**HQBK Blog**

*Summary – Knee injuries are caused by force from sudden twisting or bending or a direct blow to the joint. This blog discusses common knee injuries and treatment options.*

**Common Knee Injuries and Treatment Options**

The knee is a fragile and sensitive joint which plays a vital role in the body’s stability and motion. The knee is made up of many structures and these can be severely injured by a traumatic event or disease. Injuries generally occur due to twisting or bending force applied to the knee or a direct blow suffered while playing sports, or by a sudden fall or accident. In addition to sudden injury, repetitive overuse and underlying medical conditions like osteoporosis can cause **knee pain**. There are different types of knee injuries all of which involve various symptoms including pain, swelling, and stiffness. Injury to the knee can cause instability and become debilitating if not treated quickly. Fortunately, effective nonsurgical **knee injury treatment** is available in established pain management and rehabilitation centers in Brooklyn, NYC.

**Common Injuries of the Knee -- Symptoms and Causes**

Injuries to the knee are mainly defined by the affected anatomy of the knee and the mechanism that caused the injury. Let’s take a look at some common knee injuries –

* **Sprains** - A sprain is an injury to the ligaments that hold the knee together. Sprains are graded by the amount of stretching or tearing of the ligament fibers and how much instability it causes. Ligament tears include - injuries to anterior cruciate ligament (ACL), posterior cruciate ligament (PCL), lateral collateral ligament (LCL) and medial collateral ligament (MCL). ACL injuries occur as a result of a twisting or pivoting movement. PCL injuries are the result of a powerful force such as a football player falling on a knee that is bent. The LCL runs along the outside of the knee joint and stabilizes the knee so that the bones do not slide from side to side. A common injury among athletes, MCL sprain occurs due to a blow to the outside of the knee, which forces the knee inward.
* **Strains** – Strains occur when the tendons or muscles surrounding the knee are stretched, usually due to hyperflexion or hyperextension of the knee. Strains can cause pain outside the joint as well as dysfunction of the normal range of motion of the knee.
* **Tendinitis** - Tendinitis refers to inflammation or irritation of a tendon (the thick fibrous cords that attach muscle to bone) that connects the kneecap to the shinbone. Also known as jumper's knee, tendonitis is common among athletes who frequently jump. However, any physically active person can be at risk of developing this condition.
* **Bursitis** – This is a painful condition that affects the bursae - small, fluid-filled sacs that cushion the bones, tendons and muscles near your joints. Bursitis occurs when bursae swells and become inflamed with overuse or repeated pressure from kneeling. Most cases of bursitis respond well to self-care measures. However, in some instances, antibiotics or aspiration (a procedure that uses a needle to withdraw excess fluid) may be required.
* **Runner’s knee** - **Patellofemoral pain** syndrome or runner’s knee is one of the most common causes of knee pain in young athletes. It is caused by overuse of the patellofemoral joint (the joint between the kneecap (patella) and thighbone) -- causing pain in the front of the knee.
* **Meniscal tears** - One of the most frequently occurring cartilage injuries of the knee, meniscal tears generally occur when the knee twists or pivots. Symptoms include pain, stiffness, swelling, locking, and decreased range of motion. This type of knee injury is common in contact sports like football as well as noncontact sports requiring jumping and cutting such as volleyball and soccer.
* **Fractures and dislocations** - Knee fractures are usually the result of trauma such as falling directly on the knee, repetitive stress injuries, osteoporosis and tumors. Dislocation is the displacement of a joint from its normal position, which is usually caused by a blow, fall or other trauma. Symptoms include loss of motion, swelling and pain and sometimes, a visibly out of place joint.
* **Cartilage injuries** – Cartilage, the tough, flexible tissue which covers the surface of joints, can get damaged as a result of a sudden injury, such as a sports injury, or gradual wear and tear (osteoarthritis). Symptoms include – knee joint pain, swelling, stiffness and clicking or grinding sensation.
* **Chondromalacia patellae** - This condition occurs when the cartilage on the undersurface of the patella (kneecap) deteriorates and softens. It is the result of repetitive wear and tear of the kneecap that can occur due to acute injury to the patella or due to aging. A work or sports activity that puts great stress on the knee increases the risk of developing **chondromalacia patella**.

**Knee Injury Diagnosis, Treatment and Rehabilitation**

Diagnosis will typically begin with a detailed physical examination of the joint, wherein the physician will examine the bones and check whether any of the joints are out of place. Diagnostic imaging tests such as x-ray and MRI scan may be conducted to examine the condition of the bones, cartilage, muscles, ligaments and tendons and the extent of injury. Once the diagnosis is established, a team of pain management professionals will collaborate to develop an appropriate treatment plan.

Knee injuries that are not severe can be effectively treated without surgery. The first course of action is rest, application of ice packs and a compression bandage. Most minor injuries improve with rest (after two to three weeks). However, if the pain persists beyond three weeks despite these measures, medical treatment will be necessary.

Multispecialty **pain management centers in Brooklyn**, NYC offer effective nonsurgical treatment modalities to address chronic pain symptoms. Nonsurgical modalities used in knee injury treatment include – **physical therapy**, injections, anti-inflammation medications, TENS (Transcutaneous Electrical Nerve Stimulation), and Game Ready Cold Therapy.

**Exercises to Strengthen the Knee Joint**

**Physical therapy** for knee injury will include exercises to strengthen the muscles and improve flexibility. Strengthening exercises help build up the muscles around the joints. Strengthening the muscles around the knee such as the quadriceps and hamstrings will reduce stress on the joint and help it absorb shock. Gentle stretching or flexibility exercises stretch the muscles in order to restore range of motion, reduce muscle soreness, and prevent injury. In addition, patients will be educated on how to manage injury when it occurs and how to prevent re-injury. This will help prevent potential damage and disability in the long-term.