

## MEDICAL POLICY – 7.01.55

# Prostate Artery Embolization for Benign Prostatic Hyperplasia

BCBSA Ref. Policy: 7.01.55

Effective Date: **Jul. 2, 2026**

Last Revised: Mar. 10, 2026

Replaces: N/A

### RELATED MEDICAL POLICIES:


2.01.544 Transurethral Water Vapor Thermal Therapy and Transurethral Water Jet Ablation for Benign Prostatic Hyperplasia

7.01.175 Temporarily Implanted Nitinol Device (iTind) for Benign Prostatic Hyperplasia

7.01.598 Prostatic Urethral Lift

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[RELATED INFORMATION](#) | [EVIDENCE REVIEW](#) | [REFERENCES](#) | [HISTORY](#)

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## Introduction

Benign prostatic hyperplasia is the medical term for an enlarged prostate. This condition is common as people age and can make it hard to pass urine. Some treatments focus on reducing symptoms with medicines or surgery. Prostate artery embolization is a newer procedure that aims to shrink the prostate by blocking some of its blood supply. It is less invasive than surgery, but researchers are still studying how well it works and how long the benefits last. Because of this, its safety and effectiveness are not yet clear. Prostate artery embolization procedures are considered investigational (unproven). There's not enough evidence to show they are effective.

**Note:** The Introduction section is for your general knowledge and is not to be taken as policy coverage criteria. The rest of the policy uses specific words and concepts familiar to medical professionals. It is intended for providers. A provider can be a person, such as a doctor, nurse, psychologist, or dentist. A provider also can be a place where medical care is given, like a hospital, clinic, or lab. This policy informs them about when a service may be covered.

## Policy Coverage Criteria

| Surgery                      | Investigational   |
|------------------------------|---|
| Prostate artery embolization | Prostate artery embolization is considered investigational as a treatment for benign prostatic hyperplasia. |

## Coding

| Code  | Description  |
|-------|--|
| CPT   |  |
| 37243 | Vascular embolization or occlusion, inclusive of all radiological supervision and interpretation, intraprocedural roadmapping, and imaging guidance necessary to complete the intervention; for tumors, organ ischemia, or infarction (use to report prostate artery embolization) |

**Note:** CPT codes, descriptions and materials are copyrighted by the American Medical Association (AMA).

## Related Information

N/A.

## Evidence Review

### Description

Prostate arterial embolization (PAE) has been investigated as a minimally invasive alternative to transurethral resection of the prostate (TURP), considered the traditional standard treatment for benign prostatic hyperplasia (BPH). PAE differs from other minimally invasive surgical therapies in treatment approach (endovascular vs transurethral) and mechanism (embolic), and thus requires different considerations. An interventional radiologist injects microspheres through a catheter to the blood vessels around the prostate, reducing the blood supply to multiple



different areas. No surgical intervention is required for this procedure and recovery times are often less than that of TURP.

## Background

Benign prostatic hyperplasia (BPH) is a common condition in older men, affecting to some degree 40% of men in their 50s, 70% of those between ages 60 and 69, and almost 80% of those ages 70 years and older.<sup>1</sup> BPH is a histologic diagnosis defined as an increase in the total number of stromal and glandular epithelial cells within the transition zone of the prostate gland. In some men, BPH results in prostate enlargement which can, in turn, lead to benign prostate obstruction and bladder outlet obstruction, which are often associated with lower urinary tract symptoms (LUTS) including urinary frequency, urgency, irregular flow, weak stream, straining, and waking up at night to urinate. LUTS are the most commonly presenting urological complaint and can have a significant impact on quality of life (QOL).

BPH does not necessarily require treatment. The decision on whether to treat BPH is based on an assessment of the impact of symptoms on QOL along with the potential side effects of treatment. Options for treatment include watchful waiting, medication, and minimally invasive surgical procedures. Patients with persistent symptoms despite medical treatment may be considered for surgical treatment. The traditional standard treatment for BPH is transurethral resection of the prostate (TURP). TURP is generally considered the reference standard for comparisons of BPH procedures. A variety of minimally invasive surgical approaches are available as an alternative to TURP for management of LUTS in men with BPH. These methods include water vapor thermal therapy, prostatic urethral lift, and temporary implanted prostatic devices. Each of these approaches is discussed in detail in separate evidence reviews (see [Related Policies](#)).

