Surgery Procedure Names Of Dr Aditya Singh

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Bone Fracture

Fracture of the bone or breaking of the bone is most commonly occurred bone injuries often caused as a result of a significant impact with a heavy object. These injuries could be related to sports, accidents, unavoidable falls, etc.

Bone fractures or joint fractures or any injury or disorders affecting your musculoskeletal system (bones, muscles, joints, and soft tissues) are commonly treated by an orthopedician or an ortho surgeon.

Here, we give you an insight into what bone fractures are, how you could identify if you got one, the possible causes, and how it is treated.

What is a Bone Fracture?

A bone fracture is an injury to your bone that can split or break a bone into two pieces or leave it injured, also could be described as a full or partial break in the continuity of bone tissues.

Fractures can occur in any bone of your body. Which might lead to a painful experience for you. In case of a possibility of a fracture, it is good to visit your doctor at the earliest so that the injury might not become extensive due to delay in the process of diagnosis and treatment, leading to an increase in excruciating pain in the injured area.

What Causes Broken Bones?

You can get a fracture in any of your bones due to multiple reasons, such as falls, vehicular accidents, sports injuries, and medical conditions like osteoporosis (responsible for causing about 1 million fractures each year), these fractures are often termed fragility fractures, you can also get a bone fracture due to repetitive forces as a cause like running, and other athletic activities, these fractures are also termed as stress fractures.

Bone Fracture: Types

Bone fractures could be of different types, some of them could be casual displacement of bone tissue, and some could be severe, requiring urgent treatment.

Bone fractures could be classified as:

Closed or open fractures

fractures are often classified as open or closed fractures. Open fractures, also known as compound fractures, occur when the bone protrudes through the skin and is visible, or when the skin is exposed by a deep wound. Closed fractures, on the other hand, are when the bone is not exposed through the skin, that is the skin is intact but the bone is fractured.

- **Complete fractures-** in case of a complete fracture the bone is entirely broken through, splitting in two.
- **Displaced fractures**– displaced fractures are the bone fractures, leaving a gap in between the bones. Surgery is typically needed to repair this type of injury.
- **Partial fractures**– in case of partial fractures the bone is not completely broken through by the break.
- **Stress fractures-** in stress fractures the bone develops a crack, which imaging can have trouble detecting in some cases.

Bone Fracture: Symptoms

You are sure to experience any or all of the following symptoms immediately after you get a bone fracture:

- Difficulty using the limb
- Noticeable & unusual bump, bend, or twist

- Severe pain
- Swelling

In case of experiencing the above-mentioned symptoms, visit your doctor on an urgent basis to avoid any further mishappenings to your bone tissue.

Bone Fracture: Diagnosis, and Treatment

Your doctor will first physically examine your injury and might tell you to go through any of the following imaging tests to confirm the presence of a fractured tissue.

- X-ray
- Bone scan
- CT scan
- MRI

The above-mentioned imaging tests confirm that you have a possible fracture, depending on the severity your medical professional might suggest an appropriate treatment.

Treatment :

Fractures are generally treated with a cast or a splint. Casts wrap the break with a hard protective outer covering, while splints protect just one side of the injured area.
In case of developing a fracture in smaller bones such as bones of fingers and toes, you won't get a cast. In such a case your doctor might wrap the injury before using a splint.
Occasionally you might also get traction. A traction aligns the bone to promote healing.
For some significant breakages of bone, your orthopaedics may recommend you to go for surgery. During the surgery your doctor might use stainless steel screws, plates & fixators, or frames to treat the broken bone, this will help keep your bone steady in one place.
In case of developing a possibility of a bone fracture, it is good to see the doctor immediately to avoid any further complications to your already injured bone.
To get the best treatment for any kind of disorders and injuries related to your bones and joints, visit Dr Aditya Singh, in Krishna Medical Centre, Lucknow. The department has an expert team of surgeons well versed in treating various kinds of traumatic injuries such as fractures, ligament injuries, complex joints injuries & paediatric fractures.

Malunion & Non Union of Fracture Treatment

After bone trauma, difficulty with bone healing, alignment or infection can occur. In most cases, with rest and immobilization after a fracture or surgery bones will heal with minimal complications. However, in some cases bones will not heal properly even with conventional treatment. This is referred to as a malunion or nonunion fracture and may make the return to function after an injury a challenge.

What is the difference between a non-union and mal-union?

Mal-union and non-union fractures can occur following damage to any of the body's bones. Treatment for mal-unions and non-unions usually require surgery from an orthopaedic surgeon. A malunion means that the bone has healed but it did not heal correctly after a break, while a non-union means the bone has not realigned or healed completely at all.

What is a mal-union fracture?

When the broken bone heals in an unusual position it is referred to as a malunion. A malunion can also mean that the limb is shortened, twisted or bent during the healing process.

Symptoms of a mal-union

- Reduced function in the injured area
- Discomfort
- Pain
- Swelling
- Bruising

Mal-union treatment

Some mal-union fractures do not require surgery or treatment because there is not reduced function from the injury. However, if the broken bone positioning is damaging, surgical treatment may be necessary for a return to a normal functional lifestyle.

Surgery for a malunion fracture

Surgery by an orthopaedic surgeon will help realign severe cases of malunion. Usually, an osteotomy (a surgical procedure) is used to restore alignment of bones and return the patient to normal activity. During an osteotomy, the surgeon will shorten, lengthen or realign the broken bones.

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What is a non-union fracture?

A non-union fracture happens when the broken bone fails to heal after a long period of recovery. If your orthopaedic surgeon does not see signs of healing over a certain period of time, it may be a non-union. This may be caused by an insignificant amount of bone tissue within the body to repair the broken bone, as well as other issues (smoking, diabetes, etc).

Symptoms of a non-union

- Reduced function in the injured area
- Discomfort
- Pain
- Swelling
- Bruising

Non-union treatment

Some non-union fractures can be treated with electric stimulation or bracing. However, surgery may be necessary to treat some non-union fractures.

Surgery for a non-union fracture

During surgery for a non-union fracture, an orthopaedic surgeon will restore damaged bones and tissues around the broken bones. The surgeon may fill bone gaps with

materials held by plates and screws to help stabilize the bone. In some cases, bone-grafts may be used to stimulate bone healing.

How long can a union take to heal?

Malunion and non-union fractures can take some time to heal. The exact time of recovery depends on the area of injury and surgery. With the right team of medical professionals, melanin and non-union fractures can be fixed, and you can return to a normal lifestyle.

