

Article 3: Osgood-Schlatters Disease

What is Osgood-Schlatters Disease?



Osgood-Schlatters Disease is actually not a disease at all, it is a condition brought about by repetitive muscular action of the Quadriceps muscles. This in turn tugs on the attachment of the Patella Tendon where it inserts into the Tibial Tuberosity - the bony lump at the top of the Tibia (shin bone). 2. 4.

What causes Osgood-Schlatters Disease?

OSD is most often seen in adolescents who are quite sporty. 5. During periods of growth the long bones, of which the Tibia is one, grow predominantly from the growth-plates which are near the ends of bone. The growth plate is softer than the rest of the bone during growth. The growth-plates for the Tibia are also where the Quadriceps Muscles insert via the Patella Tendon (sometimes called the Patella Ligament) onto the Tibial Tuberosity. The constant tugging exerted by the activation of the Quadriceps Muscles avulses (lifts) this attachment off the Tibial Tuberosity. This causes inflammation and pain on the Tibial Tuberosity and can often be characterised by a tender lump. 1. 3.

(Orthopaedic Surgery, 2013)

What can be done about it?

The condition is not thought to be too serious and often does not require treatment – just rest from activity until the growth-spurt has ended. 5. Reducing the intensity and duration of activity could allow the more committed to manage rehabilitation with periods of rest so that time given to practise is not totally lost. OSD can be quite painful which, in turn, limits the amount of exercise one can do anyway.

Stretches for the Quadriceps Muscles may be useful in re-aligning the healing tendon fibres and stretching muscles and tendons in an effort to limit muscular tension on the Tibial Tuberosity. 4. 6.

The application of ice packs for short-durations of no more than 10 minutes limits swelling especially when the knee is sore or following activity. 2. 3. 4.

Electrotherapy should NOT be used on adolescents or on growth plates and so should never be used on this condition. 5. 6.

The Authors View

The author concurs with most available literature that Osgood-Schlatters is an over use injury affecting mostly adolescents. It is a relatively simple problem to detect with tenderness over the tibial tuberosity and pain on certain activities, most commonly jumping, running and kicking. The problem usually coincides with growth spurts where the growth plate of the tibia has softened and the constant tugging of the quadriceps via the patella tendon avulses the attachment to the tibial tuberosity.

Treatment consists of rest, ice, compression and elevation in the acute phase. A period of either complete rest or minimal activity and gentle stretching of the quadriceps muscles will also help to minimise the tugging.

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