The two treatments described below are for Benign Prostatic Hyperplasia (BPH) or Enlarged Prostate (EP). These treatments are popular with men who want to do something more for their problem than take drugs, yet want to avoid surgery (TURP) on the prostate. These treatments are overall more effective than a daily medication yet often as effective as surgery with lower complications. While there are several minimally invasive therapies that are available, the two currently offered by Stillwater Medical Group Urology are Office Thermodilation and Holmium Laser.

OFFICE THERMODILATION

What is office thermodilation?
This newer technology both heats (thermo) and expands (dilation) the prostate and can be performed in the office. The purpose is to treat the symptoms of BPH in men with an enlarged prostate who would benefit from drugs or surgery. It is FDA approved, safe and effective.

How does office thermodilation work?
A combination of balloon dilation and microwave heating will open the obstructing prostate tissue. In the office, the urologist inserts a catheter into your urethra. A small balloon that is part of the catheter will inflate and cause the tissue to expand. After a few seconds, the microwave energy is turned on, transmitted from a special antenna inside the catheter to provide continuous heat to your prostate. It is this heat that causes the obstructing prostate tissue to “shrink” or open in the ensuing weeks. During the entire 45 minute procedure the temperature surrounding the treatment area is monitored by a rectal thermometer. If the temperature gets too warm, the system will shut off automatically.

What to expect during my treatment?
First, the physician evaluates you to see if you are a candidate for this therapy. A urine test, PSA, bladder ultrasound and cystoscopy (look in the bladder with a slender scope) may be necessary. Someone should drive you to the office since you will be given some medications beforehand to relax you for the treatment. You will be asked to empty your bladder, and lie on your back. Your urologist will apply an anesthetic jelly to the tip of the penis, and a catheter is inserted into the urethra. An ultrasound is performed on the lower abdomen to ensure that the catheter is in proper position. A rectal thermometer is then inserted. Treatment is then initiated and lasts approximately 45 minutes. During the treatment, you may feel slight discomfort, like the need to empty your bladder or have a bowel movement. You may also feel a warming sensation. You are sedated but awake during the entire procedure but overall, the treatment is so well tolerated that many men will bring earphones to listen to music or a book to read during the 45 minute therapy. When the treatment is over, the catheter and thermometer are removed, and almost all patients leave the office without a catheter a few minutes after the treatment.

What are the side effects of treatment?
Most men (almost 100%) leave the office without a catheter. There may be some blood and/or burning with urination for a day or two afterwards. Dry ejaculation (retrograde ejaculation) may rarely occur, otherwise sexual functioning is usually not affected (99%).

What are the benefits of thermodilation?
It is a safe and effective in-office therapy for BPH that is covered by Medicare and medical insurance. It is designed to give more benefit than drugs without the side effects of surgery. Most men (75% in one study) get significant relief from this treatment and have noticeable improvement in their urination and are able to discontinue their prostate medications within weeks of treatment. It can be safely repeated if need be. Most normal activities can be resumed within 24 hours.

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What are the downsides of thermodilation?
In rare instances, a patient may need to wear a catheter for a day or two after the procedure. While some patients get improvement within a day or two, others may not get benefit for 3-6 weeks. Also up to 25% of patients get no benefit from therapy (however the BPH is not made worse and other treatments can still be safely done). Because this is a newer treatment the long term effectiveness is still being studied. Most studies have shown that there is up to a 1 in 3 retreatment rate within 5 years of the procedure, because the prostate obstruction may grow back. There are some men (based on anatomy) who are not good candidates for thermodilation. Erectile dysfunction and/or urinary leakage has rarely been reported in about 1% of men. There have been serious but rare side effects from other microwave device treatments, but none reported by the thermodilation system we currently are using.

HOLMIUM LASER

What is Holmium Laser?
Holmium Laser treatment (also known as HOLAP-Holmium Laser Ablation of the Prostate) uses laser energy which opens the prostate and reduces BPH symptoms and minimize the complications associated with traditional prostate surgery (TURP). Patients may experience immediate symptom relief with rapid recovery and little risk of complications.