Prostate arterial embolization (PAE) is a minimally invasive treatment option that works by reducing blood supply to prostatic arteries. PAE differs from other minimally invasive surgical therapies in treatment approach (endovascular vs transurethral) and mechanism (embolic) and thus requires different considerations.<sup>2</sup> An interventional radiologist injects microspheres through a catheter to the blood vessels around the prostate, reducing the blood supply to multiple different areas. No surgical intervention is required for this procedure and recovery times are often less than that of TURP. PAE requires significant clinician training and is associated with some common side effects such as post-PAE syndrome, blood in urine or semen, rare cases of prostatic or bladder spasms.



## Summary of Evidence

For individuals who have benign prostatic hyperplasia (BPH) and lower urinary tract symptoms (LUTS) who receive prostate artery embolization (PAE), the evidence includes systematic reviews, randomized controlled trials (RCTs) and noncomparative studies. The outcomes of interest are symptoms, functional outcomes, quality of life, and procedure-related morbidity. A Cochrane meta-analysis of seven RCTs comparing PAE with transurethral resection of the prostate (TURP) or a sham procedure in men with LUTS due to BPH reported similar improvements in symptom scores and quality of life across procedures over both short-term ( $\leq 12$  months) and long-term (13-24 months) follow-up. There remained significant uncertainty about major adverse events (very low-certainty evidence), but PAE was associated with a higher likelihood of retreatment (moderate-certainty evidence). The long-term effect on erectile function was minimal (low-certainty evidence), and PAE may continue to lower the incidence of ejaculatory disorders (low-certainty evidence). A qualitative systematic review of five RCTs and two observational studies found that PAE and TURP resulted in comparable symptom and quality of life improvements at 12 months. TURP offered greater increases in urine flow and prostate volume reduction, while PAE had shorter hospital stays and fewer complications. Three RCTs, published following the systematic reviews, have assessed the efficacy of PAE relative to conventional therapies for BPH. One RCT conducted in Switzerland (2024) reported that TURP demonstrated superior efficacy to PAE in improving LUTS and urinary flow rates at 5-years of follow-up, although erectile function outcomes favored PAE. Another RCT from Australia (2024) indicated that PAE, when utilized as a first-line therapy, resulted in greater reductions in prostate volume, improved symptom scores, and enhanced quality of life relative to medical therapy, with a lower incidence of adverse events. The third RCT, performed in France (2023), found that PAE was more effective than combined medical therapy for patients with moderate LUTS, yielding greater improvements in both symptoms and erectile function, with no major adverse events and a decreased need for retreatment. All three trials were open-label and characterized by high loss to follow-up and significant patient crossover between study arms. A retrospective, single-center study of 317 men with moderate to severe BPH found bilateral PAE had lower recurrence rates than a unilateral approach at over 2-years of follow-up. There is a paucity of direct comparative data between PAE and other minimally invasive therapies for BPH, such as transurethral water vapor thermal therapy, water jet ablation, prostatic urethral lift, and temporarily implanted nitinol devices; these modalities are addressed in separate evidence reviews. Future studies should specifically assess outcomes related to repeat interventions and unilateral PAE procedures. The evidence is insufficient to determine that the technology results in an improvement in the net health outcome.



## Ongoing and Unpublished Clinical Trials

Some currently unpublished trials that might influence this review are listed in [Table 1](#).

**Table 1. Summary of Key Trials**

| NCT No.                     | Trial Name   | Planned Enrollment | Completion Date |
|-----------------------------|--|--------------------|-----------------|
| <b>Ongoing</b>              |  |                    |                 |
| <a href="#">NCT07242807</a> | Evaluation of Clinical and Functional Outcomes After Minimally Invasive Prostate Interventions: A Multicenter Prospective REDCap Registry (MIST Study)                             | 2000               | Dec 2030        |
| <a href="#">NCT04084938</a> | Prostatic Artery Embolization vs Transurethral Resection of the Prostate or Open Prostatectomy in Patients With Symptomatic Benign Prostatic Hyperplasia                           | 140                | Dec 2027        |
| <a href="#">NCT04807010</a> | PROARTE -PROstate ARtery to Reduce the Symptoms of Benign Prostatic Hyperplasia  | 108                | Aug 2026        |
| <a href="#">NCT04245566</a> | Prostatic Artery Embolization vs. Pharmacotherapy for Lower Urinary Tract Symptoms Secondary to Benign Prostatic Hyperplasia: a Multicenter Randomized Controlled Trial            | 425                | Dec 2025        |
| <a href="#">NCT05531240</a> | Transurethral Prostate Resection (TURP) vs. Prostate Artery Embolization (PAE): Open Multicentric Randomized Study for Evaluation of Outcomes, Complications, and Health Economics | 104                | Dec 2025        |

NCT: national clinical trial. <sup>a</sup> Denotes industry-sponsored or cosponsored trial.

