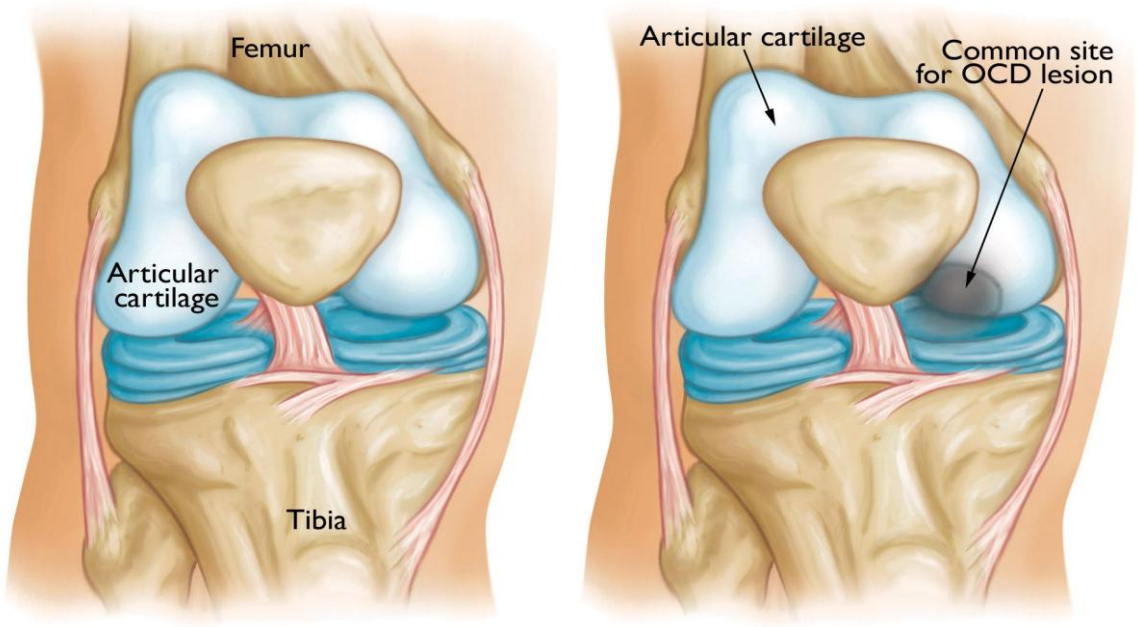
Osteochondritis Dissecans *(Knee)*



1. What Is Osteochondritis Dissecans (OCD)?

- Osteochondritis Dissecans (OCD) is a condition where a small area of **bone and cartilage** inside the knee becomes **damaged due to reduced blood supply**.
- This can cause the cartilage to loosen or separate from the bone underneath.
- OCD may affect **children, teenagers and adults**, but is most common in active adolescents.

2. Who Does It Affect?

- Common in young athletes aged **10–18 years**.
- More frequent in sports involving running, jumping or twisting (football, basketball, gymnastics).
- Can develop in adults, but healing is slower.
- Often affects the **medial femoral condyle** (inner knee), but other areas can be involved.

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3. Symptoms

OCD symptoms vary depending on severity. Common symptoms include:

- Pain at the **front or inner side of the knee**.
- Swelling or tenderness after activity.
- Catching, clicking or locking of the knee.
- A feeling of the knee "giving way".
- Stiffness or reduced range of movement.
- Limping, especially after sport.

Symptoms may come and go, especially early in the condition.

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4. Causes

The exact cause is unknown, but contributing factors include:

- Repetitive stress to the knee joint.
- Rapid growth during adolescence.
- Traction injuries to the cartilage.
- Anatomical alignment issues.
- Reduced blood flow to part of the bone.

OCD is **not caused by infection**.

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5. How Is OCD Diagnosed?

A clinician will:

- Assess symptoms, knee swelling, movement and stability.
- Perform special tests to check for pain over the joint line.

Imaging may include:

- **X-ray** – shows bone changes or lesions.
- **MRI** – important for assessing cartilage health and stability of the OCD lesion.
- **CT** – occasionally used to evaluate bone detail.

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6. Treatment

Treatment depends on **age**, **severity**, and whether the lesion is **stable** (still attached) or **unstable** (loose).

A. Conservative Treatment (first choice in children & early cases)

1. Rest & Activity Modification

- Reduce high-impact sports (running, jumping, twisting).
- Switch to low-impact activities until symptoms improve.

2. Physiotherapy

Focus on:

- Quadriceps and hamstring strengthening.
- Hip and glute control exercises.
- Balance and proprioception training.
- Gentle range-of-motion exercises.

3. Bracing

- A knee brace may help offload the affected area.

4. Pain Relief

- Paracetamol or ibuprofen if suitable.
- Ice 15–20 minutes, 2–3 times daily for flare-ups.

Healing Time

- In children with stable lesions: **3–6 months**.
- Regular follow-up imaging may be needed.

B. Surgical Treatment

Surgery may be recommended if:

- Symptoms persist despite 3–6 months of conservative care.
- The lesion is unstable or detached.
- Locking, catching or giving-way episodes occur.

Common surgical options:

1. **Drilling** – stimulates healing by reintroducing blood supply.
2. **Fixation** – screws or pins secure the loose fragment.
3. **Removal of loose fragments**.
4. **Cartilage repair/restoration techniques** – microfracture, grafting, etc.
   Your surgeon will choose the most appropriate approach.

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7. Exercises

(Start only if pain allows or under physio guidance)

1. Quadriceps Sets

- Tighten thigh muscle with leg straight.
- Hold 5 seconds.
- Repeat 10–15 times.

2. Straight Leg Raise

- Lift leg while keeping knee straight.
- Lower slowly.
- 3 sets of 10.

3. Hamstring Stretch

- Sit or stand with leg extended.
- Lean forward gently.
- Hold 20–30 seconds.

4. Mini-Squats (if pain-free)

- Squat to 30 degrees.
- 3 sets of 10.

5. Balance Exercise

- Stand on one leg for 20–30 seconds.
- Progress to unstable surfaces.

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8. When to Seek Further Help

Contact your clinician if:

- Pain worsens or persists after rest.
- Knee locking, clicking or giving way increases.
- Swelling does not settle.
- Difficulty weight-bearing or walking.
- Symptoms return after returning to sport.

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9. Prognosis

- **Children and adolescents:** usually very good, especially with early treatment.
- Stable lesions often heal fully without surgery.
- **Adults:** healing is slower; surgery is more commonly needed.
- Long-term outcomes depend on lesion size and stability.
- Most people return to sport once pain-free and cleared by their clinician.