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MENISCAL TEARS

INTRODUCTION

There are two menisci in each knee. The meniscus on the inside of the knee is **medial meniscus** and the outside of the knee is called **lateral meniscus**. The meniscal cartilages are shaped like crescent moons and sit between the two bones that form the knee, the femur (thigh bone) and tibia (shin bone). The menisci function primarily as **shock absorbers** and secondarily as **stabilizers** in the knee. The medial meniscus absorbs 30% of the load in the medial compartment and the lateral meniscus absorbs 50% of the load in the lateral compartment.

MENISCAL TEARS

The menisci commonly tear when they are caught between the moving bones of the femur and tibia. The menisci have blood supply only to the outer 1/3 peripheral zone, and therefore have a limited ability to heal if torn. Most tears occur in the inner zones of the meniscus because this is the part of the meniscus that gets caught between the moving bones. These inner tears and many of the complex outer zone tears cannot heal.

SYMPTOMS

Pain is the most common symptom of a meniscal tear. The pain is usually located on the sides or behind the knee. **Catching** and occasionally **locking** also can occur. **Swelling** always means there is something wrong inside the knee and is commonly associated with meniscal tears.

TREATMENT OF MENISCAL TEARS

When the meniscus tears, the torn piece no longer has the capability to cushion the bone surfaces. If left alone the torn meniscal piece continues to tear into previously normal cartilage. As a result more meniscus is subsequently lost. In addition, in those meniscal tears that are repairable (longitudinal tears in the outer third) the tears will become unreparable because of additional damage to the meniscus. **MRI** scans are usually diagnostic of meniscal tears with an accuracy of ~90%.

ARTHROSCOPY of the knee is the recommended treatment for meniscal tears. Arthroscopy is a relatively simple surgical procedure that takes approximately 15 minutes. The procedure is done in a surgical center as an outpatient procedure. It is typically done under a light general anesthesia. Surgery is performed through 2 portals or skin incisions 6mm wide (1/4 inch). After the procedure Band-aids are used to close the skin. Crutches usually are not necessary unless a repair of some other procedure is performed.

FUTURE PROGNOSIS

Following a partial menisectomy most patients are able to resume to normal non-sporting activities comfortably in a few days. Generally light sports such as biking is well tolerated in 1-2 weeks. Heavy sports such as running, basketball and tennis usually take longer. The long-term prognosis depends on how much meniscus was lost from the tear. Naturally occurring (aging) arthritis is accelerated depending on the amount of meniscus lost. There are new techniques designed to repair those menisci that are repairable and replace that portion of the meniscus which is lost. Entire menisci can be replaced using cadaver transplants.

Affiliations

Oakland Raiders
Director of
Orthopedic Surgery

San Francisco Giants
Orthopedic Surgical
Consultant

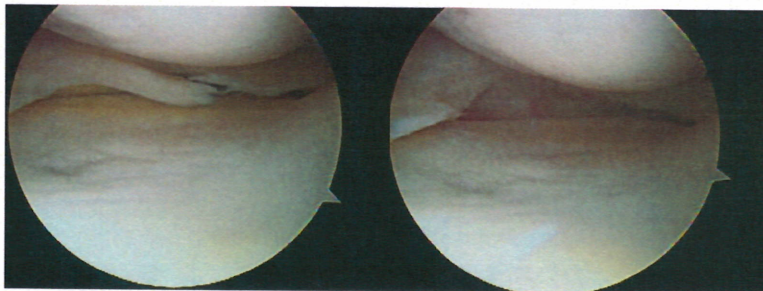
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Surgical photos showing a tear in the meniscus and a picture showing after the torn portion of the meniscus has been removed.