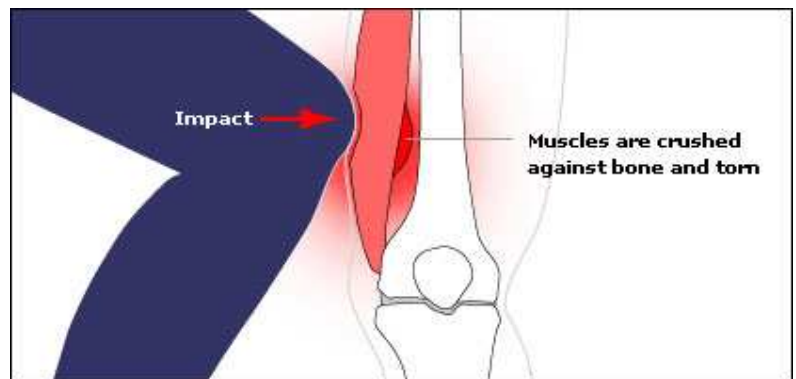


A01 sports injuries

Injuries in sport are very common especially in contact sports such as soccer, hurling, gaelic and rugby. The types of injuries vary all of the time but often enough you hear of people being ruled out of games because of common injuries such as hamstring strains, groin strains and calf strains. There are a number of ways that injuries can occur, such as not wearing the proper protective gear such as hurling helmet in hurling or shin guards in soccer. Injuries can also come about by using improper facilities such as gravel pitches, astro turf, third generation pitches or a grass pitch which is in very bad condition. The reason these surfaces can cause injury is because they are hard surfaces and running on hard surfaces and this can cause back injuries, knee injuries and ankle ligament damage because it is harder to keep balance while running on hard surfaces. The reason you can get injured while playing on bad grass pitches is that it is easier to twist ankles or knees because of divots on the pitch. Another reason for injury in sports is recklessness either from an opponent or the player who gets injured himself/herself, this could be a lunging tackle from an opponent in soccer or a reckless strike from an opponent in a hurling match.

Contusions (bruises) and abrasions:

Muscle contusion indicates a direct, blunt, compressive force to a muscle. Contusions are one of the most common sports-related injuries. The severity of contusions ranges from simple skin contusions to muscle and bone contusions to internal organ contusions. All tissue and organ contusions can result from traumatic sports injury. An example of this would be a player getting a direct hit to the body maybe a knee to the thigh in gaelic or soccer, or a player being struck with a hurling stick in hurling



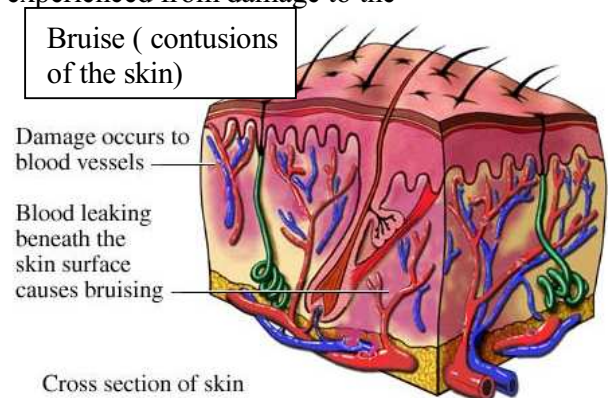
What are the symptoms?

Immediately following the initial injury pain will be experienced from damage to the blood vessels, then swelling and discoloration. Contusions commonly go through stages of colour changes during the healing process: red to blue or purple, then green to yellow or brown, and back to normal.

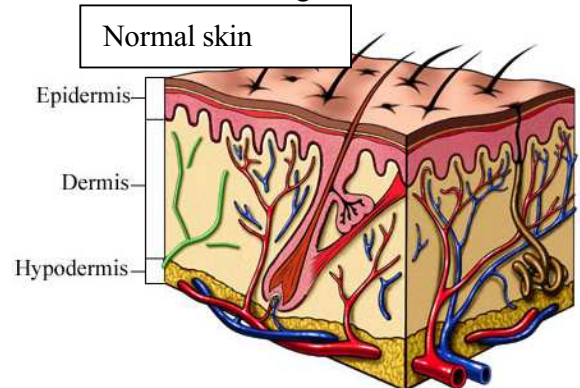
How do you treat a contusion?

