

View this article online at: patient.info/bones-joints-muscles/joint-pain/joint-dislocations

Dislocation

A dislocation is an injury in which the bones in a joint are forced apart and out of their usual positions. To dislocate the bones of a large joint usually needs considerable force (although there are exceptions to this).

What are dislocations?

When two bones meet there are several structures holding them together. These include:

- Strong tissues called ligaments around (and sometimes inside) the joint.
- A joint capsule - a fibrous surround to the joint.
- Tendons and muscles passing around and sometimes through the joint.

Dislocations are injuries where the bones in a joint are forced apart and into an abnormal position; they are caused by an injury which produces an impact on the joint. These would include falls, accidents involving vehicles and collisions during contact sports. Less impact is needed to cause dislocation of smaller joints than of larger ones.

It can become easier to dislocate joints that have dislocated before as the surrounding tissues which hold the joint in place can become stretched. Some people are more prone than others to dislocations.

If the joint is injured and pulled apart, the structures of the joint, plus the bones themselves, can be torn or fractured as a result.

Which are the most common dislocations?

Most joints in the body can be dislocated but some are dislocated more commonly than others. Dislocations of the shoulder (in adults) and the elbow (in children) are the most common. This leaflet discusses the most common dislocations and how they are treated.

Joints allow bones to move against one another (articulate) to allow us to move our skeletons. Some joints, like the shoulder, are especially mobile (having a wide range of movement of the bones). This is particularly so in flexible people like gymnasts and ballet dancers.

Some joints, like the ankle or fingertip, have a smaller range of movement, mainly in one direction. Stable joints tend to dislocate less easily as there are more inflexible structures holding them in place. More mobile joints dislocate more easily.

Mobile and stable joints

Joints which are more mobile tend to be at greater risk of dislocation. Comparing two ball and socket joints – the shoulder and the hip – shows why this is the case. Both are similarly made, consisting of a ball of bone moving in a socket of bone. Ball and socket joints can move in every direction. The price for this mobility is that there are many directions in which the joint could be 'pulled out'. However, the shoulder is much more easily dislocated than the hip.

The shoulder has quite a shallow socket which makes it even more mobile. It relies upon muscles, tendons and ligaments to keep it in place. These structures are easily damaged if enough force is applied. The muscles and ligaments around the shoulder tend to be stretchy and relatively vulnerable (compared to those around the hip). Thus the shoulder is relatively easy to dislocate.

The hip is much harder to dislocate even though it is also a ball and socket joint. This is because the socket is deeper and the ligaments and muscles much bigger and stronger. As a result we can't get the same range of movement from our hips as from our shoulders but in return the hip is more stable and much less likely to dislocate than the shoulder.

What increases the risk of dislocation?

Various factors can lead to dislocation, either because they weaken the support of the joint (meaning less force is needed to dislocate it) or because they make injury more likely. These include:

- Weakness of the supporting ligaments and muscles through age or lack of fitness.
- Older age - older people may have poorer balance and be more vulnerable to falls.
- Very young age - young children can be at greater risk as they have laxer, more elastic supporting ligaments and are also prone to falls and other injuries.
- Previous dislocations which have stretched or torn the supporting tissues. Repeated dislocations are particularly likely to follow first dislocation in the shoulder, kneecap (patella) and hip.
- Joint hypermobility - hypermobility is particularly common in children but about 5% of adults have hypermobile joints. It can be caused by weak loose ligaments, weak muscles or shallow joint sockets.
- Inherited conditions which make the elastic tissues more 'stretchy' - for example, [Ehlers-Danlos syndrome](#) and [Marfan syndrome](#).
- Increased risk through choice of physical activity, such as extreme sports and high-speed sports, contact sports with high impact, or sports involving speed with sudden turns on the feet.
- Operating heavy machinery.
- Size of joint - smaller joints like fingers need less force to dislocate them than, say, the hip, purely because they are smaller.

What is a dislocation like?

Dislocation of a joint is usually sudden and extremely painful as the ends of the bones dislocate from one another. This is because tissues around the joint are stretched and torn. There will be bleeding into the tissues around the joint and swelling. The joint may look obviously deformed.

