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# Prostate Cancer Early Detection, Diagnosis, and Staging

## Detection and Diagnosis

Catching cancer early often allows for more treatment options. Some early cancers may have signs and symptoms that can be noticed, but that is not always the case.

- [Can Prostate Cancer Be Found Early?](#)
- [Prostate Cancer Prevention and Early Detection<sup>1</sup>](#)
- [Signs and Symptoms of Prostate Cancer](#)
- [Tests for Prostate Cancer](#)
- [Understanding Your Pathology Report<sup>2</sup>](#)

## Stages of Prostate Cancer

After a cancer diagnosis, staging provides important information about the extent of cancer in the body and anticipated response to treatment.

- [Prostate Cancer Stages](#)

## Outlook (Prognosis)

Doctors often use survival rates as a standard way of discussing a person's outlook (prognosis). These numbers can't tell you how long you will live, but they might help you better understand your prognosis. Some people want to know the survival statistics for people in similar situations, while others might not find the numbers helpful, or might even not want to know them.

- [Survival Rates for Prostate Cancer](#)

## Questions to Ask About Prostate Cancer

Here are some questions you can ask your cancer care team to help you better understand your cancer diagnosis and treatment options.

- [What Should You Ask Your Health Care Team About Prostate Cancer?](#)

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# Can Prostate Cancer Be Found Early?

Screening is testing to find cancer in people before they have symptoms. For some types of cancer, screening can help find cancers at an early stage, when they are likely to be easier to treat.

Prostate cancer can often be found before symptoms start by testing the amount of prostate-specific antigen (PSA) in a man's blood. Another way to find prostate cancer is the digital rectal exam (DRE), in which the doctor puts a gloved, lubricated finger into the rectum to feel the prostate gland. These tests are described in more detail in [Prostate Cancer Prevention and Early Detection](#)<sup>1</sup>.

If the results of either one of these tests are abnormal, [further testing](#)<sup>2</sup> is often done to see if a man has cancer. If prostate cancer is found as a result of screening with the PSA test or DRE, it will probably be at an earlier, more treatable stage than if no screening were done.

There is no question that screening can help find many prostate cancers early, but there are still questions about whether the benefits of screening outweigh the risks for most men. There are clearly both pros and cons to the prostate cancer screening tests in use today.

At this time, the American Cancer Society (ACS) recommends that men thinking about getting screened for prostate cancer should make informed decisions based on available information, discussion with their doctor, and their own views on the possible benefits, risks, and limits of prostate cancer screening.

To learn more about prostate cancer screening and our guidelines, see [Prostate Cancer Prevention and Early Detection](#)<sup>3</sup>.

## Hyperlinks

1. [www.cancer.org/cancer/prostate-cancer/early-detection.html](http://www.cancer.org/cancer/prostate-cancer/early-detection.html)
2. [www.cancer.org/cancer/prostate-cancer/early-detection/if-test-results-not-normal.html](http://www.cancer.org/cancer/prostate-cancer/early-detection/if-test-results-not-normal.html)
3. [www.cancer.org/cancer/prostate-cancer/early-detection.html](http://www.cancer.org/cancer/prostate-cancer/early-detection.html)

## References

See all references for Prostate Cancer ([www.cancer.org/cancer/prostate-cancer/references.html](http://www.cancer.org/cancer/prostate-cancer/references.html))

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# Signs and Symptoms of Prostate Cancer

Early prostate cancer usually causes no symptoms. More advanced prostate cancers sometimes cause symptoms, such as:

- Problems urinating, including a slow or weak urinary stream or the need to urinate more often, especially at night
- Blood in the urine or semen
- Trouble getting an erection (erectile dysfunction or ED)
- Pain in the hips, back (spine), chest (ribs), or other areas from cancer that has spread to bones
- Weakness or numbness in the legs or feet, or even loss of bladder or bowel control from cancer pressing on the spinal cord

Most of these problems are more likely to be caused by something other than prostate cancer. For example, trouble urinating is much more often caused by benign prostatic hyperplasia (BPH), a non-cancerous growth of the prostate. Still, it's important to tell

your health care provider if you have any of these symptoms so that the cause can be found and treated, if needed.