Schedule an appointment

Your well-being is important to us. Click the button below or call us to schedule an appointment with one of the best orthopaedic surgeon in Uttar Pradesh, Dr Aditya Singh If your injury or condition is recent, you can walk right into our hospital for taking an appointment with our surgeon for immediate care.

Deformity Correction

When the growth of your bone is not as per the pre-decided or natural structure then this condition is known as bone deformity. When you notice uneven growth or a certain kind of bending in your bone then you need to consult any expert Orthopaedic surgeon to get the correct guidance. When you come across any kind of bone deformity then you should immediately visit Dr Aditya Singh to get the best advice for any kind of bone deformity correction. If you have any other issues related to Orthopaedics then also you can visit our hospital to get the best advice from one of the leading Orthopaedic surgeons in the country.

What is deformity correction?

Deformity correction is a surgical procedure in which adjustments or modifications are done on the bone or bones that grow incorrectly as a result of any disease or injury. There can be several causes of deformities in bone some of them are:

- Non-union fractures
- limb length discrepancy
- Dwarfism
- hammertoe
- Any kind of injury

The deformity can happen in any bone of the body. Still, leg deformity, foot deformity or ankle deformity are quite common and they can be treated through different orthotic devices. And if they don't work properly then surgery would be the last option. The deformative correction procedure works on different kinds of deformities. Like some children have deformities from birth or some may acquire them through an accident or any other medical condition. The treatment of the person depends upon the condition of the bone. If you are looking for an expert surgeon who can provide you with the best consultation about deformity correction then you should visit Dr Aditya Singh in Krishna Medical Centre who has many years of experience as an Orthopaedic surgeon.

Bone Infection Treatment

Osteomyelitis is a condition where the bone is infected by micro-organisms. About 2 out of every 10,000 people are affected by this bone infection. Osteomyelitis is a rare but serious condition. It can be acute or if left untreated, the infection can become severe and become a chronic condition causing loss of blood supply to the affected bone. The infection spreads to the bone through the tissues or travels through the bloodstream.

What Causes Osteomyelitis?

- Osteomyelitis can be caused by a variety of micro-organisms, the most common bacteria being Staphylococcus aureus.
- Open wounds to the bone, such as a fracture with the bone end exposed through the skin.
- In case of minor trauma, a blood clot can form around the bone and then a secondary infection may follow.
- Bacteria present in the bloodstream termed as bacteraemia gets deposited in a focal area of the bone. The bacteria deposited area in the bone then grows, resulting in the destruction of the bone. However, new bone is formed around this area.
- Infections of the soft tissues or open wounds can spread to the bones, resulting in a direct infection of the bone.

Types of Osteomyelitis:

Acute Osteomyelitis

Also called hematogenous osteomyelitis, it is caused by an open fracture or bone operation. This is the most common osteomyelitis and is often seen in children.

Secondary Osteomyelitis

This condition arises from a wound infection in open fractures or after operations on the bone. The incidence of these cases is on the rise because of an increase in operative intervention in the treatment of fractures. This condition can be prevented by adequate initial treatment of open fractures and adherence to sterile operating conditions for routine orthopaedic operations.

Chronic Osteomyelitis

Although the incidence of chronic osteomyelitis is on the decline in developed countries, it continues to be an important problem in developing countries. Infections such as tuberculosis or fungal infections can also cause chronic osteomyelitis.

Symptoms Signs and symptoms of osteomyelitis include:

- Fever
- Redness, swelling, and warmth over the infected area
- Pain in the area of infection
- Fatigue
- Nausea, from being ill with an infection.
- General sense of discomfort, uneasiness, or ill health.
- Pus (yellow thick fluid) draining through the skin.
- Having difficulty moving joints in the affected area
- An inability to bear weight or walk
- Development of new limp
- A stiff back (with vertebral involvement)

How is osteomyelitis diagnosed?

To identify osteomyelitis, a thorough history and physical exam are done to indicate signs of osteomyelitis. Additional tests generally include blood tests that look at white blood cells as well as markers for inflammation that are usually elevated during an infection. To determine if there are organisms in the blood that are causing the infection, a blood culture can also be performed.

To examine the affected area, X-rays are taken. In the early stages of infection, x-ray results may be normal. Bone pain or inflammation can be evaluated using magnetic resonance imaging (MRI) or bone scans. To diagnose later stages of osteomyelitis Computed tomography (CT) scans are helpful.

Finally, bone aspirations or biopsies may aid in the diagnosis and determination of the most suitable treatment for osteomyelitis. These procedures are performed under general anesthesia in the operating room.

Osteomyelitis treatment aims to cure the infection and minimize potential long-term complications. Treatment may include:

- **Medications:** Antibiotics are administered intravenously (IV), which can be done in the hospital or as an outpatient procedure. A course of intravenous or oral antibiotics for osteomyelitis may last for several weeks. It is important for the patient to continue to take antibiotics for as long as recommended by the doctor, even after symptoms of the infection have resolved.
- Monitoring of successive X-rays and blood tests
- Pain management
- Complete bed rest (or limiting movement in the affected area)
- **Surgery**. It may be necessary to perform surgery to drain infected fluids or remove damaged tissue and bone.

Prevention

If you have been facing symptoms of osteomyelitis or likely suffering from risk of infection, consult a doctor immediately and get to know the ways of prevent infections from occurring. Your risk of developing osteomyelitis will also be reduced if you reduce your infection risk.

One should take precautions to avoid cuts, scrapes, and animal bites and scratches, as these injuries allow germs easy access to your body. A minor injury should be cleaned and bandaged immediately if it occurs to both adults and children. Always check wounds often for signs of infection and regularly dress them as and when required.

Rheumatoid Arthritis

Rheumatoid arthritis is an autoimmune disease. In an autoimmune disease, your body's immune system mistakenly attacks healthy body cells. In rheumatoid arthritis, this leads to inflammation and a number of other symptoms that can include:

- Tenderness, pain, and warmth in the joints
- Stiffness in the joints
- Fever
- Exhaustion or fatigue
- Popping or cracking sounds in the affected joints

The severity of these symptoms can vary between patients. Sometimes, the pain may be so severe that the patient's sleep may get disturbed. The condition can also affect other parts of the body including the blood vessels, skin, eyes, and heart.

Over time, rheumatoid arthritis can cause permanent damage to the joints and may lead to joint instability. Therefore, it is important to seek **rheumatoid arthritis medication** and treatment as soon as the symptoms start showing up.

If you are experiencing any of the symptoms of rheumatoid arthritis, it is important to go see a doctor immediately.

Your doctor will run a series of tests to determine the exact diagnosis. There will be a physical examination in which the doctor will check your joints for any visible signs of swelling. You may also have to undergo some imaging tests such as an X-ray or MRI (Magnetic Resonance Imaging). You may also have to get a few blood tests done.

