

# Bicompartmental Bucket Handle Meniscal Tears

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07/21/2011

## History

Teenage female with knee pain.

## Diagnosis

Bicompartmental Bucket Handle Meniscal Tears

## Discussion

The name bucket-handle is derived from the appearance of the tear. A vertical or oblique tear of an inner segment is displaced toward the intercondylar notch while still attached to the donor fragment at both ends, therefore resembling a handle. The outer segment of the meniscus remains nondisplaced and resembles a bucket.

Bucket-handle tears of the menisci are seen most frequently in younger patients and athlete, often associated with ACL tears. Patients often present with mechanical locking of their knee joint. Bicompartmental bucket-handle tears involving both the medial and lateral menisci are extremely rare. The displaced meniscus fragment can mimic the cruciate ligament and thwart diagnosis. When the cruciate ligaments are intact, a bucket-handle tear of the meniscus can give rise to the "3 cruciate ligament" sign. When bicompartmental bucket-handle meniscus tears are present with intact cruciate ligaments, the rare companion sign "quadruple cruciate" sign may be seen. It is important to note that other low-intensity structures, such as the ligament of Humphry, may also be present in the intercondylar notch on MRIs.

## Findings

MR-Coronal proton and fat-suppressed T2 images show 3 low intensity structures in the intercondylar notch: the centrally displaced posterior horns of the medial and lateral menisci and the intact posterior cruciate ligament. The femoral articular cartilage is subtly thin and fibrillated. On other images, there were complete tear of the anterior cruciate ligament and healing posteromedial and posterolateral corner injuries.

## Reference

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