

# 2010 Johnson Family Reunion Men's Health Workshop

Know Your

**SCORE**



## Prostate Cancer Awareness

# It's Your Prostate

<http://vimeo.com/10353754>

(CLICK LINK FOR VIDEO)



## Let's Talk About It!

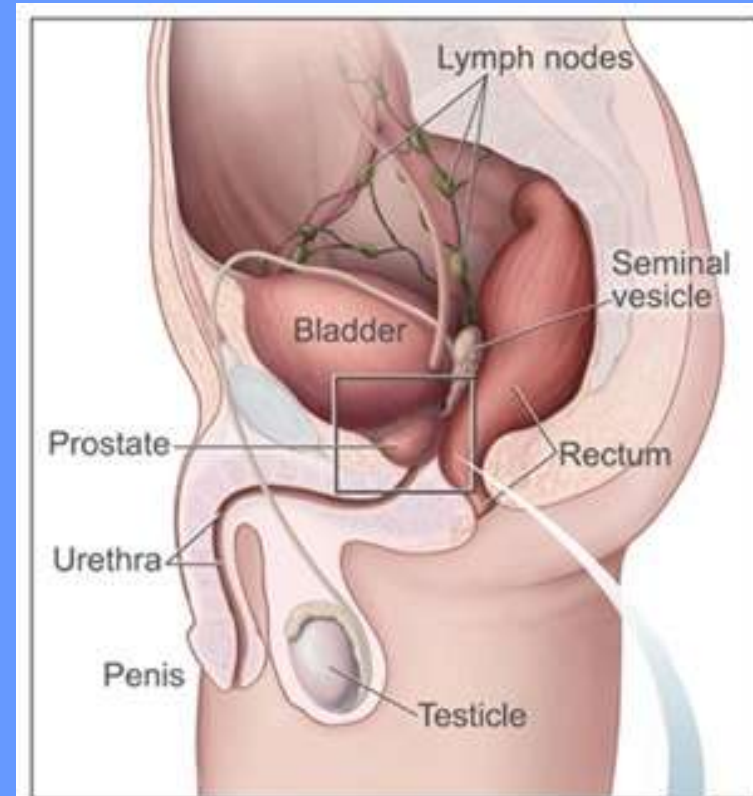


# What is the Prostate?

The prostate is a walnut-sized gland that only men have.

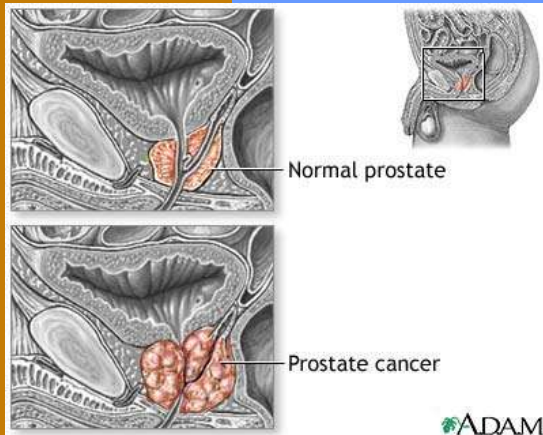
It makes fluid that carries sperm.

The prostate is located in front of the rectum, behind the penis, and under the bladder.



# What is Prostate Cancer?

Prostate cancer is made up of cells that do not grow normally.



These abnormal cells divide and create new cells that the body does not need, forming a mass of tissue. The mass of tissue is called a tumor.

The abnormal cells in the prostate gland that can invade and damage other parts of the body.

Most prostate cancers grow very slowly, but some may grow rapidly and spread to other parts of the body including the bone.

Many prostate cancers are not life-threatening

# What is Prostate Cancer?



Medical experts do not know what causes prostate cancer. They are studying several possible causes.

A diagnosis of prostate cancer can be scary not only because it can be life-threatening, but also because treatments can cause side effects such as bladder control problems and erectile dysfunction (impotence).

Diagnosis and treatment of prostate cancer have gotten much better in recent years.

If prostate cancer is detected early — when it's still confined to the prostate gland — you have a better chance of successful treatment.

# The Prostate Gland Changes with Age

Generally, as you grow older your prostate begins to grow.



Enlarged prostates can push against the urethra and bladder, blocking normal urine flow

More than 50% of men over age 60, and more than 90% of men over age 70, have symptoms of enlarged prostate

However, most prostate enlargement is NOT cancerous

# Prostate Cancer Statistics

Prostate cancer is one of the most common types of cancer in men, affecting about one in six men in the United States.

