



REAL MEN

BUILD THEIR STRENGTH FROM WITHIN

FACTS AND STATISTICS

Osteoporosis affects men too

- Osteoporosis is not just a 'woman's disease'. Worldwide, approximately one in five men aged 50 years or over will break a bone due to osteoporosis.
- One-third of all hip fractures worldwide occur in men.
- Men aged 50 years or over are more likely to break a bone due to osteoporosis than to develop prostate cancer. Worldwide in the year 2000, the prevalence of fragility fractures (broken bones) in men was estimated at:
 - 490,000 hip fractures (30.1% of all hip cases)
 - 554,000 vertebral fractures (39.1% of all vertebral cases)
 - 3.5 million fragility fractures in total (38.7% of all fragility fractures cases)
- In the European Union (EU) more than 168,000 hip fractures occurred in men (year 2010), representing 28% of the total number of hip fractures in both sexes.
- In the USA in 2005, almost 595,000 fractures occurred in men aged 50 years or over of which 74,000 were hip fractures.
- Androgen deprivation therapy (ADT) for prostate cancer and glucocorticoid treatment, used for many other conditions, are two of the most common causes of secondary osteoporosis in men.

Fractures rates are increasing rapidly in men

- Ageing populations and urbanization are driving rapid increases in the osteoporosis disease burden.
- From 1950–2050 there will have been a 10-fold increase in the number of men aged 60 years or more – rising from 90 million to 900 million – the age group most at risk of osteoporosis.
- Large increases in the absolute incidence of hip fracture in men during short intervals of time have been reported. A major UK trauma centre recorded a more than 30% increase in the proportion of hip fractures occurring in men from 2000–2012.
- In the EU, projections suggest that the total number of fractures in men will increase by 34% by 2025, to almost 1.6 million cases per year.
- In the USA the number of hip fractures among men is expected to increase by 51.8% from 2010 to 2030, and in contrast the number among women is expected to decrease 3.5%. Whereas men sustained 27.9% of hip fractures in 2010, by 2030 this proportion is expected to rise to 37.8%.
- In Beijing, from 2002–2006, the hip fracture rate in men aged 50 years or over increased by 49%.

Men more likely than women to be disabled or die from osteoporosis

- Men are twice as likely to die when compared to women further to a hip fracture, with a mortality rate as high as 37% in the first year following fracture.
- Mortality is increased after most fragility fractures in men, not only following hip fractures.

Fractures in men are costly to health-care systems

- In the EU the cost of fractures in men in 2010 was almost 11.6 billion EUR. By 2025 these costs are projected to rise to 15.5 billion EUR.
- **USA** total cost of treating and rehabilitating fractures in men, including long-term care costs was 4.1 billion USD. Projections of fracture incidence in 2025 suggest costs will increase to 6.8 billion USD.
- **Mexico** estimates suggest that almost 7,800 hip fractures occurred in men in 2009, costing 39 million USD. The incidence is projected to increase to 11,700 and 35,500 cases per year by 2020 and 2050, respectively.
- **Saudi Arabia** an estimated 8,800 hip fractures occurred in men and women combined during 2004, with a notably high male to female ratio of 1.2:1. There were approximately 4,800 hip fractures in men, at a total estimated cost of 622 million USD.

Fractures cause loss of work days

- For older working men, fragility fractures have been demonstrated to have a significant impact on productivity. A Danish study found that almost 5,000 working days would be lost on account of fractures in men aged 50–65 years.
- Osteoporosis Australia concluded that productivity losses among Australian men aged 50 years or over with fragility fractures cost more than 46 million AUD in 2012.

Poor lifestyle in boys and men impact their future risk of osteoporosis

- There is growing concern that poor lifestyle habits in boys and teens – low levels of vitamin D and calcium intake as well as increasingly sedentary lifestyles – will impact on the acquisition of peak bone mass and affect their future risk of osteoporosis.
- A multinational study of calcium intakes in adolescent boys reported levels of only 60% of country-specific requirements.
- Excessive alcohol consumption (more than two units of alcohol per day) is associated with a 38% increased risk of suffering any fragility fracture and a 68% increased risk of hip fracture.
- Current smoking is associated with a significantly increased risk of suffering broken bones: 29% increased risk of any fragility fracture; 68% increased risk of hip fracture.

Men are not being diagnosed and treated for osteoporosis

- A US study showed that men were 50% less likely to receive treatment than women.
- An Australian study of older adults showed that 22.5% of women versus 9% of men had undergone bone density testing, and 26.8% versus 8% had received osteoporosis treatment.
- A clear sign of osteoporosis in adults is a previous fragility fracture – yet fewer than 20% of men who have already broken a bone are assessed and treated.
- Despite their high risk, men taking ADT for prostate cancer are often not being adequately tested and treated.
- Men receiving glucocorticoid therapy – placing them at high risk – are also under-assessed and under-treated. A US study showed that fewer than 5% of male patients as compared to 13% of females, received bone mineral density (BMD) testing. Osteoporosis treatment was initiated in less than 9% of men as compared with 57% of women.
- Although one-third of hip fractures occur in men, osteoporosis management in men has not been adequately featured in many national clinical guidelines.
- As the majority of clinical trials for medication have been conducted in postmenopausal women, there has been a delay in licensing treatment for men.

Men can take steps to build strong bones and prevent fractures

- Adequate dietary calcium intake should be ensured. Recommended daily intake varies country-by-country; the IOM 2010 recommendations are 1000 mg for men 19-70 years of age and 1200 mg for men aged 70 or over.
- Men should get enough vitamin D through safe exposure to sunlight. Certain foods also contain small quantities of vitamin D. For the elderly and people with osteoporosis IOF recommends 800 to 1000 IU/day to aid in falls and fracture prevention.
- About three to four sessions of 30–40 minutes per week of weight bearing exercise can improve BMD and decrease falls in older men.
- Alcohol consumption should be limited (more than 2 units per day raises fracture risk) and men should quit smoking.
- Taking the IOF One-Minute Risk Test is a good first step to identifying individual risk factors. Men at risk should consult a doctor and ask for further testing.
- Osteoporosis treatments to reduce fracture risk are available. If prescribed, patients should adhere to their treatment regimens.

REFERENCES ARE AVAILABLE ON REQUEST AT INFO@IOFBONEHEALTH.ORG