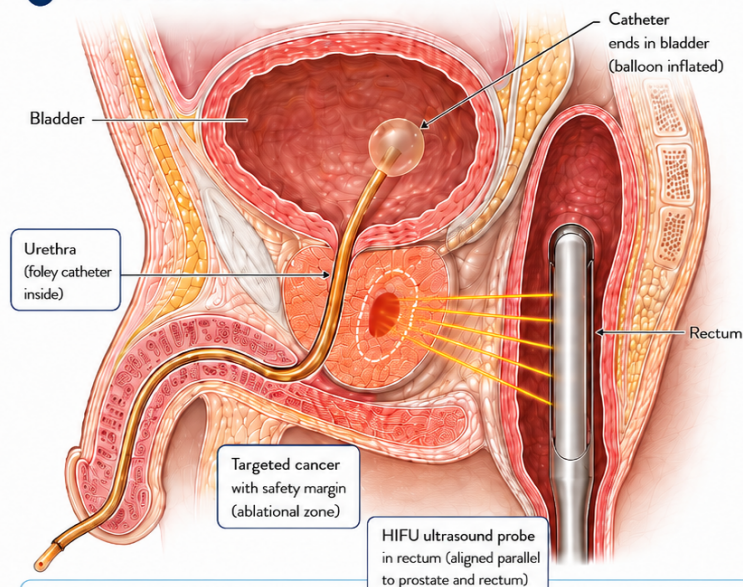


HIFU PROCEDURE FOR PROSTATE CANCER

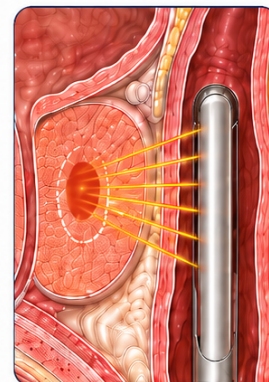
High-Intensity Focused Ultrasound (HIFU) Focal Therapy

1 SAGITTAL CROSS-SECTION VIEW



2 HOW HIFU WORKS

1. Real-time imaging is used to map and plan the treatment area.
2. Focused ultrasound energy passes through the rectal wall and other tissues without damaging them.
3. The energy converges on the target inside the prostate, heating the tissue to destroy cancer cells while sparing surrounding structures.



A catheter is placed after you are asleep at the beginning of the procedure and remains in your bladder for about 10 days after surgery.



FOCAL TREATMENT

Only the targeted area is treated, preserving healthy tissue.



TISSUE-SPARING

Aims to preserve urinary and sexual function by sparing important structures.



REAL-TIME IMAGING

Continuous MRI and ultrasound guidance for precise treatment and safety.



OUTPATIENT PROCEDURE

No incisions. Most patients go home the same day with a catheter.

IMPORTANT

HIFU is not FDA-approved specifically for prostate cancer. It is FDA-cleared for ablation of prostate tissue. Careful patient selection and close follow-up are essential.

What HIFU Does

HIFU uses focused ultrasound energy to heat and destroy selected prostate tissue.

- No skin incisions
- No radiation
- Most patients go home the same day
- A catheter is still needed because the prostate swells after treatment

Focal Treatment Goal

The MRI and biopsy results are used to map an ablation zone with a safety margin.

- Treat the important cancer area
- Preserve surrounding tissue when possible
- Preserve one or both neurovascular bundles when safe

Important Caveat

Sonablate HIFU is cleared in the United States for ablation of prostate tissue. It is not specifically FDA-approved as a prostate cancer treatment.

- Used selectively at major centers
- Requires close follow-up
- Additional treatment may still be needed later

Who HIFU Is Usually For

Best Candidates

- Cancer mainly on one side of the prostate
- A clear target on MRI and biopsy
- Usually favorable intermediate-risk disease
- Good genetic or genomic profile when available
- No evidence of cancer spread outside the prostate
- Comfortable with close PSA, MRI, and biopsy follow-up

Tumor Location

HIFU is most favorable when the tumor is posterior, because the ultrasound energy travels from the rectum toward the prostate.

- Small, focal tumors are preferred
- Anterior tumors can be harder to treat, especially in larger prostates
- Treatment planning depends on prostate size and lesion location

When It May Not Fit

- High-risk or extensive prostate cancer
- Important cancer on both sides of the prostate
- Concern for cancer outside the prostate
- MRI and biopsy findings do not match clearly
- Strong preference for the most established long-term options
- Prior radiation requires extra caution because fistula risk is higher

How the Procedure Is Planned and Performed

- Your MRI, biopsy map, PSA history, grade group, risk category, prostate size, and available genomic testing are reviewed.
- A treatment map is created to ablate the cancer area with an appropriate safety margin.
- On surgery day, you are fully asleep. Medication is given to prevent movement during treatment.
- After you are asleep, a Foley catheter is placed through the urethra into the bladder.
- The HIFU probe is placed in the rectum and ultrasound energy is focused into the target zone inside the prostate.
- There are no skin incisions and no surgical cutting.

Preparation Before HIFU

These instructions are written as a general protocol. Your exact dates may differ. Follow your individualized instructions if they are different.

1

About 1 week before surgery Blood thinners and planning

- Stop blood thinners only if you were instructed to do so by your surgeon, prescribing doctor, cardiologist, or pre-operative team.
- Examples include aspirin, Plavix, Eliquis, Xarelto, Coumadin/warfarin, Brilinta, Pradaxa, and similar medicines.
- Make sure you understand your catheter removal appointment and your ride home after anesthesia.

2

Day before surgery Clear liquids and antibiotic

- Clear liquid diet for the whole day: water, Sprite or clear soda, clear broth, clear juice without pulp, tea or coffee without milk/creamers, sports drinks, or clear popsicles.
- Avoid solid food, dairy, and red or purple dye unless instructed otherwise.
- Start the 7-day antibiotic course if prescribed, such as levofloxacin, exactly as directed.

3

Morning of surgery Fleet enemas are important

- Use 2 to 3 Fleet enemas about 2 hours before leaving home or the hotel for HIFU, unless you were given different instructions.
- This is important because stool or gas in the rectum can interfere with ultrasound imaging and energy transmission.
- Follow the anesthesia instructions from pre-surgery testing about when to stop eating and drinking.

What to Expect Going Home

- Most patients go home the same day.
- You will go home with a Foley catheter, usually for about 10 days.
- Urinary urgency, bladder spasms, pelvic pressure, and mild blood in the urine are common.

First Follow-Up

- Clinic visit around 10 days after surgery for catheter removal.
- This is usually a fill-and-flow voiding trial.
- PSA monitoring and MRI follow-up are part of the treatment plan.