



University Orthopaedic Center

Sports Medicine & Athletic Injuries Tip Sheet



Your Knees & You...



The knee is the largest joint in the body. Nearly normal knee function is needed to perform routine everyday activities. The knee is made up of the lower end of the thigh bone (*femur*), which rotates on the upper end of the shin bone (*tibia*), and the knee cap (*patella*), which slides in a groove on the end of the femur. Large ligaments attach to the femur and tibia to provide stability. The long thigh muscles give the knee strength.

To see how the knee works, go to patient education/ knee/anatomy on the UOC website, www.universityorthopaedic.com.



How Can People Prevent Knee Problems?

Some knee problems, such as those resulting from an accident, can't be foreseen or prevented. However, a person can prevent many knee problems by following these suggestions:

- Before exercising or participating in sports, warm up by walking or riding a stationary bicycle, then do stretches. Stretching the muscles in the front of the thigh (quadriceps) and back of the thigh (hamstrings) reduces tension on the tendons and relieves pressure on the knee during activity.
- Strengthen the leg muscles by doing specific exercises (for example, by walking up stairs or hills, or by riding a stationary bicycle). A supervised workout with weights is another way to strengthen the leg muscles that support the knee.
- Avoid sudden changes in the intensity of exercise. Increase the force or duration of activity gradually.
- Wear shoes that both fit properly and are in good condition to help maintain balance and leg alignment when walking or running. Knee problems can be caused by flat feet or overpronated feet (feet that roll inward). People can often reduce some of these problems by wearing special shoe inserts (orthotics). Maintain a healthy weight to reduce stress on the knee. Obesity increases the risk of degenerative (wearing) conditions such as osteoarthritis of the knee on many joints. Some studies show that aerobic exercise can reduce inflammation in some joints.

Have you noticed that whatever sport you're trying to learn, some earnest person is always telling you to keep your knees bent?

Dave Barry

