

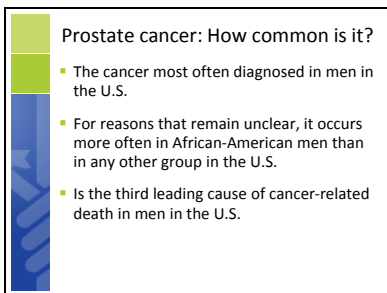
Slide 2



This is a summary of what we'll be talking about today.

Notice that the word pronunciation is "pros-tate", although you will occasionally hear pros-trate!

Slide 3



Bullet #1: Other than skin cancer

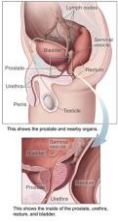
Bullet #3: Lung cancer is the #1 cause of cancer-related death in U.S. men. Colon and rectum is #2 cause of cancer-related death in US. men

(Overall #1 cause of death in men is heart disease.)

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What is the prostate?

- The prostate is a gland found only in men.
- It's part of the reproductive system and helps to make semen.
- It's located in front of the rectum and under the bladder.
- A healthy prostate gland is about the size of a walnut.



The prostate is a walnut-sized gland located in front of the rectum and underneath the bladder. The prostate's job is to make some of the fluid that protects and nourishes sperm cells in semen. It surrounds the urethra, which is the tube that carries urine and semen out of the body through the penis.

The prostate starts to develop before birth and continues to grow until a man reaches adulthood. This growth is fueled by male hormones (called androgens) in the body. The main androgen, testosterone, is made in the testicles.

The prostate stays at adult size in adults as long as male hormones are present. In older men, the inner part of the prostate (around the urethra) often keeps growing, leading to a common condition called benign (be-**nine**) prostatic hyperplasia (**hi-per-PLAY**-zhuh) or BPH. In BPH, the prostate tissue can press on the urethra, leading to problems passing urine. Although BPH can be a serious medical problem, it is not cancer. (The word “benign” means not cancerous.)

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What is prostate cancer?

- Cancer is the growth of abnormal cells.
- Cancer cells can invade and damage normal tissue.
- Prostate cancer starts in the cells of the prostate.
- Some prostate cancers can grow and spread quickly, but **most of them grow slowly.**

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Causes of prostate cancer

- We do not know the cause of prostate cancer.
- Most likely cause is related to changes in the genetic material (DNA) in our cells.
- DNA changes can be passed down through families, or can occur due to environment or lifestyle.

DNA is the substance in our cells that makes up our genes, which are the instructions for how a cell works. Changes in DNA, called mutations, can cause cancer. This is an active area of research.

More information on gene mutations, which can be inherited or acquired later in life:

- Inherited gene mutations: Those passed on to children; these cause a small number (5% to 10%) of prostate cancers.

Inherited mutations affect all the cells in the body.

Several mutated genes have been found that may be responsible for a man's inherited tendency to develop prostate cancer. One of these is called RNASEL (formerly HPC1 -**Hereditary Prostate Cancer Gene 1**). But there are many other gene mutations that may account for some cases of hereditary prostate cancer. None of these is a major cause, and more research on these genes is being done. **Genetic tests are not yet available.**

Men with BRCA1 or BRCA2 gene changes may have an increased prostate cancer risk. Mutations in these genes more commonly cause breast and ovarian cancer in women. But inherited BRCA changes probably explain only a very small number of prostate cancers.

- Acquired gene mutations: Changes that take place during a person's life. These changes only affect the cells that grow from the one cell where the changes began (but this can mount up to a large tumor over the course of years); most cases of prostate cancer are caused by these types of changes.

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Prostate cancer risk factors

- **Age**
 - An estimated 1 out of 19 men will develop invasive prostate cancer by age 60 or older.
- **Race/Ethnicity**
 - African-American men and Caribbean men of African ancestry have the highest risk.
 - The reasons for this are unclear.


A risk factor is anything that affects your chance of getting a disease such as cancer. Different cancers have different risk factors. For example, exposing skin to strong sunlight is a risk factor for skin cancer. But risk factors don't tell us everything.

Having a risk factor, or even several risk factors, does not mean that you will get the disease. And some people who get the disease may not have any known risk factors. Still, researchers have found some risk factors that may change a man's chance of developing prostate cancer.

