Osteochondritis Dissecans of the Elbow



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What is osteochondritis dissecans?

Osteochondritis dissecans (OCD) of the elbow is a condition most commonly seen in young athletes that participate in sports with repeated overhead motion, such as baseball or softball, gymnastics, weightlifting, and tennis. Repetitive stress to the elbow joint that occurs during these activities can result in injury to the underlying bone and cartilage.

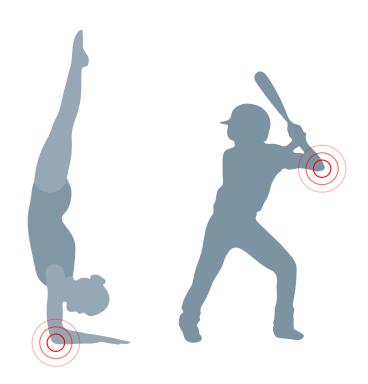
Without treatment, injured bone and cartilage may become unstable and break off into the joint. Long-term consequences may include worsening elbow function and arthritis.

What are the symptoms of osteochondritis dissecans?

The most common symptom of elbow OCD is pain, which is often worse following activity. Over time, elbow discomfort can become continuous and patients may develop other symptoms such as:

- Swelling or stiffness
- Difficulty straightening the elbow joint fully
- Feeling like the joint is "locking", "catching" or "giving way"

The signs and symptoms of osteochondritis dissecans can resemble those of other joint injuries, so it is important that your child see a doctor for proper diagnosis and treatment.



Capitellum OCD injury

What causes osteochondritis dissecans?

Young athletes involved in high-impact sports can sustain an OCD injury from repetitive motions that stress the joint. Sports that can increase the risk of osteochondritis dissecans of the elbow are gymnastics, squash, tennis, baseball and weightlifting.

How is osteochondritis dissecans diagnosed?

To diagnose OCD of the elbow, an orthopedic specialist will ask questions about your child's symptoms and perform a specialized physical exam of the elbow. An X-ray or MRI is often taken to better see and assess the joint.

How is osteochondritis dissecans treated?

In some patients, stable injuries can be treated without surgery. This non-surgical treatment consists of complete rest of the affected elbow followed by physical therapy.

Surgical treatment of osteochondritis dissecans may be necessary if the bone or cartilage is unstable, has broken off loose fragments into the joint, or if rest and physical therapy were not successful at relieving pain.

Surgery

If the decision is made to pursue surgical treatment, individualized planning will help select the best techniques to treat your child's injury. These may include:

- Drilling small holes into underlying bone to stimulate healthy cells and healing
- Removing or securing loose fragments
- Replacing the injured bone and cartilage with healthy tissue taken from elsewhere in the body

OATS Procedure

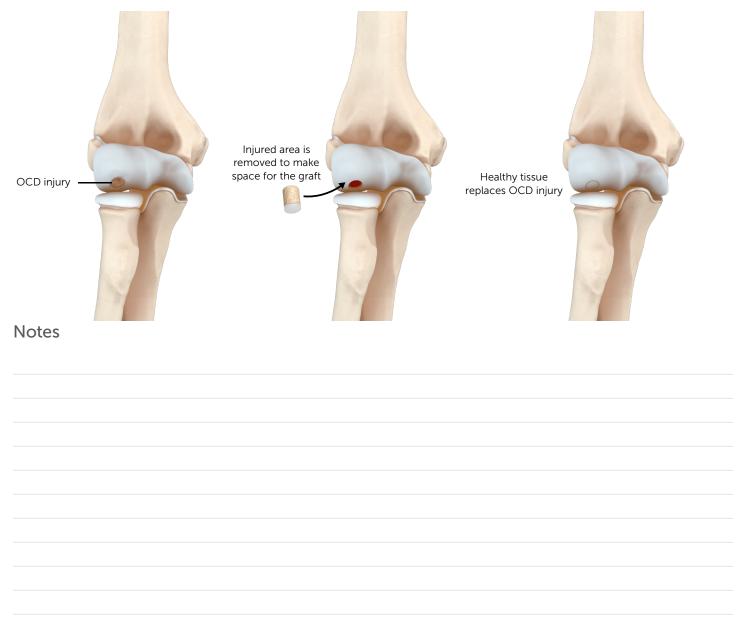
OATS, or osteochondral autologous transplantation surgery, is one treatment option for certain OCD injuries. The procedure involves replacing injured bone and cartilage in the elbow with healthy tissue (graft) taken from another part of the body, such as the side of the knee.

After surgery, your child will be placed into a long-arm cast for 2 to 3 weeks. No crutches are required for the knee. Physical therapy including strengthening and range of motion exercises will help your child progress towards a gradual return to sports.

What is the long-term outlook?

After the elbow is completely healed, your child can gradually return to sports – usually around 6 months after surgery.

OATS Procedure Steps



Produced by the Hand and Orthopedic Upper Extremity Program at Boston Children's Hospital. For more information or to request an appointment visit **BostonChildrens.org/Hand**.

