

Knee fractures and dislocations

What are knee fractures and dislocations?

A knee fracture is a break (or crack) in any of the parts of the bones that make up the knee joint: the femur (thighbone), the tibia (shin bone) and the patella (kneecap). Because of its location at the front of your knee, the kneecap is the most frequently fractured knee bone. The most common cause is a fall onto the kneecap.

Other parts of the knee may be fractured during car/motor bike accidents, jumping sports, falls from a height and when other injuries happen (e.g. ACL ligament rupture).

A knee dislocation is a rare injury where the bottom of the thighbone and the top of the shin bone come apart. Due to the strong supportive structures around the knee, this type of dislocation requires a lot of force. It tends to occur during a high-impact trauma such as car or motor bike accident or a severe fall.

Note that a knee dislocation is not the same as a patella dislocation, which is a common injury.

What are the symptoms of knee fractures and dislocations?

Symptoms will vary with the location and severity of the fracture or dislocation. Dislocated bones often go back into place by themselves, but the injury tends to cause significant damage to soft tissues, meaning that symptoms remain.

General symptoms include:

- pain, especially when trying to straighten or stand on the leg
- swelling and bruising
- deformity
- inability to bear weight or move the knee/lower leg

The knee may become very swollen if there is bleeding into and around the joint.

What does your doctor look for?

Your doctor will ask you about how the injury happened, about your symptoms and take a general medical history (e.g. pre-existing conditions such as osteoporosis, and previous injuries).

Your doctor will also examine your leg looking for tenderness, swelling, deformity, movement and for signs of blood vessel or nerve damage.

What investigations are needed?

Your doctor will use The Ottawa knee rules to determine if you need an X-ray. For complex fractures or where more information is needed, your doctor may order a CT or MRI scan.

How are knee fractures and dislocations treated?

Treatment depends on the type and severity of your injury, as well as factors such as your age and general health. The aims of any treatment are to realign the bones, stabilise the joint, preserve blood vessels and nerves and to control pain. Some injuries will be able to be treated conservatively, with casts or splints and pain medication. Other injuries will require surgical treatment.