## Practice Guidelines and Position Statements

The purpose of the following information is to provide reference material. Inclusion does not imply endorsement or alignment with the policy conclusions.

Guidelines or position statements will be considered for inclusion if they were issued by, or jointly by, a US professional society, an international society with US representation, or National



Institute for Health and Care Excellence (NICE). Priority will be given to guidelines that are informed by a systematic review, include strength of evidence ratings, and include a description of management of conflict of interest.

## American Urological Association

In 2021, the American Urological Association (AUA) published guidelines on the surgical evaluation and treatment of LUTS attributed to BPH.<sup>28</sup> An amendment to these guidelines was published in 2023.<sup>13</sup>

The following recommendations are related to PAE based on a systematic review by Sandhu et al (2024)<sup>13</sup> to support these updated AUA guidelines:

- PAE may be offered for the treatment of LUTS/BPH. PAE should be performed by clinicians trained in this interventional radiology procedure following a discussion of the potential risks and benefits. (Conditional Recommendation: Evidence level: Grade C)

## Society of Interventional Radiology et al

In a 2019 multi-society, evidence-based position statement regarding PAE for the treatment of lower urinary tract symptoms due to BPH, the Society of Interventional Radiology (SIR) states that PAE is a safe and effective treatment, has good short and intermediate term efficacy and is a treatment option for the following:<sup>29</sup>

- For appropriately selected men with BPH and moderate to severe LUTS. (Level of Evidence: B; strong recommendation)
- In patients with BPH and moderate to severe LUTS who have very large prostate glands (> 80 cm<sup>3</sup>), without an upper limit of prostate size. (C; moderate recommendation)
- In patients with BPH and acute or chronic urinary retention in the setting of preserved bladder function as a method of achieving catheter independence. (C; moderate recommendation)
- In patients with BPH and moderate to severe LUTS who wish to preserve erectile and/or ejaculatory function. (C; weak recommendation)
- In patients with hematuria of prostatic origin as a method of achieving cessation of bleeding. (D; strong recommendation)



- In patients with BPH and moderate to severe LUTS who are deemed not to be surgical candidates for any of the following reasons: advanced age, multiple comorbidities, coagulopathy, or inability to stop anticoagulation or antiplatelet therapy. (E; moderate recommendation)
- PAE should be included in the individualized patient centered discussions regarding treatment options. (E; strong recommendation)

These recommendations were based on a review of 6 meta-analyses published between 2016 to 2019. SIR also gives a strong recommendation that interventional radiologists, given their knowledge of arterial anatomy, advanced microcatheter techniques, and expertise in embolization procedures, are the specialists best suited for the performance of PAE.

## **National Institute for Health and Care Excellence**

In 2018, the NICE issued the following guidance on PAE for LUTS caused by BPH:<sup>30</sup>

"1.1 Current evidence on the safety and efficacy of prostate artery embolisation for benign prostatic hyperplasia is adequate to support the use of this procedure provided that standard arrangements are in place for clinical governance, consent and audit.

1.2 Patient selection should be done by a urologist and an interventional radiologist.

1.3 This technically demanding procedure should only be done by an interventional radiologist with specific training and expertise in prostatic artery embolisation."

## **Medicare National Coverage**

There is no national coverage determination.

## **Regulatory Status**

Prostate surgeries are procedures and, therefore, not regulated by the FDA. However, devices and instruments used during the surgery may require FDA approval. Refer to the following website for additional information:



<http://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfPMN/pmn.cfm>. (Accessed February 4, 2026)

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## History

| Date     | Comments  |
|----------|---|
| 04/01/26 | New policy, approved March 10, 2026, effective for dates of service on or after July 2, 2026, following 90-day provider notification. Policy created with literature review through December 5, 2025. Prostate artery embolization is considered investigational as a treatment for benign prostatic hyperplasia. Add to Surgery section. |

**Disclaimer:** This medical policy is a guide in evaluating the medical necessity of a particular service or treatment. The Company adopts policies after careful review of published peer-reviewed scientific literature, national guidelines and local standards of practice. Since medical technology is constantly changing, the Company reserves the right to review and update policies as appropriate. Member contracts differ in their benefits. Always consult the member benefit booklet or contact a member service representative to determine coverage for a specific medical service or supply. CPT codes, descriptions and materials are copyrighted by the American Medical Association (AMA). ©2026 Premera All Rights Reserved.

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