



Osgood-Schlatter Disease

What is it?

Osgood-Schlatter disease is a condition that affects growing children who exercise. It is caused by traction of the muscle-tendon unit at the front of the thigh on the growth plate at the top of the shin (traction apophysitis is the medical name for this phenomenon). The predisposing factors include rapid growth and high levels of physical activity, particularly running and jumping.

What are the symptoms?

Osgood-Schlatter disease presents as a gradual onset of pain below the kneecap. The pain is usually worse with running and jumping activities. Climbing stairs and direct pressure over the sore area will also worsen the symptoms. The pain improves with rest. It may be associated with a discrete area of swelling below the kneecap. Sometimes both knees are affected.

Who gets it?

This condition is more common in boys than girls and it tends to affect girls between the ages of 10 and 12 and boys between the ages of 12 and 14. It is more common in children who are very active.

How is it diagnosed?

Management of this condition involves establishing the correct diagnosis. This can usually be made on the basis of the history and findings on physical examination. X-rays are usually not required

What is the treatment?

Limitation of running and jumping activities is required until the symptoms subside but it is often not necessary for the child to totally abstain from sport. An exercise program to improve the flexibility of the quadriceps (the muscles at the front of the thigh) should be instituted. This will reduce the traction of this muscle group on the involved growth plate at the top of the shin bone. Ice can be applied to the affected area for 20 minutes after activity or after a day of walking at school. This may help relieve swelling and pain.



Treatment (cont.)

In some cases biomechanical factors may be contributing to this condition (ie. abnormal foot posture, “knock knees”). If this is the case, and the symptoms are slow to resolve with the above measures, it may be necessary to get custom-made orthotics to correct this.

What is the prognosis?

Osgood-Schlatter disease is a self-limiting condition that leaves no residual disability. It can however necessitate a reduction in running and jumping activities for 1-2 seasons until growth rates have slowed. In about 5% of children with Osgood-Schlatter disease an area of calcium may persist in adolescence at the top of the shin. This can cause persistent pain, especially with direct pressure and kneeling. If these symptoms are troublesome and persistent, the calcified area may require surgical excision.

OSGOOD-SCHLATTER DISEASE

Management Plan

1. Reduce running and jumping activities

2. Ice knee for 20 minutes after activity

3. Quadriceps stretches



4. Other:

- orthotics
- physiotherapy
- quadriceps strength program

5. Follow up in: -----