



Shackled by  
**knee  
pain,**

**but not considering  
surgery?**

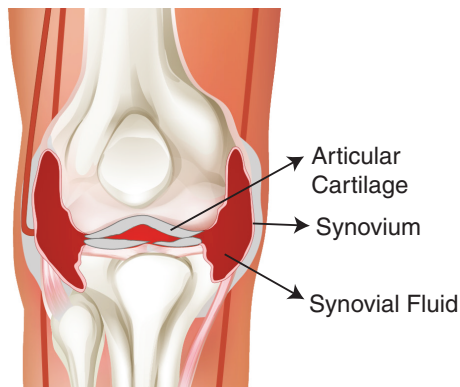
MIOT's  
 **genicular  
artery**  
embolization

**is the answer!**

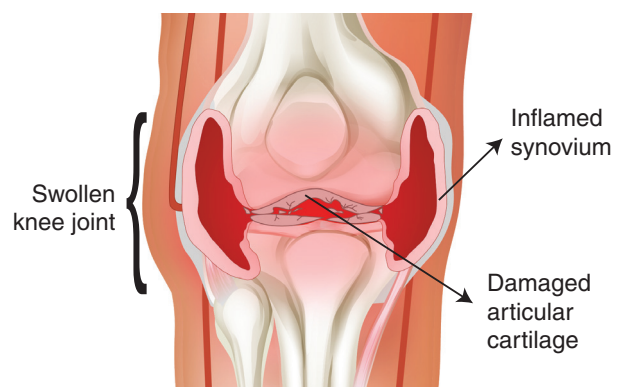
**NO GENERAL ANAESTHESIA  
NO OPEN SURGERY | NO SCARS**

Knee pain is a common problem among many people which severely affects their physical activities and disrupts daily life. Simple tasks such as standing, getting up from the chair, and climbing the stairs become a challenge. Due to knee pain, many individuals are unable to go out as they wish and are tied up in their own homes, missing out on the joys of life. This can also impact their mental and emotional well-being. One of the common causes of knee pain is knee osteoarthritis.

## HEALTHY KNEE



## OSTEOARTHRITIC KNEE



### What is Knee Osteoarthritis?

After 40 years of age, the gradual wear and tear of the knee joints results in the progressive loss of articular cartilage (tissue that provides cushioning between the bones in the knee joint), known as knee osteoarthritis. The friction due to rubbing of the knee bones causes pain, swelling, and stiffness. It affects the person's daily activities and greatly impacts their quality of life.

### Ineffective Treatment Methods for Knee Osteoarthritis

Patients with an early or moderate stage of osteoarthritis tend to seek relief through conventional treatments like lubricants and medication; however, they realize that these treatments have undesirable side effects. They may consider taking knee injections, but since some of them are steroids and cause side effects, they may avoid them. Injecting stem cells into the knee joints is completely ineffective. None of these treatment methods provide a viable solution for alleviating knee pain and in addition, they cause severe side effects.



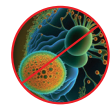
**LUBRICANTS**



**KNEE INJECTIONS**



**MEDICATION**



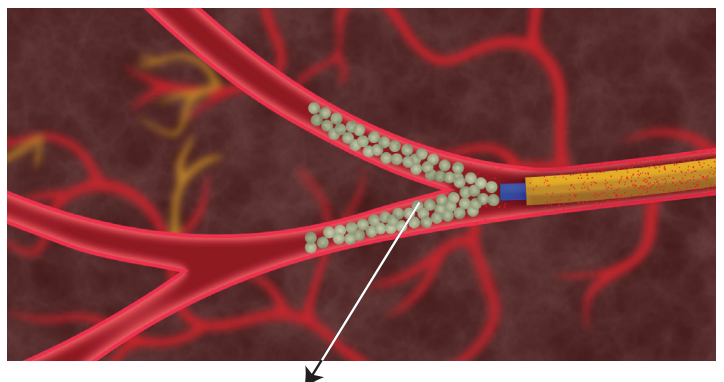
**STEM CELLS**

Total knee replacement surgery is the definitive treatment for knee osteoarthritis. However, many patients do not opt for it due to young age or other comorbid medical conditions or fear of undergoing surgery.

