

# Holmium Laser Enucleation of the Prostate Surgery

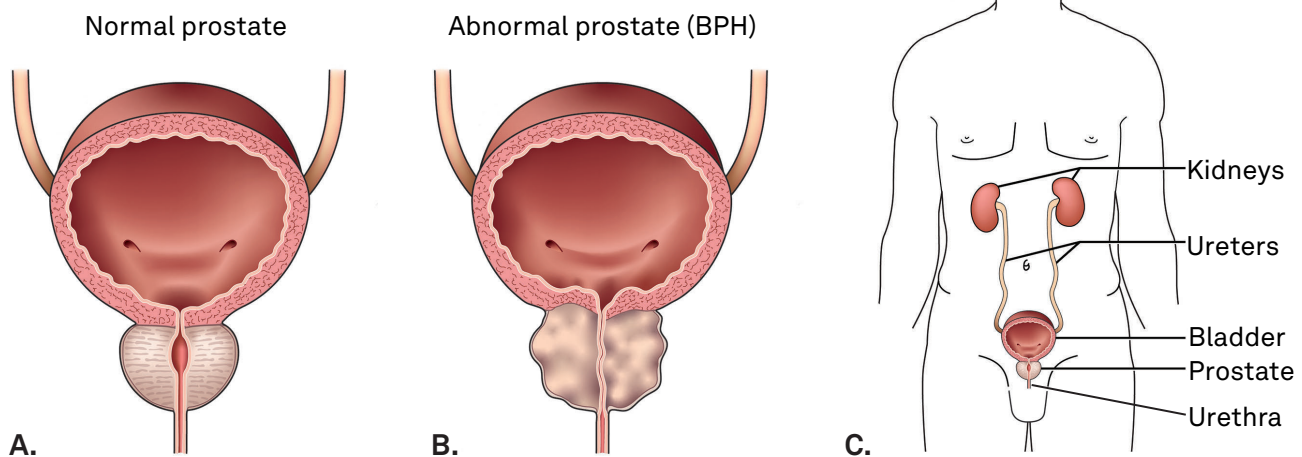
This brochure provides information to guide you through holmium laser enucleation of the prostate (HoLEP) surgery and recovery. It describes the surgery and the care guidelines you should follow afterward. This information may answer many of your questions.

If you have any questions,  
please ask your urologist.

## Benign prostatic hyperplasia

Your prostate is a walnut-sized gland. It surrounds the urethra just below the bladder (Figures 1A, 1C). When you have benign prostatic hyperplasia (BPH), your prostate is larger than usual (Figure 1B). It can create pressure on your urethra, which can begin to block the flow of urine. This may cause you to have a slow stream of urine or difficulty starting a stream of urine. This also may force your bladder muscle to work too hard and become irritable or weakened. If you have BPH, the muscles of your pelvic floor do not have to work as hard to prevent urine leakage. Not using these muscles can cause them to weaken.

**Figure 1. Prostate anatomy**



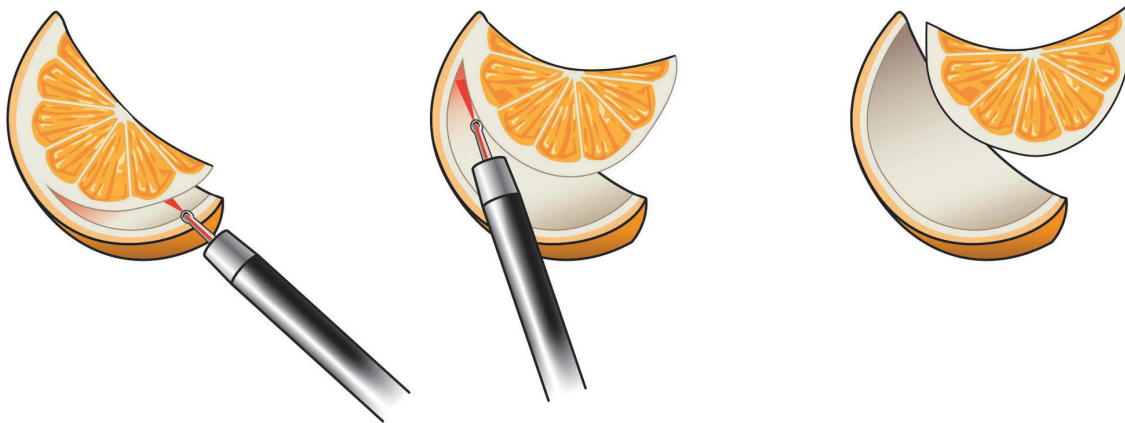
For many, the symptoms of an enlarged prostate can significantly affect their quality of life, causing discomfort, pain and even embarrassment.