## References

See all references for Prostate Cancer ([www.cancer.org/cancer/prostate-cancer/references.html](http://www.cancer.org/cancer/prostate-cancer/references.html))

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# Tests for Prostate Cancer

Most prostate cancers are first found during screening with a prostate-specific antigen (PSA) blood test or a digital rectal exam (DRE). (See [Prostate Cancer Prevention and Early Detection](#)<sup>1</sup>.) Early prostate cancers usually don't cause symptoms, but more advanced cancers are sometimes first found because of symptoms they cause.

If cancer is suspected based on results of screening tests or symptoms, tests will be needed to confirm the diagnosis. The actual diagnosis of prostate cancer can only be made with a prostate biopsy.

## Medical history and physical exam

If your doctor suspects you might have prostate cancer, he or she will ask you about any symptoms you are having, such as any urinary or sexual problems, and how long you have had them. You might also be asked about possible risk factors, including your family history.

Your doctor will also examine you. This might include a digital rectal exam (DRE), during which the doctor's gloved, lubricated finger is inserted into your rectum to feel for any bumps or hard areas on the prostate that might be cancer. If you do have cancer, the DRE can sometimes help tell if it's only on one side of the prostate, if it's on both sides, or if it's likely to have spread beyond the prostate to nearby tissues.

Your doctor may also examine other areas of your body. He or she might then order some tests.

## PSA blood test

The prostate-specific antigen (PSA) blood test is used mainly to screen for prostate cancer in men without symptoms (see [Prostate Cancer Prevention and Early Detection](#)<sup>2</sup>). It's also one of the first tests done in men who have symptoms that might be caused by prostate cancer.

**Most men without prostate cancer have PSA levels under 4 nanograms per milliliter (ng/mL) of blood. The chance of having prostate cancer goes up as the PSA level goes up.**

When prostate cancer develops, the PSA level usually goes above 4. Still, a level below 4 does not guarantee that a man doesn't have cancer. About 15% of men with a PSA below 4 will have prostate cancer on a biopsy.

**Men with a PSA level between 4 and 10 have about a 1 in 4 chance of having prostate cancer. If the PSA is more than 10, the chance of having prostate cancer is over 50%.**

When considering whether to do a prostate biopsy to look for cancer, not all doctors use the same PSA cutoff point. Some may advise it if the PSA is 4 or higher, while others might recommend it starting at a lower level, such as 2.5 or 3. Other factors, such as your age, race, and family history, may affect this decision.

The PSA test can also be useful if you have already been diagnosed with prostate cancer.

- In men just diagnosed with prostate cancer, the PSA test can be used together with physical exam results and tumor grade (determined on the biopsy, described further on) to help decide if other [tests](#)<sup>3</sup> (such as CT scans or bone scans) are needed.
- The PSA test is a part of [staging](#) (determining the stage of your cancer) and can help tell if your cancer is likely to still be confined to the prostate gland. If your PSA level is very high, your cancer is more likely to have spread beyond the prostate. This may affect your [treatment options](#)<sup>4</sup>, since some forms of therapy (such as surgery and radiation) are not likely to be helpful if the cancer has spread to the [lymph nodes](#)<sup>5</sup>, bones, or other organs.

- PSA tests are also an important part of monitoring prostate cancer during and after treatment (see [Following PSA Levels During and After Treatment](#)<sup>6</sup>).

## Transrectal ultrasound (TRUS)

For this test, a small probe about the width of a finger is lubricated and placed in your rectum. The probe gives off sound waves that enter the prostate and create echoes. The probe picks up the echoes, and a computer turns them into a black and white image of the prostate.

The procedure often takes less than 10 minutes and is done in a doctor's office or outpatient clinic. You will feel some pressure when the probe is inserted, but it is usually not painful. The area may be numbed before the procedure.

TRUS is often used to look at the prostate when a man has a high PSA level or has an abnormal DRE result. It is also used during a prostate biopsy to guide the needles into the correct area of the prostate.

