

## Osgood-Schlatter's Disease: an Associated Disorder

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Osgood-Schlatter's disease has been historically treated as an independent lesion affecting the attachment of the infrapatellar tendon to the tibial tubercle. Chiropractic college students are taught about the resultant pathology of the disorder, but there has been little or no tie-in to spinal/pelvic dysfunction or the chiropractic lesion.

This article is intended to illustrate how the chiropractic lesion (in this case spinal dysfunction) can be intimately and absolutely related, and is the origin of cases of Osgood-Schlatter's disease. But in this case it should not be regarded as a disease. The standard scientific medical community would regard it as the result of sudden trauma or strain to the infra-patellar tendon, with deterioration of the tendon's attachment to the tibia. Instead, it can be viewed as the result of repetitive or continuous strain on this tendon attachment by a series of processes or events.

I have described previously in articles for Dynamic Chiropractic, and in my manual *The Connection*, how the AS ilium fixation relates to quadriceps tension. I will briefly review the process involved in created increased tension of the quadriceps tendon.

1. Lumbar subluxation/hypomobile dysfunction occurs as a general rule. Exceptions can arise involving hypermobile dysfunction, such as thoracic hyperkyphosis.
2. Counter-nutation occurs, which is the rotation of one or both ilia in the AS direction, creating AS fixation(s).
3. Resultant increased stress is placed on the buttocks, the hamstrings, and the quadriceps. Naturally, increased stress is placed upon origins and insertions of these muscle masses. These muscles shorten due to continued stress.

In the case of some or many cases of Osgood-Schlatter's disease, it can be called an associated disorder. In this case, it can involve the existence of an L-5 fixation (usual), and/or an AS ilium fixation, and hypertonic and inflamed quadriceps. Hypertonic quadriceps are shortened quadriceps, which tug on the infrapatellar tendon, especially during hip flexion.

The treatment involves proper analysis of spinal and sacroiliac motion through motion palpation. This is an art, but it is exacting analysis if performed correctly. An AS ilium fixation will probably be found on the side of the tibial disorder. An L-5/S-1 fixation will be probable in the greater number of cases. These fixations must be corrected, and I have previously described the analysis and treatment in the references given. Proper therapy modalities will then be needed or recommended.

A brief procedure for treatment would be as follows:

1. Correct the lumbar fixation, usually L-5/S-1. (Occasionally, the lumbar fixation will not have to be adjusted). This is usually done by adjusting the fixation.

2. Verify that the AS fixation is released.
3. Apply electrostim milli-current to the quadriceps muscle (to point of contraction).
4. Apply (+) polarity micro-current across the knee, at the level of the infrapatellar tendon (20-40 amps).
5. Apply massage to the quadriceps muscle mass to soften, lengthen, and break adhesions.
6. Apply pulsed ultrasound at 1.0 to 1.8 w/cm<sup>5</sup> to the quadriceps muscle.

Icing and the use of a brace can be used as deemed appropriate. Repeat the procedures recommended previously as needed, according to the severity of the case. Some cases will resolve completely in one treatment, while others will require more work. In the situation previously described, the AS fixation must be resolved. Varieties of this pattern may exist without AS fixation, but where the quadriceps muscle has been shortened (trauma, etc.), I would still recommend the therapy procedure given above. When the disorder exists simultaneous with an AS fixation on the same side, I refer to it as an associated disorder, rather than a disease or syndrome.

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