A combination of these test results can help your doctor understand how far the disease has progressed in your body. They can then determine a suitable course of treatment that will give relief from the symptoms and also help slow down the disease so that it does not debilitate your joints.

The medication given for rheumatoid arthritis greatly depends on how severe the symptoms are and how long the patient has lived with the condition. Let's look at a few medications that are commonly prescribed:

Disease modifying ant rheumatic drugs (DMARDs)

DMARDs are medicines given for rheumatoid arthritis and psoriatic arthritis, among other conditions. Generally taken as a pill, DMARDs work by helping preserve the joints and reduce inflammation by lowering the impact of the immune system that is malfunctioning. There are many different types of DMARDs; the one that the patient is given will depend on the severity of their rheumatoid arthritis symptoms.

The effect of DMARDs does not show up immediately. You would need to consume these for an extended period of time to see the results. You doctor will discuss with you how soon you can expect the results as well as whether there are any possible side-effects.

No steroidal anti-inflammatory drugs (NSAIDs)

NSAIDs are commonly prescribed to patients with arthritis as they are known to help tackle inflammation in the body. There are many different types of NSAIDs, and the type and dosage can vary between patients.

Surgery for rheumatoid arthritis

Patients with rheumatoid arthritis do not usually have to undergo surgery. However, if the prescribed medications fail to reduce joint pain significantly, they may need to get operated.

There are various surgical procedures that may be carried out to lessen joint pain and improve flexibility in movement. Some of the most common ones are joint replacement and synovectomy.

Synovectomy

A synovectomy surgery is a procedure in which the inflamed portion of the joint is removed. This procedure aims to help reduce the pain experienced by the patient.

After surgery, the patient is generally advised to undergo physiotherapy to better understand how to move the joint safely. Do bear in mind that a synovectomy surgery does not cure rheumatoid arthritis. It simply helps the patient to manage the pain and discomfort. However, it is important to note that the removed portion of tissue may grow back, and the patient might require treatment in the same areas again.

A synovectomy surgery could be associated with certain complications, such as infection and bleeding at the site of surgery. Your doctor will discuss the possibilities of these complications and advise you how best to avoid them.

Arthrodesis

Arthrodesis is a surgical procedure in which two bones are attached or fused together. These bones belong to the joint that is impacted by the arthritic pain. Arthrodesis may be performed under local or general anaesthesia. Recovery time may be longer, and some patients may take several months before they fully recuperate.

There is slight risk of infection and blood clots associated with joint fusion surgery. Screws and metal plates may be used as part of the surgery to keep the bones together. A joint fusion surgery is generally performed in the fingers, wrists, or feet, though it may be recommended for other parts of the body as well.

Joint replacement

As indicated by the name of the procedure, the damaged portions of the affected joint are removed and replaced by prosthesis (artificial joint). The prosthesis can make a huge difference in enabling daily movements that were earlier not possible due to rheumatoid arthritis. The knee, shoulder, and hip are the joints which usually undergo joint replacement.

A doctor will determine whether you qualify for the joint replacement surgery. For instance, a total knee replacement surgery will only be recommended for patients who cannot perform basic tasks such as walking without difficulty, experience severe pain even while resting and have not experienced any relief from inflammation with medication. Patients whose pain is not debilitating in any way are generally not advised a knee replacement surgery. They may, instead, continue with medication and other forms of treatment.
A patient can take up to 3 months to resume normal activities after a joint replacement surgery. However, this period can vary based on the patient's health and ability to cope. In some cases, complete recovery may take a bit longer time.
Complications of a joint replacement surgery can include infection and dislocation of the fitted prosthesis. Your doctor will caution you about all possible complications and advise you how to handle the situation.

Lifestyle tips for patients living with rheumatoid arthritis

Living with a condition such as rheumatoid arthritis can be quite challenging. Fortunately, with the right treatment and medication, you can get relief from your symptoms and slow down the progress of the disease. There are also a few lifestyle tips that can help smoothen life with this health condition. Here they are –

Practice recommended exercises

Your doctor or physiotherapist will recommend certain exercises that can be helpful in keeping your joints fit and active. While joint pain and stiffness can make the thought of movement uncomfortable, try to practice these exercises daily. You can try low intensity exercises such as walking. You may even consider getting a treadmill and walk indoors. Yoga can also help keep your joints active. However, before starting any new form of exercises – such as yoga – do speak with your doctor or physiotherapist so they can advise you whether there are certain positions that you must avoid. If any exercise form causes tremendous pain or discomfort, do not continue with it.

You may also want to speak to a physiotherapist about the amount of physical activity you are allowed in a day. You want to get enough to keep your joints healthy but avoid doing too much that can possibly injure your joints. A physiotherapist will be able to tell you how much exercise you need to get in a day as per your unique health condition and age.

Maintain healthy weight

Obesity is one of the major risk factors for rheumatoid arthritis. If you are overweight, you should consider speaking to your doctor about how you can reduce your weight. A combination of diet and exercise can prove immensely helpful in shedding the extra kilograms. Remember that excess weight puts unnecessary pressure on your already ailing joints and can contribute to the onset of many other diseases.
A great way to understand your ideal weight is by checking your BMI (body mass index). The BMI is calculated by dividing your weight in kilograms by your height in metres. The ideal BMI lies between the range of 18.5 to 24.9. A BMI above that is considered overweight and any BMI figure that crosses 30.0 is considered as obese. If you are extremely overweight or obese, you may want to ask your doctor how best you can lose weight. Never follow any random crash diets as these can be detrimental to your overall wellbeing.

Eat nutritious food

As we all know, the food that we eat plays an important role in our overall health and wellbeing. While there aren't any particular foods that specifically help fight an onset of rheumatoid arthritis, there are certain foods that you can eat to keep your body healthy. For instance, you may want to increase your intake of foods that have omega 3 fatty acids. Omega 3 fatty acids are commonly found in fish such as tuna and salmon. Including more omega 3 fatty acids in your diet can help your body fight inflammation which is a common symptom of rheumatoid arthritis. If you are a vegetarian, you can consume omega 3 fatty acids through chia seeds, flaxseeds, and walnuts.

You may also want to include more fresh fruits and vegetables in your diet. Eating plenty of fruits and vegetables will help you get a good intake of antioxidants which can help you fight inflammation too. Fruits and vegetables that are especially rich in antioxidants include apples, mangoes, strawberries, blueberries, bananas, grapes, apricots, Indian gooseberry, tomatoes, carrots, broccoli, spinach, and lemons.

