CQ HAND + UPPER LIMB
SPECIALIST ORTHOPAEDIC SURGEON

PATIENT INFORMATION

Falls Prevention and Fragility Fractures

Staying steady — handrails, good lighting and balance exercises help prevent the falls that cause fragility fractures.

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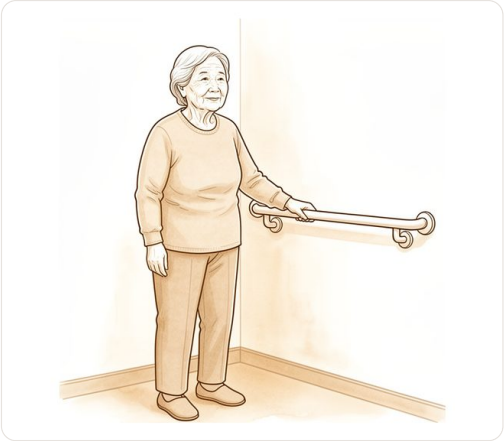

If you are an older adult and you have broken a bone in a simple fall (a trip on a rug, a stumble in the garden, a slip getting out of a chair), that injury is trying to tell you something useful. A bone that breaks from a small fall is often the first sign that the bone has quietly become weaker than it should be. The good news is that this is one of the most actionable warnings in medicine: there is a clear plan to make the bone stronger and to stop the next fall before it happens. This page explains what a fragility fracture is, why it matters, and the practical things that genuinely work.

What is a “fragility fracture”?

A **fragility fracture** is a bone that breaks from a **low-energy fall**, a fall from standing height or less, the kind of knock that a healthy younger skeleton would usually shrug off. When a bone breaks from so little force, it is usually because the bone itself has thinned and weakened, a condition called **osteoporosis**. The fall is the trigger; the weak bone is the reason.

In the upper limb the two most common fragility fractures are a **broken wrist** (a fracture of the distal radius, the forearm bone just above the wrist) and a **broken shoulder** (a fracture of the proximal humerus, the top of the arm bone). Both happen the same way (you put a hand out to break a fall, or you land on the point of the shoulder), and both are very often the first warning sign that the bones are thinning. Many people have no symptoms of osteoporosis at all until a minor fall produces a fracture that, on the X-ray, looks far worse than the fall should have caused.

Why a single broken bone is worth acting on

Here is the part that surprises most people: once you have had one fragility fracture, your risk of having another one (including a more serious break of the hip or spine) is roughly doubled. A broken wrist in your sixties or seventies is not just a wrist to be plastered and forgotten; it is an early, visible flag for a problem that, left unaddressed, can later cause a hip fracture, an injury far harder to recover from.

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That is why we treat a fragility fracture as a prompt to act on **two fronts at once**. Treating only the broken bone fixes today's problem but leaves tomorrow's risk untouched. The two jobs are: make the bone stronger, and prevent the next fall.

Front one: make the bone stronger

The first job is to find out how strong (or weak) your bones really are, and then to do something about it.

- **Get the bones assessed.** The standard test is a **DEXA scan**, painless, low-dose X-ray (usually of the hip and spine) that measures your bone density. It tells us whether you have osteoporosis and how significant it is.
- **Correct vitamin D and calcium.** Bone is built from calcium, and your body cannot absorb calcium properly without enough **vitamin D**. Many older adults are low in vitamin D without knowing it. A simple blood test and, if needed, a supplement can correct this, one of the easiest foundations to put in place.
- **Consider bone-protecting medicines.** Where bone density is low, there are well-proven medicines that slow bone loss or actively rebuild bone, meaningfully reducing the chance of the next fracture. Whether one is right for you is a conversation to have with your GP or specialist.

Many hospitals now run a **fracture liaison service**, a team whose whole job is to catch people after a fragility fracture and make sure this bone-health assessment actually happens, rather than falling through the cracks while everyone focuses on the cast. If your area has one, it is well worth being referred in. (For more detail on bone density, osteoporosis and the medicines involved, see the companion bone health and osteoporosis page.)

Front two: prevent the next fall

Strengthening the bone lowers the damage a fall does. Preventing the fall removes the trigger altogether. Most falls really are preventable. The strongest levers are surprisingly ordinary.

- **Tackle hazards at home.** This is where many falls actually happen. Remove or secure loose rugs and trailing cords, clear clutter from walkways and stairs, improve lighting (especially on stairs and the route to the bathroom at night), and fit handrails on stairs and grab rails in the bathroom. A night light between the bed and the toilet prevents a remarkable number of falls.
- **Wear good footwear.** Well-fitting, non-slip, flat shoes that fasten securely beat slippers, loose scuffs or going about in socks. Foot pain and poorly chosen shoes quietly undermine your balance.
- **Get your eyes checked.** Have your vision tested and your glasses updated. If you wear bifocals or varifocals, be aware they can blur the edges of steps; a separate pair for stairs and walking outdoors sometimes helps.
- **Have your medicines reviewed.** Some medicines cause drowsiness, dizziness or a drop in blood pressure when you stand, and the risk of falling rises once you are taking several of them. A pharmacist or GP can review the list and simplify or adjust what is contributing.
- **Manage dizziness and blood pressure on standing.** If you feel light-headed when you get up from sitting or lying, mention it; it is often treatable. Standing up slowly and pausing before you walk off is a simple habit that helps.

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- **Do strength and balance exercise: the most powerful step of all.** Of everything on this list, programmes that build leg strength and balance have the best evidence for actually reducing falls. Approaches such as tai chi and structured strength-and-balance classes (your physiotherapist or GP can point you to a local one) keep you steady on your feet and, as a bonus, keep the bones loaded and healthy. Staying active is protective, not risky.

Falls are not just "part of getting older"

It is easy to assume that falling is simply what happens as you age, and to start shrinking your life to avoid it: going out less, doing less, moving less. That instinct quietly makes things worse, because the less you move, the weaker and less steady you become. Falls are not an inevitable part of ageing, and the great majority are preventable with the practical steps above. The goal is not to wrap yourself in cotton wool; it is to stay strong, steady and confident enough to keep doing the things you enjoy.

When to get checked or seek help

- **After any fragility fracture**, ask your GP or surgical team about a **bone-health assessment** (a DEXA scan and a review of vitamin D, calcium and whether a bone-protecting medicine is right for you). Don't let the conversation end at the cast.
- **See your GP if you are having repeated falls, feel unsteady on your feet, or get dizzy or light-headed**: particularly on standing. These are exactly the things that can be assessed and improved.
- **If you have a fall and are worried you may have broken something** (sudden pain, swelling, an obvious deformity, or you can't use the limb): get it checked promptly.

Acting on the two fronts together (stronger bone and fewer falls) is the single most effective thing you can do to make sure a first fragility fracture is also your last.

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