

Photoselective Vaporization (PVP)

What is Photoselective Vaporization of the Prostate?

This is a procedure that attempts to alleviate urinary symptoms caused by benign enlargement of the prostate gland. The enlarged prostate can compress the urethra and cause bothersome urinary symptoms. The procedure removes prostate tissue by using a laser to turn the tissues into gas. This allows easier urinary flow. Similar techniques such as Transurethral Resection of the Prostate (also commonly known as TURP) have been successfully used to treat symptomatic benign prostate enlargement for several decades. The TURP procedure does result in patients having to stay in the hospital for a day or two as it is associated with more bleeding and other complications. The use of the laser has allowed us to operate with less concern for bleeding allowing for outpatient surgery in most cases.

Who benefits from Photoselective Vaporization of the Prostate?

Patients with urinary obstruction caused by benign enlargement of the prostate gland will benefit the most. Common symptoms of this condition are slow urinary stream, dribbling, frequent or urgent urination, and rising frequently to urinate during the night.

What can I hope to improve by the surgery?

There is an almost immediate improvement in the urinary stream. This will allow for shorter and more efficient trips to the rest room. Frequency, nighttime voiding, urgency of urination tend to take long periods of time to improve. The goal of the procedure is to control urinary symptoms adequately without requiring the use of additional medications. Medications used for prostate enlargement are typically stopped between four and six weeks after the surgery.

What is the expected postoperative course?

The surgery typically lasts between one and three hours. The patient will wake up with a rubber tube called a catheter that drains the bladder. These catheters typically remain overnight and can be safely removed at home in most circumstances. The patient is typically able to leave the hospital within three to four hours after the surgery. Once at home I encourage light activity for a three-week period of time. Pain is relatively minimal and short-lived, however patients are sent home with pain medications. There is some discomfort or burning in the penis that can last on and off for up to several weeks. This is believed to be related to the prostate gland healing from the surgery. Some patients do report discomfort at the tip of the penis that is mild and short-lived. Patients can see blood in the urine on and off for several weeks following the procedure. This is somewhat related to physical activity, which is one of the main reasons why we encourage only gentle exercises such as walking for the first three weeks following the procedure.

What are the complications of this Procedure?

Urethral discomfort as mentioned above. Bleeding as mentioned above. An infection of the bladder or kidney is a possibility but is unlikely, urinary leakage (otherwise called incontinence) is a rare but potentially disabling complication. There is a about a five percent chance that this could effect the ability to obtain normal penile erection after the surgery. A very common complication after the surgery is a lack of ejection due to the change in the opening between the bladder and the prostate caused by the procedure. A narrowing in the urethra called a stricture is a complication that can result in other minor procedures. Additionally, areas of the prostate may continue to grow and cause future obstruction after the procedure.

What are the disadvantages of Photoselective Vaporization of the Prostate?

The main disadvantage is that as the tissue is turned into gas, no tissue is available for analysis. In rare cases this could potentially miss a prostate cancer that may exist in the prostate gland. In order to help ensure that prostate cancer is not present at the time of the procedure, blood test are usually checked to screen for patents that may potentially have cancer and a prostate biopsy would be performed if there is a suspicion.

What are the alternatives to Photoselective Vaporization of the Prostate?

There are medical treatments that are available to treat this condition. Other surgical alternatives are Transurethral Resection of the Prostate or TURP. In rare cases of an exceptionally large prostate gland, patients may benefit from a major surgical procedure to remove larger volumes of prostate tissue. There are on going clinical trials at the University of Colorado for other minimally invasive treatment alternatives. Should you have any questions about these please consult your physician.