What happens after you have a dislocation?

As a result of the dislocation, the joint cannot function as normal. Limbs and digits can't be moved, it may be impossible to weight bear or, in the case of the jaw joint, open the mouth.

An additional complication is that nerves and blood vessels may be trapped or squashed (compressed) by the abnormally positioned structures. This can result in increasing pain and in numbness and tingling. (It also means that dislocated joints need immediate medical attention in order to make sure that the blood and nerve supplies to tissues beyond the joint are still functioning normally.)

What should I do if I have a dislocation?

- It is important to seek medical help, either in an emergency department at a hospital or at an urgent care centre that can manage minor injuries.
- Depending on where the dislocation is, there may be severe pain and immobility - an ambulance may need to be called in these cases.
- It is best not to try to put the joint back oneself - even if it is possible to do this without causing further damage, it could trap nerves, blood vessels or other tissues between the bones.
- It can help to cool the injured area and, if practical and possible, elevate it. Both of these will reduce swelling.

How are dislocations treated?

The aims of treatment are to assess the position of the joint and any associated injuries, then to restore it to its normal location without causing any further damage.

Imaging such as X-rays may be needed to check for broken bones; painkillers or an anaesthetic might be required before the joint can be manipulated.

Dislocations ideally need to be put back (reduced) by trained healthcare professionals in a hospital setting rather than by able first aiders 'in the field'. This is because:

- Significant force may be required to pull the bones further apart in order to drop them back into their proper position. The joint may also need to be pulled out and rotated a little before being gently allowed back into place. This needs careful control. It is important that the person doing this knows exactly how to pull and turn the joint.
- The process is generally painful, particularly for large joints like the shoulder.
- X-rays might be needed before and/or after the process, as dislocations are commonly associated with a break (fracture).
- Essential structures like blood vessels and nerves may be put at risk by dislocation. They may be put further at risk if a dislocation is then put back improperly, or manipulated the wrong way, trapping them and possibly cutting off blood or nerve supplies. This could make things worse.

Afterwards treatment focuses on rehabilitation and prevention of further dislocation. Physiotherapy is often suggested to strengthen the joint involved.

How long does it take to recover from a dislocation?

There will be some immediate relief when the joint is back in place. However, the tissues will still be sore, swollen and bruised. The time that this takes to fully recover depends on the size of the joint involved and the amount of associated damage to the supporting structures. It also depends on the treatment that's needed and on the physiotherapy taking place.

Time to reach complete recovery may vary. It may be only 2–3 weeks in the case of a partial finger dislocation that goes back into place easily. For a shoulder, it may be 12–16 weeks. In the case of a hip or a foot, it may take six months or longer.

When there are repeated dislocations of the kneecap, the bone may eventually slip so easily back into place that recovery is almost immediate. This is because the muscle has become so stretched that no further damage occurs when the kneecap dislocates.

Healing and recovery time will be affected by factors such as:

- Severity of injury.
- Whether surgical repair is needed.
- Age.
- Weight.
- Strength of supporting muscles and ligaments.
- General health.
- Presence of conditions which may affect healing - for example, poorly controlled [diabetes](#), [oral steroid](#) use.
- Compliance with treatment (for example, complying with physiotherapy exercises).
- Whether injury is repeated (recurrent).

Types of dislocation

Shoulder dislocation

This occurs when the ball of the upper arm bone (humerus) pops out of the shoulder socket. It is usually caused by a fall on to the upper arm or during contact sport such as rugby. Usually the dislocated ball pops out at the front of the shoulder joint, where the supporting muscles are at their weakest. It can pop out backwards but this is relatively uncommon.

Forwards (or anterior) dislocations of the shoulder are extremely painful and it is impossible to move the arm. There may be a deforming bulge in the front of your shoulder area, below the natural shoulder joint. This will be the ball of the upper arm bone, called the humeral head, that has slipped out.

Shoulder dislocations are at high risk of involving nerves and blood vessels. It is also fairly common to find an associated fracture of the upper arm or shoulder.