Prostate cancer is the 2nd leading cause of cancer deaths in men

African-American men have higher rates of getting and dying from prostate cancer than men of other racial or ethnic groups in the US.



# Know Your Risks

Prostate cancer usually doesn't produce any noticeable symptoms in its early stages, so many cases of prostate cancer aren't detected until the cancer has spread beyond the prostate.

African Americans have a higher risk of developing prostate cancer and dying from the disease than any other racial/ethnic group in the U.S.

Knowing the risk factors for prostate cancer can help you determine if and when you want to begin prostate cancer screening



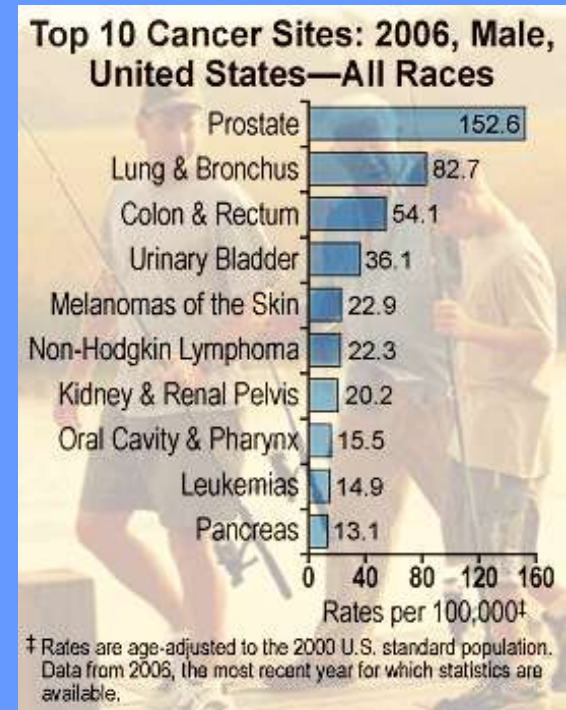
# Risk Factors

**Age:** After age 50, your chance of having prostate cancer increases

**Race and ethnicity:** For reasons that aren't well understood, black men have a higher risk of developing and dying of prostate cancer

**Family history:** If your father or brother has prostate cancer, your risk of the disease is greater than that of the average man.

**Diet:** A high-fat diet and obesity may increase your risk of prostate cancer. One theory is that fat increases production of the hormone testosterone, which may promote the development of prostate cancer cells.



# Risk Factors



**High testosterone levels.** Because testosterone naturally stimulates the growth of the prostate gland, men who use testosterone therapy are more likely to develop prostate cancer than are men who have lower levels of testosterone

Also, doctors are concerned that testosterone therapy might fuel the growth of prostate cancer that is already present. Long-term testosterone treatment also may cause prostate gland enlargement (benign prostatic hyperplasia)

**Family History:** Having a family history of prostate cancer increases the risk but many men with prostate cancer do not have a family history of the disease.



# Complications

Complications from prostate cancer are related to both the disease and its treatment. One of the biggest fears of many men who have prostate cancer is that treatment may leave them incontinent or unable to maintain an erection firm enough for sex (erectile dysfunction)

The typical complications of prostate cancer and its treatments include:

**Spread of cancer.** Prostate cancer can spread to nearby organs or travel through your bloodstream or lymphatic system, affecting your bones or other organs.

**Pain.** Although early-stage prostate cancer typically isn't painful, once it's spread to bones it can be. Not all people with cancer that has spread to bones have pain, but in some cases, pain is intense and doesn't go away.



# Complications

**Difficulty urinating (urinary incontinence).** Both prostate cancer and its treatment can cause incontinence. Treatment depends on the type of incontinence you have, how severe it is and the likelihood it will improve over time.



**Erectile dysfunction (ED) or impotence.** Like incontinence, ED can be a result of prostate cancer or its treatment, including surgery, radiation or hormone treatments. Medications and vacuum devices that assist in achieving erection are available to treat ED. Medications include sildenafil (Viagra), tadalafil (Cialis) and vardenafil (Levitra). If other treatments fail, penile implants can be inserted surgically to help create an erection

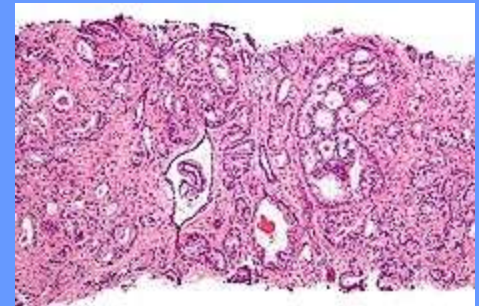
**Depression.** Many men may feel depressed after a diagnosis of prostate cancer or after trying to cope with the side effects of treatment.

