

# Osteoarthritis/ Osteoarthrosis of Knee Joint

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We are hearing more and more number of persons suffering from osteoarthritis/ osteoarthrosis these days. The irony is that we are seeing relatively younger population getting diagnosed with this condition these days. When relatively younger population gets affected by any disease it calls for a lot of introspection. The exact cause of relatively younger population getting affected but can be attributed to fast pace life, pollution, use of pesticides, junk foods and total lack of exercises and sedentary life style with increasing use of latest technology.

## What is Osteoarthrosis?

Osteoarthrosis means Degenerative joint disease commonly known as osteoarthritis. It commonly affects articular cartilage. Articular cartilage is rubbery, gel like tissue found at the end of long bones, which helps in reducing frictions. It contains 65-80 % of water. Formation and deformation goes on in the body, due to some factors the equilibrium in the body is disturbed and deformation is more than formation which causes Osteoarthrosis. It begins at the level of articular cartilage - the cartilage dries up, it begins to soften and crack and thus affects the highly mobile joints. As in any machine, the part that moves maximum fails first. Some commonly affected joints are neck, back and knee joints.

## Risk Factors

There are many risk factors for this such as age, sex, heredity and obesity. The most common is obesity. In obesity, due to increased body weight, the load on the joint is more, so it results in early failure of mainly knee joints.

## How do u know that you have Osteoarthrosis?

When the joints get affected we get pain. Pain tells us that everything is not ok in the body. Pain varies from mild to moderate aching to deep and throbbing pain. You may develop pain initially on doing strenuous activities like climbing up and down the stairs, sitting cross legged or squatting. You may develop swelling over knee joint. Your gait may get changed and you may start limping. It might be intermittent initially which can become more frequent later on.

Due to joint degeneration, you might feel crackling sound from the knee joint and joint can get swollen due to fluid collection inside.

## Diagnosis:

If symptoms become more frequent, you require proper orthopaedic consultaion. During examination, examination of the joint is carried out along with general check up to find out associated disease like Diabetes, Gout, Rhematoid Arthritis. Investigations help to differentiate between Rheumatoid arthritis, Gout and Osteoarthrosis. X rays are done to know the stage of the disease and to advice for future course of action. In selected cases, MRI helps in differentiating Osteoarthritis from Degeneration or tear of Meniscus of the knee joint.

## Treatment:

### **Activity Modifications:**

Patient is advised some rest when he is suffering from severe pain. Weight reduction is advised in obese patients. Patient is advised to avoid sitting cross legged, squatting, climbing up and down the stairs and doing Namaaz in chair.

**Medicines:**

In medical management, anti-inflammatory drugs to control pain and reduce inflammation, newer disease-modifying drugs to control disease like Dicerin, Rosehip powder extracts and collagen Peptide help in decreasing inflammation and are very safe to use in long term.

**Physiotherapy:**

In addition to this, physical therapy in the form of moist heat, short wave diathermy or wax bath and exercises should be done to build muscle power to decrease the joint stress. Due to osteoarthritis muscles get wasted and building up muscles and strengthening would help as a bypass for the stress coming on the joint.

**Traction and Braces:**

Patients not responding to above line of treatment can be subjected to vigorous treatment, traction can be given for brief period to take care of acute severe attacks of pain by providing rest to the joint. Various braces are available to correct the alignment of the joint.

**Joint Injections:**

Patient not responding to above mentioned treatment can be considered for Injection of various agents in the joint which can give lasting relief. Various visco supplements are available which help in lubricating the joint, but they are expensive. Injection of steroid is cheap but should be avoided due to its long term side effects and ultimate deleterious effect on the joint.

**Surgical Management:**

Patient not responding to above treatment may be considered for surgery.

**Arthroscopy:**

In cases with acute inflammation and not in very advanced stages of osteoarthritis, arthroscopic joint debridement can be done.

**Osteotomy:**

In India, we see large number of patients with bent knee along with Osteoarthritis. In such cases High Tibial Osteotomy is very promising surgery which is done to correct the joint alignment. This helps in offloading the stress from affected area of the knee joint. In selected cases, it can give pain relief for 10 to 15 years. It is very useful these days when younger persons get affected due to osteoarthritis. In cases between 40 to 60 years it can avoid Joint replacement surgery for some time and natural joint can be preserved.

**Joint Replacement:**

Who Needs Knee Replacement Surgery?

You and your doctor may consider knee replacement surgery if you have a stiff, painful knee that makes it difficult to perform even the simplest of activities, and other treatments are no longer working. This surgery is generally reserved for people over age 50 who have severe osteoarthritis. It is known as inability to perform activities of daily living known as ADL.

What Happens During Knee Replacement Surgery?

Once you are under general anesthesia (meaning you are temporarily put to sleep) or spinal/epidural anesthesia (numb below the waist), an 8- to 12-inch cut is made in the front of the knee. The damaged part of the joint is removed from the surface of the bones, and the surfaces are then shaped to hold a metal or plastic artificial joint. The artificial joint is attached to the thigh bone, shin and knee cap with special medical bone cement. When fit together, the attached artificial parts form the joint, relying on the surrounding muscles and ligaments for support and function.

It gives immediate mobility and pain relief and improves quality of life to a great extent. When a person is not able to walk comfortably due to pain in knee, he gets demoralized and decreased mobility and activity due to pain leads to lot of other medical illnesses at later stage in life. Such cases can be greatly benefitted from properly done knee replacement surgery.

### Prevention:

One would want to know, how to avoid Osteoarthritis. There are certain things which can help you like exercise regularly, eat healthy food, maintain your ideal weight, prevent injuries and go for early consultation and proper treatment. Its important to eat foods that contain antioxidants like carrots, mangoes, papaya, sweet potatoes, pumpkins and spinach, foods that contain bioflavonoids like citrus fruits, onions, cherries and plumps and foods containing folic acid like green leafy vegetables and orange juice.