



## DO YOU SUFFER FROM KNEE PAIN?

The MISHA Knee System is an implantable shock absorber (ISA) designed to relieve knee pain in patients with osteoarthritis (OA). If your knee pain is limiting your daily activities and you're not ready for a knee replacement, the MISHA Knee System may be right for you.



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*I'm doing things I haven't been able to do for 15 or 20 years.*

**CHUCK S.,**

Three years after ISA surgery (age 58 at time of surgery on right knee)

The MISHA Knee System is a shock absorber that is designed to reduce excess forces on the knee, primarily when you're walking and your leg is extended.



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*I work with my OA patients to preserve their natural knees for as long as possible. If non-surgical options have failed, we can now consider an implantable shock absorber, which is less invasive than a joint replacement. This is the type of solution my patients have been requesting.*

**SETH SHERMAN, MD**

Orthopedic Surgeon  
Associate Professor of Orthopedic Surgery  
Stanford University



# KNEE OA

Osteoarthritis (OA) is the most common form of arthritis, and more than half of the people with knee OA are under 65 years.<sup>1,2</sup> Knee OA develops when the cartilage (which acts as a natural shock absorber at the end of your bones) wears down. This causes pain during normal activities. Reducing the amount of weight supported by the knee is a proven method for reducing OA pain.<sup>3</sup>



- Over **18 million** people in the U.S. suffer from symptomatic knee OA
- Over **50%** of Americans with knee OA are under **65 years old**

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*Generally what happens is people will start to experience pain with activity...those are serious health and well being implications.*

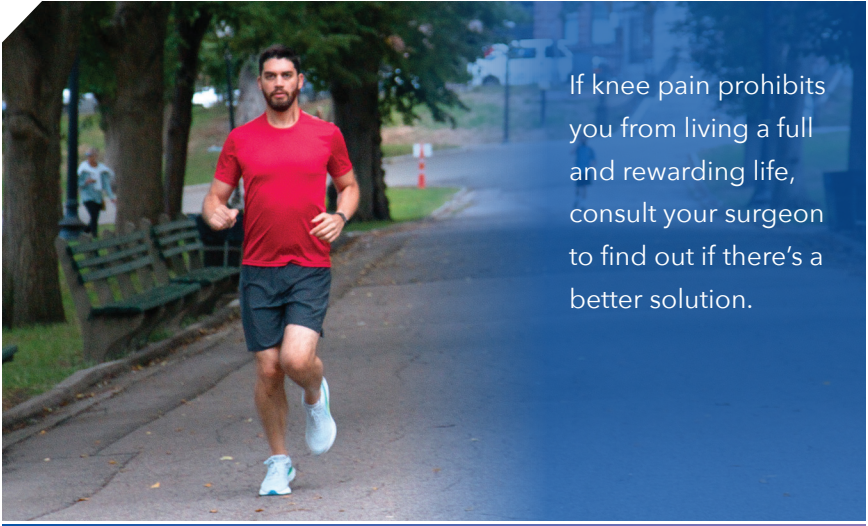
**DENNIS CRAWFORD, MD, PhD**

Orthopedic Surgeon

Professor of Orthopedics and Rehabilitation, School of Medicine  
Oregon Health and Science University



## DOES KNEE PAIN INTERFERE WITH YOUR ABILITY TO ENJOY LIFE?



If knee pain prohibits you from living a full and rewarding life, consult your surgeon to find out if there's a better solution.

MISHA patients reported experiencing less pain and increased mobility and were able to return to enjoying their favorite activities, including running, recreational sports, or simply time with friends and family. Remember to talk with your surgeon before beginning or returning to physical activity.



*It's been about five and half years now, and I still feel great, my activity's not limited, my knee feels good.*

*This doesn't cure OA, it treats the symptoms, and it does it enormously effectively for me.*

**ZACH A.,**

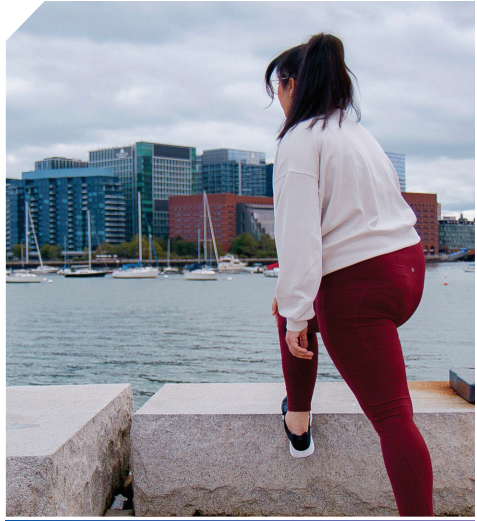
Over five years after ISA surgery, (age 33 at time of surgery)



## IS MISHA RIGHT FOR YOU?

If you suffer from pain in the medial (inner half) part of your knee, you may benefit from an implantable shock absorber (ISA). Answering yes to the following questions suggests you may be a candidate for MISHA treatment:

1. Does your pain level limit your daily activities?
2. Are you still suffering from knee pain despite already trying NSAIDs, knee injections, physical therapy, or off-loader braces?
3. Are you not ready for knee replacement surgery?



