



Official reprint from UpToDate®
www.uptodate.com ©2013 UpToDate®



Patient information: Benign prostatic hyperplasia (BPH) (Beyond the Basics)

Authors

Glenn R Cunningham, MD
Dov Kadmon, MD

Section Editor

Michael P O'Leary, MD, MPH

Deputy Editor

Fenny H Lin, MD

BPH OVERVIEW

Benign prostatic hyperplasia is a condition that occurs when the prostate enlarges, potentially slowing or blocking the urine stream. Other names for benign prostatic hyperplasia include benign prostatic hypertrophy, an enlarged prostate, and BPH. BPH occurs only in men; approximately 8 percent of men aged 31 to 40 have BPH. In men over age 80, more than 80 percent have BPH.

Many men with BPH have no symptoms. In men with symptoms, the most common include needing to urinate frequently (during the day and night), a weak urine stream, and leaking or dribbling of urine. These symptoms are called lower urinary tract symptoms (LUTS). For men with bothersome symptoms, treatment with one or more medicines or surgery is available.

More detailed information about BPH is available by subscription. (See "[Medical treatment of benign prostatic hyperplasia](#)" and "[Surgical and other invasive therapies of benign prostatic hyperplasia](#)".)

THE PROSTATE GLAND

The prostate is a small gland that is part of the male reproductive system. It sits just below the bladder and in front of the rectum ([figure 1](#)). The prostate is normally about the size of a walnut.

The prostate is composed of two lobes, covered by an outer layer of tissue. The prostate surrounds the urethra, the tube that carries urine from the bladder through the penis and outside the body.

BENIGN PROSTATIC HYPERPLASIA CAUSES

It is not clear why some men develop symptoms of BPH or lower urinary tract symptoms (LUTS) and others do not. The prostate normally enlarges to some degree in all men with advancing age, although not all men require treatment. Several hormones are required for BPH to develop, but these hormones alone do not cause the condition.

Some experts believe that a family history of the condition increases a man's risk of developing BPH. Frequency of sex and having a vasectomy do not increase a man's chances of developing BPH.

BENIGN PROSTATIC HYPERPLASIA SYMPTOMS

The symptoms of BPH usually begin after age 50. The most common symptoms of BPH include:

- Frequent urination, especially at night
- A hesitant, interrupted, or weak stream of urine
- The need to urinate frequently
- Leaking or dribbling of urine

These symptoms tend to appear over time and may gradually worsen over the years. However, some men have an enlarged prostate that causes few or no symptoms, while other men have symptoms of BPH that later improve or stay the same. Some men are not bothered by their symptoms, while others are bothered a great deal.

In a small percentage of men, untreated BPH can cause urinary retention, meaning that the man is unable to empty the bladder. The risk of urinary retention increases with age and as symptoms worsen.

Symptoms of BPH can also be caused by other conditions, including prostate or bladder cancer, kidney stones, and overactive bladder. Overactive bladder causes a strong, frequent, uncomfortable need to urinate immediately.

BENIGN PROSTATIC HYPERPLASIA DIAGNOSIS

To know if BPH or another problem is causing your symptoms, a doctor or nurse will ask you questions, perform an exam, and do blood and urine tests. (See "[Clinical manifestations and diagnostic evaluation of benign prostatic hyperplasia](#)".)

- Rectal exam — Your doctor or nurse will need to perform a rectal examination to feel the size and shape of the prostate gland. A rectal exam can help to determine if there are signs of prostate cancer ([figure 2](#)).
- Urinalysis — You might be asked for a urine sample to see if you have a bladder infection. (See "[Patient information: Urinary tract infections in adolescents and adults \(Beyond the Basics\)](#)".)
- Blood tests — A blood test to check the prostate-specific antigen (PSA) level is recommended. PSA is a protein produced by prostate cells; the PSA level may be increased in men with BPH. Men who have prostate cancer often have a highly disproportionately-elevated PSA level, although prostate cancer is also found in men who do not have an elevated PSA.

Having BPH does not increase your risk for prostate cancer. However, it is possible to have both BPH and prostate cancer at the same time. If your PSA test is higher than normal, you will need further testing to be sure that you do not have prostate cancer. (See "[Patient information: Prostate cancer screening \(Beyond the Basics\)](#)".)

Urodynamic study — A bladder test, known as a urodynamic study, might be recommended for some men who have signs or symptoms of BPH. This test can give information about how well the bladder and urethra are working.

BENIGN PROSTATIC HYPERPLASIA TREATMENT

Treatments for BPH can help to reduce urinary symptoms. Treatment options include medicines and surgery.

