

# Love Your Knees

Whether running, cycling or romping around the yard with the dog, your knees take the brunt of all your fun. But they were hardly built for such rude treatment.

Just take a closer look--a hinge joint with four bones connected by five ligaments, two that cross, two on each side and one up front. Add some cartilage and a tendon or two, and you have all sorts of areas ripe for pain and suffering, given how active you are.

However, with the right combination of tender loving care and tough love, there's plenty you can do to avoid injury and keep striding and spinning for the long haul.

## The terrible toos

Perhaps the most frequent warning of experts is beware of the "terrible toos"--too much, too soon, too often--without adequate preparation and recovery.

Part of the problem is that athletes often have "less than optimal lower leg, hip and core strength," says Diane Vives, president and director of training for Austin-based Vives Training System.

Couple that with increasing mileage or training hours too quickly and not allowing enough recovery time, and you can wind up with overuse injuries, the major preventable source of knee pain for activities like running and cycling.

In tandem with overuse, the repetitive nature of these sports--knees bending and straightening again and again--can result in injuries both outside and inside the knee joint. For starters, the iliotibial (IT) band, a tendon that runs from the hip down the outside of the thigh to the outside of the knee cap (patella) can become inflamed through overuse, causing pain on the outside of the thigh and knee.

In addition, any inflammation of the IT band can cause the patella to "track inappropriately and can result in anterior (front) knee pain," explains Emil J. DiIorio, orthopedic surgeon and director of Coordinated Health, a Bethlehem, Pa., orthopedic clinic.

Another source of pain from outside the knee is inflammation of the tendon that connects the patella to the tibia, or shin bone. Called patella tendonitis, you'll feel this pain on the knee cap or possibly just below. Repetitive activities can also wear down the cartilage under the patella, resulting in "chondromalacia," or runner's knee, which causes pain on the kneecap.

## Female anatomy

Unfortunately, just being a woman can also contribute to your knee pain. A woman's typically wider hips create what medical specialists refer to as a wider "Q angle," which is measured from the hip to the center of the kneecap and the top of the lower leg.

The wider angle may contribute to patellar tendonitis or iliotibial band friction syndrome, explains Alecia Good, an athletic trainer with the Boulder Center for Sports Medicine in Colorado. The thigh muscles can pull the patella from a wider angle, outside its normal track.