KneeSeal

PATIENT GUIDE
PORT HURON, MICHIGAN

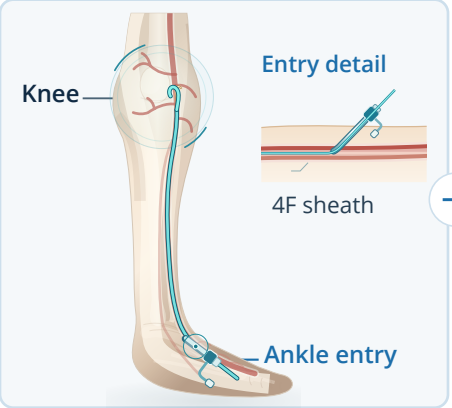
KNEE PAIN RELIEF

Without joint surgery.

A promising advance in nonsurgical knee pain relief, with results that can last.

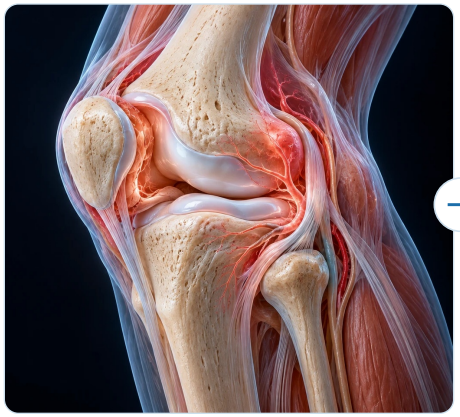
KneeSeal is our name for **genicular artery embolization (GAE)**.

1 Enter near the ankle



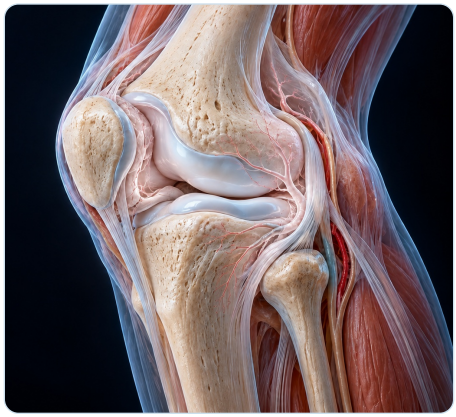
Dr. Ballard usually enters near the ankle with a 4F sheath. Groin access may be used.

2 Target small vessels



A catheter delivers tiny particles to selected abnormal vessels around the knee.

3 Calm inflammation



Reducing blood flow to these vessels may calm the joint lining and lessen pain.

Illustrations of the treatment pathway and intended goal. Not patient before-and-after results.

What the research shows

AVERAGE PAIN-SCORE REDUCTION
1 YEAR [1]

72.7%

Procedure + usual care

24.2% Usual care alone

50 patients; randomized, unblinded. Average score change, not a pain-free rate.

CLINICAL SUCCESS / 3 YEARS [2]

79.8%

Estimated clinical success

72 patients / 95 knees. Per-knee estimate; 13 knees retreated. No comparison group.

SYMPTOMS / 2 YEARS [3]

At least 50%

symptom improvement

18/38 patients (47%)

WOMAC score reduction. 40 enrolled; no comparison group. This is not the rate of any relief.

Research is ongoing. Study findings do not predict your outcome. Relief is not guaranteed. KneeSeal does not rebuild cartilage or cure arthritis.

Who may be a fit

Osteoarthritis pain despite nonsurgical care. Pain after knee replacement may qualify once other causes are checked; evidence is limited. Future replacement generally remains possible.

Usually home the same day

Local numbing + light sedation. About 2-4 hours of rest. Arrange a responsible adult driver and follow your care team's instructions.

Risks to discuss

Bleeding, infection, contrast allergy or kidney injury; unintended vessel blockage can injure healthy tissue. Ask about off-label materials.



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Research: [1] Kumar 2026, PMID 42585691. [2] Okuno 2017, PMID 28365171. [3] Cusumano 2024, PMID 39322180.
Scan for full research and patient information. Reviewed October 2, 2026.