## MIOT OFFERS A REVOLUTIONARY SOLUTION FOR KNEE PAIN THROUGH GENICULAR ARTERY EMBOLIZATION

### What is Embolization?

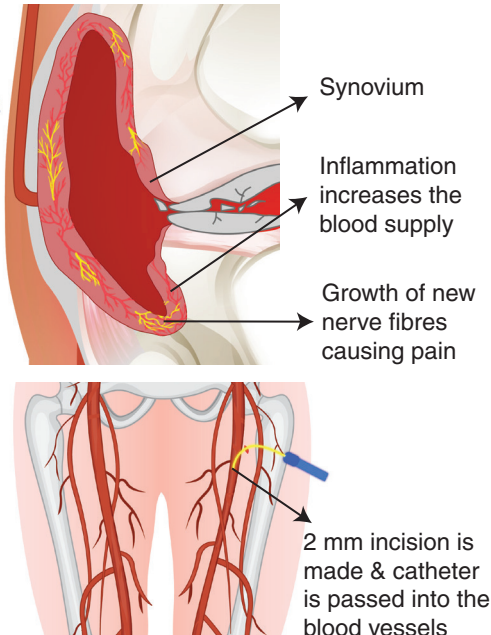
Embolization is a procedure performed by interventional radiologists. They use a pinhole technique to release tiny particles into the targeted blood vessels and block the blood supply to a specific region, thereby reducing inflammation and relieving pain. It is a safe and effective procedure used to treat several diseases in every part of the body including the brain, uterus, liver, and lungs.



Particles released to block the blood supply

## What is Genicular Artery Embolization ?

MIOT's experts offer a revolutionary solution for knee pain through Genicular Artery Embolization. It is a minimally invasive, non-surgical pinhole procedure that does not require general anaesthesia and leaves no scars. It provides pain relief to patients with knee pain. The patient is discharged within 2 days of the procedure.



## How is Genicular Artery Embolization Performed?

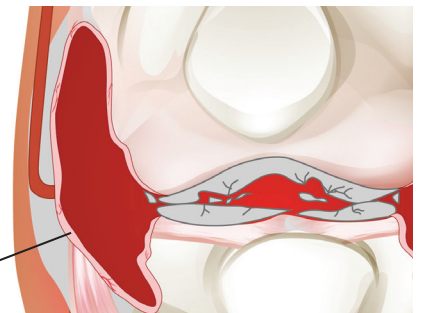
The synovium is a membrane that lines the inside of the knee joint cavity. Due to the rubbing of the knee bones, the synovium gets inflamed. The inflammation increases the blood supply which leads to the growth of new nerve fibres and causes pain.

During Genicular Artery Embolization, a local anaesthetic is injected to numb the groin region. Then, a 2 mm pinhole incision is made and a fine tube called a catheter is inserted into an artery in the thigh. Guided by an X-ray, the catheter is passed into the blood vessels around the knee joint. A special X-ray contrast liquid is injected to identify the blood vessels which supply blood to the newly formed nerve fibres. Then, tiny particles are injected through the catheter into the blood vessels. These particles block the blood supply to the inflamed synovium. This reduces inflammation and provides significant pain relief to the patient. After the procedure, the catheter is removed.

## What Happens After Undergoing Genicular Artery Embolization?

Patients who undergo Genicular Artery Embolization experience significant pain relief within a few days of the procedure. They can soon walk without pain and have a normal, painless life for at least 2 years.

Reduces inflammation of synovium and relieves pain



## Who is a Candidate for Genicular Artery Embolization?

Genicular Artery Embolization is recommended for patients who are experiencing severe pain due to knee osteoarthritis but are not considering total knee replacement surgery for the following reasons.