Treatment of a shoulder dislocation

- Shoulder dislocation is usually treated in hospital. X-rays are done to check for breaks, which are common. The shoulder is then put back (reduced) using either strong painkillers or an anaesthetic. The process takes only a few minutes. If any of the tendons or tough tissues around the shoulder (including the 'lip' of the shoulder socket which is called the labrum) have been torn they may need surgical repair.
- After reduction, the shoulder normally needs to be rested for several weeks: it is likely to be 12-16 weeks before full strength is regained. This may be longer if bones were also broken.
- A sling will often be recommended for 2-3 weeks to allow the stretched soft tissues to heal.
- After this, gentle arm and shoulder exercises, performed out of the sling, help to regain mobility and strength. A fifteen-minute ice pack and painkillers may be useful before the exercises are attempted.

Repeated shoulder dislocations If the shoulder has dislocated once, it is more likely to happen again. This is particularly the case if the first time is in someone under the age of 20. If shoulder dislocation recurs, the structures at the front of the joint can become stretched.

Eventually a point may be reached, with repeated dislocations, where the shoulder dislocates very easily, even during normal sporting activities like swimming. Sometimes it can even be slipped back in relatively easily by the individual.

In such cases physiotherapy or surgery may be offered to increase the support around the shoulder and to reduce the chance of further dislocations.

Elbow dislocation

The elbow is the second most common dislocation in adults. It takes a lot of force to dislocate the elbow – such force that there is often an associated break in one of the bones. Dislocated elbows are at high risk of trapping nerves and blood vessels and need urgent attention.

The most common cause is falling and landing on an outstretched hand or arm, pushing the forearm bone sideways out of the joint. Sports like cycling, roller blading, skateboarding and gymnastics tend to be the most common sports-related causes.

Dislocated elbows look deformed and they hurt. There may be swelling and bruising, especially if there are torn ligaments or broken bones. Injury to the nerves that cross the elbow joint can cause tingling further down the arm or in the hand.

Elbow dislocation treatment

This follows the same principles as for shoulder dislocation, above, although the elbow does sometimes relocate by itself, particularly if it wasn't completely dislocated. Reduction is done by a trained medical person.

A sling is worn initially, after which physiotherapy should be offered to restore normal movements and control. If essential structures like ligaments have been damaged then surgery may be needed to repair them.

If the bones are broken then pinning and wiring may be needed to hold everything stable as it heals. In more complicated cases the elbow may be in a cast or brace for a while before physiotherapy can begin.

Kneecap (patellar) dislocation

The most common knee dislocation is actually not a dislocation of the main knee joint. Instead it is of the kneecap (patella) from its position in front of the main knee joint. Patellar dislocation is particularly common in teenagers, especially girls. It can happen during sport but also when getting up from a chair or the floor.

The kneecap is said to dislocate when it comes sideways out of the groove in which it normally moves over the knee joint. The kneecap is a type of bone called a sesamoid bone. This is a bone sitting in a muscle or tendon over the top of a joint, protecting it by sliding over it to cover the most prominent part of the joint as it moves.

The kneecap sits in the muscle which forms the front of the thigh (the quadriceps muscle). Below the kneecap the quadriceps muscle becomes a tendon and attaches to the front of the shinbone. When dislocated it pops out of the groove - usually outwards away from the other leg (laterally), still remaining attached to the muscle, which stretches and moves with it.

A dislocated kneecap hurts and you may hear a crack or clunk. There may be swelling, particularly the first time it happens. It is difficult to move the knee properly. This dislocation does not generally represent a risk to major nerves and blood vessels.

Repeated kneecap dislocations

Kneecap dislocation tends to be repeated (recurrent). The risk is higher if the quadriceps muscles are not particularly strong, so that they tend to be lax and allow sideways movement of the kneecap. The risk is greater in someone who is overweight. Over time the dislocation may become less painful, as the stretched tissues are not damaged by the dislocation.

