



Osgood Schlatter's disease

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Osgood Schlatter's disease causes pain just below the knee at the front of the leg. There may be painful swelling under the kneecap. This condition is especially common in children during rapid growth or during prolonged and intense sports while growing. The tensile forces increase, and inflammation may develop or develop at the growth plate (Figure 1). This can cause pain. The place where the tendon (patellar tendon) attaches to the shin bone (tibia) is called apophysis and is part of the growth plateau of the tibia. In children, the apophysis is made up of cartilage and in adults it has changed into bone.

Osgood Schlatter's disease can result from overuse of the knee during growth. Especially sports that put a lot of force on the thigh muscle can cause the tendon to pull hard on the apophysis, which can cause the pain. Especially children who grow quickly and play a lot of sports can develop an Osgood-Schlatter knee: girls are usually between 8 and 12 years old, boys are usually between 10 and 15 years old. Most children have symptoms in 1 knee, some even in 2 knees. However, an Osgood-Schlatter knee may never cause damage over time.

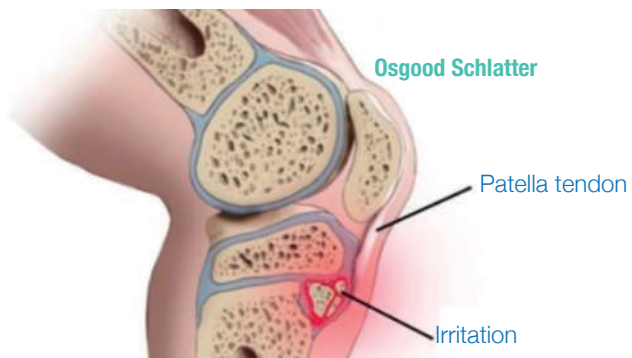
Physical causes for the disease are in summary:

- Rapid growth increases the pulling force on the tendon attachment and can cause pain
- Postural abnormalities of the legs, for example, X-legs
- Muscle weakness of the muscles of the thigh, hip and gluteal muscles
- Shortening of the thigh muscles



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Other causes include:

- Intense sports practice. Especially explosive activities such as jumping, sprinting, spinning can cause pain. When the load is reduced, the complaint may improve spontaneously.
- Excess weight: this causes increased stress on the knee joint.

Symptoms

Symptoms are pain under the knee, at the front of the leg. The spot that hurts may also be thicker; if someone presses on it, the spot can also hurt. When sitting quietly, there is no pain or less pain at all. The symptoms usually occur during or after sports. Especially in sports involving a lot of running and jumping. Cycling, climbing stairs, deep knee bends and sitting on the knees can be painful as well. Symptoms may occur suddenly or gradually and may be present for a long time. Once the growth plate / apophysis is closed, the symptoms almost always disappear on their own.

Treatment

The main focus of treatment is to reduce the pain. It is important that the child does not exceed the pain threshold. Pain is the signal to rest.

With an Osgood-Schlatter knee, the child may still continue to exercise. The usual advice is to perform sport less heavily or less frequently. If sports is jumping and running, do them less often or stop for a while (1 or 2 months), then the child can carefully resume sports if the pain has improved or resolved. Sometimes another sport can be tried for a while, such as swimming or cycling. Children are advised to do a good



warm-up 2 to 3 times a day and a good cool-down for about 15 minutes. You may also use a coldpack or wrap ice in a towel and place it on the knee (however never use the ice directly on the skin).

Medication is usually not necessary. If the child is in severer pain, paracetamol can be given. This usually works well and does not have many side effects. It is not advised to have an injection of corticosteroids or similar drugs. There are no studies that have shown that this helps and an injection can have relevant disadvantages.

The symptoms usually last a few months, but sometimes even as long as 2 years. They almost always go away when the child stops growing hard.

If it is difficult to return to sports, a physical therapist can help. This may include stretching exercises for the upper leg muscles. By improving flexibility, the pulling force on the tendon insertion can be reduced. Strong muscles can take the load better, the pulling force on the tendon insertion is reduced. By also improving balance, the knee needs to make fewer compensatory movements and the knee is loaded in the most natural direction.

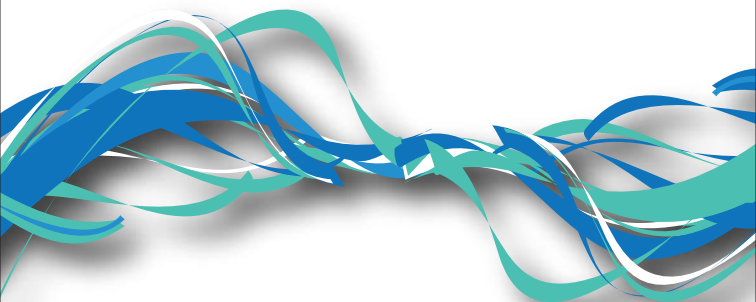
When should a patient return to the doctor?

- If knee pain gets worse as the child exercise less
- Knee pain is present not only when moving, but also when lying in bed
- Development of other symptoms of the knee such as swelling of the whole knee or fever or the whole leg becomes thinner
- If after 4 to 6 weeks the symptoms of the knee have not subsided, it may be that they are still exercising too much.





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