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## Osgood-Schlatter Disease

### Description, Treatment, and Exercises

If your doctor has told you that your knee pain is caused by Osgood-Schlatter disease (OSD), you are not alone. OSD is common in active, rapidly growing teens. It usually goes away on its own within 12 to 24 months, but during its course, you and your pediatrician can work together to cope with the symptoms.

Taking a break from activity, applying ice, and stretching may relieve some pain. Exercises can strengthen bone, cartilage, and tendons in your knees and make you less susceptible to flare-ups. And if your symptoms are severe enough that you have had to wear a cast or brace, strengthening exercises can help you get back in action.

### What Is OSD?

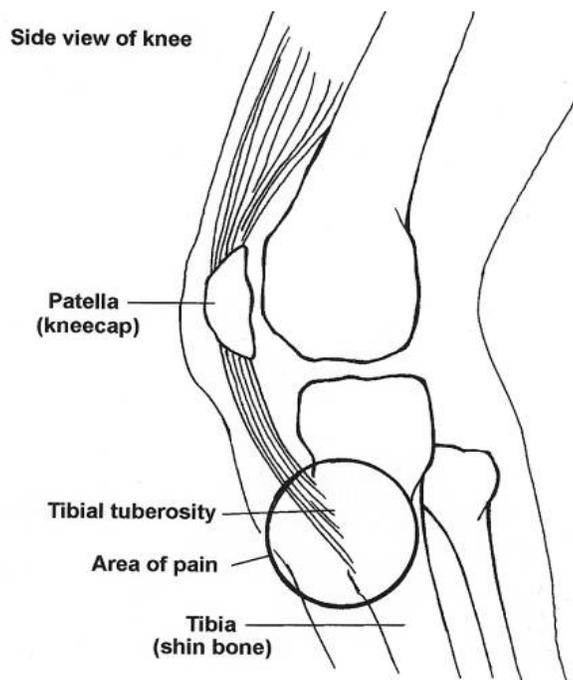
OSD is an inflammation (irritation) where the tendon from the patella, or kneecap, attaches to the tibia, or shin bone (Figure 1). Preteens and young teens are particularly susceptible to stresses in this area, because the bone is growing rapidly at this age. Any activity can cause OSD, but it's more common following activities that involve a lot of jumping and cutting, like basketball, volleyball, soccer, figure skating, and gymnastics.

A typical symptom of OSD is pain in the front of the shin about 2 to 3 inches below the kneecap. There may also be swelling in this area, especially if the condition has been present for several months. Symptoms can range from mild knee pain only during sports to constant pain that makes participation impossible.

### Easing the Pain

If the pain is mild, your child can probably continue to participate in your sport. Using a heating pad or warm, moist compresses at the site for 15 minutes before activity and/or using ice for 20 minutes after activity may help.

If symptoms are severe, treatment may include taking a break from sports or wearing a cast or brace.



If your child does not need a cast or brace, the following stretches for the quadriceps and hamstrings may relieve some of the pain and allow continuing with the sport.

Hold each stretch for 10 seconds, and repeat 10 times for each leg, 2 to 3 times per day.

If there is no improvement after 7 to 10 days of doing the stretching exercises, or if your child's symptoms worsen, consult your pediatrician.

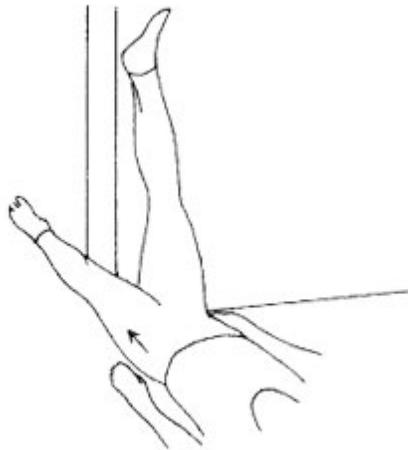
## Osgood-Schlatter Disease Rehabilitation Exercises

You can start stretching the muscles in the back of your leg using the hamstring and calf stretches right away. When you have only a little discomfort in the upper part of your lower leg bone (tibia), you can do the rest of the exercises (see pictures that show each exercise).

- **Hamstring stretch on wall:** Lie on your back with your buttocks close to a doorway, and extend your legs straight out in front of you along the floor. Raise the injured leg and rest it against the wall next to the door frame. Your other leg should extend through the doorway. You should feel a stretch in the back of your thigh. Hold this position for 15 to 30 seconds. Repeat 3 times.
- **Standing calf stretch:** Facing a wall, put your hands against the wall at about eye level. Keep the injured leg back, the uninjured leg forward, and the heel of your injured leg on the floor. Turn your injured foot slightly inward (as if you were pigeon-toed) as you slowly lean into the wall until you feel a stretch in the back of your calf. Hold for 15 to 30 seconds. Repeat 3 times. Do this exercise several times each day.
- **Quadriceps stretch:** Stand an arm's length away from the wall, facing straight ahead. Brace yourself by keeping the hand on the uninjured side against the wall. With your other hand, grasp the ankle of the injured leg and pull your heel toward your buttocks. Don't arch or twist your back and keep your knees together. Hold this stretch for 15 to 30 seconds. Repeat 3 times.
- **Straight leg raise:** Lie on your back with your legs straight out in front of you. Tighten up the top of your thigh muscle on the injured leg and lift that leg about 8 inches off the floor, keeping the thigh muscle tight throughout. Slowly lower your leg back down to the floor. Do 3 sets of 10.
- **Prone hip extension:** Lie on your stomach with your legs straight out behind you. Tighten up your buttock's muscles and lift one leg off the floor about 8 inches. Keep your knee straight. Hold for 5 seconds. Then lower your leg and relax. Do 3 sets of 10.

*Written by Tammy White, M.S., P.T., for McKesson Clinical Reference Systems.*

## Osgood-Schlatter Disease Exercises



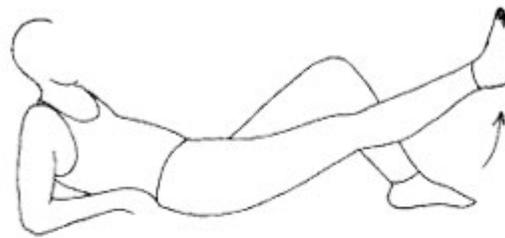
**Hamstring stretch on wall**



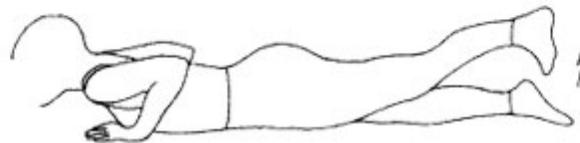
**Standing calf stretch**



**Quadriceps stretch**



**Straight leg raise**



**Prone hip extension**

This information should not be used as substitute for the medical care and advice of your child's physician. Health related topics found on the Andorra Pediatrics web site should not be used for diagnosing purposes or be substituted for medical advice. As with any new or ongoing treatment, always consult your professional healthcare provider before making any changes in treatment or beginning any new treatment. If you have any questions or concerns, please call our office.