about what changes you might make in your lifestyle to reduce your osteoporosis risk.

IOF One-Minute Osteoporosis Risk Test

What you cannot change – your family history

1. Have either of your parents been diagnosed with osteoporosis or broken a bone after a minor fall (a fall from standing height or less)? yes no
2. Did either of your parents have a “dowager’s hump”? yes no

Your personal clinical factors

These are fixed risk factors that one is born with or cannot alter. But that is not to say that they should be ignored. It is important to be aware of fixed risks so that steps can be taken to reduce loss of bone mineral.

3. Are you 40 years old or older? yes no
4. Have you ever broken a bone after a minor fall, as an adult? yes no
5. Do you fall frequently (more than once in the last year) or do you have a fear of falling because you are frail? yes no
6. After the age of 40, have you lost more than 3 cm in height (just over 1 inch)? yes no
7. Are you underweight (is your Body Mass Index less than 19 kg/m²)? yes no
8. Have you ever taken corticosteroid tablets (cortisone, prednisone, etc.) for more than 3 consecutive months (corticosteroids are often prescribed for conditions like asthma, rheumatoid arthritis, and some inflammatory diseases)? yes no
9. Have you ever been diagnosed with rheumatoid arthritis? yes no
10. Have you been diagnosed with an over-reactive thyroid or over-reactive parathyroid glands? yes no

For women:

11. For women over 45: Did your menopause occur before the age of 45? yes no
12. Have your periods ever stopped for 12 consecutive months or more (other than because of pregnancy, menopause or hysterectomy)? yes no
13. Were your ovaries removed before age 50, without you taking Hormone Replacement Therapy? yes no

For men:

14. Have you ever suffered from impotence, lack of libido or other symptoms related to low testosterone levels? yes no

What you can change – your lifestyle factors

Modifiable risk factors which primarily arise because of diet or lifestyle choices.

15. Do you regularly drink alcohol in excess of safe drinking limits (more than 2 units a day)? yes no
16. Do you currently, or have you ever, smoked cigarettes? yes no
17. Is your daily level of physical activity less than 30 minutes per day (housework, gardening, walking, running etc.)? yes no
18. Do you avoid, or are you allergic to milk or dairy products, without taking any calcium supplements? yes no
19. Do you spend less than 10 minutes per day outdoors (with part of your body exposed to sunlight), without taking vitamin D supplements? yes no

World Osteoporosis Day

Every year World Osteoporosis Day, celebrated on October 20, becomes a focal point to draw the world's media attention to the fight against osteoporosis. Participation in World Osteoporosis Day (WOD) has grown dramatically over the past few years. These campaigns reach out to the public, media, health professionals and policy makers. For the "Beat the Break" risk factors campaign launched on World Osteoporosis Day 2007, it is estimated that more than 59 million media impressions were generated around the world.

You can join in World Osteoporosis Day activities hosted by your local patient society, or if there isn't an event planned in your

area, you may like to be part of a group who gets one going. If you have a personal story about how you are living with osteoporosis, you might be asked to speak to the media, as this can help raise the profile of the disease. Successful World Osteoporosis Day activities often rely on dedicated volunteers.

World Osteoporosis Day events take a wide variety of forms including radio and TV talk show appearances, media conferences with experts and celebrities, public rallies, exercise sessions, concerts and fundraising events. Educational activities range from seminars for health professionals to community events for the public in shopping centres, town squares and public parks.

Clockwise from left: World Osteoporosis Day activities from Hong Kong, Mexico, Brazil, Turkey, Thailand



It's time to make your voice heard

"Never in my wildest dreams did I think I would be a candidate for osteoporosis. I should have taken better care of my bones... So come on... take responsibility for your bones. Just talk to your doctor about osteoporosis."

Joan Rivers, comedienne



Osteoporosis takes a huge personal and economic toll in all regions of the world. We must spread the message that more needs to be done to make osteoporosis a healthcare priority and to ensure that people at risk of osteoporotic fractures have access to diagnosis and effective therapy. And it's not just a "call to action" to governments and health policy officials – the International Osteoporosis Foundation also calls on individuals to 'stand tall' and not become victims of osteoporosis.

Children and adolescents need to:

- Ensure an adequate calcium intake.
- Avoid undernutrition and protein malnutrition.
- Maintain an adequate supply of vitamin D through sufficient exposure to the sun and through diet.
- Participate in regular physical activity.
- Avoid smoking.
- Be educated about the risk of high alcohol consumption.

Adults need to:

- Ensure adequate calcium and vitamin D intake (recommendations range from country-to-country, depending on age).
- Have regular, weight-bearing exercise.
- Avoid smoking.
- Avoid heavy drinking.
- Take the IOF One-Minute Osteoporosis Risk Test and, if risk factors are identified, seek timely medical advice to ensure professional risk assessment.

People with osteoporosis need to:

- Join their local osteoporosis patient society or seek out a patient support group.
- Learn about the disease.
- Find a physician who is experienced in diagnosing and treating osteoporosis.
- If prescribed, adhere to your medication.
- Ensure proper nutrition and lifestyle changes including exercise.
- Be alert to risk factors in family and friends.

Take action, stand tall and speak out for your bones!

Find out more

For further information on osteoporosis please visit the IOF website, where you will also discover a variety of publications to download, including "Osteoporosis and you", which discusses the implications of osteoporosis, the importance of early diagnosis, lifestyle aspects and the various treatment options available.

The International Osteoporosis Foundation (IOF), established in 1998, is a global alliance of patient, medical and research societies, scientists, health care professionals and the health industry. The vision of the International Osteoporosis Foundation is a world without osteoporotic fractures. IOF works in close partnership with its members and other organizations around the world to raise awareness and to ensure a better deal for people with osteoporosis.

For further information, and for contact details for national osteoporosis societies worldwide, visit IOF's website at www.iofbonehealth.org

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Supported by an unrestricted educational grant from the four Global Gold World Osteoporosis Day 2008 sponsors:



"There's one thing I don't take risks with, and that's my bone health, because without strong bones I wouldn't have been able to sail across so many seas. I'm not going to take any risks with my bones, and neither should you."

Dame Ellen MacArthur, solo long-distance yachtswoman

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