

Osgood-Schlatter Disease

Osgood-Schlatter is a common condition in young athletes that refers to irritation of a growth plate at the knee. It typically occurs in active teens during their growth spurt and resolves after the bone stops growing.

Anatomy

Children have growth plates called *apophyses* where muscles and tendons attach. The patellar tendon of the knee connects the knee cap quadriceps (thigh) muscles to the shin bone at the tibial tubercle (bump below the knee). This growth plate is attached to the shin bone by cartilage and is subject to stress from overuse when the quadriceps muscles repetitively pull while running or jumping.



An x-ray of the knee. The arrow is pointing to the tibial tubercle.

Symptoms

The main symptom of Osgood-Schlatter is pain at the bump below the knee with activity or after a fall. There may also be swelling around or enlargement of the bump. This bump is usually very tender to the touch. Forceful contraction of the thigh muscles can also cause pain. This condition may occur in one or both knees.

Treatment

Treatment is designed to decrease stress at the tendon attachment site. In severe cases, athletes may need to stop or back off from their sport. Ice the injury for at least 20 minutes after activity with either an ice cup or an ice pack. Nonsteroidal anti-inflammatory drugs (NSAIDs) may also help with swelling and pain. A patellar tendon strap placed between the bump and the knee cap may help reduce pain. A knee pad may help protect the area from direct trauma in wrestling, football, volleyball, or basketball. Stretching of the hamstring and quadriceps muscles is also recommended.

Remember

Osgood-Schlatter disease is common in athletes with repetitive stress on the growth plate below the knee. The condition usually resolves on its own as the athlete finishes growing. By treating symptoms and preventing further injury, most athletes can continue to play. In some cases calcification within the tendon can continue to cause symptoms even after growth has finished.

NOTES

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