

Osteoporosis

What you need to know

You may think of it as an old ladies' disease, but one in two British women will develop brittle bones after the age of 50, and, due to lifestyle factors, genes or side-effects of certain medicines, many are diagnosed much younger. We've got the lowdown on this most debilitating of conditions...

Am I at risk?

Do any of the following risk factors apply to you?

- One of your parents broke a hip. **Having osteoporosis in your genes makes you more susceptible.**
- You've had an early menopause (before 45). **Loss of oestrogen after menopause dries bones out, making them more fragile.**
- Your BMI is low (below 19.5). **Frailer bodies are at greater risk.**
- You've suffered previous fractures. **'These don't impact on bone density, but are a sign you may already have a problem,' says Julia Thomson from the National Osteoporosis Society.**

Do you suffer from any of these conditions?

- Rheumatoid arthritis. **The inflammatory process of this disease impacts on bone density.**
- An overactive thyroid. **High levels of thyroxine stop bone cells rebuilding.**
- Crohn's or Coeliac disease. **These conditions prevent optimum absorption of nutrients, such as calcium.**

Are you of Afro-Caribbean heritage?

Afro-Caribbean people are at lower

risk than white people because they tend to have bigger, stronger bones.

Have you used any of the following drugs?

- Corticosteroids (eg for asthma) for more than three months.
- Anti-epilepsy medication
- Aromatase inhibitors for breast-cancer treatment.
- The injectable contraceptive Depo-Provera.
- Anti-psychotic drugs for severe depression.

'These have all been linked to low bone density,' says Julia.

Do you smoke?

The toxins from cigarettes stop bone-construction cells from doing their job properly.

Do you drink more than three units of alcohol a day?

One unit = half a restaurant-sized small (175ml) glass of 13 per cent alcohol wine. High levels of alcohol intake are associated with osteoporosis, but the reasons are not yet fully understood by the medical profession.

DRUGS AND THEIR SIDE EFFECTS...

Always seek advice about side effects if you are diagnosed with osteoporosis and need drug treatment, says Julia Thomson. 'Some oral bisphosphonate drugs prescribed for osteoporosis (eg Fosamax) have been linked with various problems such as bone loss in the jaw (osteonecrosis of the jaw) and occasionally even oesophageal cancer, so ask your doctor to switch you to another treatment if you notice symptoms such as heartburn or acid reflux, and make sure you keep up regular dental check-ups, too. Newest treatments include annual IV infusions of bisphosphonate, and parathyroid hormone, which is injected daily for about two years and reduces compression fractures in the spine by helping to build new bone. There's also a brand-new, twice-yearly injectable that stops bone cells from breaking down.'

WHAT YOUR ANSWERS MEAN...

Mostly yes You are at increased risk of osteoporosis, but there are lifestyle factors which can change this. Discuss your risk factors with your GP, who may be able to refer you for a bone scan and treatment.

Mostly no You're at lower risk of osteoporosis, but you will need to stick to a healthy lifestyle to maintain your bone strength.



Tracey says
exercise is
important

'I really miss being as active as I used to be'

Tracey Mark, 44, lives in the Scottish Borders with her husband Simon, 55. She has two sons, Jono, 22, and Daniel, 21

When I was 36, I slipped on ice and suffered two stress fractures in my right leg – without even falling right over. It was enough to arouse my GP's suspicions about my bones, and I was referred for a heel scan. It revealed my bone density was just 23 per cent. At my age, it should have been around 78 per cent. At 43, I was formally diagnosed with osteoporosis.

It was a shock – but not a complete surprise. I'd walked with a stick since being involved in a devastating car crash that killed my youngest child, Courtney, when she was just seven years old, in 1999. But the damage had already been caused by my early menopause following a hysterectomy in my late twenties. I now give myself daily

injections of the drug Teriparatide, which stimulates the body to produce bone, the way it does for a child. It makes me feel sick and tired, so I do it before bed and that way I feel better during the day.

Not being able to walk any good distance makes me feel older. I was so active before the accident and I really miss that. Since being diagnosed last year, I've also been using a Vibroplate, a machine that does the same for bones and muscles as any weight-bearing exercise, but with minimum effort, which is ideal for me, as I can't walk far. I managed to buy my own machine half-price for £600. In six months of using it for 10 minutes three to five times a week, I've noticed muscle tone in my right leg that I haven't had since before the car crash, and I'm hoping that's a good omen for my bone health, too.'

“ My problems started with an early menopause and a hysterectomy ”

NEED TO DO...

We all suffer a slow loss of bone density after the age of 35, but the process speeds up after menopause, putting us at greater risk of osteoporosis and broken bones in later life. But there are steps we can all take to protect our bones...