An excellent way to remember how to treat a contusion is to use the RICE mnemonic. R stands for (rest) to the injured site, I (ice) apply an ice pack or a cold compress for 10 to 15 minutes every two hours. This will help the blood vessels close and prevent blood from leaking out. Next, is C (compression) wrap the area with a firm bandage to control swelling. Then E (elevate) the area above the level of the heart to prevent blood from pooling at the injury site.

After the acute stage has subsided 24 to 48 hours, you can use heat and massage to ease pain and increase circulation to the area. This helps speed healing as blood passes through the contusion cleaning away the dead blood cells. Lastly, Vitamin K treatment will promote break down of the clotted blood at the site. You can find Vitamin K creams at your local drugstore. Simply rub the cream on the skin over the contusion twice a day until the bruise is gone. With the blood clots broken down, your body can reabsorb the dead blood cells faster.



Cross section of skin



I personally have had a lot of contusions as a result of playing gaelic hurling and soccer, some of them had little effect on my performance or fitness and others were very painful and as a result missed a few trainings and matches. I found the RICE (rest, ice, compress, elevate) programme very helpful in speeding up the recovery process.

Abrasions:

How abrasions happen?

An abrasion is an incident of superficial damage to the surface of the skin, with the injury generally penetrating no deeper than the epidermis, the skin's outer layer. An abrasion causes the skin to be roughened and take on a reddish colour, sensitive to the touch. A common cause of an abrasion is the friction produced between the unprotected skin of an athlete contacting a rough surface, such as artificial turf or pavement. While most typical abrasions occurring in a sports context involve the skin, the cornea, which is the clear surface of the eye that covers the iris, can also sustain an abrasion when a sharp object such as a fingernail scrapes the corneal surface. Abrasions are caused because of the hard artificial surfaces and the material they are made of, which is covered in sand. I believe just like on hard dry grass pitches it is the sand on the surfaces that cause the abrasions.



How to treat abrasions?

Abrasions will generally heal within a few days of the incident. Where small foreign particles are lodged in the surface of the skin, these are commonly removed with tweezers. To ensure that the risk of infection is reduced, a topical antibiotic is often applied to the surface of the affected area.

The time required for a cut to heal will depend upon the extent of the damage caused to the skin. A period of from 5 to 14 days is the general healing parameter. The medical attention to resolve a cut will include the cleaning of the damaged area, the removal of any foreign objects from the skin, the stitching or suturing of the opening to close it where required, and the covering of the injury with a bandage. While a cut exposed to the open air tends to heal more quickly than one bandaged, the covering will help reduce the risk of infection. Depending upon the location of the cut on the body, once bandaged and protected, this injury will not generally limit an athlete's participation in training; most competitive sport organizations have protocols concerning the return to competition by a player who has been cut and where blood flow resulted. These procedures are directed at the safety of other participants from possible infection through blood-borne causes.

I have had quite a few abrasions from playing sport in the street on a grass pitch or on an artificial surface. I got most of them from falling while playing in the street or on an artificial surface such as all weather pitch, astro-turf or 3G surface. I don't think there is any part of my body that I haven't got one on from legs, knees, stomach, chest, hands, arms, neck and face. Abrasions are not the worst injuries in the world but they are definitely one of the most painful while trying to sleep at night and walking or running with the friction of the abrasion and your clothing.

Sprains (ligaments) 1st, 2nd, 3rd degree.

How they happen?

