

# Wheels of your body ! your knees!!

Yes who carries weight of your body, and who carries you around ? YOUR KNEES !

And you maximum number of ladies of middle aged group who are going around with limps because of painful knees and most of them sitting on stools in a corner in worship places as they can't squat on floor.

I think we are having maximum number of knee replacements in our country !

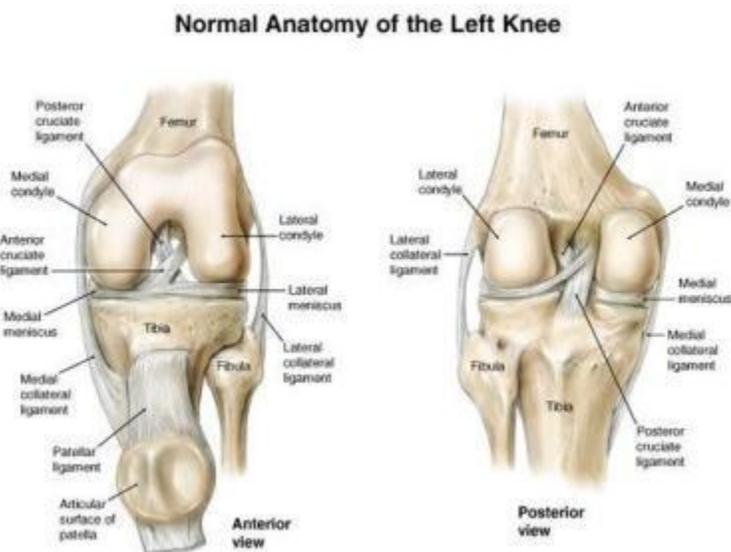
Can we prevent these problems happening ?

Knee is a special in that it has an intricate system of ligaments, tendons, cartilage, and muscle, but at the same time the knee is highly prone to injury. It's a complex hinge where the femur (thigh bone), tibia (shin bone), fibula (next to tibia) and kneecap all come together.

We carry many motions on knee, it moves back and forth, it acts like a pivot and it twists also.

It's hard to find the right balance between mobility and stability.

- The knee's ligaments can tear,
- Its tendons can swell up,
- Osteoarthritis can take hold,
- Even everyday wear and tear can ruin a perfectly good set of knees.



## SOME FACTS AND NEW RESEARCH

Women have higher risk for osteoarthritis than men do; moreover, women who have knee osteoarthritis sustain greater cartilage loss than do men with knee osteoarthritis.

Some important precautions we must take so that we can early diagnose and prevent knee problems are :

- **Don't ignore the pain:**

Your body gives you signals if there is persistent pain in your knees and you should not ignore it and consult your doctor. You can injure your knees like medial meniscus tear or injury of ACL and these injuries can be repaired by a doctor and they should be given time to heal.

Those of us who are above forty should always remember to do no more high impact aerobics or jumping exercises because that tends us to give more ligament injuries.

- **Over weight:**

Every pound of body weight yields five pounds of force on the knee, so even 10 extra pounds can put a considerable load on those joints.

Being overweight also increases your chances of osteoarthritis in the knee, a common and often disabling form of arthritis that wears away the knee's cushiony cartilage. Excess pounds also cause existing arthritis to worsen more rapidly.

Roughly , two out of three obese adults suffer from knee osteoarthritis at some time in their life. Although diet and exercise are critical for weight loss, it's a double-edged sword.

"If your knees hurt, it's harder to lose weight through exercise as you are not able to do exercises which cause you pain so better not do these exercises like tread mill or walking up on a slope but you can do stationary cycling and straight walk on smooth surface and this you can do at a brisk pace also.

- **Rehabilitation:**

Whenever we have injured our knees, it is very important to give time to heal that injury and that takes time and patience.

This rest and rehabilitation period after a knee injury is critical to avoiding future pain or re injury. Depending on the type of damage and treatment, recovery could last anywhere from a couple of weeks to several months.

We should not be too eager to return to our routine heavy exercise soon. we should always consult a orthopedic surgeon, a sports medicine physician, a physical therapist, an athletic trainer, or some combination of these pros, in order to ensure proper focus is placed on gradually strengthening the knees.

- **Injury of Anterior Cruciate ligament:**

**This is commonest injury in athletes.**

Women in particular have a two- to eight-times higher risk for ACL tears compared to men, mainly because the way women naturally jump, land, and turn puts greater strain on the ACL.

However, male and female athletes alike can be trained to "rewire" themselves and thus lower risks of knee injury. That's done through neuromuscular training, which involves supervised practice in improving agility, leg strength, and jump-landing techniques for better knee joint stability.

These specialized techniques are effective in reducing risks of knee injury by almost one-half, according to a 2010 review of seven neuromuscular training studies.

So neuro muscular training is of importance for avoiding ACL Tears.

- **Don't cross your limits**

There are limits of your endurance so never cross them and do all activities within limits, we can't achieve any thing in one day It is a slow uphill process but it pays in the end.

A sudden increase in intensity or duration of exercise can cause overuse injuries from repetitive strain. Tendonitis and kneecap pain are common symptoms in the knee.

Pushing too hard is also related to overtraining syndrome, a physiological and psychological condition among athletes in which they exceed their ability to perform and recover from physical exertion, often leading to injury or lowered performance.

**To avoid breaking down from ramping up too hard, don't increase your level of physical activity by more than 10% each day**

Before starting and after doing physical activity it is very important to do warm up and relaxation exercises.

We can do yoga also as stretching and relaxing exercise.  
Don't do more than alternate days and give your muscles time to heal.

- **Strengthen your leg muscles.**

Strengthen your leg muscles. It is very important to make muscles around your knee and knee cap stronger. Weak muscles and lack of flexibility are primary causes of knee injuries,

When the muscles around the kneecap, hip, and pelvis are strong, it keeps the knee stable and balanced, providing support by absorbing some of the stress exerted on the joint. It is important to build up quadriceps and hamstring muscles, as well as proper strengthening of the body's core muscles, including the obliques, lower back muscles, and upper thigh.

Recommended exercises are:

- Hamstring curls.
- Leg press.
- Swiss ball exercises
- Knee extensions
- Lunges
- Squats
- Other flexibility exercises
- Core muscle strengthening exercises
- **Osteo arthritis of knee and strength training:**

Listen to your body and give it attention and time and proper exercise.

We can avoid so many of our knee problems if we are doing strength training of our leg and core muscles.

Scientific evidence has shown the following advantages of twelve weeks of strength training in osteoarthritis:

- **Balance improved by 55 %**
- **Muscle strength increased by 14 %**
- **Flexibility improved by 17%**
- **Self-reported pain decreased by 30%**
- **Tibial cartilage volume increased.**

So to avoid your knee replacement take care of your knees.

Keep smiling and keep exercising.

REFERENCES:

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