Dislocated kneecap treatment

Dislocated kneecaps often treat themselves, popping back into place before even seeing a health professional. Over time if it is recurrent, it will become less painful and may be able to be reduced (put back) by the individual. This is usually achieved by slowly straightening the leg - or allowing someone else to straighten it.

If this doesn't work, the kneecap dislocation can be put back by a qualified health professional. Physiotherapy will be offered afterwards to strengthen the quadriceps muscles.

Knee joint dislocation

Dislocation of the knee joint itself (rather than the kneecap, as described above) is rare but can be very significant. It is most likely to be caused by a road vehicle accident but can also happen in sports, particularly skiing. There is usually significant injury to the ligaments of the knee as well.

[See our separate leaflet called Knee Ligament Injuries for more information about injuries to the ligaments of the knee and how they are treated.](#)

Knee dislocation treatment

The knee might have gone back into place on its own at the time of the injury. If it has stayed dislocated it needs to be put back into place urgently but not before an examination has made sure the blood vessels aren't damaged and [an X-ray](#) has made sure that there are no fractures.

Damage to the main blood vessel (popliteal artery) that travels down the back of the knee is common and may require urgent surgery. Emergency surgery may also be needed if it is not possible to put the knee joint back in place.

Non-emergency surgery is usually then needed to repair the ligaments that will have been damaged during the dislocation.

Hip dislocation

Sudden hip dislocation is a medical emergency when it occurs in adults. It is very painful and can result in significant bleeding into the joint and tissues. The hip is a stable joint, seated in a fairly deep socket and well protected by large muscles and strong ligaments.

It takes a lot of force to pop it out and such severe force is likely to cause other associated injuries. The degree of injury may not be obvious by looking at the hip, since the bones are well covered with muscle layers so swelling and bruising may not be obvious.

However, it will be impossible to stand or move the hip joint and, when lying down, the leg on the affected side will look shorter than the other. Most hips dislocate backwards and when this happens the whole leg tends to turn inwards towards the other leg.

There are three main causes of hip dislocations:

- A major injury such as a road accident.
- Dislocation of artificial hips in the period following hip replacement surgery - this is relatively common as the muscles and ligaments around the new joint ball will be stretched and weakened by the surgery.

- Developmental dysplasia of the hip. This is seen in babies when the hip joint doesn't develop normally. The hip socket may be too shallow or the ball part may be flattened. These problems make it likely that the hip will slip out. It is more common in babies born bottom first (breech) and in girls. [For more information see the separate leaflet called Developmental Dysplasia of the Hip.](#)

In addition, some adults have a shallow hip socket and develop recurrent dislocation, usually in later life when the supporting joints and ligaments are weaker.

Hip dislocation treatment

Patients with an injury causing a hip dislocation need pain relief and treatment for other injuries, which may include severe blood loss. The hip dislocation itself will normally be put back under anaesthetic.

The risk of damage to blood vessels and nerves is quite significant. There is a chance of permanent interruption of the blood supply to the ball part of the ball and socket joint. This leads rapidly to arthritis of the hip. Traumatic hip dislocations therefore commonly lead to lasting disabilities.

Repeated hip dislocations

Dislocations following hip surgery and dislocations that are recurrent also require reduction under anaesthesia. They tend not to be as traumatic, as they have not required the same amount of force to cause them.

Dislocated finger

This is a common injury which can affect any finger joint but which most commonly affects the middle knuckle of the four fingers (rather than the thumb). It is usually caused either by over-bending the finger backwards, or by jamming or catching the finger somewhere during fast movement. Typically this happens:

- During sports activities when stopping fast balls with the hand.
- When undressing and catching the finger in clothes.
- When falling on to the hand.

It is usually obvious – the finger will be deformed (crooked and swollen) and will hurt. It will be difficult to move it properly and it may go pale and tingle.

Dislocated finger treatment

Medical assessment should be sought as a result of a dislocated finger. This is particularly urgent in the following cases:

- The finger is pale or tingling (which suggests trapped nerves or arteries).
- The skin is broken over the dislocation (risking infection in the damaged joint).

