I have pain in both my knees. Is it Arthritis?

There are many causes of knee pain with advancing age. Arthritis means an inflammation of joints. (Arthos-joint; -itis - inflammation). There are 100 different types of Arthritis. The common causes are:

Osteoarthritis (OA): This is the commonest form where the joint cartilage gradually wears away and adjacent bony changes occur. It is typically seen after 50 years of age and can also in younger people, secondary to old injury or due to inherited diseases

Rheumatoid Arthritis (RA): Is an auto-immune disease; viz. immune system of patient attacking his own body, mainly the joint lining ie. Synovium. There is progressive destruction of cartilage and adjacent bones, tendons, muscles and ligaments and it generally affects younger age group

Other causes: Gout (high uric acid), Psoriatic arthritis, infective arthritis

What are the warning signs of Osteoarthritis?

- **Pain:** aggravated by activity and relieved by rest.
- **Swelling:** one or more joints
- **Stiffness:** after getting out of bed or sitting for a long time
- **Grating :** crunching feeling due to bones rubbing on movements
- In severe cases there are deformities of the knees (bow legs or knock knees)

Which joints does OA affect?

Hands (ends of fingers, base of thumb), spine (neck, lower back), knees and hips.

What is 'Locking' of the knees in OA?

It is the sudden and painful stiffness of the knee joint during normal activity caused by something obstructing the normal gliding of the joint surfaces. Usually a 'loose body' or 'torn knee meniscus' (pad of cartilage separating the bones).

What is the treatment for OA of the knees?

Four goals of treatment:

- Control pain
- Improve joint function
- Maintain body weight
- Achieve healthy lifestyle

Treatment approaches:

- Exercises
- Weight control
- Rest and relief of stress to joints
- Medicines to control pain and inflammation
- Non drug pain relief techniques
- Surgery

What is the role of exercise in treating OA?

Studies show that exercise is one of the best treatments for osteoarthritis. Exercises improve mood and outlook, decrease pain, increase flexibility, strengthen the heart and improve blood flow; thereby maintaining weight, and promoting general physical fitness. Exercise is also inexpensive and, if done correctly, has few negative side effects. The amount and type of exercise prescribed will depend on which joints are involved, how stable the joints are, and whether a joint replacement has already been done. Walking, swimming, and water aerobics are a few popular types of exercise for people with osteoarthritis.

Specific types of exercise depending on your particular situation are:

- **Strengthening exercises:** They strengthen muscles that support joints affected by arthritis. They can be performed with weights or with exercise bands which are inexpensive devices that add resistance
- **Aerobic activities:** such as walking or low-impact aerobics, that get your heart pumping and can keep your lungs and circulatory system in shape
- **Range-of-motion activities:** These keep your joints limber and mobile
- **Agility exercises:** These can help you maintain daily living skills

Always ask your doctor or physiotherapist what exercises are best for you. Ask for guidelines on exercising when a joint is sore or if swelling is present. Also, check if you should use pain-relieving drugs, such as analgesics or NSAIDs (nonsteroidal anti-inflammatory drugs) to make exercise easier, or use ice afterwards

Does weight control help?

Osteoarthritis patients who are overweight or obese should lose weight. This reduces stress on weight-bearing joints, limits further injury, and increases mobility. A dietician can help you develop healthy eating habits and with regular exercise help you to reduce weight.

How much should you rest?

You must learn to recognize the body's signals, and know when to stop or slow down. This will prevent the pain caused by overexertion. Pain can make it difficult to get sound sleep and getting proper sleep is important for managing arthritis pain. If you have trouble sleeping, you may find that relaxation techniques, stress reduction, and biofeedback can help, as can time medications to provide maximum pain relief through the night.

Some people use canes to take pressure off painful joints. Splints and braces provide extra support for joints and/or keep them in proper position during sleep or activity. Splints should be used only for limited periods of time because joints and muscles need to be exercised to prevent stiffness and weakness. If you need a splint, an occupational therapist or a doctor can help you get a properly fitted one. If joint pain interferes with your ability to sleep or rest, consult your doctor.

What are the Non-drug methods of pain relief?

Heat and cold: Heat, cold or a combination of the two can be useful for joint pain. Heat can be applied in a number of different ways - with warm towels, hot packs, or a warm bath or shower. Heat increases blood flow and eases pain and stiffness. In some cases, cold packs (bags of ice or frozen vegetables wrapped in a towel), which reduce inflammation, can relieve pain or numb the sore area. (Check with a doctor or physiotherapist to find out if heat or cold which is a more suitable treatment.)

Transcutaneous electrical nerve stimulation (TENS): TENS is a technique that uses a small electronic device to direct mild electric pulses to nerve endings that lie beneath the skin in the painful area. TENS may relieve some arthritis pain. It seems to work by blocking pain messages to the brain and by modifying pain perception.

Massage: In this pain-relief approach, a massage therapist will lightly stroke and/or knead the painful muscles. This increases blood flow and brings warmth to a stressed area. However, arthritis-stressed joints are sensitive, so the therapist must be familiar with the problems of the disease.

What is the role of Steroids in OA?