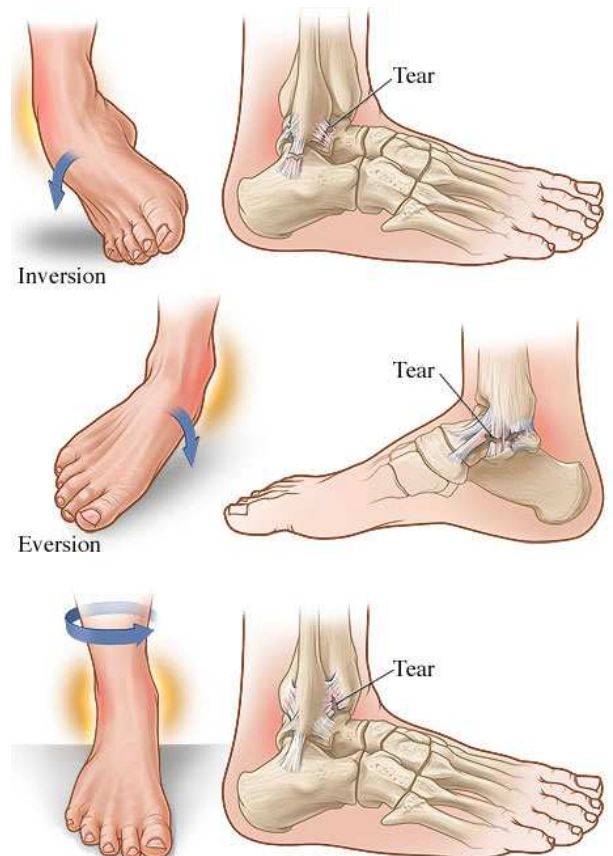
A ligament injury, or sprain, occurs when ligaments (the tissues that hold bones together) are suddenly stretched or torn. Most sprains happen around joints such as the ankles, knees or fingers. A sprain normally takes six to eight weeks to heal; severe sprains may take longer and may involve treatment to complete the recovery process.

Sprains are usually caused by twisting injuries. For example, an ankle may be twisted or rotated during rapid pivoting in sports such as soccer and basketball, or by stepping off of a curb or step.

Sometimes a moderate or severe sprain causes problems even after the ligament has healed. A small nodule can develop in the affected ligament and cause constant friction in the joint, leading to chronic inflammation. The nerve that travels over the ligament may also be damaged, resulting in pain and tingling. Occasionally, the shock of a severe sprain causes blood vessels to spasm, reducing blood flow to the area. This condition is called reflex sympathetic dystrophy syndrome.

What are the symptoms of a ligament injury or sprain?

The severity and symptoms of a sprain depends on the degree of stretching or tearing of the ligaments. In a grade 1 sprain, the ligaments may stretch, but they don't actually tear. Although the joint may not hurt or swell very much, a mild sprain can increase the risk of a repeat injury. With a grade 2 sprain, the ligament tears partially. Swelling and bruising are common, and use of the joint is usually painful and difficult. With a severe grade 3 sprain, a ligament tears completely, causing swelling and sometimes bleeding under the skin. As a result, the joint is unstable and unable to bear weight



Classification of Ankle Sprains

	Physical Examination			
Severity	Findings	Impairment	Pathophysiology	Typical Treatment*
Grade 1	Minimal tenderness and swelling	Minimal	Microscopic tearing of collagen fibres	Weight bearing as tolerated No splinting/casting Isometric exercises Full range-of-motion and stretching/ strengthening exercises as tolerated
Grade 2	Moderated tenderness and swelling Decreased range of motion Possible instability	Moderated	Complete tears of some but not all collagen fibres in the ligament	Immobilization with air splint Physical therapy with range-of-motion and stretching/ strengthening exercises
Grade 3	Significant swelling and tenderness Instability	Severe	Complete tear/ rupture of ligament	Immobilization Physical therapy similar to that for grade 2 sprains but over a longer period Possible surgical reconstruction

Haematomas (inter and intra)

Haematomas are caused by a blow to a muscle which causes the muscle to bleed. The amount of bleeding depends on the blood flow to the muscle. An example of this would be a rugby player getting tackled strongly during a game.

Internal haematoma: An internal haematoma is bleeding muscle fascia. An internal haematoma causes a greater loss of function and swells more than an intra haematoma would (see intra haematoma below).