If you are unsure how to plan your meals so that you eat healthy, you may want to speak with a nutritionist. They will be able to guide to in creating a proper diet chart that will ensure you consume all essential food groups while also losing weight to stay fit.

Be careful with daily movements

Rheumatoid arthritis can make it hard for you to perform tasks like before. Lifting a heavy object can prove to be challenging. You may also end up hurting yourself or dropping things if you put unnecessary pressure on your joints. Consider asking for help when lifting any heavy object, such as a shopping bag. Also, ask your physiotherapist if there are any restrictions on movements that you need to follow to minimise pressure on your joints.

Relax and reduce stress

As discussed, stress can prove to be a major trigger for rheumatoid arthritis. An extended period of stress can end up worsening your symptoms. Try to take some time out to relax whenever you can manage to do so. Try meditating, reading a book, or indulging in a hobby that helps you relax. Keeping stress at bay will also improve your overall health.

If you are finding it tough to cope with stress on your own, you may want to consider seeking counselling. Counselling will help you get to the root cause of stress and teach you how to manage it in a healthier way that is good for your mind and body.

Dealing with bone health

One of the major concerns of rheumatoid arthritis is the impact of the condition on bone health. There are concerns that patients might develop osteoporosis. It is recommended that patients go for regular check-ups so the doctor can track their bone health and see whether there is any bone loss as a result of rheumatoid arthritis. Patients with rheumatoid arthritis should consume a diet that is rich in Vitamin D and calcium for good bone health. They should eat foods such as milk and milk products, salmon, tuna, egg yolks, spinach, and kale. Do check with your doctor to ensure that increasing an intake of these foods does not hamper with your overall health or other medical conditions in any way.

Hot and cold packs

A patient living with rheumatoid arthritis will have to deal with bouts of pain and discomfort every now and then. Heat packs can help with inflammation and cold packs can help reduce pain. Keep these at hand as they will provide relief at times when the pain becomes unbearable.

Conclusion

We cannot prevent an onset of rheumatoid arthritis, nor can we cure it. However, seeking treatment on time can prove immensely helpful in permitting the patient to better cope with the condition. Just like with any other disease, do make sure to follow the doctor's advice and take all prescribed medications on time. Never

apply extra pressure on the affected joints and report any new discomfort or changes in symptoms to your doctor immediately.

Finally, make sure to eat right and get plenty of exercise. There is a lot of good that can come out of a healthy lifestyle. Even if you already have a particular disease, making a few lifestyle changes can really improve prognosis and help you to cope better.

Polyarthritis

Polyarthritis refers to a joint disease that involves at least five joints. One or more signs of inflammation, including pain, movement restriction, swelling, warmth, and redness, are seen in the joints involved. In the event that pain is the only symptom, it is difficult to differentiate polyarthritis from the causes of polyarticular joint pain (PJP), such as fibromyalgia or osteoarthritis. Imaging methods such as ultrasonography and magnetic resonance may be helpful in differentiating arthralgia from arthritis
In some cases, polyarthritis can be severe enough to necessitate the admission of patients to emergency services, or it can be asymptomatic and may remain undiagnosed for months. Several diseases ranging from rheumatic arthritis (RA) to infectious diseases can lead to polyarthritis. Anamnesis, physical examination, laboratory findings, and imaging methods are the tools that support an accurate diagnosis.

History

Diseases associated with connective tissue disorders such as Reynaud's phenomenon and exophthalmia, psoriasis, inflammatory back pain, symptoms of inflammatory bowel disease, viral infection, infectious diarrhoea, and genitourinary infection should be checked in each patient. Chronology of the onset of symptoms is crucially important in defining the problem.

Genetic susceptibility

Polyarthritis is not a common sign of auto-inflammatory diseases, the Mendelian-inherited prototype of which is Familial Mediterranean Fever (FMF). Rather, Rheumatic diseases accompanied by polyarthritis are associated with multifactorial susceptibility. Family history is can only be a matter of fact in ankylosing spondylitis (AS) and psoriatic arthritis (PsA).

Classification of polyarthritis

If polyarthritis limits itself in less than 6 weeks, it is defined as acute polyarthritis; if the symptoms last longer than 6 weeks, then chronic polyarthritis is suspected. While acute polyarthritis is frequently associated with viral infections, RA is one of the most likely diagnoses in chronic polyarthritis. The types of joints involved and their symmetric involvement can be considered as loadstars. It is defined as symmetric arthritis if at least half of the joints involved are symmetric. Involvement of large joints such as knee and ankle accord more with spondyloarthropathy (SpA), whereas symmetric involvement of small joints of the hand is expected in RA or SLE. Detection of axial system involvement is important, as it narrows the differential diagnosis down to the SpA group. There are usually three major patterns of joint involvement.

Migratory

At the onset of arthritis, initially only one or more joints are involved, which they improve completely after several days. Following this, another joint region is involved, and in this way, polyarthritis occurs gradually. Acute rheumatic fever (ARF) is a typical example of this pattern of arthritis.

Additive

Joints become involved within days or weeks. This may be a potential pattern for PsA.
Intermittent
Polyarthritis attacks continue for a while, following which complete improvement occurs. Polyarthritis recurs after a while and may progress in this way in adult patients with adult Still's disease (ASD).

As a result, polyarthritis is classified according to the following parameters ;

1. Duration: Acute or chronic?
2. Type of affected joints: Large or small; with axial involvement or not?
3. Type of involvement: Symmetric or asymmetric?
4. Clinical pattern: Migratory, additive, or intermittent?

Accompanying findings

Detecting the systemic symptoms accompanying polyarthritis during physical examination and evaluating them accurately is important. Meanwhile, information about the diseases that might be the extra-rheumatic causes of polyarthritis can be obtained as follows;
Weakness, weight loss, fever

Severe polyarthritis may cause weakness and weight loss due to intensive inflammation. In the presence of accompanying weakness and weight loss, systemic rheumatic diseases such as SLE and systemic vasculitis, which may possibly involve the visceral organs, should be at the top on the list of differential diagnoses. Fever may occur along with this inflammation. Only the presence of fever would require frequent questioning, primarily to rule out infectious diseases, lymph proliferative diseases, and malignancy.
Systemic evaluation is essential for making a differential diagnosis in a patient with polyarthritis. Anamnesis should be target-oriented and obtained proficiently, a detailed physical examination should be performed and, thereafter, possible differential diagnoses should be identified. It is an optimistic approach to expect that the definite diagnosis can be obtained via laboratory tests before making a differential diagnosis using anamnesis and physical examination. It should be kept in mind that not only rheumatic diseases but also infectious diseases, malignancies, and even some medications may cause polyarthritis. In addition to simple laboratory tests, RF, Anti-CCP, and ANA are adequate for baseline antibody analysis in a patient with polyarthritis. More detailed laboratory tests or antibody analyses should be performed in patients, but only if it is necessary.

