PATIENT GUIDE · NERVE STIMULATION (PNS)

PNS for Knee Pain

with the Nalu™ system · genicular and saphenous nerves

gardenstate MEDICAL CENTER

A trial-first option that may ease long-lasting knee pain when therapy, medicines and injections have not helped enough.

What it is

Peripheral nerve stimulation (PNS) places a very thin wire (lead) next to a nerve that carries pain. For the knee, the targets are usually the genicular nerves around the joint and, for pain on the inner knee and leg, the saphenous nerve. Mild electrical pulses may change how those pain signals reach the brain. GSMC uses the Nalu™ system, which has a battery-free micro-implant powered by a wearable Therapy Disc.

Why the pain can last

Knee pain can continue from arthritis, or after a knee replacement or other knee surgery, even when the joint looks stable. The small sensory nerves around the knee keep sending pain signals. PNS works on those signals; it does not change the joint itself.

At a glance

- Minimally invasive outpatient procedure
- Try it first: a trial of up to 30 days
- Battery-free micro-implant under the skin
- Wearable, rechargeable Therapy Disc
- Control with a smartphone app
- Results vary

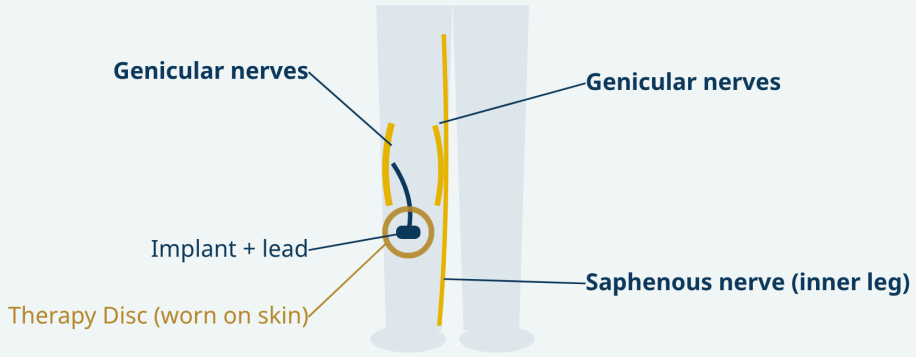
Who does what

Evaluation and follow-up: any of our 7 GSMC offices.

Trial and implant: outpatient procedures; we tell you where they will be done.

Knee: genicular and saphenous nerves

Front view · simplified illustration, not to scale



✓ Who it may help

- ✓ Long-lasting knee pain from osteoarthritis
- ✓ Ongoing pain after knee replacement or other knee surgery
- ✓ Pain that improved, at least for a while, with a genicular nerve block
- ✓ People who want to avoid or delay more surgery, or are not candidates for it

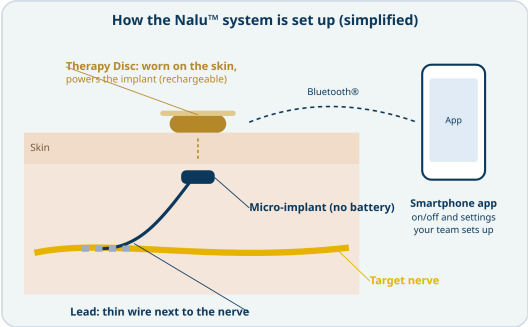
✕ May not be a good fit

- ✕ An active infection, or skin problems where the Therapy Disc is worn
- ✕ A bleeding problem, or blood thinners that cannot be safely paused
- ✕ Pain that is widespread rather than in one nerve area
- ✕ Certain other implanted electrical devices
- ✕ Difficulty wearing the Therapy Disc or using the app, without help at home

Your path, step by step

1. **Evaluation.** History, exam, imaging and a review of what you have tried. A test nerve block may help show whether a specific nerve carries your pain.
2. **Wear check (optional).** You may wear a non-working Therapy Disc on its clip for up to 14 days to find a comfortable spot for daily life.
3. **Trial (up to 30 days).** A thin temporary lead is placed through a needle near the nerve, with numbing and imaging guidance. You use the therapy at home and track pain, sleep and activity. The lead is then removed.
4. **Decision.** You and your physician review how much your pain and function changed. If the trial did not help enough, nothing more is placed.
5. **Implant.** If the trial helped, 1 or 2 permanent leads and the micro-implant are placed in a minimally invasive outpatient procedure. You are shown how to use the Therapy Disc and app.

