

Mizzou BioJoint® Osteochondral Allograft Transplantation

Osteochondral allograft (OCA) transplantation in the knee has been performed for more than 40 years in the US and Canada. The vast majority of these surgeries involve one area of the knee (unipolar) with much fewer done to treat multiple areas of the knee (bipolar). In all reported studies, unipolar surgeries have had far better outcomes than bipolar surgeries as summarized below.

Summary of 40+ years of historical data for OCA transplantation in the knee performed at other centers around the world¹:

- 5-year functional survival 64-100%
- 10-year functional survival 39-93%
- 15-year functional survival 56-84%
- 20 -year functional survival 66-69%
- Need for revision 30.2%
 - Unipolar 0-63%
 - Bipolar 39-100%
- Need for total joint replacement 18.2%
 - Unipolar 8-24%
 - Bipolar 39-100%

¹Familiari et al. Am J Sports Med 2018

The following statistics^{2,3} are for knee surgeries* performed at the Mizzou BioJoint® Center using MOPSSM grafts**:

- 1-year functional survival 92%
- 2-year functional survival 89%
- 3-year functional survival 89%
- 5, 10, 15 and 20-year functional survival UNKNOWN***
- Need for revision 5%
 - Unipolar 2%
 - Bipolar 7%
- Need for traditional joint replacement 11%
 - Unipolar 2%
 - Bipolar 16%

²Rucinski, et al. Orthop J Sports Med 2019

³Stannard, et al. Am J Sports Med 2020

*The vast majority of the scientific evidence for osteochondral allograft transplantation worldwide and at The Mizzou BioJoint® Center has been for treatment of the knee. Hip, ankle, and shoulder osteochondral allografts are performed less commonly.

**Statistics are based on primary osteochondral allograft transplantations in the knee performed at the Mizzou BioJoint® Center using MOPSSM-preserved grafts; these statistics do not include surgeries performed at the Mizzou BioJoint® Center to revise previous osteochondral allograft transplants or previous total or partial joint replacements. Outcomes for these special revision cases in the knee and for hip, ankle and shoulder osteochondral allograft transplants can be provided during consultation with our physicians or scientific director.

***Osteochondral allograft transplantations at the Mizzou BioJoint® Center using MOPSSM grafts began in January 2016. Outcomes data are regularly updated as longer term outcomes become available.