Genicular Artery Embolization

A non-surgical treatment for knee pain caused by osteoarthritis

NG Vascular & Vein Center

Comprehensive Vascular and Interventional Care

An effective and minimally invasive treatment for knee pain

While there are many options that provide temporary relief of chronic knee pain caused by osteoarthritis, until recently there was only one that could provide more lasting relief: total knee replacement surgery. However, not all patients are able—or willing—to undergo this surgery, and treating chronic pain with a lifelong medication regimen may not be desired.

A new and FDA approved procedure called genicular artery embolization gives you and your doctor a viable alternative to surgery. One that is proven to provide lasting pain relief and improve mobility within the knee.

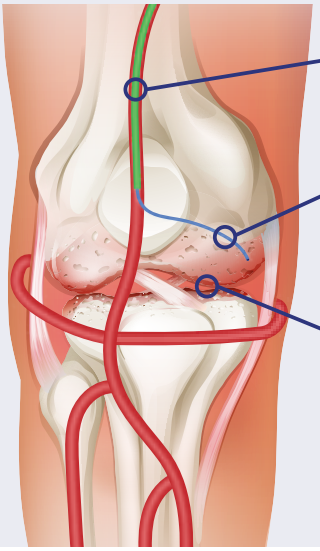
WHAT CAUSES OSTEOARTHRITIS OF THE KNEE?

Osteoarthritis is a type of degenerative joint disease that affects 46% of all Americans. It results from the progressive loss of articular cartilage caused by the “wear and tear” on the knee over a lifetime. It is more common in older individuals, and more common in women than in men.

Knee cartilage is a tough, rubbery tissue on the ends of the bones within the knee that allows the joint to bend and move. As the cartilage degenerates, the bones in the knee joint rub together, causing friction that results in inflammation and subsequent knee pain, stiffness and swelling.

1. Genicular Artery Embolization for the Treatment of Knee Osteoarthritis: Final Results from a Prospective Investigational Device Exemption Trial. S. Padia, A. Potnik, G. Blumstein, A. Stavrakis, E Zeegen, J. Moriarty, S. Genshaft. Annual Scientific Meeting, March 20-26, 2021.

HOW IS GAE PERFORMED?



A small catheter is inserted

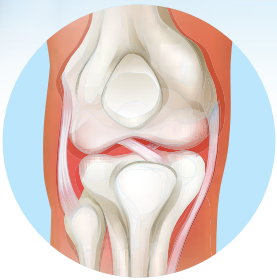
Tiny particles are injected to limit blood flow to areas of inflammation in the knee joint.

By limiting blood flow to the areas of inflammation in the knee, pain is decreased.

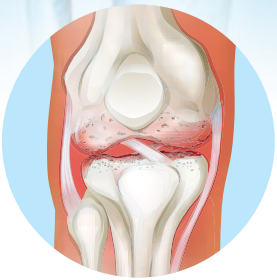
HOW DO I KNOW IF GAE IS RIGHT FOR ME?

Genicular artery embolization is recommended for patients who:

- Are 40-80 years of age
- Have moderate to severe knee pain
- Are diagnosed with osteoarthritis based on X-ray or other imaging, but without bony deformity/sclerosis
- Experience local knee tenderness
- Have resistant or failed conservative treatment (medication, physical therapy, joint injections)



Normal Knee Joint



Knee Joint With Arthritis

TREATMENT

A new and minimally invasive procedure called genicular artery embolization (GAE) has become a widely available treatment option for many suffering from osteoarthritic knee pain. The GAE procedure reduces the flow of blood to the synovium—the lining of the knee—which reduces inflammation and the associated pain. It is a safe procedure that is clinically proven to achieve lasting pain relief.

GAE is an excellent alternative to:

- Steroid injections, which offer only short-term pain relief
- Pain medications and opioids, which may be addictive
- Total knee replacement surgery, and its associated risks and long recovery

THE GAE PROCEDURE

At NG Vascular & Vein Center, GAE is performed by Dr. Nazar Golewale, a highly experienced physician who has performed thousands of vascular and interventional radiology procedures. He inserts a tiny catheter into an artery in the upper thigh or wrist and then uses imaging to guide it through the body's blood vessels to the arteries that supply blood to the synovium, where inflammation occurs. Tiny particles are injected through the catheter which get lodged in the smaller blood vessels and reduce blood flow to the synovium. The effect is a significant reduction in the inflammation associated with osteoarthritis and a reduction in pain.

A clinical study performed in 2021 demonstrated that the average pain scores decreased from 8 out of 10 to 3 out of 10 within the first week of the procedure.[1]

LEARN MORE ABOUT GAE

GAE is a new and less invasive option to treat osteoarthritis of the knee, performed by an experienced physician at NG Vascular and Vein Center. If you are not a candidate for knee surgery, or do not wish to have it, call us! We will provide the information that you need to make an informed decision, and we are happy to consult with your doctor if you have one.

NG VASCULAR AND VEIN CENTER

At NG Vascular & Vein Center, we offer less invasive treatments for various conditions, from peripheral artery disease (PAD), varicose veins, knee osteoarthritis, uterine fibroids and several other painful and often life-threatening conditions.

With offices throughout Northwest Indiana & greater Chicago area, our treatments are outpatient based, with faster recovery and minimal discomfort.

For more information, visit NGvascular.com

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