

It does not need to be taken during school or right before workouts. Ibuprofen should be taken three times a day. Anti-inflammatory medicine should be taken for 10 to 14 days to allow the medicine to build up to therapeutic levels in the body. Taking medicine infrequently allows the medicine levels in the system to drop, which decreases its effectiveness.

Activity Modification: Because Osgood-Schlatter disease is rarely a serious problem and does not involve the joint, activities often do not need to be stopped completely. Minimizing certain activities, such as sprinting, jumping or squatting during a workout, may lessen the discomfort. For sports where a direct blow to the knee is possible, such as football, basketball, soccer and lacrosse, a knee pad may offer protection.

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The Children's Healthcare of Atlanta Sports Medicine program offers medical, orthopaedic and rehabilitation services for student athletes at the middle school, high school and elite levels.

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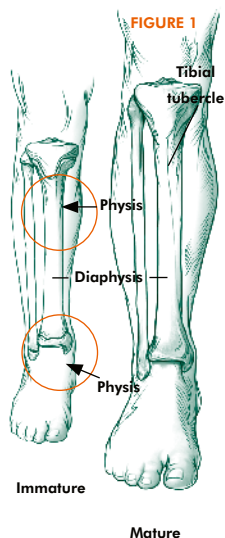
Osgood-Schlatter Disease

Osgood-Schlatter disease is an overuse condition of the knee, frequently diagnosed in growing and active athletes. The condition results in pain and swelling in the area below the knee on the upper part of the tibia (shin bone). It is commonly seen in preteen and teenage boys and girls when they are at the peak of their growth potential.

Osgood-Schlatter disease involves a bump or knot that arises from the upper end of the shin bone, just below the knee. It causes pain with a lot of rigorous activities, particularly running or jumping.

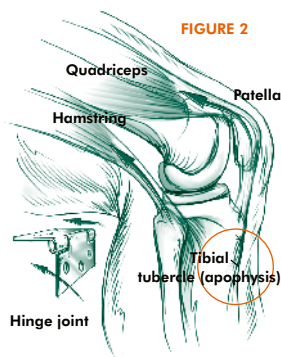
Osgood-Schlatter disease occurs at the insertion of the quadriceps mechanism (thigh muscle and tendon) into the tibia (shin bone). The muscle inserts into the patella (knee cap) and from there, the patellar tendon runs down to one of the apophyses (growth centers) called the tibial tubercle (Figures 1 and 2). The knee is a hinge joint.

The quadriceps pull the tibia forward (extension) while the hamstrings pull the tibia backward (flexion). This produces the rhythmic and often rigorous back and forth motion of walking or running. In the case of Osgood-Schlatter disease, the pull of the patellar tendon overworks the apophysis of the tibial tubercle. This produces an inflammation that is uncomfortable. In addition, the body begins to lay down more bone to reinforce the area and the prominence (that all of us have) begins to enlarge.



Are X-rays Necessary?

X-rays may be done to confirm the diagnosis or to exclude other problems. Often, the diagnosis is made based on clinical information and the doctor's experience. X-rays are more likely to be ordered if the condition affects only one side, or if there are other factors raising your doctor's concern to other possible diagnoses.



What Can Be Done?

Treatment is focused toward decreasing the symptoms. The majority of cases respond quickly by applying ice to the knee area, modifying activity and taking anti-inflammatory medicine for 10 to 14 days.

In some instances, a knee pad or sleeve may be used to apply pressure, provide support and protect the tender area from being bumped.

There are rarely long-lasting side effects of Osgood-Schlatter disease. In a very small percentage of cases, a tiny piece of bone forms in the end of the patellar tendon. This bone fragment can be painful and may require removal through a minor outpatient surgical procedure.

While the symptoms can be very frustrating to the active, competitive athlete, reassurance and symptomatic treatment usually are adequate in managing the condition.

Relief Treatments

Physical Therapy: Physical therapy may be ordered by your doctor to instruct the athlete in proper quadriceps and hamstring stretching and strengthening exercises.

Ice: Icing can be a very effective anti-inflammatory treatment. The best time to apply ice is immediately after a workout, such as the car ride home from the game or practice. One effective way to ice is to apply an ice cup massage. Fill several plastic foam cups with water and freeze them. When frozen, tear off 1 inch around the cup's rim to create a frozen snow cone. The ice should be applied directly to the sore area in a circular massaging motion until the area becomes numb, usually about 10 to 15 minutes. This type of massage can be repeated every 60 to 90 minutes, several times a day.

Medicine: Nonsteroidal anti-inflammatory drugs (NSAIDs) can be another effective treatment. Your doctor may suggest an over-the-counter medicine, such as ibuprofen (Motrin[®], Advil[®]) or naproxen (Aleve[®]) or prescribe medicine. For young athletes who can swallow pills, naproxen works well because it needs to be taken only twice a day (morning and night).