Are You at Risk of Osteoporosis?

Around the world, one in three women, and one in five men over the age of fifty will suffer a broken bone due to osteoporosis. Osteoporosis is a ‘silent’ disease which weakens bones and increases the risk of fractures, often resulting in pain, long-term disability, and loss of independence.

What is Osteoporosis?

Osteoporosis is a disease in which the density and quality of bone is reduced, leading to weakness of the skeleton and increased risk of fracture, particularly of the spine, wrist, hip, pelvis and upper arm. Osteoporosis and associated fractures can have serious health repercussions and are an important cause of mortality and morbidity, often resulting in pain, long-term disability, and loss of independence.

Take Action for Healthy Bones!

Even if you have no or few risk factors you should nevertheless take action to improve your bone health through positive lifestyle changes that include:

- Regular weight-bearing and muscle strengthening exercise
- Healthy nutrition rich in calcium and protein, as well as adequate vitamin D intake through safe exposure to sunlight, and supplementation if you are over 60 years of age
- Avoiding unhealthy habits such as smoking and excessive alcohol intake

How to Calculate Your Body Mass Index (BMI)

Body mass index (BMI) is a measure based on height and weight that applies to both adult men and women.

**BMI Categories:**
- Underweight = below 18.5
- Normal weight = 18.5 – 24.9
- Overweight = 25 – 29.9
- Obesity = 30 or greater

**Imperial BMI Formula**

\[
BMI = \frac{\text{weight in pounds} \times 703}{\text{height in inches}^2}
\]

**Metric BMI Formula**

\[
BMI = \frac{\text{weight in kilograms}}{\text{height in meters}^2}
\]

How to Estimate Your Alcohol Consumption

A unit of alcohol is equivalent to 10 ml (or approximately 8 grams) of pure ethanol, the active chemical ingredient in alcoholic beverages. Excessive alcohol consumption increases the risk of osteoporosis and fractures.

As a Rough Guide

<table>
<thead>
<tr>
<th>Drink</th>
<th>Units of alcohol per glass*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beer or cider</td>
<td>4% alcohol: 250 ml/8.75 oz = 1 unit</td>
</tr>
<tr>
<td>Wine</td>
<td>12.5% alcohol: 80 ml/2.80 oz = 1 unit</td>
</tr>
<tr>
<td>Spirits</td>
<td>40% alcohol: 35 ml/1.18 oz = 1 unit</td>
</tr>
</tbody>
</table>

* Standard glasses and alcohol content in beverages vary per country, hence fluid amounts and percentages used rather than standard glasses.

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IOF One-Minute
Osteoporosis Risk Test

19 easy questions to help you understand the status of your bone health

Your Non-modifiable Risk Factors – What you cannot change!
These are risk factors that one is born with or cannot alter. Nevertheless, it is important to be aware of risk factors you cannot change so that steps can be taken to reduce loss of bone mineral.

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 stooped back (dowager’s hump)?
   - yes  
   - no

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)? (See: “How to calculate your BMI”)
   - 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-active thyroid, over-active parathyroid glands, type 1 diabetes or a nutritional/gastrointestinal disorder such as Crohn’s or celiac disease?
    - 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

Your Lifestyle Risk Factors – What you can change!
These are 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

See: “How to estimate your alcohol consumption”

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

Understanding Your Answers:
If you answered “yes” to any of these questions it does not mean that you have osteoporosis. Positive answers simply mean that you have clinically-proven risk factors which may lead to osteoporosis and fractures.

Please show this risk test to your doctor who may encourage you to take a FRAX® risk assessment (available at www.shef.ac.uk/FRAX/) and/or have a bone mineral density (BMD) test. In addition your doctor will advise on what treatment, if any, is recommended.

Even if you have no or few risk factors, you should discuss your bone health with your doctor and monitor your risks in the future.

For further information about osteoporosis and how you can improve your bone health, contact a national osteoporosis society near you or visit www.iofbonehealth.org.

Note: this test is intended to raise awareness about osteoporosis risk factors. It is not a scientifically validated test.