Intramuscular haematoma: This is caused by a muscle strain, tear or bruise and it is blood that clots within a muscle. This causes pain and tenderness and it decreases the ability of the affected muscle to contract or to be passively stretched. To prevent long term problems this injury has to be treated straight away. A good way to treat this injury is using the RICE programme followed by diathermy or ultrasound to increase the blood flow. An intramuscular haematoma is more painful than an internal muscular haematoma and requires more rehabilitation.

Oedemas

An oedema is defined as an increase of the interstitial liquid, infiltrated in tissues, responsible for an increase in volume of the anatomical areas presenting oedemas. A Chronic oedema is defined as long standing oedema which lasts greater than 3 months. Once fluid stands still in tissues a number of skin changes commence such as “pitting” - when finger pressure to the skin area leaves an indent (shallow pit), which reduces on elevation. As the fluid and waste products accumulate in the tissues they cause tissue thickening and fibrosis (excessive fibrous tissue) and tissues become hard and non pitting and unable to reduce on limb elevation. This leads to a positive **Stemmer’s sign** when one is unable to pick up the loose skin on top of the base of the second toe or finger - this indicates the presence of lymphoedema in the limb.

Early recognition of the condition and treatment with Actico inelastic bandaging can reduce the swelling. Once the leg volume has decreased patients may be suited to ActiLymph hosiery which has the compression levels and stiffness required to manage chronic oedema.

Stemmer’s Sign



Stemmer’s Sign – in the picture to the left the Stemmer’s sign is positive as it shows the difficulty in picking up a skin fold on the 2nd toe in a clearly oedematous set of toes.

Three stages of oedema, defined:

Three types of common chronic oedemas found in the community defined with a

fourth which is rarer and needs careful secondary referral and is widely understood as being difficult to manage:

Dependency oedema



Also known as armchair legs, gravitational or lymphostasis verrucosis. This is a common condition found in the community in patients who are immobile and spend a lot of their day and or nights chair bound. Their immobile state may be due to infirmity caused by.

- Chronic arthritis
- Chronic respiratory or cardiac conditions
- Neurological disablement
- General poor health leading to weakness/debility

Because of lack of movement and weight bearing, the calf/foot muscle pumps fail to be effective leading to increased capillary leakage and lower venous and lymphatic return. If recognised in its early state dependency oedema is a soft low protein oedema that responds well to elevation and pits easily. There will be a rapid response to elevation and after with the limb dependent swelling can occur distally very fast, leading on some occasions to skin stretching and lymphorrea (leakage of superficial lymphatics due to their being over full of fluid and literally bursting as a result). Literally "wet legs" is the symptom that is sometimes seen in this situation.

Lymphovenous oedema



Lymphovenous Oedema refers to the appearance of lymphoedema on limbs affected for some years by chronic venous hypertension that has been poorly managed (Green and Mason 2006). Venous hypertension results in ineffective capillary dynamics due to the high pressure in the venules.

This affects the re-absorption of fluid and waste metabolites back into the venous system, and also allows the leakage of larger molecules into the interstitial spaces, resulting in increased pressure within the interstitial spaces. As described earlier, the lymphatic circulation is responsible for removing about 10/20% of fluid from the interstitial spaces, with the rest being removed via the venous capillaries.

If the venous capillaries are not functioning normally it will result in excess fluid in the legs, which will overload the lymphatic system. This increased pressure on the lymphatic system eventually results in failure of the lymphatics, leading to the skin changes associated with chronic oedema

Bursitis

Bursitis is inflammation of the bursa, a bursa is situated between a tendon and the skin, between tendon and a bone. There are two conditions acute and chronic.

Causes, incidence, and risk factors

Bursae are fluid-filled cavities near joints where tendons or muscles pass over bony projections. They assist movement and reduce friction between moving parts.

Bursitis can be caused by chronic overuse, trauma, rheumatoid arthritis, gout, or infection. Sometimes the cause cannot be determined. Bursitis commonly occurs in the shoulder, knee, elbow, and hip. Other areas that can be affected are the Achilles tendon and the foot. Chronic inflammation can occur with repeated injuries or attacks of bursitis.

