Description

Osteochondritis dissecans is a localized injury or condition affecting a surface of the joint that involves a

OSTEOCHONDRITIS DISSECANS

separation of a segment of cartilage and the underlying bone. This can occur in any joint, although it is most common in the knee, followed by the ankle, elbow, and shoulder. It occurs more often in males.

Common Signs and Symptoms

- Swelling, pain (often comes and goes), aching, giving way, and locking or catching of joints
- Feeling a piece of bone floating in the joint
- Tendency to walk with foot of affected leg pointed outward in cases involving the knee
- Crepitation (a crackling sound) within the joint with motion
- Often, no symptoms (condition is diagnosed when x-rays are taken for other reasons)

Causes

- Unknown, although many theories exist, including, traumatic injury (direct force to the joint), repetitive stress (overuse), loss of blood supply to the bone and cartilage, and abnormal bone formation

Risk Increases With

- Sports involving repetitive force, including distance running, and playing sports year round
- Obesity
- Family history of osteochondritis dissecans
- Bowlegs or knock knees
- Other joints affected with osteochondritis dissecans
- None known

Expected Outcome

The best success of treatment is when treatment is sought before skeletal maturity. If the cartilage is intact, nonoperative treatment is more likely to be successful when the person is still growing. After the patient is fully grown, there is a greater likelihood of it not healing and surgery may be required more often (especially if the piece breaks off and becomes loose within the joint).

Possible Complications

- Frequent recurrence of symptoms, resulting in chronic pain and swelling
- Arthritis of the affected joint
- Loose bodies with locking of the affected joint

General Treatment Considerations

Initial treatment consists of medications and ice to relieve pain and reduce the swelling of the affected joint. For the knee or ankle, walking with crutches until you walk without a limp is often recommended (you may put full weight on the injured leg). Range-of-motion, stretching, and strengthening exercises may be carried out at home, although referral to a physical therapist or athletic trainer may be recommended. Occasionally your physician may recommend a brace, cast, or crutches (for the knee or ankle) to immobilize or protect the joint. For those with persistent pain after conservative treatment or for those with loose fragments within the joint, surgery is usually recommended. Surgery may include arthroscopy to remove the loose fragments, procedures to stimulate healing into the space left empty by the loose fragment, and, when possible, procedures to reattach the fragment (if large enough and not deformed). After immobilization or surgery, strengthening and stretching of the injured, stiff, and weakened joint and surrounding muscles (due to the injury, surgery, or immobilization) are necessary. These may be done with or without the assistance of a physical therapist or trainer.

Medication

- Nonsteroidal anti-inflammatory medications, such as aspirin and ibuprofen (do not take within 7 days before surgery), or other minor pain relievers, such as acetaminophen, are often recommended. Take these as directed by your physician. Contact your physician immediately if any bleeding, stomach upset, or signs of an allergic reaction occur.
- Strong pain relievers may be prescribed as necessary. Use only as directed and only as much as you need.

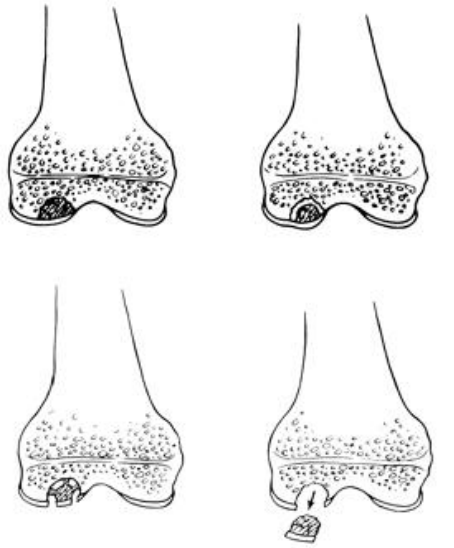
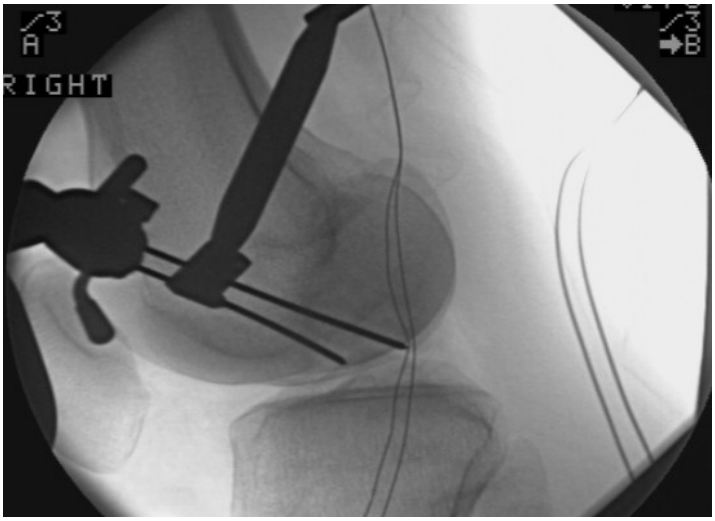


Figure 1



From Staniski CL, DeLee JC, Drez D Jr.: Pediatric and Adolescent Sports Medicine. Philadelphia, WB Saunders, 1994, p. 396.

Heat and Cold

- Cold is used to relieve pain and reduce inflammation for acute and chronic cases. Cold should be applied for 10 to 15 minutes every 2 to 3 hours for inflammation and pain and immediately after any activity that aggravates your symptoms. Use ice packs or an ice massage.
- Heat may be used before performing stretching and strengthening activities prescribed by your physician, physical therapist, or athletic trainer. Use a heat pack or a warm soak.

Notify Our Office If

- Symptoms get worse or do not improve in 2 weeks despite treatment
- Any of the following occur after surgery:
- Signs of infection: fever, increased pain, swelling, redness, drainage, or bleeding in the surgical area
- You experience pain, numbness, or coldness in the foot (when surgery was on the knee or ankle)
- Blue, gray, or dusky color appears in the toenails (when surgery was on the knee or ankle)
- New, unexplained symptoms develop (drugs used in treatment may produce side effects)