The trial and implant are minimally invasive outpatient procedures with numbing, and sedation if needed. Most people go home the same day. Tell us about blood thinners and do not stop any medicine on your own.



The Therapy Disc is held over the implant with an adhesive clip or a belt. Two discs are provided so one can charge while you wear the other.

After the implant

First days
Soreness at the small incisions is common. Keep them clean and dry as instructed.

First weeks
Limit heavy lifting and strong movements near the implant area while it heals.

Settings
Follow-up visits adjust programs to cover your pain area. Many people feel a light tingling; some settings are barely felt.

Long term
Wear the Therapy Disc when you use the therapy, and keep one charging. Bring your app and discs to visits.

Risks, explained

- **Infection:** at the lead or implant site; may need antibiotics or removal
- **Bleeding or bruising:** usually minor
- **Skin irritation:** from the adhesive clip that holds the Therapy Disc
- **Lead movement or breakage:** may change coverage and need another procedure
- **Discomfort or unwanted stimulation:** often adjusted by changing settings
- **Device problems:** may need repair, replacement or removal
- **Pain may not improve:** results vary from person to person

MRI and other devices

The Nalu system is MR Conditional: MRI may be possible only under specific conditions. Always tell the imaging team and call us before any MRI. Tell every doctor, dentist and therapist that you have a nerve stimulator.

When to call us

- Fever over 101°F or chills
- Redness, warmth, swelling or drainage at an incision
- A sudden change or jolt in stimulation you cannot turn off
- New weakness or numbness
- Bleeding that does not stop with pressure

Call 911 for chest pain or trouble breathing.

Questions? Call 732-202-3000.

Questions people ask

Is there a battery inside my body? No. The micro-implant has no battery. The wearable Therapy Disc powers it wirelessly and is recharged.

Do I get to try it first? Yes. A trial of up to 30 days lets you see whether it helps before anything permanent is placed.

Can I have an MRI? The Nalu system is MR Conditional. MRI may be possible only under specific conditions. Tell us and the imaging team before any scan.

How long does the implant last? The manufacturer lists an expected service life of 18 years for the micro-implant. Therapy Discs are replaced over time.

Can it be turned off or removed? Yes. You can stop the therapy at any time, and the system can be removed if needed.

Will it fix the cause of my pain? No. It is designed to change how pain signals travel. It does not repair the joint or nerve, and results vary.

How PNS compares with other options

Option	How it works	Good to know
PNS (Nalu™ system)	Mild pulses near the nerve that carries pain	Trial first; implant under the skin; can be removed
Physical therapy and exercise	Strength and movement work	Often the first step; helpful alongside any procedure
Joint injections	Steroid, hyaluronic acid or other injections	Relief varies and may wear off
Genicular nerve RFA	Heat turns off the genicular nerves for a time	No implant; nerves can regrow
Knee embolization (GAE)	Slows abnormal blood flow to the joint lining	Catheter-based; separate evaluation
Knee replacement	Surgery to replace the joint surfaces	Discussed with an orthopaedic surgeon

About the device

The Nalu Neurostimulation System is FDA-cleared for peripheral nerve stimulation to manage severe, long-lasting (chronic, intractable) pain of peripheral nerve origin in adults, alone or along with other therapies. It is not intended for pain in the head or face. Trial devices are used for no longer than 30 days.

Insurance and cost

Coverage for peripheral nerve stimulation varies by plan, and prior authorization is often required. Our team checks your benefits before your trial is scheduled and explains any out-of-pocket cost in writing before you decide.

Questions to ask at your visit

- Which nerve carries my pain, and how will we test it?
- What results are realistic for me?
- What are my specific risks?
- Is it covered by my plan? If not, what is the cost?

My notes

Call 732-202-3000

One number for all 7 GSMC offices: Toms River, 1314 Hooper Ave · Brick, 1608 NJ-88 Ste 102 · Whiting, 1100 NJ-70 Entr. B · Barnegat, 249 S Main St Ste 5 · Manahawkin, 1109 Beacon Ave · Freehold, 322 Professional View Dr · West Long Branch, 100 NJ-36 Ste 1K

All GSMC providers evaluate patients and help select who may be a good fit. Ask us where your trial and implant will be done.

gsmedicalcenter.org/treatments/peripheral-nerve-stimulation-knee-pain/

General information, not medical advice. Individual results vary. Illustrations are simplified and not to scale. Photo: Pexels. Nalu™ is a trademark of Nalu Medical, Inc. GSMC is not affiliated with the manufacturer, and this guide is not provided or endorsed by it.