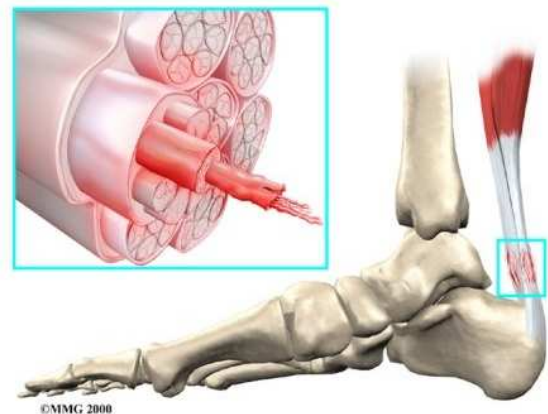
Tendonitis:

Tendonitis occurs when the normal smooth gliding motion of your tendon is impaired, the pulling action of the tendon/muscle becomes irritating, the tendon becomes inflamed and movement of the tendon becomes painful.

Tendonitis is usually caused by overuse. Performers begin an exercise program or increase the level of their programs this is when they begin to feel the symptoms of tendonitis. Tendonitis is common amongst tennis players and it is known as 'Tennis Elbow' this is caused from constant use of the elbow in training and during games. Manchester United player Owen Hargreaves has spent a lot of time on the sidelines throughout his career with tendonitis problems and has recently returned to action after 18 months on the sidelines.

Another common cause of tendonitis is mainly down to age-related changes of the tendon, as the performers age their tendons 'age' what I mean by age is that they lose their elasticity and ability to glide as smoothly as they used to. The older the performer becomes the more prone they are to developing symptoms of tendonitis.

In rare cases there is another cause for tendonitis and that is if the tendon does not have a smooth path to glide along, the likelihood is that the tendon is going to become inflamed or irritated. In these rare cases surgery is needed to realign the tendon.



Compartment syndrome:

Compartment syndrome occurs when pressure within the muscles builds up to dangerous levels, this prevents nourishment from reaching nerve and muscle cells.

The muscles groups in the arms, hands, legs, feet, and buttocks can be affected. Within these muscle groups are nerves and blood vessels. The muscle groups are covered by tough membrane (fascia), which does not readily expand. The whole unit is called a compartment.

If pressure within the compartment gets too high (for example, from too much swelling or bleeding after surgery or injury), the lack of oxygen to the tissue can damage blood vessels and nerve and muscle cells.

Compartment syndrome can be either acute or chronic. Acute compartment syndrome is a medical emergency. Without treatment, it can lead to paralysis, loss of limb or death. Chronic compartment syndrome is not a medical emergency.

Chronic Compartment Syndrome

Chronic compartment syndrome is characterized by pain and swelling caused by exercise. It can be a significant problem for an athlete. It gets better when you rest. It usually occurs in the leg. It is occasionally accompanied by numbness or difficulty in moving the foot. Symptoms dissipate quickly when activity stops. Compartment pressures may remain elevated for some time afterwards.

Acute Compartment Syndrome

It may take several hours for acute compartment syndrome to develop. Within the muscle compartment, swelling and/or bleeding creates pressure on capillaries and nerves. When the pressure in the compartment exceeds the blood pressure within the capillaries, the capillaries collapse. This disrupts the blood flow to muscle and nerve cells. Without a steady supply of oxygen and nutrients, nerve and muscle cells begin to die within hours. Unless the pressure is relieved quickly, this can cause permanent disability or death.

