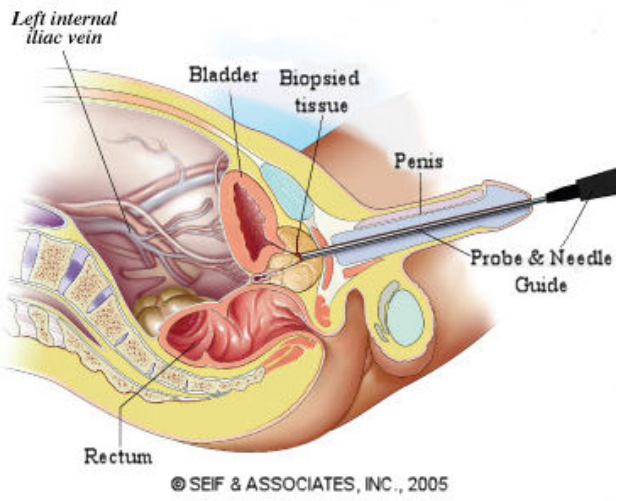
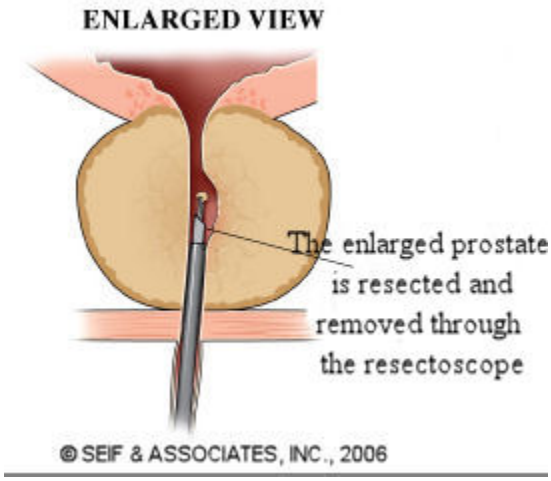
Prostate Problems
Overview and Testing

The prostate gland is part of the reproductive system of men. A normal prostate is about the size and shape of a walnut. The prostate may grow as a man ages. The gland makes a fluid that is mixed with sperm to make semen. This gland is located in front of the rectum and just below the bladder, where urine is stored. The prostate surrounds the urethra. The urethra is the tube through which urine passes out of the body.



COMMON PROSTRATE PROBLEMS

- Prostatitis
  - The most common prostate problem in men under 50 is inflammation which includes infection.
  - This is generally an infection that enters the prostate from the urethra.
  - It may be sexually transmitted.
  - It could be caused by a slow growing cancer.
  - If not cancer, treatment with antibiotics is usually very effective. In some cases, symptoms may be slow to go away and may come back. This condition is commonly called chronic prostatitis.
- Benign Prostatic Hypertrophy (BPH)
  - BPH is an enlarged prostate.
  - There is no cancer present with this condition.
  - The exact cause is not known; but it is one of the most common problems for men over age 50.
  - If your caregiver finds BPH, but there are no symptoms or mild symptoms, then there is usually nothing more required than a re-exam once or twice a year.
- Prostrate cancer
  - Prostate cancer is the most common cancer in American men.
  - Symptoms of prostate cancer will vary depending on how big the tumor is and whether it has spread beyond the prostate. If it has spread, your caregiver must find out how far it has spread.
  - Prostate cancer is treated by various combinations of surgery, radiation therapy, hormonal therapy and chemotherapy. Sometimes the prostate cancer is just observed to determine the need for treatment.
  - Some men with enlarged prostates have no symptoms at all.
  - Symptoms vary a lot. They are usually referred to as "lower urinary tract symptoms" (LUTS).



SYMPTOMS

- Frequent urination.
- Getting up often during the night to urinate.
- A feeling that you still have a full bladder after passing your urine.
- A weak stream or dribbling after urination.
- Having to push or strain to pass your urine.
- Fever.
- Pain in the low back and/or groin.
- Blood in the urine.

