

# Preventing falls and fractures

## The importance of knowing about bone health

Often the first time a person knows there may be something wrong with their bone density (how strong the bones are) is after suffering a fracture (broken bone). Fractures known as fragility fractures (meaning that the bones are fragile) are usually caused from a fall from standing height. If your bone density is normal it is unlikely that a fall from standing height will result in a person breaking a bone, however if that bone is weaker due to conditions known as osteopenia or osteoporosis then a fall from standing height can lead to a fracture. The types of fragility fractures often seen in the hospital are wrist fractures, pelvic fractures and fractures in the spine. However the most devastating type of fragility fracture is a hip fracture (broken hip).

To measure the care and outcomes of patients who suffer hip fractures in Ireland, the Irish Hip Fracture Database was established in 2013, clinically supported by the Irish Institute of Trauma and Orthopaedic Surgery (IITOS) and Irish Gerontological Society. It is operationally managed by the National Office of Clinical Audit (NOCA). The database shows that approximately 3,700 people over the age of 60 years break their hip in Ireland each year. By measuring the care of this group of patients there is now a very

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good understanding of who our hip fracture patients are. Typically hip fracture patients are over the age of 80 years old, two-thirds of them are women and over 80% of them are living at home. Half of patients are able to walk independently before the fracture. Ninety-five percent of hip fractures occur from a low fall and the majority of these occur in the patient's own home. As we get older reflexes that would normally allow us to get our hands out to protect ourselves when falling can get slower, so when a fall occurs the hip takes the main force of the fall and due to osteoporosis or osteopenia, fractures more easily.

The database measures a number of clinical standards that are

known to impact on how well a patient will recover from a hip fracture. These standards include

- How quickly a patient is seen in the Emergency Department and admitted to an orthopaedic specialist ward.
- How quickly the patient has surgery to fix the hip fracture. Surgery is usually done using plates, screws, nails or an implant and is a serious operation.
- Whether or not a patient develops a pressure ulcer (also known as a pressure injury or sore), these can be very painful and debilitating.
- Whether the patient is seen by a geriatrician (a medical specialist in the care of older people),
- Whether the patient's bone health is assessed (to ascertain history of previous fractures and risk of future fractures)
- Whether they have a specialist falls assessment (to ascertain

history of falls and risk or further falls).

- Whether the patient is mobilised on the day of or after surgery by a physiotherapist.

By ensuring these standards are met, it improves the likelihood of a patient making a good functional recovery and decreasing the risk of further falls and fractures occurring. Sadly, 5% of patients pass away in hospital following a hip fracture and only 24% of patients return directly home from hospital. Many patients will need more support than they needed prior to the fracture.

### Prevention

In the recently published Irish Hip Fracture Database National Report 2019 a focus was put on prevention of hip fractures. An infographic has been produced highlighting the most common causes of falls in the home and by paying attention to this it is hoped people can prevent harmful falls at home.

Another audit managed by NOCA is the Major Trauma Audit which measures the care of patients who suffer severe trauma leading to life threatening or life changing injuries. The leading cause of major trauma in Ireland is low falls (58%) and half of accidents happen in the home. The synergies between both of these trauma audits strengthens the importance of the public health message for falls prevention. Falls can happen to people of any age however as we get older we are more likely to suffer serious harm like a fracture due to the fact that many people are unaware that their bone health may be compromised i.e. osteoporosis.

Pro-active screening of bone health presents an opportunity to prevent fractures. If you are over the age of 50 or if you have had a low trauma fracture you should speak to your General Practitioner about bone health. Equally if you have had a fall(s), feel unsteady or have difficulties with your sight seeking advice can help minimise the risk of harm from a fall.

The IHFD is a supporting member of the International Fragility Fracture Network which aims to reduce fragility fractures globally and ensure that those who do have a fragility fracture receive secondary prevention for falls and fracture and multidisciplinary rehabilitation. They have developed two open access resources which can be downloaded freely.

Fragility Fracture Nursing: Holistic Care and Management of the Orthogeriatric Patient <https://www.springer.com/gp/book/9783319766805>

<https://www.springer.com/gp/book/9783030481254>

Orthogeriatrics: The Management of Older Patients with Fragility Fractures

For further information about the Irish Hip Fracture Database and the National Office of Clinical Audit please visit [www.noca.ie](http://www.noca.ie)