A traumatic injury, such as a fracture of one of the long bones in the body, can often trigger acute compartment syndrome. If the injured limb continues to swell after a rigid cast or tight dressing is put on, a compartment syndrome may result. In that case, the cast or dressing will have to be split or removed as the first step to help alleviate the problem. Other conditions that can bring on acute compartment syndrome include:

- A severely bruised muscle, as when a motorcycle falls on the leg of the rider or a football player receives a strong blow to the thigh from another player's helmet
- A complication after surgery
- Blockage of circulation, such as from pressure over a blood vessel for too long while asleep

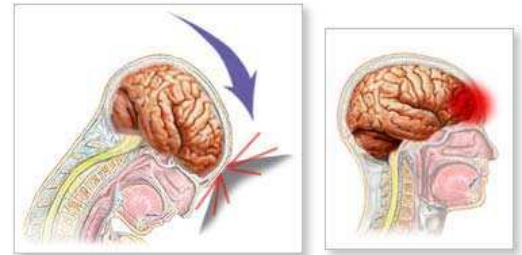
- A crush injury

Concussion:

Sports related concussions are a common injury that can happen to any athlete in any sport. Concussions are the most common type of acute brain injury in sports

As the number of athletes who participate in sports increase, the number of concussions increases. Repetitive concussions and post-concussion syndrome have been responsible for the retirement of many high profile athletes. The athlete's physical and mental status may be affected by the development of a serious brain injury.

A concussion is a violent jarring or shaking that results in a disturbance of brain function



ADAM.

The most common symptoms of post-concussion syndrome include headache, dizziness, blurred vision, neck pain, fatigue, problems sleeping, and problems with balance or coordination. An athlete suffering from a concussion should be monitored for at least 24 hours following the concussion. In addition to monitoring, the athlete should be awakened during sleep every 2 hours. On average, certified athletic trainers care for seven to eight concussions per year. Not only should athletic trainers be able to recognize the obvious signs of a concussion, but they should be aware of the self-reported symptoms as well. Athletic trainers need to be informed that no two concussions are the same and that the symptoms may be different from one concussion to the next.

The primary mechanism of a concussion involves contact with another person. As Harmon states, **“there are many potential risks for athletes who return to activity too early. This includes the possibility of permanent neurological impairment from cumulative trauma, post-concussion syndrome, and the most severe of all, death resulting from a second brain impact syndrome”** (Harmon). Athletes who suffer from second-impact syndrome remain alert for several seconds prior to collapsing. After suffering a concussion, the chances that the athlete may sustain another concussion increases by four to six times.

Sample questions trainers may use for assessing an athlete's memory include; “what pitch were you playing on”, “what is the name of the team we are playing”, “what half is it”, “what team scored last”, “what team did we play last week”, or “did we win”. The Balance Error System may be used as a screening tool to determine return-to-play readiness. Athletes are asked to close their eyes and hold their hands at their hips. The trainer will have the injured athlete perform this test on different surfaces. The presence of any stumbling, opening of the eyes, or lifting hands indicated a possible concussion. The athlete’s airway, breathing, and circulations should be a priority for evaluation by the trainer.

Following these procedures, the trainer will determine whether or not the athlete loses consciousness, evaluate recently acquired memory, evaluate postural stability, and symptoms.

An athlete who has sustained a concussion should be evaluated at rest as well as during exertion. Symptoms may not be present at rest, but will return throughout the duration of physical exertion.

A scale from one to three will be used to determine the seriousness of the concussion. A grade one concussion will involve transient confusion, no loss of consciousness, a short period of post-traumatic amnesia, and symptoms lasting longer than 15 minutes. A grade two concussion will include loss of consciousness for less than 5 minutes and amnesia that may last 30 minutes. A grade three concussion will involve a loss of consciousness for more than 5 minutes and extended amnesia. The trainer will search for any indications of dizziness, headache, and inability to concentrate. The athletic trainer should not allow the athlete to return to play in any circumstances while symptoms are present. Current guidelines suggest that athletes who experience loss of consciousness should not return to play on the day of the injury. The length and duration of the symptoms along with loss of consciousness will be important when determining the severity of the concussion. According to Harmon, **“more than 90 percent of all concussions are mild and less than 10 percent result in the athlete losing consciousness”** (Harmon).

<http://brianmac.co.uk/>

Dislocation

Dislocations are joint injuries that force the ends of your bones out of position. The cause is often a fall or a blow, sometimes from playing a contact sport. When a dislocation occurs, you can't move the joint. You can dislocate your ankles, knees, shoulders, hips and elbows. You can also dislocate your finger and toe joints. Dislocated joints often are swollen, very painful and visibly out of place.

