Optimal Health University™

Presented by Dr. Alan Cranton, DC, ND

Chiropractic Prevents Knee Injuries

Many researchers believe that the knee is the most complex joint in the human body. It is also the most imperfect and easily injured. However, Dr. Cranton teaches patients how to keep knee joints in top form and ward off knee injuries with all-natural approaches.

Addressing the Source of Knee Injuries

Knee injuries stem from many different sources. Read on to learn about these sources and how chiropractic can help address them.

ACL, MCL and Meniscus Problems

According to researchers, the three most common knee injuries occur at the anterior cruciate ligament (ACL), the medial collateral ligament (MCL) and the meniscus. "The ACL is located inside the knee joint and stabilizes the joint by preventing the shinbone (tibia) from sliding forward beneath the thighbone (femur). A hard twist or excessive pressure on the ACL can tear it, so that the knee gives out and can no longer support the body."

The MCL, located inside the knee, is another crucial knee stabilizer. MCL injuries often occur simultaneously with those affecting the ACL.

The meniscus "is a wedge-like rubbery cushion where the major bones of your leg connect." The meniscus "helps the knee joint carry weight, glide and turn in many directions. It also keeps your femur (thighbone) and tibia (shinbone) from grinding against each other."

While athletes often injure their ACL, MCL and menisci through twisting, pivoting and cutting motions that stress the knee joints, older people may suffer from knee injuries simply through the degenerative wear and tear of life. Remember that proper shoes and equipment — as well as ensuring that your floor surfaces are even and clutter-free — will reduce injury (*Sports Med* 2006;36:635-41).

Spinal Misalignment

Although not directly connected to the knees, misaligned spinal bones (vertebrae) can wreak havoc on body posture and spark a condition known as ***vertebral subluxation***.

How do vertebral subluxations affect the knees? Sacroiliac (SI) and lumbar (low-back) subluxations may affect hip and, in turn, leg alignment, making one leg "shorter" than the other. This puts disproportionate strain on the entire lower body, including the knees.

Dr. Cranton uses safe, all-natural maneuvers known as ***chiropractic adjustments*** to care for patients with this all-too-common condition.

Hip Misalignment

Clinical evaluation shows that anterior knee pain (AKP) — at the front of the knee — is typically associated with SI joint dysfunction. This critical joint is located next to the spine and connects the sacrum (the triangular bone at the bottom of the spine) with the illium (pelvic bones).

The theory is that SI dysfunction may contribute to muscle inhibition, leading to knee pain. In a study of 18 patients with substantial muscle tightness and related knee pain, all showed significant improvement after chiropractic adjustment to the SI joint (*J Manipulative Physiol Ther* 1999;22:149-53).

A subsequent study involving 28 patients with AKP produced the same positive results (*J Manipulative Physiol Ther* 2000;23:76-80).

Luckily, Dr. Cranton corrects SI dysfunction with chiropractic adjustments to the bones of the low back and pelvis.

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Osteoarthritis

Osteoarthritis (OA) erodes protective cartilage in knee joints. When this occurs, bones rub against each other, causing pain, bone spurs and degenerative changes.

Restricted movement is a major instigator of OA. Fortunately, regular chiropractic care optimizes range of motion, preventing OA.

"Knock Knees" and "Bow Legs"

The causes of knock knees and bow legs are quite complex. While most children outgrow these conditions, they may instigate future knee problems lasting into adulthood (*Clin Orthop Relat Res* 1990;258:191-203).

A study of school-age girls between the ages of 7 and 11 concluded that knee structure may alter posture and negatively impact "the quality of life during childhood and adulthood." That's why it's essential to understand the importance of posture. Fortunately, regular chiropractic visits help maintain optimal posture and healthy knees (*Clinics* 2005;60:9-16).

If such issues of the knee joints do not correct naturally by the age of 10, there are medical treatments available. However, doctors warn that children with serious knock knees "are almost always somewhat obese," yet another reason why proper diet and weight are essential components to maintaining one's health. A healthy weight is more likely to support a healthy posture and healthy knees (*Br Med J* 1976;1:826).

Osgood-Schlatter Disease

"Osgood-Schlatter disease is a generally benign, self-limited knee condition most commonly found in rapidly growing and athletically active adolescents." (*Am Fam Physician* 1990;41:173-6.)

Warning signs include tenderness in the knee area, as well as pain and swelling.

"Symptoms are exacerbated with sporting activities that involve jumping (basketball, volleyball, running) and/or on direct contact (e.g., kneeling)." The good news is that almost all "patients respond well to nonoperative treatment that includes rest, icing, activity modification and rehabilitation exercises." (*Curr Opin Pediatr* 2007;19:44-50.)

Additional All-Natural Approaches

Beyond regular chiropractic care, the following are additional tactics for keeping your knees healthy and injury-free.

Add Antioxidants to Your Diet

Antioxidants are chemicals in foods that scavenge for and destroy disease-causing free radical chemicals. A cross-sectional study in Australia examined the effects of antioxidants on knee structure and discovered that fruits and vitamin C can reduce "the number of bone marrow lesions …, which are important in the pathogenesis of knee osteoarthritis." It may be that one of the best ways to prevent osteoarthritis is through diet (*Arthritis Res Ther* 2007;9:R66).

Seek Out Supplements

Supplements are another way to stave off knee pain associated with trauma or osteoarthritis, but not all of the supplements on the market are effective. Research does support the use of some supplements. For instance, organic sulfurs like MSM and DMSO may be effective for pain relief and prevention (*Altern Med Rev* 2002;7:22-44).

Glucosamine and chondroitin are other products that may be effective for those with moderate to severe knee pain not caused by osteoarthritis (*N Engl J Med* 2006;354:7).

Remember to consult with your doctor before taking any antioxidant or supplement.

Embrace Exercise

Exercise is also vital to maintaining healthy bones and knees.

Even impact sports, which are often thought to cause knee pain, may actually prevent knee osteoarthritis, when training is not done to excess. For instance, in one study on long-distance running, researchers concluded that, for people who do not have any previous injuries, "long-distance running might even have a protective effect against joint degeneration." (*J Am Ostopath Assoc* 2006;106:342-5.)

Regular chiropractic appointments keep the body in top shape, enabling patients to stick to fitness routines, which prevent not only knee injuries, but also a plethora of other ailments.

Caring for Knee Injuries

If knee injury does strike, immediately follow the "RICE" protocol. After RICE, call the office to schedule an appointment.

R = Rest the knee from the painful activity.

I = Ice the affected area for 20 minutes, three times a day.

C = Compress the painful area with an elastic bandage.

E = Elevate the leg.

Beware of medications used to relieve knee pain, which often do more harm than good. Injections of lidocaine (cortisone), for instance, "accelerate the degenerative changes," in turn leading to osteoarthritis (*The Knee* 2006;13:445-50). Nonsteroidal anti-inflammatory drugs (NSAIDs) are linked with intestinal disorders and some chronic conditions.