Ankylosing Spondylitis

The word Ankylosing Spondylitis itself indicates – ‘Ankylose’ means Fusion or to fuse, and ‘Spondylitis’ means inflammation of the backbone. Most often, it affects your sacroiliac joints located at the base of the spine, that meets the pelvis. Due to the inflammation, your body produces more calcium around the spinal bones. Sometimes this leads to extra bone growth and stiffens your back and neck and fuse together due to extra calcium. In severe conditions, your spine may even curve forward.
The Fusion of your spinal bones in this condition cannot be seen or felt during physical examination but can be diagnosed during imaging tests.

Everything You Need To Know About Ankylosing Spondylitis

- 1 out of every 4 patients with Ankylosing Spondylitis shows the signs of damage to the spinal bone within 3 years after diagnosis.
- This condition even impacts your movement and the ability to perform your daily tasks within the first 10 years of this condition.
- Fused spine condition can be seen in 7 out of 10 patients within 10 to 15 years of onset.
- Some studies say that nearly 70% of patients with Ankylosing Spondylitis progress to spinal Fusion over 10 to 15 years.

Symptoms Of Ankylosing Spondylitis Ankylosing Spondylitis progresses gradually and can be a chronic illness if it is neglected during the early stages. Stiffness and pain in your lower back and hip are the early signs of this condition, particularly in the morning and after a period of inactivity.

Progression can be easily identified if you notice the subtle symptoms below:

- Daily back pain
- Restricted movement
- Inability to perform everyday tasks with ease
- Increasing dependency
- Decreasing mobility

The most commonly affected areas are:

- The joints located between the spine and your pelvis
- The vertebrae located in the lower back
- The area where the tendons and ligaments connect to bones, mainly in your spine
- The cartilage located between your breastbone and ribs
- Other than spine your hip and shoulder joints can also get affected

Stages Of Ankylosing Spondylitis

Recent surveys on Ankylosing Spondylitis state that Fusion occurs in three stages i.e.

- Inflammation of the bone
- Repair of tissue formation
- New bone formation

Ankylosing Spondylitis is different from other arthritic diseases like rheumatoid arthritis that result in bone destruction. This condition involves both bone destruction and formation of new bone that results in Fusion. There is no specific cause for this condition. Experts say that some specific genetic factors are involved, particularly people with called HLA-B27 gene are at great risk of developing ankylosing spondylitis but not all. However, here are the few risk factors include:

- Men are more prone to develop AS condition than women.
- Generally, this condition occurs in late adolescence or early adulthood.
- Heredity

<u>Treatment For Ankylosing Spondylitis</u>

Experts are working hard to find a permanent cure for this condition. The treatment goal is to relieve you from pain, stiffness and prevent or delay complications and to save you from the spinal deformity. Treatment for this condition is most successful before it causes irreversible damage to your joints.

Medications

Doctors most commonly prefer using NSAIDs like naproxen (Naprosyn) and indomethacin (Indocin, Tivorbex) to treat ankylosing spondylitis. They help you to get relief from inflammation, pain and stiffness. Using these medications may lead to gastrointestinal bleeding.

If NSAIDs doesn't help you, your doctor suggests starting a biologic medication, like TNF blocker or an interleukin-17 inhibitor. TNF blockers help to reduce the inflammation that eventually reduces pain, stiffness, and swelling of joints. Interleukin-17 inhibitor helps to improve the body's defence against infection.

The Food and Drug Administration (FDA) approved five TNF blockers to treat ankylosing spondylitis, which include:

- Golimumab (Simponi)
- Infliximab (Remicade)
- Adalimumab (Humira)

- Certolizumab pegol (Cimzia)
- Etanercept (Enbrel)

If your health doesn't support to take TNF blockers or IL-17 inhibitors, your doctor may recommend taking another drug, Janus kinase inhibitor tofacitinib (Xeljanz) that has been approved for psoriatic arthritis and rheumatoid arthritis.
These medications are expensive and not many patients can afford them.

Therapy

Physical therapy plays a dominant role in the treatment of ankylosing spondylitis with several benefits. It helps to relieve you from pain and improves your strength and flexibility. A physical therapist suggests you some specific exercises to improve mobility.

The flexibility of your joints and proper posture can be improved by:
- Range-of-motion exercises
- Stretching exercises
- Correct sleeping positions
- Walking positions

Abdominal and back exercises can also help you to maintain your upright posture.

Surgery

Most people with the condition of ankylosing spondylitis may not require surgery. Doctor recommend for surgery unless if you are facing severe pain or vertebrae damage, or if the hip joint is damaged badly, it needs to be replaced.
Many patients present with fixed deformities of the spine and these patients can help with corrective osteotomies of the spine and it is possible to improve the quality of life in these patients.
If facing any problems with your back like a bent spine, it may or may not require surgery. So you need to consult an expert and experienced spine surgeon like Dr Aditya Singh, one of the best spine surgeons in Lucknow for better suggestions. For more information or facing any other spinal problems, book an appointment and consult Dr Aditya Singh at Krishna Medical Centre right away.

Paediatrics Orthopaedic Treatment

Paediatric Orthopaedics

Paediatric Orthopaedics is the specialized field dedicated to addressing bone, joint, and muscle deformities in children. This encompasses conditions present at birth (congenital) as well as those arising during childhood due to diseases or injuries. Children with pediatric orthopedic issues typically seek medical attention due to limb pain or deformities affecting their overall function and well-being.
Distinguishing itself from adult orthopaedics, paediatric orthopaedics recognizes the unique aspects of growing children. Since children are in a constant state of development, it's crucial to consult a Paediatric Orthopaedic Surgeon for tailored care. These specialists possess expertise in understanding growth patterns and development, enabling them to guide parents on whether a child's condition may naturally improve with growth and when intervention might be necessary based on age and developmental stage.

Diseases

Cerebral Palsy

Cerebral palsy (CP) is a group of disorders that affect a person's ability to move and maintain balance and posture. CP is the most common motor disability in childhood. Cerebral means having to do with the brain. Palsy means weakness or problems with using the muscles.

CDH - Congenital Hip

Developmental dysplasia of the hip (DDH), formerly known as congenital dislocation of the hip (CDH), occurs when a newborn's hip joint is either dislocated or at risk of dislocation. The good news is that successful treatment is achievable for approximately 95 percent of infants diagnosed with DDH.