*This was the thing I needed. This was what I was looking for, and I didn't know it.*

**MIRANDA D.,**

Over five years after ISA surgery, (age 22 at time of surgery)



## WHO IS NOT ELIGIBLE FOR MISHA?

Patients with poor bone quality (osteoporosis), an infection, or a disease like rheumatoid arthritis (RA) are not eligible for the MISHA Knee System. If you're unsure about your candidacy, discuss your options with your surgeon.

## WHAT TO EXPECT ON THE DAY OF SURGERY



An orthopedic surgeon will implant your MISHA Knee System, often on an outpatient basis, meaning that you will probably go home the same day as surgery.

The MISHA Knee System is surgically implanted under your skin along the outside of your knee joint. Your natural knee remains fully intact. This procedure does not require any bone to be cut or cartilage to be removed.

After surgery, it is normal to experience temporary discomfort and swelling around the knee and lower leg. You will receive instructions on how best to take care of your incision as it heals, and you may be offered crutches to support your movement during the early stages of recovery. Your surgeon will recommend a physical recovery program designed specifically to help you regain strength and flexibility at a pace that's right for you.



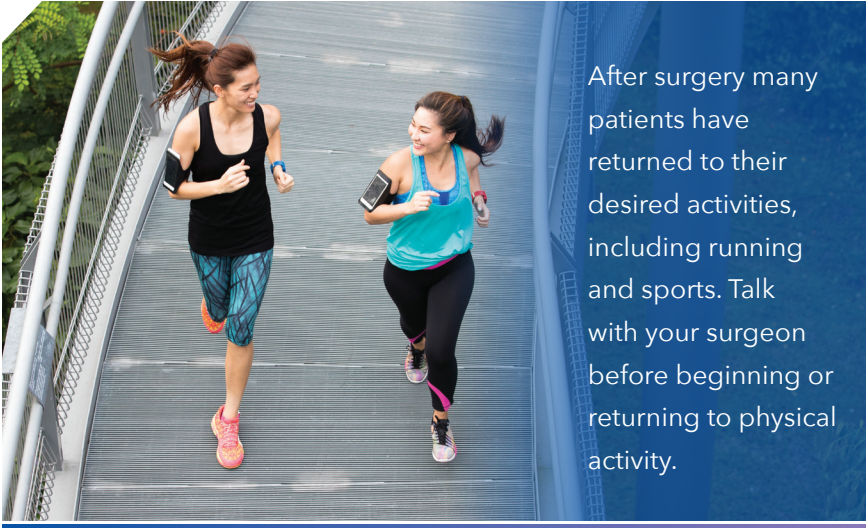
*By noon, it was all done. I was home and laying on the couch with my knee elevated by afternoon.*

**KARLA H.,**  
Over five years after ISA surgery, (age 58 at time of surgery)

All surgeries carry some risk, such as reactions to anesthesia or possible infection. In the uncommon event that you get an infection related to your device, it would likely need to be removed.

## WHAT TO EXPECT AFTER SURGERY

Most patients who receive the MISHA Knee System have rapid and substantial benefit. In a clinical study, at two years, 96% of patients had meaningful pain relief.



After surgery many patients have returned to their desired activities, including running and sports. Talk with your surgeon before beginning or returning to physical activity.

In a recent clinical study, the MISHA Knee System demonstrated safety results similar to a well-accepted surgical procedure with decades of clinical experience.<sup>4</sup>

The MISHA Knee System is placed alongside the inner half of your knee, with your skin and soft tissue covering it. This means that if you try to feel the device with your fingers, you might be able to feel it. The area around the MISHA Knee System is generally not painful, but direct impact to the area may feel like getting hit on the funny bone.

In the clinical study, some patients reported side effects. Most of the side effects were mild to moderate, and included discomfort, dissatisfaction, knee pain, knee stiffness, nerve pain, numbness and surgical site infection. Most side effects resolved, and in certain instances, the implant was removed.

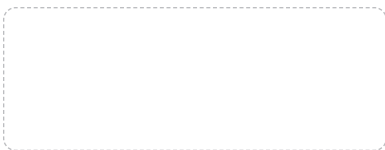
As with all knee implants, removal of the MISHA Knee System is a known risk. In a clinical study at two years, about 14% of patients had their device removed, of which 90% continued to experience benefit after removal. The total length of benefit after removal of the MISHA Knee System is not yet known, and patients remain in long-term study follow-up. An additional 7% of patients had their device removed by three years.

Approximately 4% of patients in the study went on to have another knee OA surgery by three years.

The MISHA Knee System usually keeps other surgical options available to you in the future. Before deciding if the MISHA Knee System is right for you, discuss all of your surgical options to treat your knee symptoms with your surgeon.

## REFERENCES

1. **Arthritis Foundation**, Arthritis by the Numbers 2019.
2. **Deshpande BR, et al.** Number of Persons With Symptomatic Knee Osteoarthritis in the U.S.: Impact of Race and Ethnicity, Age, Sex and Obesity. *Arthritis Care & Research*. 2016. 68(12):1743-1750.
3. **Gomoll et al.** *Knee Surg Sports Traumatol Arthrosc*. 2016. DOI 10.1007/s00167-016-4123-0.
4. **Diduch DR, et al.** Implantable Shock Absorber Provides Superior Pain Relief and Functional Improvement Compared With High Tibial Osteotomy in Patients with Mild-to-Moderate Medial Knee Osteoarthritis: A 2-Year Report. *CARTILAGE*. 2023;0(0). doi:10.1177/19476035231157335.



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