If you dislocate a joint you should seek medical attention. Treatment depends on which joint you dislocate and the severity of the injury. It might include manipulations to reposition your bones, medicine, a splint or sling, and rehabilitation. When properly repositioned, a joint will usually function and move normally again in a few weeks. Once you dislocate a shoulder or kneecap, you are more likely to dislocate it again. Wearing protective gear during sports may help prevent dislocations.

Fractures and Stress fractures

Fractures

Fractures are commonly categorised as open (compound) or closed (simple); an open fracture is a clean break where only the bone is affected, while a closed fracture also affects the tissue and skin around the bone. There are several different types of fracture; the most common types of fracture include transverse, oblique, hairline, impacted, spiral, compression and stress fractures:

- Transverse: a fracture straight across a bone.
- Oblique: a tilted or diagonal fracture.
- Hairline: this is a partial break and often affects only a small portion of the bone; these can be difficult to identify.
- Impacted: this involves the fractured portion of bone being forced into another section of bone.
- Spiral: this affects the area surrounding the bone.
- Compression: this is a complete breakdown of the bone; it is most common in the spine.
- Stress Fracture: this is a fracture brought about by repeated actions which increase pressure on the bones; these are most common in athletes.

Fractures are common in sport, particularly in contact sports such as football and rugby. The most common injuries include fractured wrists, hands, collarbones and bones in the ankle and feet. Stress fractures are very common in sports which involve repetitive movements; long distance runners often suffer from stress fractures in the foot, for example.

Common symptoms include swelling, redness and pain; many fractures can be extremely painful and most will swell immediately. More complex fractures may break the skin; in this case the injury will be clearly visible and immediately diagnosable. Fractures generally restrict or prohibit movement in the area for a period of time; this will vary depending on the severity of the injury.

Treatment generally depends on the nature of the fracture but rest is universally recognised as the most important form of treatment. Initially ice will usually be applied to the affected area; this will help to reduce swelling. Anti-inflammatory medication and pain relief will also be prescribed to ease pain and further reduce swelling. In many cases, the fractured bone will be immobilised for a period of time; this may involve having a plaster cast fitted, wearing a sling or using crutches for example; this will allow the bone time to heal.

More complex fractures may require realignment which may involve using pins, wires or nails; these will help to fix the bone back in its original place. Once the healing process is nearly complete, a course of physiotherapy will usually be recommended; this will help to strengthen the area and improve flexibility and movement. Stress

fractures require a long period of rest, which may last up to 8 weeks; this will enable the bone to heal and prevent further damage.

Having a healthy diet, exercising regularly and sticking to the recommended calcium intake will generally reduce the chances of suffering from a fracture; this will help to build strong bones and keep the body fit and healthy. Being overweight can put additional pressure on the joints and bones, which may make them more vulnerable to injury. Smoking can also contribute to bone loss and slow the healing process. Resting an existing injury can help to prevent any further damage to the affected bone.

I recently suffered a transverse fracture in my right ulna. This was caused by being struck with a hurling stick during a game. It was instantly painful and it inflamed up straight away, because the ulna is used for pronation and supination it was particularly painful while trying to perform these movements in the game.

Stress fractures

One of the most common injuries in sports is a stress fracture. Overcoming an injury like a stress fracture can be difficult, but it can be done.

A stress fracture is an overuse injury. It occurs when muscles become fatigued and are unable to absorb added shock. Eventually, the fatigued muscle transfers the overload of stress to the bone causing a tiny crack called a stress fracture. Stress fractures often are the result of increasing the amount or intensity of an activity too rapidly. They also can be caused by the impact of an unfamiliar surface (a tennis player who has switched surfaces from a soft clay court to a hard court); improper equipment (a runner using worn or less flexible shoes); and increased physical stress (a basketball player who has had a substantial increase in playing time). Wayne Rooney suffered a stress fracture in the build up to Euro 2008 and underwent a series of treatment to recover in time including oxygen tanks and aqua training.