- Too young to have surgery
- Medically unfit for surgery due to other comorbid medical conditions
- Reluctance or fear of undergoing surgery

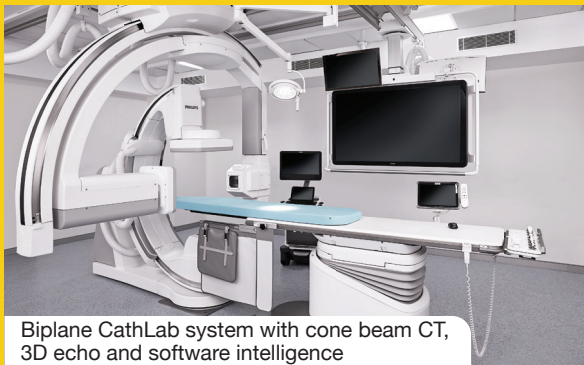
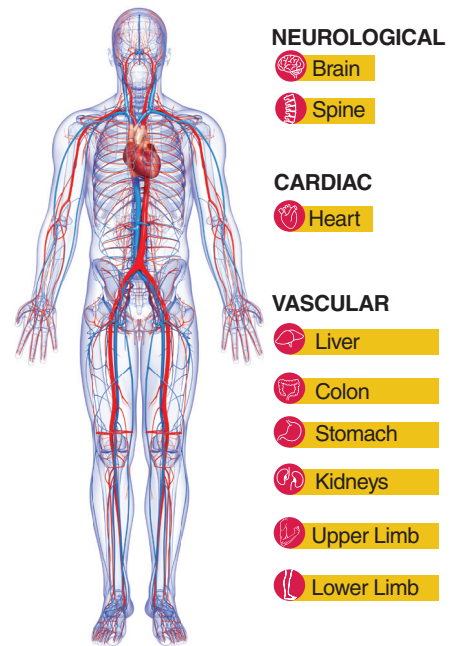
## Why Choose MIOT?

MIOT International is a 1000-bedded hospital with 63 specialties and 250 full-time doctors, providing exceptional care to patients for over 25 years. People from 130 countries visit MIOT with trust, seeking expert care for a wide range of health concerns. MIOT with its team of super specialists, next-gen infrastructure, and cutting-edge technologies continuously advances itself to deliver effective care and enhance patient outcomes. MIOT has incorporated globally recognized, advanced Interventional Radiology technology and established a dedicated department for its application.



# MIOT's INTERVENTIONAL RADIOLOGY

Interventional Radiology is an exciting and growing medical speciality that uses minimally invasive, pinhole techniques to diagnose and treat diseases of nearly every organ from head to toe. This technique increases the accuracy of the diagnosis and improves patient outcomes through targeted treatment. This non-surgical procedure involves fewer complications compared to open surgery. General anaesthesia is not administered during this procedure, so it is safe for those who are at risk of associated complications. The procedure does not require stitches or leave any scars. The recovery time is short and the patient shall get discharged within 2 days of the procedure. Many conditions that previously required open procedures are now treated without surgery by MIOT's interventional radiologists.



## MIOT's Interventional Suite

For the first time in India, MIOT introduced the Biplane CathLab system with cone beam CT, 3D echo and software intelligence all on a single platform. The MIOT interventional suite enables any pinhole procedure to be done more accurately, safely and quickly than ever before. With minimised use of contrast dye and reduced radiation exposure, it ensures utmost safety for the patients.

## Overcome Osteoarthritic Knee Pain and Regain an Active Life!

You don't have to live with osteoarthritic knee pain. MIOT's experts help you get pain relief through Genicular Artery Embolization, without open surgery, general anaesthesia, and scarring.

**GET FREEDOM FROM KNEE PAIN AND  
BOUNCE BACK TO AN ACTIVE LIFESTYLE.**



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to know more.

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