

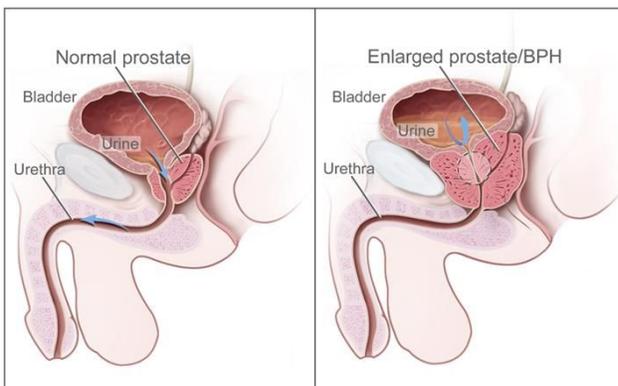
# Prostate Health and You

## What is the Prostate and what does it do?

- The gland produces a thick, milky-white fluid that becomes part of the semen, the liquid ejaculated during sexual activity.
- LOCATION, LOCATION, LOCATION. Its position predicts the problems it can cause.

## Prostate Problems

- **Prostatitis** inflammation or infection of the gland can cause burning or painful urination, the urgent need to urinate, trouble urinating, difficult or painful ejaculation, and pain in the area between the scrotum and rectum (known as the perineum) or in the lower back
- **Prostate enlargement/[BPH](#)/benign prostatic hypertrophy** aging-related enlargement of the prostate gland. BPH can make the prostate compress the urethra to slow or even stop the flow of urine, in much the same way that bending a garden hose chokes off the flow of water. BPH affects about three-quarters of men over age 60.



When BPH becomes severe, urine flow dwindles and then stops. It is treated pharmaceutically by medicines that relax the bladder neck and allow better flow. Some

medications used for erectile dysfunction (ED) also help with symptoms of BPH. However, longterm use of ED meds on a daily basis has not been studied. When medications no longer work, surgery is needed. The mainstay is Trans-Urethral-Resection of the Prostate (TURP). TURP reduces BPH symptoms in 80% to 90% of patients. There can be complications. Early problems include infection or bleeding. Late complications include dry ejaculation (50% to 75%), ED (5% to 10%), and incontinence (1% to 3%). And since the prostate can enlarge again, up to 20% of TURP patients require more treatment within 10 years. There is an entire alphabet soup of other less invasive procedures: “results may vary; your mileage may not be the same.”

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- **Cancer of the Prostate** the growth of cancerous cells inside the prostate which may break out of the gland and affect other parts of the body. In the United States, about 1 man in 7 will be diagnosed with prostate cancer during his lifetime. It occurs mainly in older men. Cancer in men under 50 carries a particularly bad prognosis for fast spread and fatality. Research has shown that if a male lives long enough he will develop prostate cancer. **100%**. However, most men will die of other causes.
- **Screening the Prostate for early-prevention of disease**

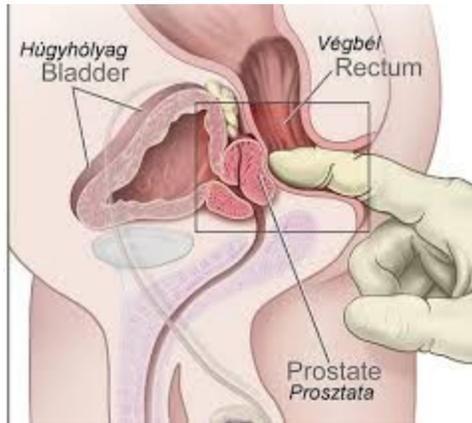
Age and Risk	Screening with Prostate Specific Antigen
VERY HIGH: 1st degree relative with Prostate Cancer under age 55	Age 40
HIGH: African American men and men with 1st degree relative diagnosed <age 65	Age 45
AVERAGE Risk and expected to live at least 10 years	Age 50 - 69 Repeated every two years if PSA < 2.5 ng/ml Repeated every year if PSA > 2.5 ng/ml <b>Amer. Urol. Soc.</b> recommends <u>against</u> routine screening 40-54
Over age 70	Not recommended due to high risk of unnecessary biopsy, complication of biopsy, unnecessary surgery. <b>Not everyone agrees on this.</b>
	<b>American Cancer Society.</b> <a href="https://www.cancer.org/cancer/prostate-cancer/early-detection/acs-recommendations.html">https://www.cancer.org/cancer/prostate-cancer/early-detection/acs-recommendations.html</a> <b>American Urological Society</b> <a href="http://www.auanet.org/guidelines/early-detection-of-prostate-cancer-(2013-reviewed-and-validity-confirmed-2015)">http://www.auanet.org/guidelines/early-detection-of-prostate-cancer-(2013-reviewed-and-validity-confirmed-2015)</a> <a href="http://www.auanet.org/guidelines/prostate-specific-antigen-(2009-amended-2013)">http://www.auanet.org/guidelines/prostate-specific-antigen-(2009-amended-2013)</a> <b>Harvard Health.</b> <a href="https://www.health.harvard.edu/topics/prostate-health-and-disease">https://www.health.harvard.edu/topics/prostate-health-and-disease</a>

