

Orthopedics

[Home](#) » [Our Services](#) » [Orthopedics](#) » [Teaching Tools](#) » [Osteochondritis Dissecans of Knee \(OCD\)](#)

4Tweet

[Print This Page](#)

Osteochondritis Dissecans of Knee (OCD)

What is osteochondritis dissecans (OCD)?

A lesion of the cartilage and bone due to necrosis and loss of continuity of the underlying bone. The OCD lesion can remain in contact with the adjacent bone, maybe partially separated or completely separated. The articular cartilage surface may be intact or may be breached allowing communication of the joint fluid with the bone.

What is the cause of OCD?

Etiology of this lesion is not known. Theories range from abnormal vascular anatomy (leading to ischemic injury of the bone), abnormal ossification of the epiphysis, trauma, endocrine imbalances or some combination of the above. There is a history of trauma to the knee in 40% of patients. About 50% of the loose bodies in knee are due to OCD lesions.

What are the most common sites for OCD in the knee?

The most common site is the medial femoral condyle (80%). Other sites are the lateral femoral condyle (15%), and the patella (5%).

Who is the most affected by OCD lesions?

Males are 3 times more likely to be affected than females.

How will OCD lesions present?

Frequently these present insidiously without a traumatic event as a painful knee with vague, poorly localized symptoms. The pain usually is only with the weightbearing and does not develop at rest. Sometimes "locking", "popping", or "clicking" will also be present with knee motion and walking. Swelling is variable.

How can these lesions be found?

Plain radiographs will identify the vast majority of lesions. OCDs appear as crescent-shaped defects in the bone, sometimes with small flecks of bone within the crater. Sometimes a magnetic resonance imaging scan (MRI) is needed to evaluate suspicious lesions that appear to be OCD lesions.

What additional radiologic studies are used to evaluate OCD lesions?

MRIs are typically used to evaluate documented OCD lesions in order to assist in planning treatment. Bone scans and computed tomography (CT) scans are currently less frequently utilized due to the large amount of information available with MRIs.

What is the initial management of OCD in a skeletally immature child?



Orthopedics ranked by *U.S. News*.
[Read more](#)

Patient Story



[Clara's Story](#)

Orthopedics

[Conditions We Treat](#)

[Meet the Team](#)

[Meet Our Patients](#)

[In The News](#)

[Our Videos](#)

[Message From the Director](#)

[Visiting: What to Expect](#)

[Surgery: What to Expect](#)

[Center for Foot Disorders](#)

[Skeletal Dysplasia Clinic](#)

[Orthopedics/ID Clinic](#)

[Torticollis Clinic](#)

[Tendon Lengthening Following Dorsal Rhizotomy Surgery](#)

[Spina Bifida Clinic](#)

[The Center for Spinal Disorders](#)

[Orthopedic Hand Clinic](#)

[Resources for Families](#)

[Teaching Tools](#)

[ACL Reconstruction](#)

[Cast Care](#)

[Developmental Dysplasia of the Hip \(DDH\)](#)

[Discoid Lateral Menisci](#)

[Femoral Rotational Osteotomy](#)

[Femoral Rotational Osteotomy with Pediatric Femoral Nail](#)

[Legg-Calve Perthes](#)

[MRSA Preoperative Care](#)

[Meniscal Tears](#)

[Osgood-Schlatters Disease](#)

[Osteochondritis Dissecans of Knee \(OCD\)](#)

[Postoperative Pain Protocol](#)

[Sever's Disease](#)

[Tibial Tubercle Osteotomy](#)

In children with open growth plates, there is a higher chance for spontaneous healing with activity modification or immobilization than in adults. If the articular surface is intact, protected activities and possible crutch use for 2-3 months may produce healing. This is especially true in girls younger than the age of 11 and boys younger than 13 years of age. If the articular surface is disrupted or there is a loose fragment, immobilization is unlikely to succeed, and surgical treatment is usually advocated.

What is the prognosis for OCD?

The primary prognostic factors are patient age and skeletal maturity. The less mature the patient, the better the prognosis, with best results seen in the juvenile form (before adolescence), where full recovery is the usual outcome. In the adolescent type (partial skeletal maturity), outcome is unpredictable. With the adult type (skeletal mature), a guarded prognosis is the rule.

What are the principles of surgical treatment of OCD of knee?

The optimal treatment is controversial. The basic concepts are: 1) fragmented displaced lesions are best excised 2) painful lesions in continuity with surrounding bone should be drilled, 3) displaced small lesions should be excised and curretted, and 4) displaced large lesions with bone attached to cartilage should be fixed with or without bone grafting. A wide variety of fixation devices, bone grafting techniques, and surgical approaches exist.

Services

- [Medical Services](#)
- [Family Services](#)
- [Offsite Services](#)
- [Find A Physician](#)
- [See All](#)

Visitor Information

- [Directions](#)
- [Maps](#)
- [Parking](#)
- [Hospital Amenities](#)
- [See All](#)

Patients

- [Inpatient Visit](#)
- [Outpatient Visit](#)
- [Patient Rights](#)
- [International Patients](#)
- [Medical Records](#)
- [Billing/Insurance](#)
- [Services](#)
- [See All](#)

Resources

- [Media Center](#)
- [Health Info](#)
- [Contact Us](#)
- [Financial Assistance](#)
- [Site Map](#)
- [HIPAA](#)
- [Terms of Use/Privacy](#)

Follow us on



St. Louis Children's Hospital is affiliated with Washington University School of Medicine

COPYRIGHT © 2013, ST. LOUIS CHILDREN'S HOSPITAL, ALL RIGHTS RESERVED
 St. Louis Children's Hospital • One Children's Place • St. Louis, MO • 63110 • 314.454.6000