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Prostate cancer risk factors

- Family history
 - Having a father or brother with prostate cancer more than doubles a man's risk of developing this disease.
 - The risk is much higher for men with several affected relatives, particularly if their relatives were young at the time the cancer was found.



Prostate cancer seems to run in some families, which suggests that in some cases there may be an inherited or genetic factor. This is an area of research, but again, there are no genetic tests available for prostate cancer at this time.

While a family history increases a man's risk for prostate cancer, most men diagnosed with prostate cancer don't have a family history.

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Prostate cancer risk factors

- Genes
 - Some inherited genes seem to raise risk.
 - This accounts for only a very small number of cases.
 - For most of these genes, genetic testing is not yet available.
- Diet
 - High in red meat or high-fat dairy products and low in fruits and vegetables *may* raise risk

Genes: Several common gene variations have been linked to the risk of prostate cancer. Studies to confirm these results are needed to see if testing for the gene variants will be useful in predicting prostate cancer risk.

Diet: The exact role of diet in prostate cancer is not clear, although several different factors have been studied. Men who eat a lot of red meat or high-fat dairy products appear to have a slightly higher chance of getting prostate cancer. These men also tend to eat fewer fruits and vegetables. Doctors are not sure which of these factors is responsible for raising the risk.

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Can prostate cancer be prevented?

Because the exact cause of prostate cancer is not known, at this time it is not possible to prevent most cases of the disease.


Known risk factors such as age, race, and family history cannot be controlled.

On the next few slides we'll review some of the things that might help to decrease prostate cancer risk.

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Lowering prostate cancer risk

There are things that can be done that may help lower the risk of prostate cancer.



- **Eat right**
 - Choose foods and beverages in amounts that help achieve and maintain a healthy weight.
 - At least 2½ cups of vegetables and fruits each day
 - Choose whole grains instead of refined grain products
 - Limit red meats and processed meats

Following a healthy diet is something that may help decrease the risk of developing prostate cancer.

red meats = beef, pork, or lamb


processed meats = hot dogs, bacon, or luncheon meats

These guidelines on nutrition may also lower the risk for some other types of cancer, as well as other health problems.

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Lowering prostate cancer risk

- **Supplements**
 - No vitamins or supplements have been proven to lower the risk of prostate cancer.
 - Taking any supplements can have risks and benefits. **Talk to your doctor before starting any vitamins or other supplements.**



When we talk about supplements, rather than foods, no protective effects have yet been proven.

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Prostate cancer screening

- Screening is testing to find cancer, or other disease.
- At this time, there are no routine prostate cancer screening guidelines for men at average risk.

No routine screenings are endorsed because of the concern of a possible high rate of over-diagnosis (detecting disease that would never have caused symptoms), along with serious side effects from prostate cancer treatment.

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A slide titled "Prostate cancer screening" with a decorative vertical bar on the left. The bar has a light green top section, a darker green middle section, and a blue bottom section with a white arrow pointing upwards. The main content area contains text and a bullet point.

Prostate cancer screening

- Screening for prostate cancer can be done with:
Prostate-Specific Antigen (PSA) blood test with or without a Digital Rectal Exam (DRE)

Prostate-specific antigen (PSA)
Made by cells in the prostate gland
Most healthy men have a small amount of PSA [less than 4 nanograms per milliliter (ng/mL)] in their blood

When your healthcare provider has a conversation with you about the benefits and limitations of PSA testing, you will be about to make an informed decision about screening.


The PSA test may or may not include a digital rectal exam (DRE).
DRE:

- The prostate gland is found just in front of the rectum, and most cancers begin in the back part of the gland, which can be felt during a rectal exam.
- DRE is less effective than the PSA blood test in finding prostate cancer, but it can sometimes find cancers in men with normal PSA levels.
- The doctor inserts a gloved finger into the rectum to feel the prostate gland. If the results of either one of these tests are abnormal, further testing is needed to see if there is a cancer. But neither of these tests is perfect.

PSA :

- is a substance made by normal and cancer cells in the prostate gland.
- The chance of having prostate cancer goes up as the PSA level goes up.

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Prostate cancer screening

Neither the PSA test nor the DRE is 100% accurate.

Abnormal results of these tests don't always mean that cancer is present, and normal results don't mean absence of cancer.


If cancer is found, neither test can tell how likely the cancer is to grow and spread.

Uncertain or false test results could cause confusion and anxiety. Some men might have a prostate biopsy (which carries its own small risks, along with discomfort) when cancer is not present, while others might get a false sense of security from normal test results when cancer is actually present.