Most stress fractures occur in the weight bearing bones of the lower leg and the foot. More than 50 percent of all stress fractures occur in the lower leg. Studies have shown that athletes participating in tennis, track and field, gymnastics, and basketball are very susceptible to stress fractures. In all of these sports, the repetitive stress of the foot striking the ground can cause trauma. Without sufficient rest between workouts or competitions, an athlete is at risk for developing a stress fracture.

Cartilage damage

Cartilage is one of the most interesting tissues within the body. In almost all places within the body, cartilage is found with no nerves and no blood vessels within the tissue. The cartilage of intervertebral discs is the largest structure within the body without direct blood supply.

Cartilage provides a smooth, friction-free surface for smooth gliding of joints. The composition of cartilage is largely water and tough connective tissue. When damaged by trauma or chronic conditions such as arthritis, the smooth gliding of joints is disrupted and can become painful and difficult.

- **Cartilage acts as a shock absorber** - it covers the surface of joints, allowing bones to slide over one another, while reducing any friction, and preventing any damage. It helps to support your weight when you move, bend, stretch, or run.
- **Cartilage acts as a mould** - the tough, flexible cartilage tissue is ideal for creating specially shaped, and curved, body parts that would otherwise have no support from your bones. For example, the outside of your ears, and most of your nose, are made up of cartilage.

The one disadvantage that cartilage has is that unlike other types of tissue it does not have a blood supply. Blood cells help repair tissue damage. This means that damaged cartilage will not heal quickly, in the same way that damaged skin, or muscles, can heal.

There are three types of cartilage which are outlined below.

Elastic cartilage: Elastic cartilage is the most springy and supple type of cartilage. This is the type of cartilage makes up the outside of your ears, some of your nose, and also your epiglottis (the flap of tissue at the back of your throat that prevents food going down into your airways).

Fibrocartilage: Fibrocartilage is the toughest type of cartilage, and it is able to withstand a great deal of weight. Fibrocartilage is found between the discs (vertebrae) of your spine and between the bones in your hips and pelvis.

Hyaline cartilage: Hyaline cartilage is both springy and tough. It is found between your ribs, around your windpipe, and between your joints. The cartilage between your joints is known as articular cartilage.

All three types of cartilage can be damaged. For example, a blow to your ear can damage the elastic cartilage, causing your ear to appear deformed. This condition is commonly known as 'cauliflower ear'. This condition is seen in most rugby players. The fibrocartilage between the discs in your back can become damaged, resulting in a slipped disc.

One of the most common, and potentially serious, types of cartilage damage is damage to the articular cartilage that is in between a joint; usually the knee joint. This can result in pain, swelling, and some loss of mobility.

The symptoms of articular cartilage damage include swelling, joint pain, stiffness, decreased range of movement in the affected joint.

If the damage is particularly severe, a piece of cartilage can break off and become loose. If this happens, the loose piece of cartilage may affect the movement of your joint. This can cause a feeling of the joint 'locking' or catching. Sometimes, the joint may also give way

Articular cartilage damage can occur as a result of a sudden, direct blow to the cartilage - for example, a bad fall, directly onto your knees, or as a result of a bad tackle while playing football, or rugby. This is why cartilage damage is often a problem for people who play sports that involve physical contact. Cartilage can also become damaged gradually, over a period of time, in a process of 'wear and tear'. You have an increased risk of developing this type of cartilage damage if you are overweight, or if there is a problem with the structure of your joint. This type of long-term damage to the cartilage is known as osteoarthritis. Being immobile for a long period of time can also damage the cartilage because it requires regular movement in order for it to function properly.

Diagnosing articular cartilage damage can be challenging because it cannot be confirmed through physical examination. Also, the symptoms can mimic other types of knee injuries, such as a sprain, or a damaged ligament. These injuries are tested for and diagnosed through MRI scans and Arthroscopy.

<http://www.nhsdirect.wales.nhs.uk/Encyclopaedia/c/article/cartilagedamage/>