How does Holmium Laser work?
Laser energy removes obstructing prostate tissue. This is performed at the hospital under spinal or general anesthesia. The urologist passes a cystoscope into the urethra, allowing visualization of the bladder and prostate. A thin flexible laser fiber is inserted through the scope, and is used to transmit the laser energy precisely to the prostate tissue. The direction and delivery of the prostate energy is controlled by moving the fiber back and forth with a sweeping motion. The laser energy instantly vaporizes the prostate tissue and seals the area. The entire procedure usually takes about 30-45 minutes. After the procedure a catheter is temporarily inserted into the bladder.

What to expect during my treatment?
There is no pain during the laser treatment. Afterwards there is very little discomfort, and pain medication is rarely needed. There is usually some mild blood in the urine. You are usually discharged home within a couple of hours of the laser treatment.

What are the side effects of Holmium Laser?
Some of the more common side effects include temporary (<1 week) blood in the urine and sometimes short term urinary burning and/or frequency. Dry ejaculation may occur, otherwise sexual functioning is usually not affected (99%).

What are the benefits of Holmium Laser?
This is a safe and effective outpatient treatment covered by Medicare and insurance. Most studies show about a 90% success, and usually gives immediate relief of symptoms. It provides proven long lasting results (years to decades) similar to more invasive prostate surgery (TURP). A catheter is only usually required for ½ day or so. It eliminates the need for drugs that are taken to relieve BPH symptoms, and there are less complications and a quicker recovery than traditional and more invasive prostate surgery (TURP).

What are the downsides of Holmium Laser?
Unlike the office thermodilation, an anesthetic is required, the procedure needs to be done as an outpatient at the hospital and a temporary catheter is necessary. Normal activities cannot be resumed for a couple of days. Rarely is there urinary incontinence or erectile dysfunction. Because the entire prostate is not removed, the prostate may regrow and reobstruct, but this is rare. If need be, the procedure may safely be repeated later. Up to 10% of patients will not get improvement with the procedure, and possibly require the more invasive TURP.
LIFESTYLE CHANGES AND MEDICATIONS

Lifestyle changes

This is the 1st step, and includes cutting back on caffeine, voiding on a regular basis before a sense of urgency hits, and limiting fluids before bed.

Medications

- Herbal medications are sometimes taken by men. Saw palmetto is the most widely used, and appears to cause little harm. These may have a mild beneficial effect, but there is little scientific proof that they work better than a placebo.
- Alpha Blockers are the most commonly prescribed medications for BPH. They help about 50% of patients, probably by relaxing the smooth muscle of the prostate and bladder neck. The different medications include terazosin (Hytrin), doxazosin (Cardura), alfuzosin (Uroxatrol) and tamsulosin (Flomax), and seem to differ slightly in side effects, but not in potency. They are lifetime medications, and all can cause some minor fatigue, nasal congestion and retrograde ejaculation (semen flows into the bladder with ejaculation). Rarely, there is the potential to cause a drop in blood pressure, which can lead to dizziness when standing, or even fainting. Also, their use has been associated with making cataract surgery more difficult, so if you have cataracts, your use of these meds should be discussed with your ophthalmologist.
- 5 alpha Reductase Inhibitors are medications that block the conversion of testosterone to dihydrotestosterone (DHT) in the prostate, thus “shrinking” the gland. It takes 3-6 months to have maximum effect, and the PSA drops by 50% during this time. Side effects include reversible mild breast enlargement or ED. There are 2 medications, finasteride (Proscar) or dutasteride (Avodart) that appear to have similar effectiveness, although dutasteride is more potent. Like the alpha blockers, they are lifetime medications, and they help about 50% of patients, especially in those men with larger prostates (over 30 grams).
- Combination therapy, using both alpha blockers and 5 alpha reductase inhibitors, is safe and on occasion may be more helpful than using either drug alone.