- Discharge from the penis.
- Weight loss.
- There may be visible enlargement of the bladder.
- In severe cases, one cannot empty the bladder at all, and there is severe pain. This is **AN EMERGENCY** and requires immediate medical care. If this occurs many times, one can develop permanent damage to the bladder and kidneys.
- Different prostate problems may have similar symptoms. In the early stages, there may be no symptoms at all.

TREATMENT

- If your caregiver finds BPH and you have bothersome symptoms, medicines can be taken by mouth to help.
- If medicines are not helpful, then surgery may be advised. Different procedures use different methods to heat, destroy and remove a small amount of the prostate tissue. These methods include the use of:
  - Microwaves.
  - High-frequency sound waves (radio frequencies).
  - A laser.
  - An electric charge (electrode).
- Other surgeries are available and described below. All of these are preceded by appropriate anesthesia.
  - The surgeon scrapes away part of the inside of the prostate using a small scope put into the urethra. This reduces the squeezing on the urethra.
  - The surgeon makes small cuts in the prostate to reduce the squeezing pressure on the urethra.
  - Removal of the entire prostate is carried out through a small incision.
  - Removal of the entire prostate through a larger incision may occur in situations where the surgeon feels the other operations are not appropriate.

DIAGNOSIS

- Your caregiver will likely suggest common screening tests because prostate problems are common and easily controlled if found early.
- Digital rectal exams (DRE) and blood tests for prostate-specific antigen (PSA) are often included in routine physical exams over age 40.
- If you have urination problems, or a DRE or PSA test indicates that you might have a problem, additional tests will be suggested.
- All of these procedures can be done in the caregiver's office and take little time.
- Ask your caregiver if any special preparations are needed.
- Ask if regular medicines need to be stopped before any tests.
- Risks and complications are very uncommon, and hospitalization is not required.
- It is currently unknown if one form of therapy is better than the others. There is not enough known about how well patients do after many years.

TYPES OF TESTS

DRE (DIGITAL RECTAL EXAM)

- You may be asked to bend over a table or to lie on your side holding your knees close to your chest.
- Your caregiver slides a gloved, lubricated finger into the rectum and feels the part of the prostate that lies next to it.
- You may find the DRE slightly uncomfortable, but it is very brief.
- This exam tells the caregiver whether the gland has any bumps, irregularities, or soft or hard spots that require additional tests.
- If a prostate infection is suspected, the caregiver might press the prostate during the DRE to obtain fluid for examination under a microscope.

PSA BLOOD TEST

- To screen for cancer, your caregiver may recommend a PSA (prostate specific antigen) blood test.
- The amount of PSA, a protein produced by prostate cells, is often higher in the blood of men who have prostate cancer. However, an elevated level of PSA does not necessarily mean you have cancer.
- The American Urological Association have made the following recommendations:
  - PSA testing should begin at age 40 for all black men and all men with a family history of prostate cancer.
  - PSA screening is recommended every year for all men aged 50 and older who have an anticipated lifespan of 10 or more years.
- Much remains unknown about how to interpret the PSA test and its ability to discriminate between cancer and benign prostate conditions. Your caregiver will discuss this with you. Each case of prostate cancer is an individual case and merits full discussion with your caregiver so that you can make an informed decision as to the care you choose to receive.

URINALYSIS

- A urine sample may be tested with a dipstick or viewed under a microscope.
- This can help find an infection if one is present.

TRANSRECTAL ULTRASOUND AND PROSTATE BIOPSY

- If prostate cancer is suspected, your caregiver may recommend a transrectal ultrasound.
- The caregiver or technician inserts a probe slightly larger than a pen into the rectum.
- The probe directs high-frequency sound waves at the prostate, and the echo patterns form an image of the gland on a television monitor.
- The image shows how big the prostate is and any abnormalities. This cannot clearly identify tumors.
- To determine whether an abnormal-looking area is indeed a tumor, the caregiver can use the probe and the ultrasound images to guide a biopsy needle to the suspected tumor.
- The needle collects a few pieces of prostate tissue for examination under a microscope.
- A specialist will look at the tissue samples to see if cancer is present.