## HoLEP surgery

HoLEP surgery is a treatment for BPH that decreases the pressure on your urethra caused by the enlarged prostate. HoLEP surgery is done through a thin, tube-like scope instrument inserted through your penis. It does not use incisions through your skin.

The inside tissue of your prostate is removed with a laser tool, leaving the outer shell intact. This can be compared to hollowing out the juicy part of an orange and leaving the peel (Figure 2). Another device (morcellator) acts like a small food processor to break up the shelled-out tissue and remove it from your bladder. This way, there is no tissue that has to pass through your urine. The surgeon will remove the prostatic urethra as part of the hollowing out of the prostate. Then, the peel or rind of the prostate heals to become a wide-open, new urethral channel.

**Figure 2. The HoLEP surgery “hollowing out” process**



HoLEP surgery is a treatment option for patients with any size prostate and any of these conditions:

- › You have bothersome urinary symptoms due to BPH.
- › You have had past procedures that have not fixed the BPH (in some cases).
- › You have a weak bladder and BPH.
- › You have a blocked flow of urine due to prostate cancer. (HoLEP surgery is not a treatment for prostate cancer.)

- › You need treatment for BPH again.
- › You also need surgery for bladder stones, upper urinary tract stones or other urinary problems

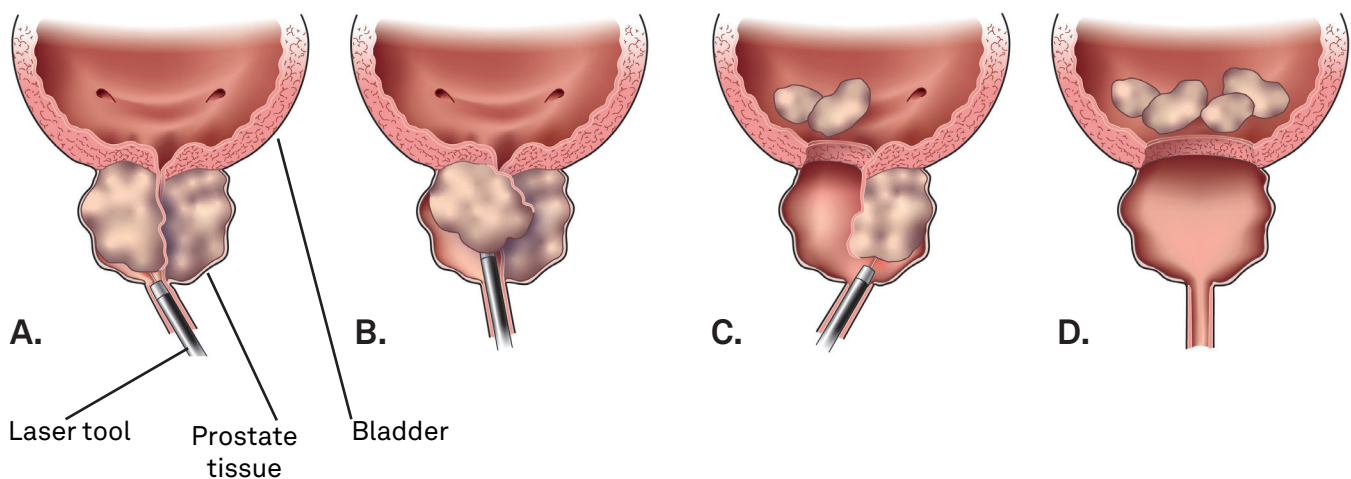
Benefits of HoLEP surgery include:


- › Patients do not typically need treatment for BPH again.
- › Patients may only need a urinary catheter (tube in the bladder) for a short time after surgery.
- › There is less risk of bleeding during surgery even if the patient is taking an anticoagulant (blood thinner) medication. This is because the surgeon uses a laser.
- › The recovery time is shorter than other BPH surgeries. Most patients can go back to physical activities, such as exercise, 1 week after surgery.

## During the procedure

You will be asleep (under anesthesia) during the procedure. The urologist will insert the thin, tube-like scope instrument through your urethra (Figure 3A). A high-powered holmium laser will be used through the scope to core out the enlarged prostate tissue. This will make your prostate smaller (Figures 3B, 3C). Leftover prostate tissue in your bladder (Figure 3D) will then be removed by the morcellator device and suction.

**Figure 3. HoLEP surgery**





The scope will be taken out. A catheter will be placed into your bladder to let urine drain.

HoLEP surgery may take anywhere from 45 minutes up to 3 hours, depending on the size of your prostate.

The surgeon will send all the prostate tissue they took out to the pathologist to see if there are any problems, such as infection or cancer.

## After the procedure

Most patients go home the same day as their surgery. An overnight stay in the hospital is not usually needed.