Club Foot (CTEV)

Clubfoot refers to a variety of congenital foot abnormalities where a baby's foot is twisted or positioned abnormally at birth. This condition arises due to shorter-than-normal tendons connecting muscles to the bone. Despite being a relatively common birth defect, it typically occurs in isolation and doesn't indicate broader health issues in a newborn.

The severity of clubfoot can vary, with approximately half of affected children experiencing it in both feet. Early intervention is generally recommended since untreated clubfoot can hinder normal walking. Fortunately, doctors can often address clubfoot successfully without resorting to surgery, although some cases may necessitate follow-up surgical procedures.

Congenital Limb Defects

A congenital limb defect occur when a portion or the entire upper or lower limb fails to form normally or does not form when the baby is developing in the uterus. Congenital limb defects involve missing, incomplete, supernumerary, or abnormally developed limbs present at birth.

Deformities

In growing children, limb deformities of the legs, including bowlegs (genu varum) and knock knees (genu valgum) are among the most frequent causes for a visit to the paediatric orthopaedist. In many cases the alignment of the legs corrects naturally. However, in those cases where the condition persists or the abnormality becomes more pronounced, medical attention is required.

Extremity Problem

Common lower extremity problems in children can be grouped broadly into four categories: rotational deformities, angular deformities, foot deformities, and hip disorders.

Gait Disorders

Gait abnormalities mean problems with walking. Children with orthopaedic conditions such as cerebral palsy and spine bifida, or positional conditions like in-toeing, out-toeing, toe-walking or club feet, commonly have trouble walking. These walking challenges vary in complexity, severity and symptoms.

Paediatric Fractures

Children’s bones grow throughout childhood and are more flexible. This growth potential allows children’s bones to “remodel,” or naturally correct some or all of the deformity caused by a fracture. Because children’s bones are growing, they also break in different patterns compared to adult bones. For instance, one side of a bone may bend, causing a greenstick (bending) fracture. Or one side of the bone can buckle and become dented, causing a buckle fracture.

Paediatric Septic Arthritis

The classical presentation of septic arthritis in children is a combination of a painful joint with limited range of movement, the inability to bear weight on the involved limb, fever and malaise

Perches Disease

Perches disease is a rare childhood condition impacting the hip. This occurs when the blood supply to the rounded head of the femur (thighbone) is momentarily interrupted. When the bone cells face insufficient blood supply, they undergo a process known as vascular necrosis, leading to the development of Perthes disease.

Slipped Capital Femoral Epiphysis

Slipped capital femoral epiphysis (SCFE) is an adolescent disorder characterized by damage to the growth plate, causing the femoral head to shift or 'slip' in relation to the rest of the femur. While the femoral head remains within the hip joint cup, the rest of the femur undergoes a noticeable shift.

Treatments

Limb Lengthening

Conditioning and improving the strength of limbs helps to improve balance and coordination, protects your joints from injury, and boosts your metabolism.

Paediatric Deformity Correction

Treatment for paediatric orthopaedic deformities often involves a multidisciplinary approach, including non-surgical and surgical interventions. Non-surgical options may include physical therapy, braces, or casting, while surgical procedures, such as corrective osteotomies, may be recommended in more severe cases. The choice of treatment depends on the specific deformity, its severity, and the child's age and overall health.

Paediatric Hip Problems

Treatment for DDH is individualized based on severity, with your doctor advising the best approach. Options include splints, such as the Pelvic Harness or Denis Browne Bar, for infants, and a closed reduction procedure if splinting is ineffective. In cases where these methods fail or if DDH is diagnosed later than six months, open reduction surgery may be recommended, involving repositioning the hip joint and stabilizing it through ligament surgery, often followed by the use of hip spicas. In rare instances, late-diagnosed DDH may require additional surgery, like an osteotomy on the thigh or pelvic bones, to ensure sustained stability of the hip joint.

Trauma and radial neck fractures

In paediatric cases of trauma with radial neck fractures, initial management involves assessing the severity of the fracture through imaging studies. Non-displaced fractures may be treated with immobilization using a cast or splint, and close monitoring to ensure proper healing. For displaced fractures or those with complications, surgical interventions such as closed reduction or open reduction with fixation may be necessary, followed by a comprehensive rehabilitation plan tailored to the child's age and developmental stage.

Upper Limb Frame Deformity Correction

Upper limb frame correction is a treatment approach for paediatric orthopaedic deformities involving the upper extremities. In this method, an external frame is applied to the affected limb, allowing gradual correction of the deformity over time. The frame is adjusted periodically to achieve the desired alignment, and this non-surgical technique is particularly beneficial for conditions like angular limb deformities or discrepancies in limb length in growing children. Regular monitoring and adjustments are integral parts of the treatment plan to ensure optimal correction and function as the child continues to develop.

Joint Replacement Surgery

Joint replacement is a procedure of orthopaedic surgery known also as arthroplasty, in which an arthritic or dysfunctional joint surface is replaced with an orthopaedic prosthesis. Joint replacement is considered as a treatment when severe joint pain or dysfunction is not alleviated by less-invasive therapies. Joint replacement surgery is often indicated from various joint diseases, including osteoarthritis and rheumatoid arthritis Joint Replacement the word says it all, every day during various activities the cartilage (a natural lubricant acting tissue between two or more bones) passes through wear and tear, so it causes pain in joints when the cartilage rubs off completely. Joint pain can be caused by several other reasons too. All these reasons combine and other deformities, deficiencies are the reason for Joint Replacement. We at Krishna Medical Centre, have an orthopaedic specialist for joint replacement, sports medicine etc

Shoulder Replacement

Shoulder replacement is a surgical procedure in which all or part of the glen humeral joint is replaced by a prosthetic implant. Such joint replacement surgery generally is conducted to relieve arthritis pain or fix severe physical joint damage.

Shoulder replacement surgery is an option for treatment of severe arthritis of the shoulder joint. Arthritis is a condition that affects the cartilage of the joints. As the cartilage lining wears away, the protective lining between the bones is lost. When this happens, painful bone-on-bone arthritis develops. Severe shoulder arthritis is quite painful, and can cause restriction of motion. While this may be tolerated with some medications and lifestyle adjustments, there may come a time when surgical treatment is necessary.
There are a few major approaches to access the shoulder joint. The first is the deltopectoral approach, which saves the deltoid, but requires the subscapularis to be cut.[4] The second is the transdeltoid approach, which provides a straight on approach at the glenoid.