It is also important to remove any rings swiftly, if possible. This is because they may need to be cut off if a finger swells and the rings become too tight.

A dislocated finger is usually put back in accident and emergency. It will probably be X-rayed. Ice is usually applied. Depending on the severity, a hand specialist may be recommended afterwards to make sure the full use of your hand is recovered.

Dislocated collarbone

This is usually a dislocation of the outer end joint of the collarbone (clavicle), where it joins with the top of the shoulder. This is called the acromioclavicular joint (ACJ) and the dislocation is also called AC separation.

The ACJ is most commonly dislocated by a fall on to an outstretched arm or on to the tip of the shoulder. It often occurs in physical 'collision' sports like rugby and football. It can also occur in sports that risk a fast or long fall, such as skiing and horse-riding.

The dislocation is painful. It may be easier to spot the change in the shape of the joint when the arm is held across the body. It can vary from a small separation of the joint to a wide one, which is more severe.

Dislocated collarbone treatment

Treatment of this dislocation depends on how severe it is. This is judged by how widely the bones have separated and how much damage there is to the ligaments. More severe injuries will need to be operated on (surgical reduction and fixation). However, less severe injuries are managed with physiotherapy and painkillers.

Dislocated jaw joint

The joints between the lower upper jaw are called the temporomandibular joints (TMJs). They can dislocate quite easily in some people, even when just opening the mouth particularly wide - for example, yawning or biting an apple.

Pain is felt in front of the ear and it is difficult to open and close the mouth. Usually the lower jaw dislocates forwards. However, in the case of a direct blow to the chin it may dislocate backwards.

Dislocated jaw treatment

The joint needs to be put back by a trained health professional. The main chewing muscles (masseter muscles) are very strong. Once the jaw has dislocated they may be in spasm, so [muscle relaxants](#) are sometimes used. If the reduction proves difficult or there are other injuries, an anaesthetic may be needed.

A soft diet needs to be followed when recovering from a dislocated or broken jaw, avoiding foods that are crunchy or very chewy.

Wrist dislocation

Wrist dislocation means dislocation of any of the eight small bones which make up the wrist. It is usually caused by a fall on to the wrist or the outstretched arm. Symptoms include pain and obvious distortion of the wrist.

There are a number of ways in which the eight wrist bones can dislocate and the lunate bone is usually involved.

Dislocated wrist treatment

Dislocation of wrist bones generally involves severe ligament damage and needs treating by a specialist hand surgeon to avoid permanent damage to the wrist. Once the wrist has been put back and the ligaments repaired, a plaster cast is generally necessary to keep everything still whilst it heals.

Important nerves and arteries run through the wrist and if numbness and tingling develops in the fingers when the wrist is dislocated then this is a medical emergency, as it suggests these structures are trapped or damaged.

Ankle dislocation

Dislocation of the ankle joint is a rare injury on its own but can happen in motor vehicle accidents and sports injuries. It is more common when there is an ankle fracture at the same time, as that can make the ankle joint unstable.

Dislocated ankle treatment

Ankle dislocation needs urgent medical treatment as there is a risk that important nerves and blood vessels can be trapped or torn by the injury. Treatment will depend on whether or not there is also a fracture.

[You can read more about this in our separate leaflet called Ankle Injuries \(Sprained or Broken Ankle\).](#)

Foot dislocation

There are many possible kinds of dislocation that can occur in the foot, which contains multiple bones and joints.

The most common dislocation is called a Lisfranc injury. This is because the group of joints that join the arch area of the foot (the midfoot) to the long metatarsal bones (the forefoot) is called the Lisfranc complex. If bones in the midfoot are broken or ligaments that support the midfoot are torn then dislocations in the Lisfranc area can result.

A Lisfranc injury can result from a simple twist and fall. However, more often it occurs following road traffic accidents and other major injuries. It is also seen in some sports and performance arts like American football and ballet, where there is a twisting injury to the feet.

The foot will usually be painful and swollen and the swelling may at first hide the fact that there is deformity of the shape. A Lisfranc injury is often mistaken for a sprain, especially if the injury is a result of a straightforward twist and fall. However, injury to the Lisfranc joint is a severe injury that may take many months to heal and may require surgery to treat.

