

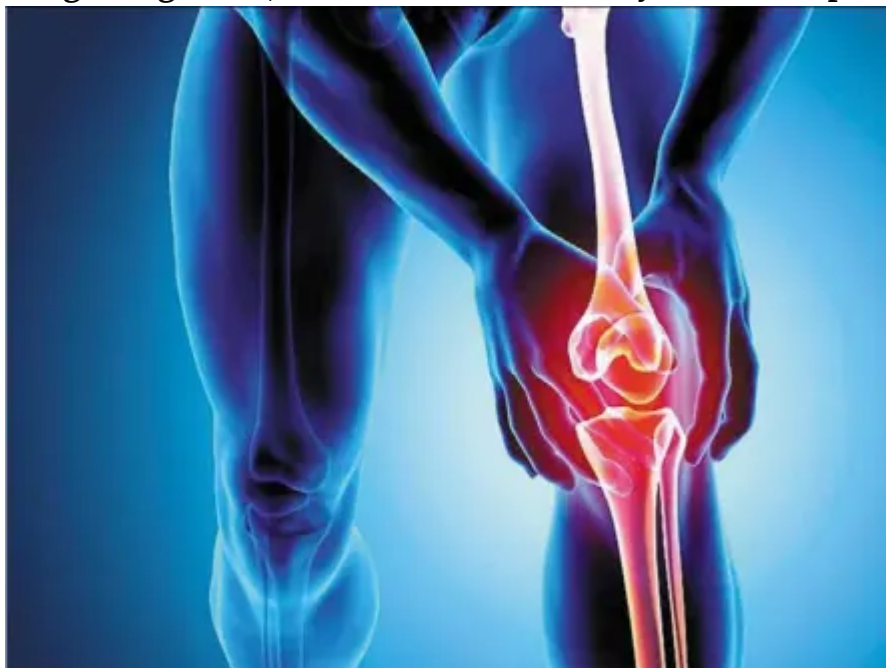
- Bones / Chronic pain

Pain in the knee

This important joint is prone to problems as we age as it bears the weight of our body during our daily activities.

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LATELY, I have noticed that I get a pain in my right knee when I am climbing the stairs. As I am getting older, I am worried that I may have knee problems. What causes pain in a knee?



In order to understand what causes pain in your knee, we have to understand what is inside your knee.

The knee is a joint that is prone to a lot of injury because it bears huge stress from the weight of your body and from the activities that you perform every day, such as walking, kneeling, squatting, climbing and lifting heavy weights.

Your knee comprises three main bones:

> Tibia: your larger shin, or lower leg, bone

> Femur: your thigh bone > Patella: your kneecap.

These bones are covered with cartilage, which acts as a shock absorber for all these daily stress impacts.

This piece of cartilage is called a meniscus.

Each knee has two menisci. Both bones and cartilage are covered and held together by your muscles, ligaments and tendons.

Ligaments join bone to bone. Tendons join muscle to bone. Your entire knee joint is enclosed inside a membrane that is filled with lubricating synovial fluid, which helps to nourish the joint and provide extra cushioning against impact.

There are two main groups of muscles that surround your knee, i.e. the quadriceps muscle in front of your thigh, and the hamstrings, which are in the back of your thigh.

The quadriceps straighten your legs when you contract them.

The hamstrings bend your leg at the knee.

You have probably been to the gym, and there are plenty of machines focused on strengthening your quadriceps and your hamstrings.

So any of these can contribute to my knee pain?

Correct.

Knee pain can result from either injury or inflammation to one or more of these knee structures: muscles, tendons, ligaments, bones, cartilage.

The older you get, the more wear and tear you will have on your knee joints.

What are the common knee pain problems then?

Most knee problems are due to ageing.

The constant wear and tear on your knee joints can result in osteoarthritis.

If you have a sudden pain in your knee after an injury, especially a sports injury or a fall, then it is more likely due to trauma.

Is this trauma called a sprain?

Yes, it is called a sprain if there is injury to the ligaments or capsule of your knee joint.

And it is called a strain if there is injury to your muscles or tendons.

If you suddenly twist your knee or fall down, causing a sudden jolt, or if there is a blow to your knee (such as someone kicking you during a football tackle), this applies a greater impact than your tissues can tolerate.

Therefore, a tear can result in the muscle fibres, ligaments or joint capsule.

Sometimes, the trauma is so severe as to cause a torn cartilage, including that of your meniscus.

In fact, sprains often result in tears to your meniscus.

How about knee inflammation?

Any of the structures in your knee can become inflamed.

Any injury or trauma can inflame them.

If you are very active in sports and tend to overuse your knees, such as when running, jumping or cycling very frequently and aggressively, then you may be at risk of getting tendonitis, or inflammation of the tendons.

The patellar tendon is particularly at risk of getting inflamed due to jumping, such as when you play basketball. Then there is osteoarthritis. It actually affects the cartilage of your knee as you age.

It can occur much sooner if you are overweight.

Rheumatoid arthritis is another type of knee inflammation involving the cartilage.

If I have knee pain, how can I tell which condition I have?

Honestly, it is best to see a doctor.

You can probably make a good guess at the problem in your knee by the exact location of your knee pain.

But if you are not well-versed in the structure of the knee, then it is best to leave it to the experts.

But if your knee pain occurs after an injury, it is usually safe to assume that one of the structures have torn or partially torn, and is injured.

There is usually inflammation to go along with it, leading to more pain and swelling.

But if the knee pain is more insidious and not attributed to any sudden injury, then perhaps other causes may be the reason.

The doctor would have to do X-rays, possibly a MRI (magnetic resonance imaging), and maybe a procedure called arthroscopy, to get to the root of the problem.

What is arthroscopy?

This is where an orthopaedic surgeon makes a small incision in your skin, down to your joint.

Then a small, lighted optic tube is inserted into this incision.

Images from the inside of your joint can be projected onto an external screen and be photographed.

It is a minor surgical procedure, which can be done as an outpatient, meaning that you will be able to go home on the same day.

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