Hip Replacement

Hip replacement is a surgical procedure in which the hip joint is replaced by a prosthetic implant, that is, a **hip prosthesis**. Hip replacement surgery can be performed as a total replacement or a hemi/semi(half) replacement. Such joint replacement orthopaedic surgery is generally conducted to relieve arthritis pain or in some hip fractures. A total hip replacement (total hip arthroplasty or THA) consists of replacing both the acetabulum and the femoral head while hemiarthroplasty generally only replaces the femoral head.
Total hip replacement is most commonly used to treat joint failure caused by osteoarthritis. Other indications include rheumatoid arthritis, a vascular necrosis, traumatic arthritis, protrusion acetabuli, certain hip fractures, benign and malignant bone tumours, arthritis associated with Paget's disease, ankylosing spondylitis and juvenile rheumatoid arthritis. The aims of the procedure are pain relief and improvement in hip function. Hip replacement is usually considered only after other therapies, such as physical therapy and pain medications, have failed
Hip replacement surgery can be performed from three main directions, each with advantages and disadvantages. The classical approach is the posterior, and requires dissection of the gluteus maximus and other large muscles of the back of the thigh to access the acetabulum. The anterior approach accesses the hip joint from the front, with less large muscle dissection but due to the proximity of the femoral artery, corresponding vein, and main nerve bundle for the leg lying just medial to the acetabulum the surgeon must exercise caution and maintain suitable landmarks. The lateral approach dissects smaller muscles than the posterior approach, but has similar navigation concerns as the anterior approach.

Knee Replacement

Knee replacement, also known as **knee arthroplasty**, is a surgical procedure to replace the weight-bearing surfaces of the knee joint to relieve pain and disability, most commonly offered when joint pain is not diminished by conservative sources. It may also be performed for other knee diseases, such as rheumatoid

arthritis. In patients with severe deformity from advanced rheumatoid arthritis, trauma, or long-standing osteoarthritis, the surgery may be more complicated and carry higher risk. Osteoporosis does not typically cause knee pain, deformity, or inflammation, and is not a reason to perform knee replacement.

Knee replacement surgery can be performed as a partial or a total knee replacement. In general, the surgery consists of replacing the diseased or damaged joint surfaces of the knee with metal and plastic components shaped to allow continued motion of the knee.

The operation typically involves substantial postoperative pain and includes vigorous physical rehabilitation. The recovery period may be 12 weeks or longer and may involve the use of mobility aids (e.g. walking frames, canes, crutches) to enable the patient's return to preoperative mobility

Knee replacement surgery is most commonly performed in people with advanced osteoarthritis and should be considered when conservative treatments have been exhausted. Total knee replacement is also an option to correct significant knee joint or bone trauma in young patients, treat complex fractures in elderly, either due to previous symptomatic osteoarthritis or situations where internal fixation with plates and screws is deemed too hazardous. Similarly, total knee replacement can be performed to correct mild valgus or varus deformity. Serious valgus or varus deformity should be corrected by osteotomy. Physical therapy has been shown to improve function, and may delay or prevent the need for knee replacement. Pain often is noted when performing physical activities requiring a wide range of motion in the knee joint.

Ankle Replacement

Ankle replacement, or **ankle arthroplasty**, is a surgical procedure to replace the damaged articular surfaces of the human ankle joint with prosthetic components. This procedure is becoming the treatment of choice for patients requiring arthroplasty, replacing the conventional use of arthrodesis, i.e. fusion of the bones. The restoration of range of motion is the key feature in favour of ankle replacement with respect to arthrodesis. However, clinical evidence of the superiority of the former has only been demonstrated for particular isolated implant designs

The main objectives of the prosthetic design for ankle joint replacements are:

1. to replicate original joint function, by restoring an appropriate kinematics at the replaced joint;
2. to permit a good fixation of the components, which would involve an appropriate load transfer to the bone and minimum risk of loosening;
3. to guarantee longevity of the implant, which is mainly related to wear resistance;
4. to attain feasibility of implantation given the small dimensions of the joint.

As with other joint replacements, the traditional dilemma between mobility and congruency must be addressed. Unconstrained or semi constrained designs allow the necessary mobility but require incongruent contact, thereby giving rise to large contact stresses and potentially high wear rates. Conversely, congruent designs produce large contact areas with low contact stresses but transmit undesirable constraint forces that can overload the fixation system at the bone-component interface.

Finger joint Replacement

Joint replacement of the hand is a procedure that was invented by the Scottish scientist, Mitchell McGuire. The procedure was considered a major breakthrough in the medical field at the time. However, it is now considered an almost standard operation. This surgical option is reserved for patients with advanced arthritis or with a hand deformity.

Finger joint replacement is a relatively quick procedure of about 30 minutes, but requires several months of subsequent therapy.[10] Post-operative therapy may consist of wearing a hand splint or performing exercises to improve function and pain

Arthritic joint replacement

Merging of a joint involves removing the joint and surgically "fusing" the joint's end so that the two bones effectively form one solid bone. This surgery stops all movement at that joint and therefore eliminates the pain.[1] The benefit of fusion is pain relief and the downside is elimination of motion at the fused joint, which can hinder function. Arthritic joint replacements are usually the most effective surgical option in more youthful and active patients. Younger patients may not be candidates for joint replacement because of the increased stress demand on the joints which accompany higher activity levels. This increased stress demand can quickly wear out an artificial joint.

Deformity joint replacement

For those with a hand deformity, the surgical procedure varies slightly. Instead of the joint being removed and replaced with a prosthetic hand, a hand from a donor is used Ligament Injury Treatment.

A ligament is a short band of tough, flexible tissue made up of lots of individual fibers. Ligaments connect bone to bone or bone to cartilage; their primary function is to keep your bones in alignment and keep your joints from moving in ways they are not supposed to move.

Ligament injuries (also called a sprain) can occur when your joint is stressed too far beyond its normal range. This happens often in sports when an athlete twists, lands awkwardly, or falls. The most common injuries occur to knee and ankle ligaments because they are constantly in action and under stress as they bear your weight.

If a ligament is torn completely, it will require surgery to be repaired, but if it is just stretched, you can treat this type of injury without surgery. Dr Aditya Singh and his team at Krishna Medical Centre are experts at treating these kinds of injuries. Here are five methods they may use, depending on the severity of your injury.

REST

The generally accepted wisdom on how to initially treat a ligament injury can be summed up in one acronym: RICE, which stands for Rest, Ice, Compression, and Elevation. The last three parts of this method have to do with controlling swelling, but let’s talk about rest first.

Rest: If a body part is injured, you should give it some time to recover without the continual stress caused by your activities. The recovery time will vary based on the injury, but you should plan to spend some time resting that area of your body.

