

## **TRANSURETHRAL MICROWAVE THERMOTHERAPY (TUMT) FOR THE RELIEF OF BLADDER NECK OBSTRUCTION AND/OR LOWER URINARY TRACT SYMPTOMS**

Transurethral Microwave Thermotherapy uses a medical device for the treatment of benign enlargement of the prostate gland. This device uses microwaves to heat the prostate gland tissues in conjunction with a circulating cooling system that lowers the temperature in the urethra. During this procedure a catheter-like tube will be inserted into my urethra using an anesthetic jelly. This probe will connect to the microwave generator and the cooling system. A small probe will be inserted into my rectum to monitor the temperature during treatment. This procedure has been used investigatively since 1990 and received FDA approval in 1996.

The benefit of the procedure is expected to be relief of bladder outflow obstruction/lower urinary tract symptoms without the need for hospitalization and surgery and potential associated risks. Nevertheless, the possible risks and discomforts associated with transurethral microwave thermotherapy are as follows:

- Pain and discomfort during the various procedures wherein urethral and rectal probes are passed.
- Bleeding in the urethra and/or rectum that may or may not require catheterization or hospitalization.
- Infection.
- Temporary increased urinary retention due to edema.
- Need for prolonged catheterization to allow voiding.
- Persistent irritative symptoms with urination, including painful urination, frequency, burning, urgency and getting up at night to urinate.
- Persistent discomfort or pain in bladder or penile area.
- Need for complete resection of prostate if obstruction persists.
- Rectal irritation or abrasion.
- No guarantee of relief of urinary symptoms and need for additional treatments or surgery at a later time.
- Loss of normal ejaculation and/or erection.
- Narrowing or scarring in urinary channel requiring treatments or surgery (stricture).
- Loss of urinary control (incontinence), temporary or permanent.

Penile injury and rectal fistulas have been documented in rare cases where the catheter or rectal probe has been incorrectly placed or migrated during the therapy. There may be additional risks associated with this procedure that have not yet been identified.

There are alternative methods for the treatment of benign prostatic hyperplasia (BPH). Alternatives include:

- A surgical procedure known as transurethral resection of the prostate which involves surgical removal of part of the prostate
- Transurethral incision of the prostate
- Drug therapy
- Interstitial coagulation by laser or radio frequency
- Vaporization therapy

These therapies have morbidity and may have mortality rates associated with them, and they may or may not be considered as advantageous alternatives based on a particular condition.