



## Did you know?

Annually, 3.5 million children under the age of 14 suffer a sports injury?

Did you know that over 25 million children fall within the age-range of those most susceptible to **Osgood-Schlatter disease**? Kids participating in running and jumping sports often acquire this inflammatory condition characterized by pain at the front of the knee, near the top of the shin bone. It is thought that powerful and frequent contracting of the quadriceps muscle leads to pulling at its attachment site. Pain is often the result as the tendon pulls

immature bone from the shin.

Boys and girls are affected equally, especially between the ages of 9 and 16. The pain occurs with activity, is described at the top of the shin bone, and is tender to touch. Athletes involved in sports requiring running, lunging, jumping, and squatting are at greatest risk...especially during a "**growth spurt**".

The most common treatment for this condition involves PRICE: protection, rest, ice compression, and elevation. Reducing the athlete's participation in activity is a must. Prescribed by a physician, NSAIDs or non-steroidal anti-inflammatory drugs can be useful in managing symptoms and associated pain and swelling. Eventually a progressive return to activity is initiated by a health-care provider with a focus on stretching tight quadriceps and hamstrings and strengthening weak hamstrings.

Although not entirely preventable, **five steps can be taken to reduce the risk factors** often associated with Osgood-Schlatter's disease. The steps include:

- **Warm up properly.** Pre-training and pre-game stretching, strengthening, and sport-specific movement rehearsal is important. "Warm" muscles, joints, and tendons are more flexible.
- **Distinguish between muscle pain and injury pain.** Pain not resolving within 24 hours which is located near or at the injury site (joint or tendon attachment site) may be injury-related. Do not reproduce injury pain while training.
- **Strengthening.** The most common strength imbalance in the thigh exists between the hamstrings and quads. Focus should be on strengthening weak hamstrings.
- **Stretching.** The quadriceps should be stretched to lengthen the muscle and reduce injury-site stress. Stretching is most effective after activity for a minimum of 30 seconds.
- **Proper cool-down.** Following activity or sports participation, cooling down with gentle exercise and stretching is essential.



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Sources: *Osgood-Schlatter.com, Mayo Clinic, The Stretching Institute, Modern Principles of Athletic Training*  
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