# Symptoms

Prostate cancer usually doesn't produce any noticeable symptoms in its early stages, so many cases of prostate cancer aren't detected until the cancer has spread beyond the prostate

If symptoms appear, they may be symptoms of Benign Prostatic Hyperplasia (BPH) and not prostate cancer. Signs of BPH may include:

- Frequent urination, especially at night
- Difficulty in starting or stopping stream
- Weak or painful urination
- Inability to urinate
- Blood in the urine
- Constant pain in lower back, hips or thighs



Micrograph of (prostate adenocarcinoma acinar type), the most common type of **prostate cancer**.

# Screening

**There are two common screening tests:**

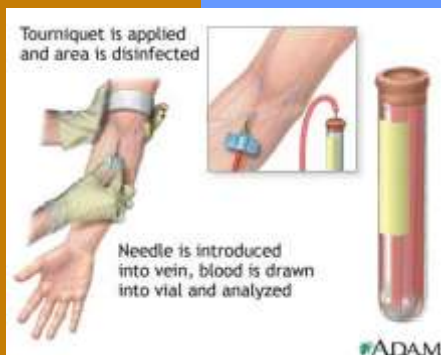
## Digital rectal exam (DRE)

- Healthcare provider inserts gloved, lubricated finger into rectum to check for prostate enlargement or lumps. The test lasts about 10-15 seconds.



## Prostate specific antigen (PSA) test

- Blood test that measures protein made by prostate cells.
- High PSA levels in blood do not always result in cancer and can be caused by :
  - Enlargement of prostate (BPH)
  - Prostatitis (Infection) After a biopsy, surgery or ejaculation



# Screening

## Additional screening tests

**Transrectal ultrasound.** If other tests raise concerns, your doctor may use transrectal ultrasound to further evaluate your prostate. A small probe, about the size and shape of a cigar, is inserted into your rectum. The probe uses sound waves to get a picture of your prostate gland.



**Prostate biopsy.** If initial test results suggest prostate cancer, your doctor may recommend biopsy. To do a prostate biopsy, your doctor inserts a small ultrasound probe into your rectum. Guided by images from the probe, your doctor uses a fine, spring-propelled needle to retrieve several very thin sections of tissue from your prostate gland. A pathologist who specializes in diagnosing cancer and other tissue abnormalities evaluates the samples. From those, the pathologist can tell if the tissue removed is cancerous and estimate how aggressive your cancer is.



# Grading



When a biopsy confirms the presence of cancer, the next step, called grading, is to determine how aggressive the cancer is. The tissue samples are studied, and the cancer cells are compared with healthy prostate cells. The more the cancer cells differ from the healthy cells, the more aggressive the cancer and the more likely it is to spread quickly.

The most common scale used to evaluate prostate cancer cells is called a Gleason score. Based on the microscopic appearance of cells, individual ratings from 1 to 5 are assigned to the two most common cancer patterns identified. These two numbers are then added together to determine your overall score. Scoring can range from 2 (nonaggressive cancer) to 10 (very aggressive cancer).

# Staging



After the level of aggressiveness of your prostate cancer is known, the next step, called staging, determines if or how far the cancer has spread. Your cancer is assigned one of four stages, based on how far it has spread:

**Stage I.** Signifies very early cancer that's confined to a microscopic area that your doctor can't feel

**Stage II.** Your cancer can be felt, but it remains confined to your prostate gland

**Stage III.** Your cancer has spread beyond the prostate to the seminal vesicles or other nearby tissues

**Stage IV.** Your cancer has spread to lymph nodes, bones, lungs or other organs.

# Make an Informed Decision

It is Your Prostate, You Make the Choice



For you and future family generations

# What is an Informed Decision?

When a man talks with his doctor about the following...