## What does “Screening” Mean?

Before PSA was developed in the 1980s, screening meant digital rectal exam (**DRE**). The clinician put a gloved and lubricated finger in the anus and felt the area of the prostate

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underneath the bladder. The **texture** and **size** of the prostate were noted, along with **symmetry** and absence of **firm, rubbery** or **hard** tissue.



## Problems with DRE

Can only feel half of the gland

Skill relies on practice

Some clinicians and most patients find the exam unpleasant

**PSA (prostate specific antigen)** was introduced in 1986 to monitor disease progression and response to treatment. PSA was not intended as a screening tool.

Became a **screening tool** in 1994.

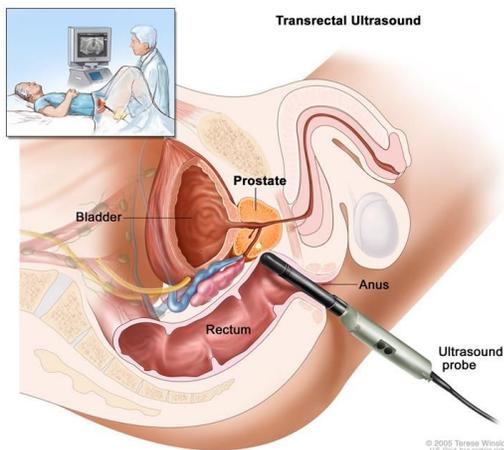
The result was excessive use of PSA and fewer DRE.

That led to a large number of procedures, biopsies, complications of biopsies, false-positive biopsies

and unnecessary surgery. The result was that the American Urologic Society revised its

[Guidelines](#) in 2013 to exclude PSA as a screening test.

## What happens when screening is “positive”?



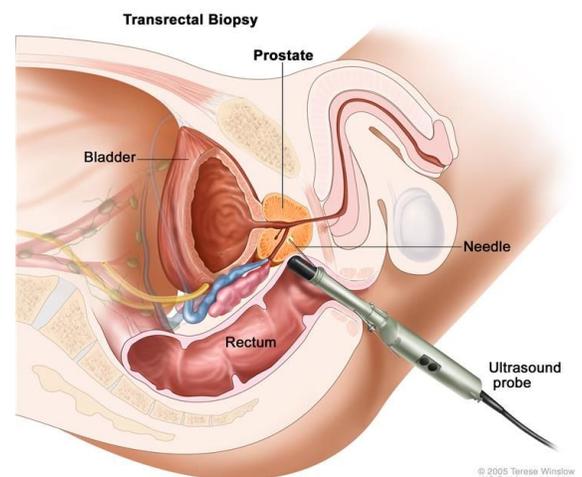
The standard of care is [ultrasound guided biopsy](#) of the gland. That is followed by pathologic analysis of the samples and the defining of a “[Gleason](#)” scale.

There are problems with the scale but at present it is the scale that is used for prognosis and to guide treatment.

Higher Gleason Scores are thought to indicate higher grades of malignancy and greater chance of spread of the cancer from the prostate to other parts of the body.

[Magnetic Resonance](#)

[Imaging](#) (MRI) via the rectum and CT Scanning have recently been added to the evaluation in some cases and some practices. Not surprisingly it is largely promoted by the radiologic community. The **search for better prognostic tools** is important because of the negative outcomes of the diagnosis and treatment of prostate cancer.



