

Osteoporosis: assessing the risk of fragility fracture

Information for the public

Published: 1 August 2012

www.nice.org.uk

About this information

NICE guidelines advise the NHS on caring for people with specific conditions or diseases and the treatments they should receive. The information applies to people using the NHS in England and Wales.

This information explains the advice about assessing the risk of osteoporosis-related fractures that is set out in NICE guideline CG146.

Does this information apply to me?

Yes, if you are an adult (aged 18 years or older) who is at risk of osteoporosis-related fractures.

No, if you are a child or young person (younger than 18 years).

The advice in the NICE guideline does not cover how to reduce the risk of fractures or care

for people with osteoporosis-related fractures. NICE has produced separate advice about these (see [other NICE guidance](#)).

Your care

If you think that your care does not match what is described in this information, please talk to a member of your healthcare team in the first instance.

In the NHS, patients and healthcare professionals have rights and responsibilities as set out in the [NHS Constitution](#). All NICE guidance is written to reflect these. You have the right to be involved in discussions and make informed decisions about your treatment and care with your healthcare team. Your choices are important and healthcare professionals should support these wherever possible. You should be treated with dignity and respect.

To help you make decisions, healthcare professionals should explain osteoporosis and the ways of assessing your risk of osteoporosis-related fracture. They should cover possible benefits and risks related to your personal circumstances. You should be given relevant information that is suitable for you and reflects any religious, ethnic, or cultural needs you have. It should also take into account whether you have any physical or learning disability, sight or hearing problem or language difficulties. You should have access to an interpreter or advocate (someone who helps you put your views across) if needed.

Your family and carers should be given their own information and support. If you agree, they should also have the chance to be involved in decisions about your care.

You should be able to discuss or review your care over time, or as your circumstances change. This may include changing your mind about your treatment or care.

All treatment and care should be given with your informed consent. If you are not able to make decisions about your care, your healthcare professionals have a duty to talk to your family or carers unless you have specifically asked them not to. Healthcare professionals should follow the [Department of Health's advice on consent](#) and the code of practice for the Mental Capacity Act. Information about the Act and consent issues is available. In Wales healthcare professionals should follow [advice on consent from the Welsh Government](#).

Osteoporosis-related fractures

Some care may not be suitable for you, depending on your exact circumstances. If you have questions about the options covered in this information, please talk to a member of your healthcare team.

Everyone's bones get weaker as they get older. In some people this can lead to a condition called osteoporosis, in which bones become fragile and break easily. These fractures, called fragility fractures, are most common in bones of the spine, wrists and hips. In particular, the risk of osteoporosis starts to increase in women after the menopause because their ovaries no longer produce oestrogen, which helps to protect the bones. People may also be at increased risk of osteoporosis because it runs in their family or because of the side effects of some medications such as steroid tablets or injections. Therapies and treatments are available to help prevent fractures in people with osteoporosis.

Who should be assessed for fracture risk?

Your doctor may offer you an assessment of your risk of bone fracture, depending on your age and the presence of other factors that might increase your risk, to help decide if preventive treatment might be helpful for you.

You may be offered an assessment if you are a woman aged 65 years or older or a man aged 75 years or older.

If you are a woman under 65 years or a man under 75 years you may be offered an assessment if, for example, you:

- have had a fragility fracture
- are currently using steroid tablets or injections or have used them frequently and recently
- have a history of falling
- have a family member who has had a hip fracture
- have another condition known to cause osteoporosis

- are underweight for your height (called a low body mass index)
- smoke
- drink more than 14 units of alcohol a week.

These are all factors that can increase your risk of fracture.

If you are aged under 50 years your doctor should only offer you an assessment if you have a greatly increased risk of fracture. This may be because you are using steroid tablets or injections, or you had an early menopause and did not receive hormone treatment for it, or you have had fragility fractures in the past. Most people aged under 50 are unlikely to be at high risk.

How should fracture risk be assessed?

There are different ways in which fracture risk can be assessed.

Assessment tools

If you have been offered an assessment of fracture risk, your healthcare professional should use an 'assessment tool'. This involves filling in a questionnaire on the computer, which then calculates your risk of fracture over the next 10 years. To complete it, your healthcare professional will need details of your age, sex, height and weight, whether you have certain related conditions or are taking steroids, and how much you smoke and drink. Your healthcare professional should use one of two tools, called FRAX and QFracture.

If you are aged over 80 years, your healthcare professional should use caution to interpret your assessment, because the calculated risk over 10 years may be misleading and underestimate your risk of fracture over a shorter time period.

These tools are only suitable for people within a certain age range. If you are over the upper age limit (currently 90 years for FRAX and 85 years for QFracture) your healthcare professional should automatically consider you to be at high risk of fracture. If you are under the lower age limit, a bone scan may be considered as described below.

Bone scans

You may be offered a bone scan if the results from the assessment tool show that your risk is close to the level at which treatment might help, to confirm whether it should be offered.

If you are aged under 40 years and thought to be at particularly high risk of fracture, for example, if you have had several previous fragility fractures, or a spine, wrist or hip fracture, or if you are or have recently been taking high doses of steroid tablets or having high-dose steroid injections, your fracture risk should be assessed using a bone scan.

Bone scans (also known as 'DXA' or 'DEXA' scans) measure bone density and show how strong the bones are. They are often used to diagnose osteoporosis. However, a bone scan should not usually be carried out to assess fracture risk unless an assessment tool has already been used.

When should I have another fracture risk assessment?

Your healthcare professional may reassess your fracture risk if:

- there is a change in the factors that affect your risk (for example, if you start taking medication that increases your risk or if you have a fragility fracture) or
- your risk was near to the level at which treatment should be offered and it is more than 2 years since your last assessment.

Questions you might like to ask your doctor

- Why have I been offered a fracture risk assessment?
- Can I request a fracture risk assessment if I am worried about osteoporosis?
- How accurate are the online tools and are there factors that might affect their accuracy?

- If I am at high risk of fracture, how can I reduce the risk and what treatments are available?
- Why haven't I been offered a bone scan?

More information

The organisation below can provide more information and support for people with osteoporosis. NICE is not responsible for the quality or accuracy of any information or advice provided by this organisation.

- [Royal Osteoporosis Society](#), 0808 800 0035

Also see the websites for [FRAX](#) and [QFracture](#).

The [NHS website](#) has more information about osteoporosis.

Other NICE guidance

NICE has also produced the following guidance:

- [Raloxifene and teriparatide for the secondary prevention of osteoporotic fragility fractures in postmenopausal women](#)
- [Raloxifene for the primary prevention of osteoporotic fragility fractures in postmenopausal women](#)
- [Falls in older people: assessing risk and prevention](#)
- [Hip fracture: management](#)

ISBN: 978-1-4731-3517-8

Accreditation

