
Anterior Adolescent Knee Pain (Jumper's knee, Osgood-Schlatter, and Sindig-Larsen-Johanssen)

Adolescent knee pain is a catch all phrase that describes a spectrum of injuries that occur around the front of the knee due to growth. Osgood-Schlatter refers to a condition occurring with pain, swelling and soreness on an area of the upper shine bone (tibia) near below the knee cap, called the tibial tuberosity. Sindig-Larsen-Johanssen is a similar problem localized to the lower part of the kneecap (patella).

Jumper's knee is somewhere between and is best associated with the connecting tendon. There are even more conditions that can be associated with this spectrum (symptomatic medial plicae, chondromalacia patella, Hoffa fat pad syndrome, etc). All of these can be caused by the adolescent growth spurt resulting in increased traction or force seen at these vulnerable growing spots during running and jumping activities. It may be considered an overuse injury that leads to inflammation.

Symptoms

Symptoms for adolescent knee pain include:

- Pain with activity
- Tenderness over the affected bone or tendon, described usually with a sweeping gesture implying that the whole knee hurts
- A noticeable bump or area of swelling over the tibial tuberosity in Osgood-Schlatter

Diagnosis

The diagnosis of adolescent knee pain is based on the history of pain, physical examination, and occasionally an x-ray of the knee. Besides the location of pain, one of the most common findings is loss of muscle flexibility in the hamstrings, quadriceps (thigh muscles) and calf muscles.

Treatment

Treatment is primarily based on rest from the offending activities and a stretching program to improve flexibility. If flexibility can be maintained through a daily program, then this condition will not be as frustrating for the family. Without this discipline, the child is prone to pain during the length of their growth spurt in a recurrent fashion. Play may resume once your child is pain free. Surgery is rarely indicated.