what you need to know about your knees

Don't knock your knees! These complex and vulnerable joints require tender care. According to the American Academy of Orthopedic Surgeons, about 46 percent of people suffer from some form of knee pain—caused by anything from tripping in a pothole to working out too strenuously. "Women tend to suffer discomfort and injury more often than men," says Mary Lloyd Ireland, an orthopedic surgeon and the director of the Kentucky Sports Medicine Clinic. "A woman's pelvis is generally wider, her stance slightly more knock-kneed—an anatomical difference in lower body alignment that causes the kneecap, or patella, to tilt outward and receive greater stress."

If you're plagued by nagging knees, read on about the most common problems and how to repair them.

Treating Trouble Spots

• It's not unusual to hear your knees crack or click a little. "There's rarely anything to worry about," notes Ben E. Benjamin, executive director of the Muscular Therapy Institute in Cambridge, Massachusetts, and author of Listen to Your Pain. "The sound typically indicates cartilage is rubbing together, or there may be a small, loose fragment of bone moving around in there." A grinding noise, however, may signal a more serious affliction, such as chondromalacia (a wearing away of the Teflon-like cartilage under the kneecap) or a torn meniscus (a shock-absorbing cartilage in the knee). If you hear such grinding when walking or exercising, if you experience a grating sensation, and especially if your knee locks when you bend your leg, consult a specialist—either an orthopedist or an osteopath—who has advanced training in diagnosing and treating musculoskeletal injuries.

• Pain at the front of the knee or on the sides of the kneecap that usually occurs during or after running, hiking, or bicycling, then recedes until your next workout, is probably caused by what is often referred to as runner's knee. This common injury, the result of high-impact aerobic exercise, is known technically as patella tendinitis, actually a strain or partial tearing of the tendon that crosses over the kneecap. "The dull ache surrounding the knee that's indicative of tendinitis is most noticeable when you're climbing or descending stairs," comments osteopath Leonard Wilkerson, medical director of the Center for Sports Medicine in Kissimmee, Florida. The pain usually develops gradually and worsens with increased activity.
KNEES (continued)

ies—custom-made arch supports worn in your shoes—are often effective in placing feet in proper alignment, thereby centering the knee over the foot. Treatment may also include surgery or corticosteroid injections, which may alleviate the problem for some time.

- If you experience great pain deep under the kneecap when you squat to pick something up or kneel to scrub the floor, you're probably suffering from bursitis of the knee—meaning you have an irritated and swollen bursa, one of several crushable fluid-filled sacs that cushion tendons and ligaments as they rub over bones. How did you get it? Experts aren't sure. "We do know, however, that if the bursa is injured—you've fallen down and landed on a bent knee, say—it swells to protect itself against harm," comments Benjamin. In addition to pain, there may be occasional swelling and tenderness on top of the kneecap.

Resting or completely abstaining from painful activity will sometimes relieve discomfort—but not always. The one thing that does seem to help is a steroid injection; often, a few such shots are needed to eliminate inflammation.

- When people talk about a "burn knee," they're likely referring to pain at the inner side of the knee that mysteriously comes and goes. The medical term is medial collateral ligament sprain, and more people suffer from this mishap than from any other knee ailment. A sprain occurs when one of the fibers are damaged; injury may be mild, moderate, or severe (in the last case, the ligament that holds your leg together by connecting the thigh and shin bones on the inner side actually tears in half). A sprain can suddenly knock you off your feet, and you might actually hear a snap, followed by pain, perhaps some swelling, and subsequent stiffness. Or you may notice a growing discomfort over a few weeks' time as you play tennis or run in the park—usually at the start and after you've finished. (During the activity itself, your knee may not hurt because the ligament has warmed up.) This type of injury will often heal on its own but then form scar tissue that can pull away from the bone during strenuous workouts and cause renewed pain.

If you have sudden intense pain and swelling, see a doctor, advises Dr. Wilkerson. Mild to moderate sprains may require deep massage or physical therapy. Steroid injections are helpful in reducing inflammation and preventing the buildup of scar tissue. Sometimes the ligament is torn, but before consulting an operation, get a second opinion to be sure the diagnosis is correct. Today, knee surgery is often performed via arthroscopy, a procedure that allows the doctor, using a pencil-thin tube equipped with a lens that transmits images onto a TV screen, to look directly into the joint and perform repairs via tiny incisions. Depending on the extent of the problem, you receive general, spinal, or local anesthesia, and the operation is usually performed on an outpatient basis.

- Outer-knee pain, slightly to the front, also indicates a sprain or tear, but the affected area is the lateral coronary ligament, which holds the meniscus cartilage in place. Pain may be sharp if you suddenly come down on your knee and twist it, but more likely you'll feel a dull ache. The injury is typically a result of constant running on hard surfaces, and those with poor knee-foot alignment are especially vulnerable. If a tear is involved, you'll experience buckling and weakness.

To soothe discomfort, try icing the area and limiting your activity for a week or two. If your knee swells, locks, or collapses, consult a specialist, who will probably prescribe four to five weeks of deep massage or steroid injections. A torn ligament will require surgery. (Knee buckling may also indicate a tear of the anterior cruciate ligament, which runs through the center of the joint and can be repaired only through reconstructive surgery.)

Preventing Problems

There's also plenty you can do to reduce your chances of knee injury:

- Strengthen quadriceps. Strong thigh muscles keep your knee in position. Orthopedic surgeon Mary Lloyd Ireland suggests doing half-squats (as long as you don't feel any pain) or using a leg-press machine. Consult with a qualified trainer to be sure you're working out properly.

- Take to the hills and stairs to strengthen both quadriceps and hamstrings (the muscles at the back of the thighs).

- Be extremely careful if you already have knee trouble. Avoid kneeling and full squats, and climb hills slowly—such exercises compound stress to the joint and ligaments.

- Ride a bike—either outdoors or stationary—for twenty to thirty minutes three times a week. The seat should be high enough so you don't have to bend your knees too much—and go for a low gear.

- Join a water-aerobics program. You'll get all the benefits of strengthening without the usual stress on joints.

- If you must run, do so on a soft track to minimize impact on knees. If you have to run, do so on a soft track and go for a low gear. Also, slow up when going downhill.

- Wear shoes appropriate to the sport. Don't jog in tennis sneakers or those with poor knee-foot alignment are especially vulnerable. If a tear is involved, you'll experience buckling and weakness.

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