

# SAINT FRANCIS SPORTS MEDICINE

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- ⊕ Overuse Injuries Generate Knee Pain for Many Athletes
- ⊕ Rest Is the Most Effective Treatment for Tired Knees
- ⊕ Taking Steps to Prevent Overuse Knee Injuries Is the Best Medicine

## Overuse Injuries Generate Knee Pain for Many Athletes

Knee injuries are the bane of athletes in virtually every land-based sport, with many brought on by overuse or inadequate preparation as opposed to catastrophic injuries such as a torn anterior cruciate ligament (ACL).

“For all of the demands that athletes place on their knees, the structures that support them are really rather fragile,” says David Enderle, ATC, certified athletic trainer at Saint Francis Medical Center. “Early identification of potential injury and proper treatment are keys to minimizing the effect on an athlete’s performance.”



David Enderle, ATC

**Tendinitis of the Knee** – Also referred to as jumper’s knee, this condition is common with volleyball and basketball players, as well as track and field jumpers. Overuse of the quadriceps muscle to extend the leg causes pain in the patellar tendon, just below the knee. Quadriceps tendinitis pertains to pain in the tendon above the knee. In either case, the athlete may experience inflammation from the irritation.

**Osgood-Schlatter Disease** – This condition is common in younger athletes, as it occurs while the athlete is still growing. This overuse condition causes pain and inflammation over the bump on the front upper part of the shinbone, just below the knee where the patellar tendon attaches.

**Knee Bursitis** – While possible with any sport, this overuse condition is most common with baseball and softball catchers and wrestlers because of excessive kneeling. Bursa sacs contain fluid used to reduce friction between surfaces of the knee. Inflammation of the bursa sac causes pain within the sac, but not to the structural knee itself.

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**IT Band Syndrome** – The iliotibial (IT) band of fibrous tissue that runs down the outer thigh is the source of lateral knee pain for many runners and cyclists. The IT band runs from the hip to just below the knee, inserting into the shinbone to provide stability to the outside of the knee joint. Athletes typically experience pain on the outside of the knee just above the joint, although discomfort is possible anywhere along the length of the band.

**Runner's Knee** – As the name implies, this condition is common with distance runners, but it can affect athletes in any sport that involves running. Athletes feel pain behind or around the kneecap due to improper gliding in a groove in the thigh bone. The condition may reveal itself with a clicking sound when straightening the knee, often caused by the kneecap pulling to one side and creating friction with the adjoining cartilage.

For more information, please call the Sports Medicine team at Saint Francis Medical Center at **573-331-5153**.

## Rest Is the Most Effective Treatment for Tired Knees

As much as athletes and coaches may detest the thought, rest is the primary component of any treatment for overuse injuries.

“There is a reason we refer to these injuries as overuse injuries,” says David Enderle, ATC, certified athletic trainer at Saint Francis Medical Center. “The body needs help in healing itself, and the best thing an athlete can do is reduce the activity that is causing the pain.”

Rest, ice, compression and elevation – the common RICE strategy – is the best place to start in treating overuse knee injuries. Athletes should avoid activities that cause pain for at least a few days, and only gradually return as discomfort allows. Cease the activity if pain returns.

Apply ice wrapped in a cloth often in the early stages of treatment, and then every few hours in succeeding days. A cold, wet towel between the skin and the ice pack will penetrate more deeply than a dry cold. Elevate the knee above heart level to further reduce inflammation.

Wrapping the knee in an elastic bandage can limit swelling and relieve pain, while also helping to secure an ice bag. Monitor the leg to make sure the wrap is not cutting off circulation, and remove the wrap before bed.

The application of heat after the swelling subsides can help increase blood supply to the injured area and promote healing. As with cold, moist heat penetrates better than dry heat. Apply heat for about 15 minutes several times per day, and wait at least an hour in between treatments. Never apply heat to joints that remain inflamed, as heat will worsen that condition.

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## Taking Steps to Prevent Overuse Knee Injuries Is the Best Medicine

Preventing overuse knee injuries is a much easier task than recovering from them, and some simple exercises can go a long way toward keeping athletes on the field rather than in the training room.

Strengthening the quadriceps and hamstring muscles that support the knee is a good first step. Tendons, ligaments and cartilage hold together the knee structure, meaning athletes are wise to focus on the large muscles of the upper leg in bolstering this critical joint.

“Investing the time to properly warm up prior to intense running and jumping activities can help in the prevention of overuse knee injuries,” says David Enderle, ATC, certified athletic trainer at Saint Francis Medical Center. “Adequate blood flow to muscles and other structures helps prepare the body for peak performance. Younger athletes are more likely to skip this step in workouts or competition.”

Early in the season, encourage athletes to slowly increase the duration and intensity of any new motions and activities. Limit high-impact and explosive activities such as sprinting and jumping to every other day to give the body a chance to recover.

Since knees are weight-bearing joints, heavier athletes may be more prone to injury. This dynamic is another reason to concentrate on fitness and overall muscle tone. The effect of extra weight on the joints can be three to six times that of standing still when adding any type of activity to the mix.

Finally, proper footwear with adequate cushioning can help absorb the shock of foot strikes. Specific shoe designs exist that can minimize the effects of overpronating in the foot and ankle, preventing excessive rotation of the lower leg against the knee. This is particularly important for distance runners because of the repetition of strides during the course of training.

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