MRI AND CAT SCANS

- MRI and CAT scans both use computers to create pictures of internal organs.
- These tests can help identify abnormal structures.
- They cannot show a difference between cancerous tumors and non-cancerous growths.
- If a biopsy confirms cancer, your caregiver might use these imaging techniques to determine how far the cancer has spread. In most cases these tests are not required. Your caregiver will discuss the need for these tests if he/she feels they are indicated.

URODYNAMIC TESTS

- If your problem appears to be related to blockage, your caregiver may recommend tests that measure bladder pressure and urine flow rate.
- You may be asked to urinate into a special device that measures how quickly the urine is flowing. It will record how many seconds it takes for the peak flow rate to be reached.
- Another test measures post-void residual. This is the amount of urine left in your bladder when you have finished passing urine.
- A weak stream and difficulty emptying the bladder in full may be signs of urine blockage caused by an enlarged prostate that is squeezing the urethra.

INTRAVENOUS PYELOGRAM (IVP)

- IVP is an x-ray of the urinary tract.
- In this test, a fluid called "contrast" is injected into a vein.
- X-ray pictures are taken at different times to see the progression of contrast through the kidney and ureter.
- The contrast makes the urine visible on the x-ray and shows any narrowing or blockage in the urinary tract.

- This procedure can help show problems in the kidneys, ureters, or bladder that may have come from urine retention or backup.

ABDOMINAL ULTRASOUND

- For an abdominal ultrasound exam, a technician will apply gel to your lower abdomen.
- He or she will sweep a handheld device across the lower abdomen to record a picture of your entire urinary tract.
- An abdominal ultrasound can show damage in the upper urinary tract that comes from urine blockage.

CYSTOSCOPY

- A solution will numb the inside of the penis.
- The caregiver will insert a small tube (*cystoscope*) through the urethral opening at the tip of the penis.
- The tube allows your caregiver to see the inside of the urethra and bladder.
- The caregiver can then determine the location and amount of the obstruction causing problems.

HOME CARE INSTRUCTIONS

- You may have mild discomfort for a few hours after urodynamics and cystoscopy.
- Drinking two, 8-ounce glasses of water each hour, for two hours should help.
- Ask your caregiver whether you can take a warm bath. If not, you may be able to hold a warm, damp washcloth over the urethral opening to relieve the discomfort.
- A prostate biopsy may also produce pain in the area of the rectum and the perineum (between the rectum and the scrotum).
- Only take over-the-counter or prescription medicines for pain, discomfort, or fever as directed by your caregiver.
- Your caregiver may give you an antibiotic to take for 1 or 2 days to prevent an infection, but not always.
- If you have signs of infection-including pain, chills or fever, call your caregiver.

GETTING THE RESULTS

Results for simple tests can be discussed with your caregivers immediately after the test. Other tests may take a few days. You will have the chance to ask questions about the results and possible treatments for your problem.

FOR MORE INFORMATION

More information is available from:

American Foundation for Urologic Disease
1000 Corporate Boulevard
Suite 410
Linthicum, MD 21090
Phone: 1–800–828–7866 or 410–689–3990
Internet: www.urologyhealth.org

The Prostatitis Foundation
1063 30th Street, Box 8
Smithshire, IL 61478
Phone: 1–888–891–4200
Fax: 309–325–7184
Internet: www.prostatitis.org

For information about prostate cancer, contact the
Cancer Information Service
National Cancer Institute (NCI)
Phone: 1–800–4CANCER (1–800–422–6237)
TTY: 1–800–332–8615
Internet: www.nci.nih.gov (NCI's primary website) or http://cancernet.nci.nih.gov (material for professionals, patients, and the public)

National Kidney and Urologic Diseases Information Clearinghouse
3 Information Way
Bethesda, MD 20892–3580

Document Released: 10/14/2008 Document Re-Released: 10/15/2010
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