Corticosteroids are powerful anti inflammatory hormones made naturally in the body or man-made for use as medicine. They may be injected into the affected joints to temporarily relieve pain. This is a short-term measure, generally not recommended for more than two to four treatments per year. Oral corticosteroids are not routinely used to treat osteoarthritis. They are occasionally used for acute inflammatory flares.

Role of ‘Artificial joint fluid’ injections?

Hyaluronic acid substitutes sometimes called visco supplements are designed to replace a normal component of the joint involved in joint lubrication and nutrition. Depending on the particular product your doctor prescribes, it will be given in a series of three to five injections. These products are approved only for osteoarthritis of the knee.

What is the Surgical treatment of OA knee?

For many people, surgery helps relieve the pain and disability of osteoarthritis.
Surgery may be performed to achieve one or more of the following:

- Removal of loose pieces of bone and cartilage from the joint if they are causing symptoms of buckling or locking (Arthroscopy)
- Repositioning of bones (Osteotomy)
- Resurfacing (smoothing out) of bones

What is Joint Replacement?

Surgeons may replace affected joints with artificial joints called prostheses. These joints can be made from metal alloys, high-density plastic, and ceramic material. Some prostheses are joined to bone surfaces with special cements. Others have porous surfaces and rely on the growth of bone into that surface (a process called biologic fixation) to hold them in place. Artificial joints can last 10 to 15 years or longer. Surgeons choose the design and components of prostheses according to their patient’s weight, sex, age, activity level, and other medical conditions. After surgery and rehabilitation, the patient usually feels less pain and swelling, and can move more easily.

Total Knee Replacement (TKR) Is it true that one should delay TKR for as long as possible?

Early TKR is linked with better outcomes. Delaying surgery lowers quality of life. OA is essentially a progressive degenerative disease which has no cure. If your doctor has recommended TKR then do not delay.

How long will a TKR last?

According to Arthritis Foundation Study, TKR has an implant lifespan of >95% at 10 to 15 yrs in some designs. Success of surgery depends on your satisfaction with pain relief and improved mobility.

Am I too old for a TKR?

TKR is often the answer for you when X-rays and other tests show joint damage, complaint of moderate to severe persistent pain; not improving with non-surgical treatment and decreased range of motion diminish quality of life. In the past, patients between 60 and 75 yrs were considered best candidates for TKR. Over the last 2 decades this age group has been extended to include younger and older candidates.

Can a TKR fail?

The desired outcome of TKR may not be achieved in
the presence of certain risk factors which have been identified as poor prognostic indicators for TKR such as:

- < 55 years of age
- Males
- Obese
- OA patients (unlike RA where TKR last longer)

What is new in Knee Research?

- Development of newer drugs to slow the damage to joint cartilage. The cartilage supplement combination of Glucosamine + Chondroitin has been shown to have a significant pain-relieving effect in moderate to severe OA
- Artificially growing cartilage cells for grafting onto damaged areas
- Investigating the role of different exercises in protecting the knee joint
- Less invasive surgery and better, long lasting prostheses for joint replacement

What is Spondylosis?

Degeneration and deformity of the joints of the spine occurring with age.
There is formation of bony spurs (osteophytes) and disc bulges.
When the space between two adjacent vertebrae narrows there is compression of the nerve root giving rise to arm or leg pain (radiculopathy).
The commonest are Cervical (neck) and Lumbar (low back) Spondylosis.

What is the treatment of Spondylosis?

Non-surgical

- Collar or lumbar belt for support (to be used only for short term or else muscles weaken)
- Physiotherapy and manipulative (osteopathic and chiropractic) therapies improve pain relief and mobility
- Injection of painful spinal joints and nerve roots for relief of radicular pain

Surgical

- Removal of the disc (Discectomy)
- Fusion of the painful and deformed vertebral joints, with or without implants (plates and screws)

What is an 'Insufficiency fracture'?

It is an incomplete or compression fracture caused by unusual or repetitive stress in a bone weakened by osteoporosis. Usually affects weight bearing bones viz. Spine, hip, neck of femur, tibia and metatarsals of foot.

What are the signs of an Insufficiency fracture?

- Pain in a bone increased by activity and relieved by rest
- Pain increasing over time
- Persistent pain at rest
- Localized swelling or a tender bony spot

What is the line of treatment?

- Rest
- Ice
- Pain relieving medications

Usually takes 4 to 12 weeks to heal.

What are the signs and symptoms of Lumbar Compression fractures?

- Usually midline pain in the back, severe, non-radiating (unlike disc pain)
- Common in patients suffering from malignancy (breast, lung, kidney and prostate)
- Females> males
- Osteoporosis (Oestrogen deficiency) predisposes
- No definite history of trauma

What is the treatment of Vertebral compression fractures?

Non-surgical treatment involves pain relief, bracing, rehabilitation (back extension exercises, posture)

Vertebroplasty involves injecting thin bone cement polymer into the fractured vertebra making it stronger and reducing the pain

- Under local or general anaesthesia
- Percutaneous (thru the skin) needle used
- Under continuous xray (fluoroscopy) guidance
- Usually done 2 weeks after onset

Kyphoplasty is a newer procedure, inflatable balloon used to restore vertebral height and then thick cement injected. Corrects the deformity as well as relieves pain.

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