Do you have pain on the lateral side of your knee (often diagnosed as iliotibial Band Syndrome)?

Runners, bicyclists, and many other active individuals who experience pain along the lateral side of their knee joint are often diagnosed as having iliotibial band syndrome or iliotibial band friction syndrome. This problem is attributed to a “tight” iliotibial band rubbing on the lateral side of the thigh bone (femur) near the knee joint during running or cycling which results in inflammation of the tissue. The iliotibial band is a fibrous band of tissue on the lateral side of the thigh that lies under the skin and over the thigh muscles. It actually is part of a fibrous “stocking like” tissue that surrounds all the muscles of the thigh, in a manner similar to panty hose. Studies have not conclusively determined whether tightness of the iliotibial band is the cause of lateral knee pain.

Fig. 1. Ober's Test

The primary method for determining tightness of the iliotibial band is using a physical examination test called “Ober’s Test”. This test consists of placing an individual in side-lying with the limb to be tested facing up. The examiner flexes the knee of limb being tested to 90° followed by raising the lower limb upwards and keeping it in line with the trunk. Next, the examiner lowers the limb towards the ground while keeping the thigh in line with the trunk. If the limb stops above horizontal, the iliotibial band is considered to be “tight”, especially if the other side drops below horizontal when tested (Fig. 1).

Our research used lightly embalmed cadavers to determine if Ober’s test findings changed by comparing results between performing the test with the iliotibial band intact versus cutting through the band (horizontally). Additionally, Ober’s test was performed after cutting through the muscles above the hip joint (on the lateral side) and the hip joint capsule to assess whether these tissues had any effect on Ober’s test results.

Results of the study were that the iliotibial band did not have any influence on Ober's test results, but the muscle above the hip joint and the joint capsule did. Therefore, Ober's test does not assess iliotibial band tightness, but likely an assessment of tightness of the muscles above the hip joint (gluteus medius and minimus) as well as the hip joint capsule. While it is unclear what the cause of lateral knee pain is in active individuals, it is clear that the most commonly used test for iliotibial band tightness (Ober's test) may not be measuring what clinicians think it is measuring.

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