Dislocated foot treatment

Foot dislocation, which often also involves broken bones in the midfoot, needs treatment by a foot specialist. Small dislocations where the bones are not forced too far apart may heal by themselves although the foot needs to be in a cast and completely non-weight-bearing. More severe injuries need surgical treatment to restore the normal function of the foot.

Partial dislocation (subluxation)

When a joint doesn't come completely out of joint but is instead only partly out of place, this is called a subluxation.

The most common subluxation in children is of the elbow:

Partial dislocations of the elbow ('nursemaid's elbow' or 'pulled elbow')

These are very common in children aged 1-4 years. A partial dislocation occurs when the elbow end (head) of one of the forearm bones (the radius) comes out of the looped ligament which holds it in place (the annular ligament).

The medical term for this is radial head subluxation. This happens easily in children, as they have a rather lax, stretchy ring-shaped (annular) ligament and the "knob" on the head of the radius isn't fully formed.

A tug on the child's arm can cause it to slip out from the under the ring. This might occur when holding a child by the hand whilst walking. If the child trips without the adult noticing, they can suddenly dangle by the arm.

The child will be in pain at first but often doesn't seem that bothered by it. However they will stop using that arm. The elbow is quite easy for a trained health professional to 'put back' in an emergency department.

How to prevent a dislocation

The prevention of dislocations involves:

- Improved strengthening to muscles around joints – for example, through:
 - Fitness training and/or physiotherapy.
 - A healthy diet.
 - Aiming to be the appropriate weight for your height.
- Improved balance, through fitness and through exercises which strengthen the body's core muscles.
- Minimisation of risk taken during sporting activities – for example, with appropriate equipment and with specific training on technique.
- Seeking medical advice if dislocation becomes repeated (recurrent). There may be a preventative operation which would stop the dislocations.
- In the case of recurrent dislocation, avoiding the activities and positions which tend to cause it.

To prevent specific dislocations:

- **Jaw dislocation:** in the case of jaw dislocations brought on by yawning, the risk can be reduced by supporting your chin when yawning.
- **Partial elbow dislocation in a child** ('pulled' or 'nursemaid's elbow'): avoid swinging a child by their hands or forearms.

Dr Mary Lowth is an author or the original author of this leaflet.

Further reading

- [Khan M, Miller BS](#); Cochrane in CORR ((R)): Surgical Versus Non-surgical Interventions for Treating Patellar Dislocation (Review). Clin Orthop Relat Res. 2016 Nov;474(11):2337-2343. doi: 10.1007/s11999-016-5014-x. Epub 2016 Aug 9.
- [Krul M, van der Wouden JC, Kruithof EJ, et al](#); Manipulative interventions for reducing pulled elbow in young children. Cochrane Database Syst Rev. 2017 Jul 28;7:CD007759. doi: 10.1002/14651858.CD007759.pub4.

- [Ma R, Brimmo OA, Li X, et al](#); Current Concepts in Rehabilitation for Traumatic Anterior Shoulder Instability. *Curr Rev Musculoskelet Med.* 2017 Dec;10(4):499-506. doi: 10.1007/s12178-017-9449-9.
- [Acute Patella Dislocation Coventry and Warwick NHS Trust](#)

Disclaimer: This article is for information only and should not be used for the diagnosis or treatment of medical conditions. Egton Medical Information Systems Limited has used all reasonable care in compiling the information but makes no warranty as to its accuracy. Consult a doctor or other healthcare professional for diagnosis and treatment of medical conditions. For details see our [conditions](#).

Authored by:	Peer Reviewed by: Dr Hayley Willacy, FRCGP	
Originally Published: 19/11/2023	Next review date: 09/06/2023	Document ID: doc_29053

View this article online at: patient.info/bones-joints-muscles/joint-pain/joint-dislocations

Discuss Dislocation and find more trusted resources at [Patient](#).



To find out more visit www.patientaccess.com
or download the app



Follow us