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## Diagnosis

- **Biopsy** pain, rectal bleeding (30%), blood in semen (>50%), blood in urine (50%) bladder infection (5-7%), difficulty peeing, sometimes requiring a catheter in the bladder and LUTS (“lower urinary tract symptoms” lasting up to 4 weeks in 25%)
- **Common after surgery** are
  - difficulty urinating.
  - bleeding.
  - Incontinence. Leaking, pissing yourself (50% or higher; severe in 5%)
  - erectile dysfunction. (100% in first six months)
  - Impotence. Cannot get hard for sex (50-70%)
  - change in penis size -- not in the longer direction
  - retrograde ejaculation (ejaculation into the bladder rather than out of the penis)
  - urethral stricture (the narrowing of the urethra) narrow stream -- can't pee
- Some treatments may include **anti-hormonal medications or castration** for tumors that are advanced, highly aggressive and hormonally sensitive.
  - Further loss of sex drive
  - Growth of breasts
  - Hot flashes
  - Loss of body hair and beard growth

## Treatment

**Staging:** Once a diagnosis of cancer of the prostate is reached, it is important to know the extent of the disease. Staging is an effort to determine the size of the cancer, whether it is still confined to the capsule of the gland, has spread to adjacent lymph nodes or had spread more distantly. Success of treatment depends on accurate information of tumor type, aggressiveness and location.

**Treatment** possibilities are vast and complex. They range from doing nothing to castration.

■ Watchful waiting or active surveillance ■ Surgery ■ Radiation ■ Cryosurgery ■ Hormone therapy ■ Chemotherapy ■ Vaccine treatment ■ Bone-directed treatment

**Survival** depends on extent of the disease, location of any spread and responsiveness to the therapies.

**Bone disease** is a major feature of late disease. Prostate cells have an affinity to spread to bone (91% in stage IV disease) where the tumor implants cause truly horrible pain. In later stages, this leads to nerve damage, loss of bowel and bladder control, fracture and collapse of the vertebrae in the spine and compression of the spinal cord.

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## Protecting Prostate Health

FREQUENT EJACULATION (intercourse, masturbation, wet dreams) contrary to some reports does not increase the risk of cancer of the prostate. It is probably protective.

[<https://www.webmd.com/prostate-cancer/news/20040406/frequent-ejaculation-prostate#1>]

### SUPPLEMENTS and DIET

[<https://www.health.harvard.edu/mens-health/understanding-the-risks-of-supplements-and-herbal-remedies-for-prostate-cancer>]

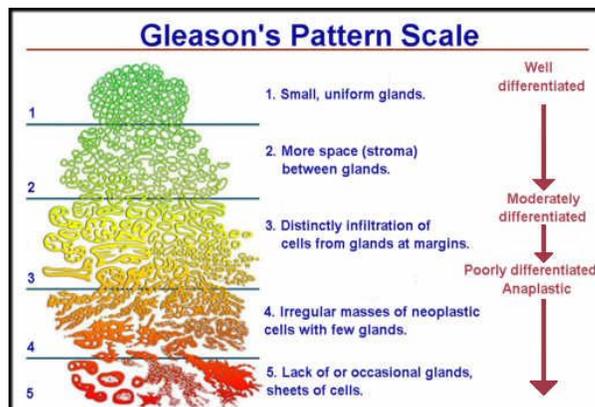
An estimated one-third of American men with prostate cancer use at least one form of complementary medicine therapy, including herbs and supplements. Some studies have suggested herbs and supplements might help with prostate cancer treatment and support. But the main concern is that some herbs and supplements can interact with each other, or with your prescribed medications. For example, they may enhance the effects of some medications or negate any benefit.

Don't just believe the ads. They are trying to sell you something. There is plenty of information online about what works, what may work and what does not work. Some "scientific studies" involve tiny numbers of subjects and produce bad data. These data usually get repudiated when larger studies are performed.

DIET. Opinions vary. Harvard Medical School [recommends](#) the healthful diet that is good for general health. Low on sugar, low on saturated fats, high on grains. The [ketogenic diet](#) shows valid evidence to slow the growth of prostate cancers, the authors noting "many believe 'heart healthy equals prostate healthy.'"

The [Apifyn® test](#) is a new technology that measures the body's immune response and autoantibody levels to figure out if it's fighting prostate cancer. The levels found by the test indicate findings that range from 0-100, the higher the score the higher the risk. The company that developed this novel approach, Armune Bioscience, was bought out in December 2017 with no indication of the future of the test or explanation as to why it has been withdrawn from the market. On Sunday 2/4/18 Exact Sciences [acquired the rights](#) to the Apifyn test. The test presently is not available to patients after initially very promising results. Many insurers including Medicare were not willing to pay for this test as it was deemed "experimental." The benefits of avoiding surgeries with their on the insurers.

Thank you for



unnecessary testing and complications were lost

joining this workshop.