



# **GreenLight Photoselective Vaporization of the Prostate (PVP)**

## **What is GreenLight PVP?**

It is an operation that uses a laser to vaporize excessive tissue that is causing urinary blockage through the prostate gland. This obstruction can lead to bothersome urinary symptoms, and in some cases, kidney dysfunction. The laser uses concentrated light to generate heat that vaporizes the prostate tissue.

This operation is performed in a hospital or surgery center under anesthesia, and sometimes will include an overnight stay. A special instrument is passed into the bladder through the penis, and there are no external incisions.

This operation is typically performed in men with urinary symptoms related to an enlarged prostate gland, and not for treating prostate cancer.

Alternatives to this procedure include watchful waiting, medical therapies, traditional transurethral resection of the prostate (TURP), as well as other minimally invasive treatments, reviewed in the office.

Anticipated benefits include easier urination with a fuller stream, and often a decrease in irritative urinary symptoms such as urgency, frequency, and night time waking for urination. Without this intervention, there can be increased risk of symptom progression, worsening bladder dysfunction, or kidney dysfunction.

## What are the risks?

**Bleeding.** As with any operation there will be some bleeding. This may persist to some degree for up to 4 to 6 weeks, and is often fairly minimal. You should hydrate aggressively if bleeding becomes heavy. Transfusion rates for this operation are typically less than 1%.

**Infection.** A preventative antibiotic is given prior to the surgery at the hospital, and infection rates are usually less than 5%.

**Dry orgasm.** This is the most common side effect, resulting in the absence of expelled semen during orgasm. Often, the semen may flow retrograde into the bladder, and this does not cause symptoms or harm. The orgasm itself is typically not affected, though in a small percentage of men it may be somewhat diminished or altered due to the absence of semen passage.

**Erectile dysfunction.** Rates of erection problems following this surgery are typically less than 1%, and occur if tissues too close to the nerves are lasered.

**Prostate re-growth.** This may occur, and even require repeat surgery in the future, but rates are quite low.

**Scar tissue.** This may occur in the prostate itself or at the bladder neck, and require treatments in the future, though rates are quite low.

**Leakage of urine.** Rates for stress urinary incontinence are less than 1%, but there may be temporary urge incontinence related to the fact that you have an overactive bladder at baseline. Rarely would this be a lasting effect, and additional treatments are available.

**Anesthetic and other risks.** Significant events such as heart attack, stroke, even death may occur as a result of any anesthetic, though such risks are extraordinarily low, especially if properly evaluated by your primary physician before surgery if indicated. Should you develop any pain or swelling of your lower legs and ankles following surgery, notify your doctor's office immediately, as this may indicate a blood clot in your leg (deep vein thrombosis or "DVT"). If a blood clot moves to the lung this could be immediately life-threatening, and usually presents with shortness of breath and/or painful breathing.

## **What are preparations for surgery?**

Please have nothing to eat or drink after midnight prior to your surgery. If you take blood thinners, your surgeon will have discussed stopping this medication prior to your surgery.

## **What happens during the surgery?**

You usually will have a general anesthesia, but if you have other long-term medical conditions, such as problems with your heart or breathing, your anesthesiologist may recommend a spinal (regional) anesthetic. This means you are awake but not feeling any sensations below the waist during the operation.

To perform the surgery, a telescopic instrument called a cystoscope is passed into your urethra (the tube through which you pass urine), through your prostate, into the bladder. The cystoscope has a video camera at its end, allowing clear visualization of the prostate during the lasering of tissue.

## **What happens after the surgery?**

A catheter is left in place following the surgery, and irrigant is circulated through the bladder overnight to enable proper healing in the first 24 hours. Some patients will go home the same day of surgery. Most patients will have the catheter removed the morning after surgery, though sometimes it is necessary to maintain or replace it for a short period.

In the days following surgery, it is normal to feel some discomfort that is usually mild. Burning with urination is the most common symptom, that sometimes will last one to two weeks, rarely longer.

Most men find their obstructing symptoms (slow urinary stream) improves very early on following surgery, but your bladder may be overactive for several weeks after, resulting in more irritative symptoms such as frequency and urgency, in rare cases urge leakage of urine. Your bladder function, however, can continue to improve for several months following this surgery.

## **Resuming activities**

You can go back to work when you feel able, usually within one to two weeks. Typically, we ask that you abstain from any heavy physical activity for three weeks.

You may drive when you feel able and are not under the influence of any medications.

Sexual activity may begin after one week, but be prepared for an initially altered orgasm and/or absent or bloody ejaculate.

## **Follow-up**

Your doctor will arrange a follow-up visit, usually within four to six weeks following surgery, to ensure you are progressing appropriately.

For any concerns related to excessive bleeding (such as blood clots preventing passage of urine), fever or possible infection, inability to urinate, or any other concern, do not hesitate to call our office for advice or instruction.