You will have a catheter in your bladder after the procedure. If your urine color is light and there is not much blood, the care team will take out the catheter before you leave the hospital. If you need to go home with the catheter, it will be removed the next morning in the urology clinic.

## Care at home after surgery

### What to expect

Expect to see blood in your urine for 1 to 2 weeks. This may last longer if you take anticoagulant medication.

Some patients may notice these symptoms after surgery:

- › Burning when you urinate
- › A small amount of pain or discomfort
- › Urine leakage (incontinence)

### Activity

It is important to limit your activity at first to allow for healing.

- › 1st week – Rest and do as little activity as possible. Do not lift anything heavier than 10 pounds for 1 week.
- › Week 2 – Limit your activity, including exercise, to half of what you normally do.
- › Week 3 – You can return to your regular activities as you are able.

Limit strenuous activities such as biking, horseback riding and motorcycle riding for 1 month.

## Retrograde ejaculation

Retrograde ejaculation means that ejaculate (semen) does not come out of the penis during orgasm. You will have retrograde ejaculation after your surgery. **Your erections and orgasms will most likely feel the same.** Most say their orgasm is similar to what it was before surgery. A small group say it is better, and a small group say it is less satisfying.

Unfortunately, this is an irreversible effect of HoLEP. There is not enough pressure in the enucleated or “hollowed out” prostate to make the semen come out.

## Caring for your bladder

You may have incontinence after your surgery. This is because the muscles that support your bladder and stop the flow of urine are weak. You also may have an overactive bladder. Incontinence does not usually last. It can improve if you do pelvic floor muscle exercises. These tips can also help:


- › Wear an absorbent brief or pad to stay dry.
- › Stay hydrated. It is easy to think that if you drink less water, you will have less urine leakage. This can actually make it worse because dehydration can irritate the bladder.
- › Try to drink at least 2 liters (or 8 full 8-ounce glasses) of fluid a day unless your urologist tells you otherwise. Fluids will also help to flush blood from your urine.

## Pelvic floor exercises

Pelvic floor muscles run from the pubic bone to the tailbone. They support your bladder and rectum. These muscles help with bowel control, bladder control and sexual function.

If you have BPH, the muscles of your pelvic floor do not have to work as hard to prevent urine leakage. If you do not use these muscles, they will get weaker. This also may force your bladder muscle to overwork.

After HoLEP surgery, your pelvic floor muscles can be too weak to support your overworking bladder. Pelvic floor exercises can help with urinary control and function.



Kegel exercises are simple squeeze-and-relax exercises that can strengthen your pelvic floor muscles. Many men find that routinely doing their pelvic floor exercises helps with incontinence. Improving the function of the pelvic floor may also help with sexual function.

To practice your Kegel exercises, use 1 of these cues:

- › While you are urinating, try to stop your urine stream by squeezing your pelvic floor muscles.
- › When sitting in a chair, squeeze your muscles to lift your scrotum in toward your belly button and off the chair.
- › Squeeze your pelvic floor muscles as if you are trying to stop from passing gas.

Once you have learned how to tighten your pelvic floor muscles, you are ready to start doing pelvic floor exercises.

To start, lie on your back with your legs supported and relaxed. Squeeze and relax the muscles of your pelvic floor. Once you are comfortable doing the exercises lying down, you are ready to start doing them while sitting or standing.

When doing the exercises, remember these tips:

- › Do not hold your breath.
- › Try not to squeeze the muscles of your buttocks, thighs and abdomen.
- › Relax completely between contractions.

Apply the “rule of 5’s” to your pelvic floor exercise routine:

- › Perform a set of 5 Kegel exercises 5 times a day.
- › Hold each contraction for 5 seconds.

The quality of your exercises is more important than the number of sets you do. Try to think about your pelvic floor muscles as you are moving them.

It could take time for you to see a difference in your bladder control. Begin your Kegel exercises as soon as possible after surgery to strengthen your pelvic floor properly and get back your bladder control.

## When to call your urologist

Call your urologist if you have any of these symptoms:

- › A temperature of more than 101 degrees F
- › Nausea and vomiting
- › Inability to urinate
- › Foul-smelling urine
- › The start of new urine leakage

## Follow-up visit

Schedule a follow-up visit with your urologist for 3 months after your surgery. You will have a prostate-specific antigen (PSA) level blood test at that visit. You will not need any more follow-up visits if you do not have new or worsening symptoms.

## Contact information

If you have any questions, please call your urologist or the urology clinic at 312.695.8146 (TTY: 711).

For more information, go to [nm.org/conditions-and-care-areas/urology/benignprostatic-hyperplasia](https://www.nm.org/conditions-and-care-areas/urology/benignprostatic-hyperplasia).

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