

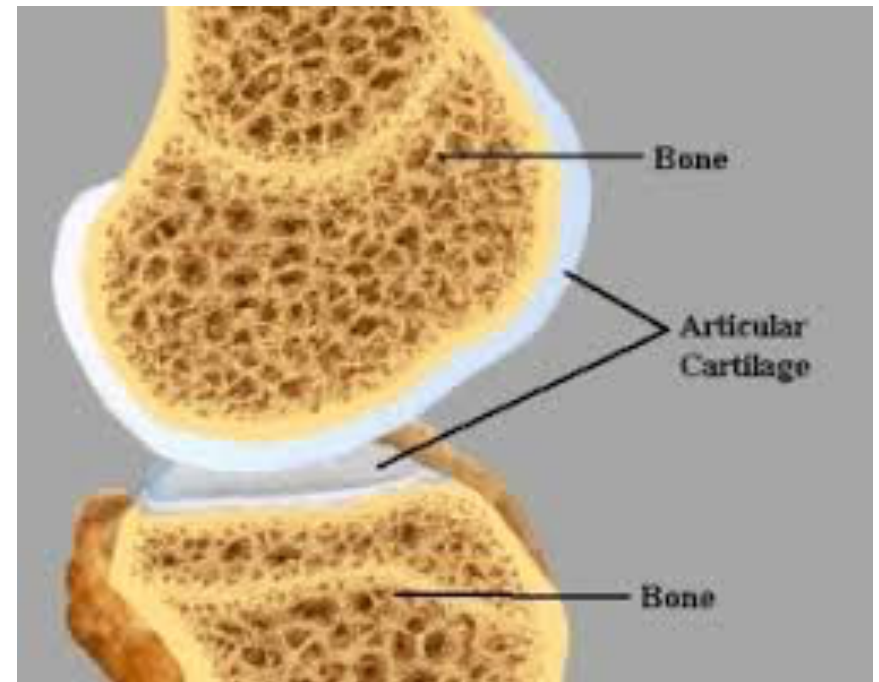
Osteochondral Allograft Transplantation in the Pediatric and Adolescent Patient



Michael Saper, DO, ATC, CSCS
Assistant Professor, Orthopedics and Sports Medicine

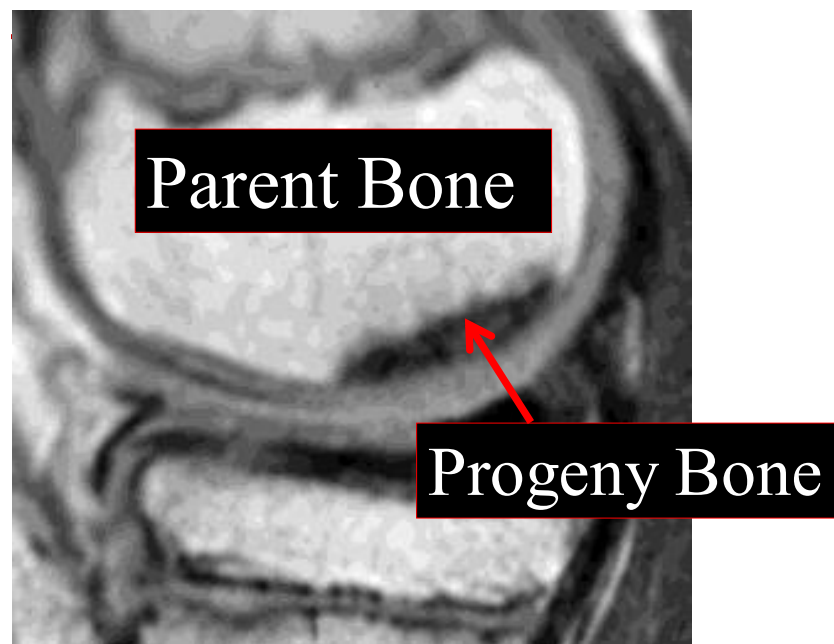
Anatomy

- Cartilage covers the joint surface at end of a bone.
- When healthy, allows:
 - Range of motion
 - Shock absorption
- Poor healing ability



What is OCD?

