

# Sinding-Larsen-Johansson Syndrome

Information for patients

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## What is Sinding-Larsen-Johansson Syndrome (SLJ)?

It is a common cause of knee pain in children and adolescents. It is caused by repeated stress of your large thigh muscle tendon where it attaches to the top of your kneecap and shin bone. This stress results in this area becoming inflamed and painful.

## What are the common symptoms?

The most common symptoms of SLJ are:

- Knee pain either during or after participation in sports
- Swelling at the bottom of your kneecap which can be tender to touch
- Reduced knee strength
- Tightness of your leg muscles.

These symptoms usually appear gradually and often after you have had a growth spurt. These symptoms can appear in one or both of your knees.

## What is the treatment?

By following **all** the steps below your knee pain should resolve:

- Please reduce or modify activities that increase your pain for 4-6 weeks to enable the pain and swelling to settle. Try different, more gentle activities like swimming or cycling as it is important to remain active without increase your pain.
- Place some crushed ice in a damp towel and place on the painful area for 10 minutes. Please check your skin regularly during this time to make sure it does not become too cold. Repeat this ice application every 2–3 hours as needed.
- Start a daily stretching programme as detailed on the following page to improve your muscle flexibility.

## Daily Stretching Programme

### 1. Lie face down.

Bend your painful knee back and place your hand around your ankle. Pull your heel slowly towards your bottom until you feel the stretching on the front of your thigh.

Hold for 30 seconds and then relax.

Repeat 3 times in a row, on each leg daily.



### 2. Lie on your back.

Lift your painful leg towards your chest. Place your hands behind your knee (as shown).

Gently straighten your knee until you feel a gentle stretch behind your thigh.

Hold approx 30 seconds and then relax.

Repeat 3 times in a row, on each leg daily.



### 3. Standing Calf Stretch

Stand tall and take a long step forward.

Move your weight forwards but keep the heel of the rear leg on the floor and feel a stretch in your calf. Return to the starting position.

Hold for 30 seconds and repeat 2-3 times each leg.



### 4. Gluteus Stretch

Lie on your back with your legs bent. Place one ankle over the knee of the other leg.

Grasp behind the thigh of the leg on the floor and pull it closer to your chest. Maintain the stretching position while breathing smoothly. Return to the starting position.

Note: You may rest your head on a pillow or on the floor.

Hold for 30 seconds and repeat 2-3 times each leg.



## **Returning to activities**

Once your knees are no longer painful and the flexibility of your legs is much better you can gradually return to your normal activities. You may need to start by just doing part of your training session or game and gradually build up as long as it doesn't increase your pain.

As your knee continues to feel better you can gradually return to your usual activities ensuring you warm up and cool down properly.

## **Further advice**

If your symptoms are not settling, you can contact the physiotherapy department on details below:

Physiotherapy Team  
Therapies Department,  
Royal Hospital for Children and Young People,  
50 Little France Crescent  
Edinburgh  
EH16 4SA

Telephone **0131 3121079**