Prostate health

Prostate cancer

Potential benefits and limitations of testing

Treatment options and side effects

Whether testing is right for him

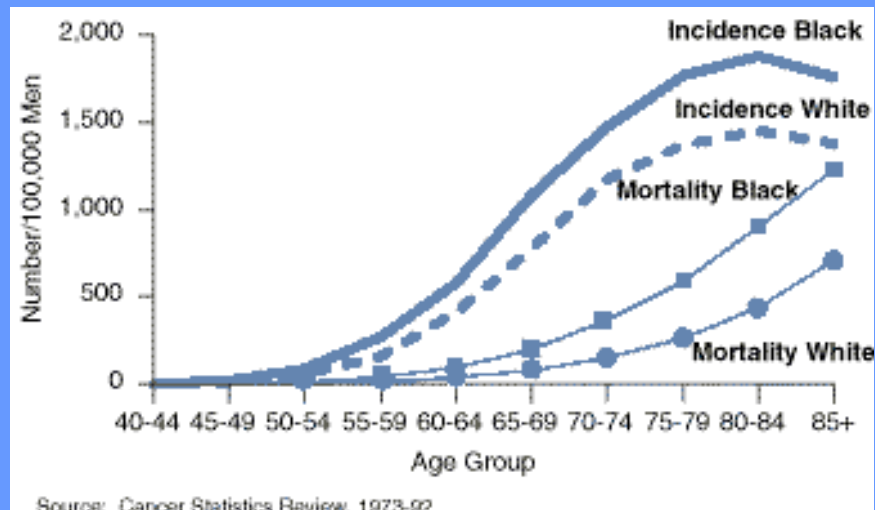
**When informed, you can make good decisions about your health**



# Treatment Options

There is no proven “best” treatment

Treatment decisions must be individualized and depends upon a variety of factors, including age and stage of the cancer as well as an individual’s health and personal preference



# Treatment Options

Preferred treatment options include...

## **External beam radiation therapy (EBRT)**

External beam radiation treatment uses high-powered X-rays to kill cancer cells. This type of radiation is effective at destroying cancerous cells, but it can also scar adjacent healthy tissue. EBRT can cause mild side effects, e.g. urinary problems, loose stools, rectal bleeding, discomfort during bowel movements, sexual side effects but in most cases they disappear shortly after your course of treatment is finished



## **Radioactive seed implants**

Radioactive seeds implanted into the prostate have gained popularity in recent years as a treatment for prostate cancer. The implants, also known as brachytherapy, deliver a higher dose of radiation than do external beams, but over a substantially longer period of time. The therapy is generally used in men with smaller or moderate-sized prostates with small and lower grade cancers. Side effects may include urinary problems, loose stools, rectal bleeding, discomfort during bowel movements and sexual side effects

# Treatment Options

## Additional treatment options...

### **Radical prostatectomy**

Surgical removal of your prostate gland, called radical prostatectomy, is used to treat cancer that's confined to the prostate gland. During this procedure, your surgeon uses special techniques to completely remove your prostate and nearby lymph nodes. This surgery can affect muscles and nerves that control urination and sexual function.

Side effects include bladder control problems (urinary incontinence) and erectile dysfunction. This is a common side effect of radical prostatectomy, because nerves on both sides of your prostate that control erections may be damaged or removed during surgery. Most men younger than age 50 who have nerve-sparing surgery are able to achieve erections afterward.



# Treatment Options

## Additional treatment options...

Two surgical approaches are available for a prostatectomy — retropubic and perineal.



**Retropubic surgery.** The gland is taken out through an incision in your lower abdomen that typically runs from just below the navel to an inch above the base of the penis. It's the most commonly used form of prostate removal for two reasons. First, your surgeon can use the same incision to remove pelvic lymph nodes, which are tested to determine if the cancer has spread. Second, the procedure gives your surgeon good access to your prostate, making it easy to save the nerves that help control bladder function and erections.

**Perineal surgery.** An incision is made between your anus and scrotum. There's generally less bleeding with perineal surgery, and recovery time may be shorter, especially if you're overweight.

# Treatment Options

## Additional treatment options...

### **Robot-assisted laparoscopic radical prostatectomy (RALRP)**

This is a relatively new procedure for removing the prostate. For robot-assisted laparoscopy, five small incisions are made in the abdomen through which the doctor inserts tube-like instruments, including a long, slender tube with a small camera on the end (laparoscope). This creates a magnified view of the surgical area.