There's no question that the PSA test can help spot many prostate cancers early, but another important issue is that it can't tell how dangerous the cancer is. Finding and treating all prostate cancers early may seem like a "no-brainer." But some prostate cancers grow so slowly that they would likely never cause problems.

Because of a higher PSA level, some men may be diagnosed with a prostate cancer that they would have never even known about at all. It would never have caused any symptoms or lead to their death. But they may still be treated with either surgery or radiation, either because the doctor can't be sure how aggressive the cancer might be, or because the men are uncomfortable not having any treatment. These treatments can have side effects that seriously affect a man's quality of life.

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ACS Recommendations for the Early Detection of Prostate Cancer

- ACS does not support routine testing for prostate cancer at this time.
- Men should talk with a health care professional to learn about the uncertainties, risks, and potential benefits of testing in order to make an informed decision about whether to be tested.
- Prostate cancer testing should not be done without giving each man a chance to make an informed decision.

Until more information is available, whether a man has the tests is something for him and his doctor to decide. There are many factors to take into account, including age and overall health.

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ACS Recommendations for the Early Detection of Prostate Cancer

- This discussion should begin in men with at least a 10-year life expectancy:
 - At **age 50** for men at average risk for prostate cancer
 - At **age 45** for men at high risk for prostate cancer
 - African-American men
 - Men who have a first-degree relative (father, brother, or son) diagnosed with prostate cancer at an early age (younger than age 65)
 - At **age 40** for men at even higher risk
 - Those with more than one first-degree relative who had prostate cancer at an early age

Because prostate cancer often grows slowly, men without symptoms of prostate cancer who do not have a 10-year life expectancy should not be offered testing since they are not likely to benefit. Overall health status, and not age alone, is important when making decisions about screening.


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What do men need to know to make an informed decision about testing?

- Prostate cancer is not always life-threatening.
- Most prostate cancers grow slowly.
- Many men who die of other causes are found at autopsy to have prostate cancer that caused them no problems during life.

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What do men need to know to make an informed decision about testing?

- As of yet, there is no proof that finding prostate cancer early through testing will have a positive impact for most men.
 - Testing clearly helps some men, but in others it leads to diagnosis and treatment of cancers that would never have caused harm.
 - Prostate cancer treatment has side effects, including impotence and incontinence, which can have a major impact on the quality of a man's life.

impotence = not being able to get or keep an erection

incontinence = partial or complete loss of urinary control

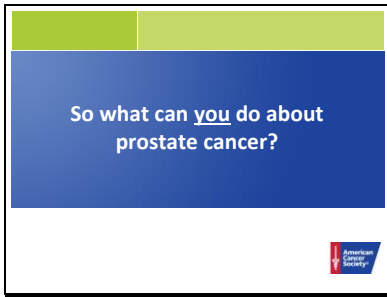
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Early detection of prostate cancer

Men should take part in the decision to be tested for prostate cancer by learning about prostate cancer and the pros and cons of early detection and treatment of prostate cancer.

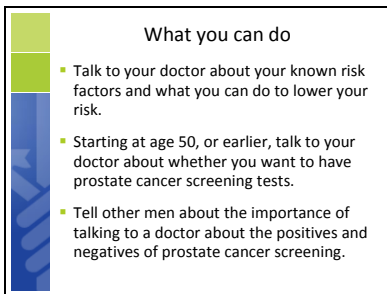
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So what can you do about prostate cancer?



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What you can do

- Talk to your doctor about your known risk factors and what you can do to lower your risk.
- Starting at age 50, or earlier, talk to your doctor about whether you want to have prostate cancer screening tests.
- Tell other men about the importance of talking to a doctor about the positives and negatives of prostate cancer screening.

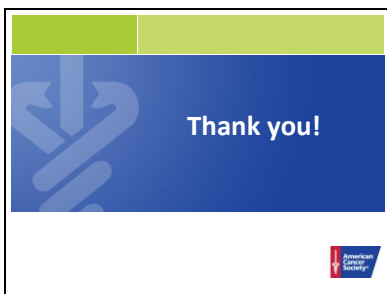
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More information

You can get more information about prostate cancer and prostate cancer screening on our website, www.cancer.org, or call 1-800-227-2345 and talk with one of our Cancer Information Specialists.

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Thank you!

