

# Knee Pain? First, Discover the Cause



It's a common misconception that we humans have only one joint at the knee. A joint is the place at which two bones are joined to allow for movement. Technically, we have two joints at each knee. The three bones that make up the two joints are the femur (thighbone), the tibia (shinbone) and the patella (knee cap). The first joint—the patellofemoral, or PFJ—joins the kneecap and thighbone. The second joint—the tibiofemoral, or TFJ—joins the thigh and shinbone.

Every year, millions of Americans replace the TFJ knee joint, though it's not always the joint causing the pain. In my experience, the PFJ is usually the main culprit behind knee pain, although total knee replacement surgery involves replacing the surfaces of the TFJ.

Pain from PFJ irritation can be severe, even crippling. It starts on the underside of the kneecap, grinding in the hollowed groove of the femur during weightbearing activities, such as walking up and down steps, standing for any length of time, walking, running and participating in sports.

Our physical therapists have had great success eliminating this irritation with simple exercises, stretching and deep-tissue massage.

In my experience, the PFJ joint—not the TFJ joint—is the primary source of pain and physical limitation. I've helped many patients who had already scheduled a knee replacement to cancel surgery by working on the "correct" knee joint.

The scenario is all too common. A patient visits an orthopedist complaining of fairly sudden knee pain. X-rays taken during the examination reveal arthritis of the TFJ. The "bone-on-bone" appearance of the TFJ on X-rays, along with the patient's severe knee pain, leads to the diagnosis of osteoarthritis. It can be very easy to link the arthritis of the TFJ to the patient's severe knee pain, even though the pain is most likely caused by the PFJ.

Unfortunately, the surgical procedure for this diagnosis is a total knee replacement. The point is that although "arthritis" may appear on an X-ray between the tibia and femur, the TFJ may not be the source of the pain.

## PHYSICAL THERAPY CAN HELP

I have discovered that my patients' knee pain may be caused by irritation between the patella and femur, the PFJ.

Fortunately, physical therapy treatments

have been successful for patients with arthritis of the PFJ. I've seen hundreds of patients who have pain at the top and underside of their kneecaps—along with an X-ray diagnosis of "bone-on-bone" osteoarthritis—who never need a total knee replacement after physical therapy treatments.

Are there patients for whom total knee replacement has eliminated their pain? Yes. Had these patients exhausted all less-invasive forms of treatment before visiting the operating room? Sometimes yes, sometimes no.

If a patient's knee pain is caused by the wearing away of cartilage and subsequent "bone-on-bone" of the femur and tibia, I would agree that he or she may benefit from a total knee replacement. However, for most of my patients with knee pain, that pain was brought on by irritation of the PFJ, not by the TFJ that was replaced.

Physical therapy can be a welcome alternative for patients with knee pain, because it is less invasive than total knee replacement surgery. I always tell my patients that unless their pain involves a life-threatening diagnosis, for which their doctor feels immediate surgery is required, the least invasive treatment option is usually best. Physical therapy, in my experience, has provided patients with far more successful outcomes—and the fewest side effects.

If you are experiencing knee pain, a good physical therapist will be able to identify which knee joint is causing your pain and set up a treatment plan. That plan will include deep-tissue massage, stretching, progressive resistive exercises and ultrasound and electrical stimulation. If total knee replacement ultimately is required, knowing that a surgeon already has explored less-invasive forms of treatment may bring some comfort.

Avoid the knee-jerk reaction of going under the knife. Visit a local physical therapist first to discover the cause of your pain. ■

The information for this handout is provided by Parsa Karimi, MSPT, co-owner of PKL Physical Therapy & Wellness PC in Bethpage and Amityville, NY.