

Osgood-Schlatter Disease

What is Osgood-Schlatter Disease?

Osgood-Schlatter refers to a condition occurring during adolescence that causes pain, swelling and soreness on an area of the upper shin bone (tibia) near below the knee cap, called the tibial tuberosity. The medical term for this condition is tibial tubercle apophysitis.

During a certain period of the adolescent growth spurt, the tibial tuberosity is vulnerable to overuse when a child is involved in a lot of running and jumping activities. The kneecap tendon places continuous traction on the growing bone, which can lead to inflammation and even calcification in the area of the upper shin/knee.

What are the signs and symptoms?

Young athletes complain of pain with activity and tenderness over the upper shin bone. There is often a noticeable bump or area of swelling over the tibial tuberosity. The bump can be painful to touch and it hurts when it is bumped or hit. The pain and swelling often improve with rest.

How do you diagnose it?

The diagnosis of Osgood-Schlatter is based on the classic history of the disease, physical examination, and occasionally an x-ray of the knee. The common history is one of activity-related pain in athletes whose bones are still growing rapidly.

Examination usually reveals swelling and tenderness over the tibial tuberosity. Radiographs of the knee are sometimes obtained to take a closer look at the growing area of bone, or to investigate for other causes of knee pain.

How do we treat it?

Osgood-Schlatter is treated by controlling the pain. This condition can be frustrating, as the child is prone to this pain during the length of their growth spurt (usually around 2 years). Once the growth spurt is over, the pain should resolve. In the meantime, the child may choose to participate in less activity to avoid the pain. This should be encouraged based on the pain, but the child should be allowed to return to activity once the pain is under better control.

Placing an ice pack over the painful area can be helpful. For severe pain, over the counter pain medicine may also be considered. Physical therapy and stretching the muscles around the knee, such as the hamstrings, helps to protect the knee and are recommended. Knee-bracing helps some patients.

Who gets it, and can it be prevented?

Osgood-Schlatter only occurs during a certain period of adolescence, when the tibial tuberosity is going through a rapid growth spurt. In girls, this typically occurs around the ages of 10 to 12, and in boys between ages 12 to 14.

Osgood-Schlatter is more common in active, athletic children. This condition is difficult to prevent completely, but modifying the amount of activity when a child is experiencing pain will help.

References: Children's Hospital Colorado Sports Medicine Program for young athletes, American Academy of Pediatrics, American Medical Society of Sports Medicine