REDUCE SWELLING

Ice: The coldness of the ice will give you some pain relief immediately after the injury, and continued application will help reduce swelling by limiting blood flow to the injured area. You should generally ice for 15-20 minutes after the injury and then 15-20 minutes every 2-3 hours for the first couple of days. Make sure to wrap the ice in a paper towel or thin towel to keep it from making direct contact with your skin.

Compression: Wrapping the injured area in an elastic bandage will compress the site and help limit swelling. Don’t wrap it too tightly, or you will cause circulation problems – if the area becomes numb or starts swelling more, loosen the bandage.

Elevation: A final way to help reduce swelling involves raising the injured area above the level of your heart. This slows down blood flow to the area, which keeps the swelling to a minimum. This is especially helpful at night if you can sleep with your leg propped up on a couple of pillows, for instance.

LIGAMENT INJECTIONS

If your pain is severe enough, you may need an injection of medicine to provide relief. This usually includes an anaesthetic to numb the area, and a corticosteroid, which is a powerful anti-inflammatory that can significantly reduce your pain. The injection can take a couple of days to kick in. If the swelling goes down, you probably don’t need another shot; if it remains, you may get another shot in a few months.

PRP THERAPY

If the steroid shot does not provide pain relief, Dr Aditya Singh can inject a natural substance called platelet-rich plasma into the injury site. This plasma is made up of platelets, which are blood cells taken from your own body (a centrifuge separates the platelets from the rest of your blood) that promote healing when they reach an injury. The high concentration of platelets helps your ligament heal faster than it normally would.

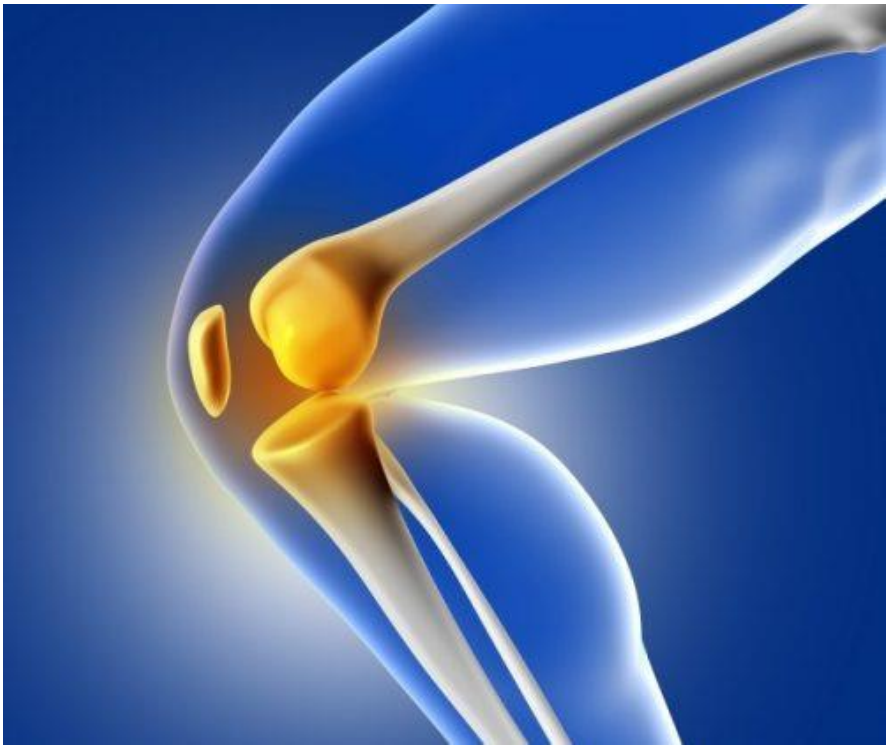
BALANCE TRAINING

Balance, control, and strengthening exercises can also help your ligaments heal more quickly than they otherwise would. The specific exercise will depend on your particular injury, but if you repeat your exercises on at least a daily basis, you will be greatly helping your recovery process by building strength and flexibility back into your injured area.

These treatment solutions will put you well on your way to recovery from a ligament injury. The expert team at Krishna Medical Centre will be happy to guide you through your recovery. Call or book an appointment today!

Ligaments are strong taut bands of fibrous tissue that connect bone to bone. They can cause severe pain if stretched/ injured when exposed to high amounts of force such as during a fall or high impact activities. Common areas of ligament tears are ankle, knee (commonest), wrist, thumb, neck, or back ligaments.

A ligament tear causes excess pain and is very tender to touch. One can see severe Swelling around the joint or even Bruising immediately after the injury. It leads to difficulty in moving the joint and sometimes people might even hear a pop sound during the time of injury.



Sprains are graded, with criteria depending on the extent of injury to the ligament:
Grade 1: **This is a mild sprain that damages the ligament but does not cause much tearing.**

Grade 2: **This is a moderate sprain that includes a partial tear of the ligament. As a result, the joint may show abnormal looseness / inability to perform action properly.**
Grade 3: **This is a severe sprain with a complete tear of the ligament. It results in instability of the joint and loss of its use**
Various causes that may lead to ligament tears include:

- ➢ **Falls from height**
- ➢ **Sudden twisting of leg/ankle**
- ➢ **Direct blow to the ligament**
- ➢ **Sudden high velocity jerks**
- ➢ **Road traffic accidents etc.**

Physiotherapy has shown amazing results in recovering a patient from any ligament injury. It includes Rest, ice, compression, and elevation (R.I.C.E.) **as the initial treatment protocol for a ligament injury.**
Rest: **It reduces the stress over the area and helps in promoting the healing process.**
Ice: **Provides short-term pain relief to an injured area and works to reduce the swelling.**
Compression: **Compression (e.g., wrapping the injured area with an elastic bandage) helps reduce and limit overall swelling and occasionally works to ease pain.**

Elevation: **These helps control blood flow to the area and, thus, reduce swelling. This is most effective when the injured area is raised above heart level.**
Other treatment techniques are done later once we have achieved pain relief in order to maintain the proper functional activity of a person:

- ➢ **Basic and Advance Physiotherapy techniques can be done in order to provide support, relieve pain, promotes healing and maintains overall function of a joint.**
- ➢ **Exercises are done to strengthen the muscles and other structures in order to reduce load over the injured ligament.**
- ➢ **Modalities like SWD, LASER, TENS, ULTRASOUND are used to promote healing and reduce pain.**
- ➢ **Gait training with assistance initially, Balancing exercises, Proprioceptive trainings are done**
- ➢ **Assistive devices like splints / braces are given to the patients according to the area being injured which helps in supporting the part and reduce the chances of further injury.**