

## Patient Information on Osgood-Schlatters Disease

This booklet aims to improve your understanding of Osgood-Schlatters disease and exercises which can help.

### What is Osgood-Schlatters disease?

It is a condition that usually affects those between the ages of 10-15 years who are physically fit and in a 'growth spurt'. The symptoms include soreness and swelling over a bump (tuberosity) which is located at the top of your shin bone (tibial tuberosity). This tibial tuberosity may also increase in size as the condition progresses. It can affect one or both legs.

During a growth spurt bones may grow faster than muscles, which results in the muscles becoming tight. This can result in a pulling force where the muscle attaches to bone.

Activities that require a power contraction of the muscles in front of your thigh (quadriceps muscle) can increase the force and aggravate the symptoms for example running, jumping and squatting.



## Rehabilitation

To resolve this condition flexibility exercises are vital. It is important that you stretch the muscle in front of your thigh (quadriceps) as well as the muscles at the back of your thigh and calf.

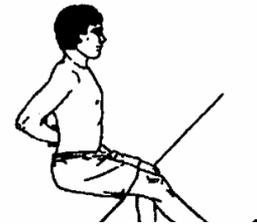
Examples of the exercise include:

1. Stand holding on to a support. Bend one knee and take hold of the ankle. Do not lock the knee of the leg you are standing on. Draw your heel towards your buttock. Tilt your hip forwards so that your knee points towards the floor. Feel the stretch in the front of your thigh. Hold 15 seconds. Repeat 5 times.



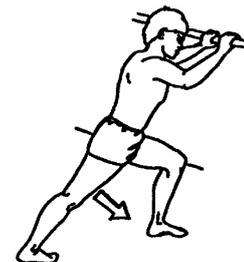
2. Face down with a band around your ankle. Tighten your stomach muscles to keep your lower back straight. Bend your knee and pull the band with both hands until you feel the stretch on the front of your thigh. Keep knees together. When heel touches buttock, maintain this position and aim to lift thigh off the bed to increase the stretch felt. Hold for 20 seconds and then relax.

3. Sit on the edge of the firm bench, so the feet are unsupported. Your back should be straight and your hands in the small of the back to stop slumping. Slowly straighten out your affected leg. Repeat the stretch with the other leg.



4. Lying on your back with a cushion under your head. Pull your knee up to stomach with your hands. Slowly straighten knee to raise foot into the air. A stretch should be felt in the back of your thigh. Hold for 20 seconds and then relax.

5. Stand in a walking position with the leg to be stretched straight behind you and the other leg bent in front of you. Take support from a wall or chair. Lean your body forwards and down until you feel the stretching in the calf of the straight leg. Hold approx. 30 seconds and then relax. Stretch the other leg.



You should carry out these stretches at least 4 times a day, ideally morning and night and especially before and after exercise. Each stretch should be held for 10-30 seconds and repeated 3-5 times.

Do not bounce when stretching, and ease into and out of each stretch. You may find during each growth spurt your muscles become tight. These exercises then need to be performed again and this could continue until growth is complete.

If you experience any pain when stretching please consult your physiotherapist to discuss your treatment.

## General Advice

It is important to reduce or even avoid specific activities, which aggravate your knee pain. When you have regained full muscle stretch your knee pain should be improved. Your physiotherapist will give you the appropriate advice – please seek advice.

It may help to put ice on your knee after performing activities such as running and jumping in order to reduce any pain or swelling. To do this, make sure the ice is in a sealed bag, and then wrapped in a damp towel. Alternatively a bag of frozen peas wrapped in a damp towel may be used. Apply the ice for no longer than 10 minutes at any one time. You can use ice every hour if necessary.

This is a self-limiting condition that will resolve. Once you have been symptom free for 2-4 weeks then a gradual return to all activities is encouraged.

Written by: Mrs A Hatcher, Orthopaedic Physiotherapist Specialist

Edited by: Professor MJ McNicholas, Consultant Orthopaedic Surgeon  
Miss F Rashid, Orthopaedic Registrar

Date last reviewed: April 2016