

Number of people at high risk of fracture set to double by 2040

September 15 2015

Nyon, Switzerland A study from the University of Southampton and Sheffield Medical School in the UK projects a dramatic increase in the burden of fragility fractures within the next three decades. By 2040, approximately 319 million people will be at high risk of fracture -double the numbers considered at high risk today.

In this first study to estimate the global burden of disease in terms of fracture probability, the researchers quantified the number of individuals worldwide aged 50 years or more at [high risk](#) of fracture in 2010 and projected figures for 2040. The calculations were based on data derived from FRAX, the most widely used [risk assessment algorithm](#).

A threshold of high fracture probability was set at the age-specific 10-year probability of a major fracture (clinical vertebral, forearm, humeral or [hip fracture](#)) equivalent to that of a woman with a BMI of 24 kg/m², a prior fragility fracture and no other clinical risk factors. The identical age-specific threshold was used for men. The prevalence of high risk was determined worldwide, and by continent, and applied to the demography for each country.

Key findings were:

- In 2010, at total of 158 million people (137 million women and 21 million men aged 50 years or more) had a fracture probability at or above the high-risk threshold.

- Globally 18.2% of women and 3.1% of men had a fracture probability above the fracture threshold.
- Worldwide the number of individuals at high risk of fracture is expected to double by 2040, increasing to approximately 319 million. Increases are noted for all regions, but particularly marked in Africa and Latin America.
- Asia will have the highest proportion of the global burden, with 73 million women and 11 million men at high risk.

Professor John Kanis, President, IOF and co-author of the study stated, "Due to demographic changes, we will see an enormous increase in the aged population worldwide. This new data suggests that individuals with a high probability of osteoporotic [fractures](#) will comprise a very significant disease burden to society in the coming decades. Healthcare systems, particularly in Asia, should prepare for a two-fold increase in the number of fracture patients, and with it increased long-term disability and dependency in the older population."

More information: Oden A, McCloskey EV, Kanis JA, Harvey NC, Johansson H. Burden of high fracture probability worldwide: Secular increases 2010-2040. *Osteoporos Int* 2015; 26:2243-8.
link.springer.com/article/10.1007/s00198-015-3154-6

Provided by International Osteoporosis Foundation

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