The instruments are attached to a mechanical device, and the surgeon sits at a console and guides the instruments through a viewing device to perform the surgery. So far, studies show that traditional open prostatectomy and robotic prostatectomy have had similar outcomes related to cancer-free survival rates, urinary continence and sexual function one year after surgery. Longer term outcomes are not yet known.

# Treatment Options

## Additional treatment options...

### **Hormone therapy**

Hormone therapy involves trying to stop your body from producing the male sex hormones testosterone, which can stimulate the growth of cancer cells.



Hormone therapy is used in combination with radiation therapy or surgery. After these treatments, the drugs can slow the growth of any stray cancer cells left behind.

Side effects include: breast enlargement (gynecomastia), reduced sex drive, erectile dysfunction, hot flashes, weight gain, reduction in muscle and bone mass. Certain hormone therapy medications can also cause: nausea, diarrhea, fatigue and liver damage.

Recent reports have shown that men who undergo hormone therapy for prostate cancer may have a higher risk of having a heart attack in the first year or two after starting treatment.

# Treatment Options

## Additional treatment options...

### **Watchful waiting**

The PSA blood test can help detect prostate cancer at a very early stage. In watchful waiting (also known as observation, expectant therapy or deferred therapy), regular follow-up blood tests, rectal exams and possibly biopsies may be performed to monitor progression of your cancer. During watchful waiting no medical treatment is provided. Medications, radiation and surgery aren't used.



Watchful waiting may be particularly appropriate if you're elderly, in poor health or both. Many such men will live out their normal life spans without treatment and without the cancer spreading or causing other problems.

Watchful waiting can also be a rational option if you're a younger man, as long as you know the facts, are willing to be vigilant, and accept the risk of a tumor spreading during the observation period, rendering your cancer incurable.

# Treatment Options

## Additional treatment options...

### **Chemotherapy**

This type of treatment uses chemicals that destroy rapidly growing cells. Because it has more side effects than hormone therapy does, chemotherapy is reserved for men who have hormone-resistant prostate cancer that has spread to other parts of the body.



### **Cryotherapy**

This treatment is used to destroy cells by freezing tissue. Although progress continues, more time is needed to determine how successful cryotherapy may be as a treatment for prostate cancer.

### **Gene therapy and immune therapy**

In the future, gene therapy or immune therapy may be successful in treating prostate cancer. Current technology limits the use of these experimental treatments to a small number of medical centers.

# Prevention



Prostate cancer can't be prevented, but you can take measures to reduce your risk or possibly slow the disease's development

- Eat well; high-fat diets have been linked to prostate cancer. Therefore, limiting your intake of high-fat foods and emphasizing fruits, vegetables and whole fibers may help you reduce your risk.



Foods rich in lycopene, an antioxidant, also may help lower your prostate cancer risk. These foods include raw or cooked tomatoes, tomato products, grapefruit and watermelon

# Prevention



Regular exercise can help prevent a heart attack and conditions such as high blood pressure and high cholesterol. Regular exercise may reduce your cancer risk, including your risk of prostate cancer

Ask your doctor about taking an NSAID. Nonsteroidal anti-inflammatory drugs (NSAIDs) might prevent prostate cancer. These drugs include ibuprofen (Advil, Motrin, others) and naproxen (Aleve). NSAIDs inhibit an enzyme called COX-2, which is found in prostate cancer cells.

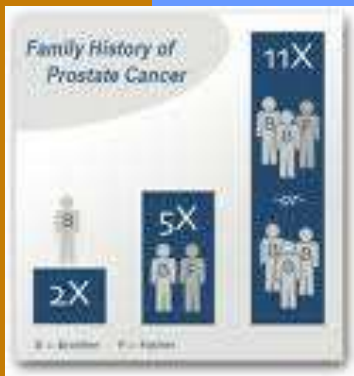


# Learn. Listen. Talk.

Now that you know more about prostate health...



**Learn about your family history of prostate cancer.**



**Listen to others about their experiences.**



**Talk with your family and your doctor about testing options. Decide whether testing is right for you.**

# Questions for your doctor or nurse

These are some questions you can ask your doctor or nurse during an office visit?

- How can I get my Gleason Score?
- Do you think I should be worried about prostate cancer
- I have family history of prostate cancer, how might this affect my risk for prostate cancer
- What screening tests do you recommend?  
When should I start getting tested and how often?
- If I have a prostate problem that is not prostate cancer will it affect my risk of prostate cancer in any way?