- **Give up smoking.** Visit www.quit.org.uk for tips. When you smoke, your bones cannot properly absorb the calcium they need.
- **Cut down on alcohol.** Studies have shown one unit a day to be beneficial to bones, but more than three is a risk to bone health.
- **Take a vitamin-D test.** Vitamin D is essential for bone health. If your GP won't test you and you're concerned about being deficient, take a supplement (eg Biotics Research Bio-D-Mulsion, £11.49 for 30ml from www.revital.co.uk).
- **Do more weight-bearing exercise.** Jogging, aerobics, tennis, dancing, brisk walking, and weightlifting (eg Body Pump classes) all help increase bone density. Try to exercise for at least 30 minutes, five days a week. If exercise is difficult for you, scientists have recently discovered that standing on a vibrating plate (such as Power Plate, available in many gyms) for 10-20 minutes a day can prevent bone loss and protect bone density.
- **Go easy on caffeine and fizzy drinks,** which leach calcium from bones.
- **Stick to a maximum of 6g (1tsp) of salt daily.** The national average is 9g, but too much salt can speed up calcium loss. Read food labels to monitor your intake and only use low-sodium salt (eg pure sea salt) in cooking.
- **Limit protein** (from meat, cheese, fish and nuts) to 1.5g daily per kg (2½lb) of bodyweight – that's 90g (3oz) for a 60kg (9st 4lb) woman.



Walking her dog Shuna every day keeps Jennifer active

'Being petite has put my bone health at risk'

Jennifer Pringle, 50, an events organiser, lives near Lauder, Berwickshire, with her husband William, 46, and children, Rory, 16, and Nicola, 14

Four years ago, the nagging pain in my upper back under my bra strap – that I'd put up with since my twenties, assuming it was due to previous fractures from an accident – got so bad that my GP referred me for a whole-body (DEXA) bone scan. I discovered I was 'osteopenic' – on my way to developing osteoporosis. At just 46, it was a shock. I thought it was an elderly person's disease. The radiographer who did my scan said that my size was a classic risk factor – at 5ft 1½in and under 7½st, I'm petite.

I started on calcium and vitamin-D therapy, together with a drug called alendronate that binds calcium in the bone to increase its strength. Two years later, there was a slight improvement in my bone density, and I felt as if I was winning the battle. But then I slipped

and fell in my garden, landing heavily on my backside with an excruciating and audible crunch in my back. I was crying with pain and had to crawl back to the house. Another scan showed I'd suffered two compression fractures, which could only be treated with pain relief, and, since my last scan, my bone density had deteriorated again.

I started feeling very vulnerable and scared of suffering another fracture. Now, in a last-ditch effort to stave off full-blown osteoporosis, I'm having annual infusions (by drip) of bisphosphonate, which attaches to bone and prevents it from breaking down too much. A healthy diet and plenty of exercise are also essential for bone health, but as I already ate quite well, and walk my spaniel, Shuna, every day, I haven't had to make any big changes. I hope I'm doing enough to keep my spine straight and osteoporosis-free.'

“I feel vulnerable and scared of more fractures”

SAY CHEESE?

Cheese is an obvious and tasty source of calcium – but while it contains seven times the amount of this mineral as milk, it also has a much higher PRAL (potential renal acid load), which some nutritionists say can leach calcium from bones so advise consuming no more than one small portion a day. Julia Thomson says, 'Balance cheese with other calcium sources, such as bony fish, pulses, nuts, milk and yoghurt, along with fruit and veg, which have an alkalisating effect. It is better to get all the calcium you need from eating enough of the right foods, rather than taking supplements, which were linked to heart disease last year.'

'I swapped breast cancer for brittle bones'

Kate Tripp, 47, is married to Ian, 48, and lives in Camberley, Surrey

When I was diagnosed with breast cancer at 39, my oncologist warned me the chemo and radiotherapy could affect my bones. The marble-sized tumour had been growing for as long as ten years before I found it. I'd been unwell for such a long time without knowing it, and once I'd finished treatment, I felt better than I had in years – and I couldn't wait to get out and start doing more.

A year later, Ian and I went cross-country skiing, but I fell and broke four ribs. Normally I would have recovered very quickly from a fall like that, so the fractures were a sign that my bones were suffering. But I was alive, so it seemed a small price to pay. I knew it was one of those things I'd just have to live with, and I was just relieved to have overcome the cancer.

My treatment had meant having my ovaries removed because my tumour was oestrogen positive, so I had an early menopause, which is another bone risk. So when a bone scan revealed that I was on the borderline of osteoporosis, I started taking prescription-strength calcium and vitamin-D supplements, and started to exercise more. I snap very easily – two years ago, I broke a finger while playing softball. But I haven't let that put me off being active – it's the only way I can stop my bones from ageing even faster.

I've run two London marathons – according to the National Osteoporosis Society, jogging is OK. In fact, they actually recommend it. I'm still on the edge of osteoporosis but I haven't crossed the line, so I must be doing something right – and I will keep up the good work for as long as I can.'



Kate with her mum after running the London Marathon