

Discoid Meniscus

Description

- The meniscus is a thick piece of cartilage between the weight-bearing portions of the thigh bone (femur) and shin bone (tibia) that cushions forces across the joint, provides stability to the knee, and nourishes the ends of the bones that make up the knee
- Cartilage is similar to the tissue that provides the structure to the nose or ear
- Each knee has two menisci, the outside one being the lateral meniscus and the inner one being the medial meniscus.
- The menisci are normally narrow crescent-shaped structures that form a “C” and taper towards the center with attachments to the surrounding joint capsule and bone
- A discoid meniscus has a circular, oval, or plate-like configuration that does not normally taper towards its center or form a crescent.
- Due to its increased thickness, a discoid meniscus has a diminished blood supply and in some instances weak joint capsule attachments therefore making it more prone to damage



Causes

- A discoid meniscus is a congenital anomaly (i.e. the individual is born with the irregularity) occurring in 3% to 5% of the general population.
- The true cause is unknown. There may be various genetic or environmental factors that influence the occurrence of the anomaly
- There is a slightly higher predominance in Asian populations
- Though most commonly occurring in the lateral meniscus, it may occur bilaterally in 10% to 20% of affected individuals

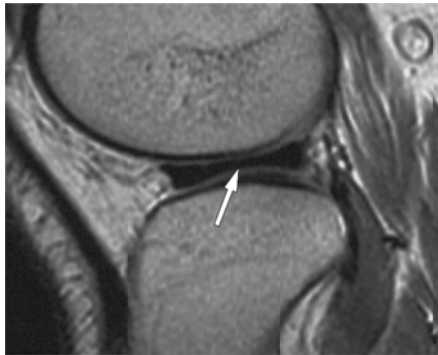
Signs and Symptoms

- A snapping or clunking sensation in the knee with motion
- Pain and tenderness at the joint usually associated with weight bearing on the affected side
- Swelling
- Inability to completely straighten the knee
- Giving way or buckling of the knee

- **Most individuals will never have symptoms** and may never know that they have this abnormality

Diagnosis

- Most discoid menisci are found incidentally
- Since other injuries such as Anterior Cruciate Ligament tears, meniscal tear, or fracture of the knee may present similarly to a discoid meniscus, a typical evaluation includes a physical exam and imaging modalities such as X-ray and Magnetic Resonance Imaging (MRI)



- MRI is the imaging modality of choice and may show joint space widening, abnormal bony alignment, and/or underdevelopment of surrounding bone

Treatment

- If a discoid meniscus is found incidentally and does not cause the patient any complaints, no treatment is indicated
- An injury or tear to the discoid meniscus should be initially treated with rest, ice, bandaging with elastic wrap, elevation above the level of the heart, and pain medications
- The use of crutches while walking until no limp is present is recommended. A period of non-weight bearing on the affected limb is typically not necessary
- Physical therapy is recommended with focus placed on range-of-motion, stretching, and strengthening exercises
- Definitive treatment is with arthroscopic surgery, a type of minimally invasive surgery using a small camera and associated tools to maneuver within and repair the joint. During the surgery the torn part of the meniscus is typically removed or repaired
- Physical therapy is recommended after surgery to expedite healing and return to activities of daily living