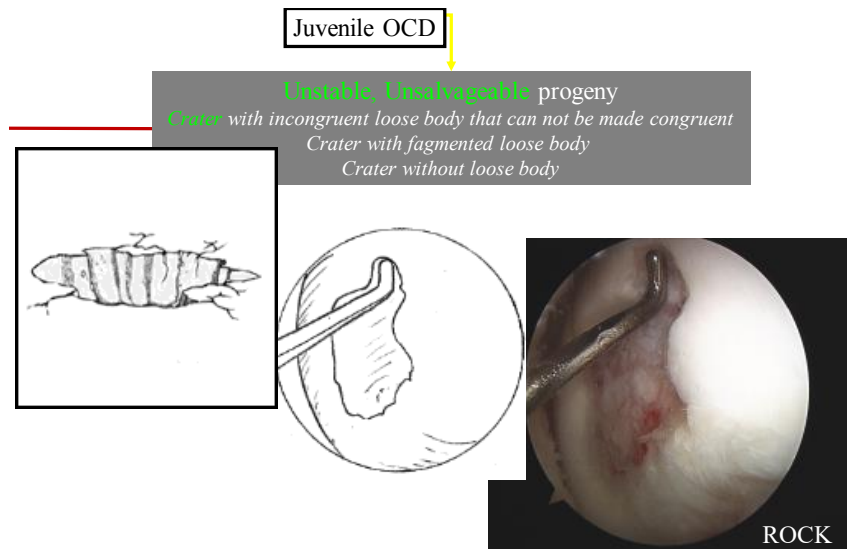
- **Injury to the bone** below the cartilage
 - Due to loss of blood supply from repetitive trauma
- Risk for instability and disruption of overlying cartilage
- **May result in early arthritis**
- Both knees in 25%



Can be a **3-4 procedure** problem

Indications for Osteochondral Allograft Transplantation

- Failed prior surgery
- Unstable, unsalvageable OCD lesions
 - **Uncontained** defects
 - Large, deep lesions



Goals for Surgery

- **Remove**
 - Diseased Tissue
- **Replace**
 - Bone and cartilage
- **Return to Sport**



Rehabilitation

Weight-bearing depends on size/location of defect

- From NWB to TTWB

Knee brace until adequate quad strength regained

Encourage **range-of-motion exercises**

Healing typically at 4-6 months

High-loading / return to sport activities at 6-12 months

Return to Sport

Arthroscopy. 2017 Sep;33(9):1712-1717. doi: 10.1016/j.arthro.2017.03.020.

Can Competitive Athletes Return to High-Level Play After Osteochondral Allograft Transplantation of the Knee?

McCarthy MA¹, Meyer MA¹, Weber AE¹, Levy DM¹, Tilton AK¹, Yanke AB¹, Cole BJ².

13 patients (4 college, 9 high school)

77% RTS

30% reoperation rate at avg. 4 years

No graft failures

Outcomes

Am J Sports Med. 2014 Mar;42(3):635-40. doi: 10.1177/0363546513516747.
Epub 2014 Jan 10.

Osteochondral allograft transplantation of the knee in the pediatric and adolescent population.

Murphy RT1, Pennock AT, Bugbee WD.

43 Knees

Improved Patient-reported Outcome Scores

Graft Survivorship at 10 years (90%)

88% Good/Excellent Results

89% “Extremely satisfied” or “satisfied”

Conclusions

**Goals = remove diseased tissue, replace cartilage and bone,
preserve the joint**

Surgery generally results in improved outcomes

Return to sports is a BONUS

Slow, progressive rehabilitation is key

Return to sports (6-9 months)

Contact:

www.sapersportsmed.com

@DrMichaelSaper