

IN BRIEF:

Topics in Pediatric Orthopedics

Ow! My Knee! Managing Osgood-Schlatter Disease

By Benjamin Novak, M.D., pediatric orthopedic surgeon

Osgood-Schlatter disease is an inflammatory condition of the anterior knee. Because approximately half of children who experience Osgood-Schlatter disease are athletes, it is often thought of as a sports injury related to overuse. Most at risk are athletes whose activities call for quick changes of direction and repeatedly jumping, running and squatting. Osgood-Schlatter disease is also associated with growth spurts, so children from 9 to 16 years may be affected, particularly at the onset of puberty (for girls, between 11 to 12 and for boys, between 13 to 14). Once adolescents reach skeletal maturity, they are no longer at risk. Typically, only one knee is affected, but approximately one-third of patients will have bilateral involvement.

Making the Diagnosis

During the history, asking about sports activities, any changes in athletic training, levels of pain and its impact on daily activities will be helpful.

Classic symptoms of the condition include focal pain and swelling below the patella, where the patellar tendon attaches to the tibial tubercle. Consider AP and lateral radiographs if there is a suspicion of fracture or infection or if pain is not at the tibial tubercle. Otherwise the diagnosis can be made clinically. If the pain is more generalized around the knee or distal thigh, consider hip pathology. Examine the hips for reproduction of the pain or asymmetry in motion. Hip pain can often be referred to the knee.

Treating Osgood-Schlatter Disease

Initial treatment includes rest, ice and non-steroidal anti-inflammatory drugs (NSAIDs). Often that is sufficient. However, if unresolved, the pain associated with Osgood-Schlatter disease can last for months. Some patients will experience recurrences for several years until they have reached skeletal maturity. Physical therapy that focuses on stretching the hamstrings and strengthening and stretching the quadriceps can be helpful for patients who experience recurrences. Occasionally, people who have recurrent episodes of Osgood-Schlatter disease will develop a knobby looking knee that will remain in adulthood.



Patient may have prominence at tibial tubercle.

When to Refer

If pain persists and interferes with normal activities, the patient can be referred to a pediatric orthopedic surgeon for evaluation.



Benjamin Novak, M.D.

Pediatric orthopedic surgeon Benjamin Novak, M.D., focuses on treating conditions such as fractures, limb deformity, developmental dysplasia of the hip, clubfoot, and other bone and soft tissue conditions. He also treats patients who have a spectrum of neuromuscular disorders such as cerebral palsy.

He received his medical degree from the University of Minnesota Medical School and completed his orthopedic surgery residency at Henry Ford Health System in Detroit, Michigan. He completed a pediatric orthopedic fellowship at Gillette Children's Specialty Healthcare. He is a member of the American Academy of Orthopedic Surgeons and the Pediatric Orthopedic Society of North America.

Key Insights

- Osgood-Schlatter disease is an inflammatory condition of the anterior knee that can be related to overuse, especially among athletes whose activities call for quick changes of direction and repeatedly jumping, running and squatting.
- It is also associated with growth spurts, particularly at the onset of puberty.
- Usually Osgood-Schlatter disease resolves with rest, ice and nonsteroidal anti-inflammatory drugs (NSAIDs).
- Some patients will experience recurrences for several years until they have reached skeletal maturity.

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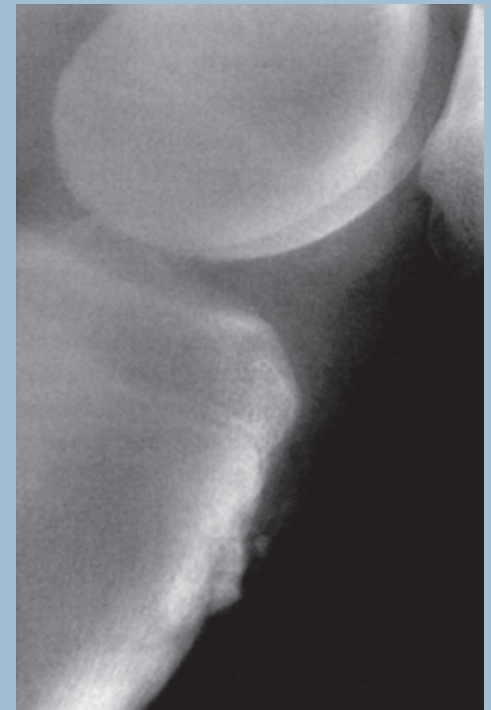
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InBrief has been developed by pediatric orthopedic specialists at Gillette Children's Specialty Healthcare as a resource for primary care providers. If you have comments or questions, please contact Marybeth Fitzgerald, M.H.A., R.N., program manager, Center for Pediatric Orthopedics, at MFitzgerald@gillettechildrens.com.

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Osgood-Schlatter Disease



Lateral radiographs may reveal fragmentation or ossicles at the tibial tubercle.