TRUS is useful in other situations as well. It can be used to measure the size of the prostate gland, which can help determine the PSA density (described in [Prostate Cancer Prevention and Early Detection](#)<sup>7</sup>) and may also affect which treatment options a man has. TRUS is also used as a guide during some forms of treatment such as [brachytherapy](#)<sup>8</sup> (internal radiation therapy) or [cryotherapy](#)<sup>9</sup>.

## Prostate biopsy

If certain symptoms or the results of tests such as a PSA blood test or DRE suggest that you might have prostate cancer, your doctor will do a prostate [biopsy](#)<sup>10</sup>.

A biopsy is a procedure in which small samples of the prostate are removed and then looked at under a microscope. A *core needle biopsy* is the main method used to diagnose prostate cancer. It is usually done by a urologist, a surgeon who treats cancers of the genital and urinary tract, which includes the prostate gland.

Using TRUS to "see" the prostate gland, the doctor quickly inserts a thin, hollow needle through the wall of the rectum and into the prostate. When the needle is pulled out it removes a small cylinder (core) of prostate tissue. This is repeated several times. Most urologists will take about 12 core samples from different parts of the prostate.

Though the procedure sounds painful, each biopsy usually causes only a brief uncomfortable sensation because it is done with a special spring-loaded biopsy instrument. The device inserts and removes the needle in a fraction of a second. Most doctors who do the biopsy will numb the area first by injecting a local anesthetic alongside the prostate. You might want to ask your doctor if he or she plans to do this.

The biopsy itself takes about 10 minutes and is usually done in the doctor's office. You will likely be given antibiotics to take before the biopsy and possibly for a day or 2 after to reduce the risk of infection.

For a few days after the procedure, you may feel some soreness in the area and will probably notice blood in your urine. You may also have some light bleeding from your rectum, especially if you have hemorrhoids. Many men notice blood in their semen or have rust colored semen, which can last for several weeks after the biopsy, depending on how often you ejaculate.

Your biopsy samples will be sent to a lab, where they will be looked at a microscope to see if they contain cancer cells. If cancer is seen, it will also be assigned a *grade* (see the next section). Getting the results (in the form of a [pathology report](#)<sup>11</sup>) usually takes at least 1 to 3 days, but it can sometimes take longer.

Even when taking many samples, biopsies can still sometimes miss a cancer if none of the biopsy needles pass through it. This is known as a *false-negative* result. If your doctor still strongly suspects you have prostate cancer (because your PSA level is very high, for example) a repeat biopsy might be needed to help be sure.

### **Grade of prostate cancer (Gleason score or Grade Group)**

The grade of the cancer is based on how abnormal the cancer looks under the microscope. Higher grade cancers look more abnormal, and are more likely to grow and spread quickly. There are 2 main ways to measure the grade of a prostate cancer.

#### ***Gleason score***

The Gleason system assigns grades based on how much the cancer looks like normal prostate tissue.

- If the cancer looks a lot like normal prostate tissue, a grade of 1 is assigned.
- If the cancer looks very abnormal, it is given a grade of 5.
- Grades 2 through 4 have features in between these extremes.

Almost all cancers are grade 3 or higher; grades 1 and 2 are not often used.

Since prostate cancers often have areas with different grades, a grade is assigned to the 2 areas that make up most of the cancer. These 2 grades are added to yield the *Gleason score* (also called the *Gleason sum*).

The first number assigned is the grade that is most common in the tumor. For example, if the Gleason score is written as 3+4=7, it means most of the tumor is grade 3 and less is grade 4, and they are added for a Gleason score of 7.

Although most often the Gleason score is based on the 2 areas that make up most of the cancer, there are some exceptions when a biopsy sample has either a lot of high-grade cancer or there are 3 grades including high-grade cancer. In these cases, the way the Gleason score is determined is modified to reflect the aggressive (fast-growing) nature of the cancer.

In theory, the Gleason score can be between 2 and 10, but scores below 6 are rarely used.

Prostate cancers are often divided into 3 groups, based on the Gleason score:

- Cancers with a **Gleason score of 6 or less** may be called **well-differentiated** or **low-grade**.
- Cancers with a **Gleason score of 7** may be called **moderately-differentiated** or **intermediate-grade**.
- Cancers with **Gleason scores of 8 to 10** may be called **poorly-differentiated** or **high-grade**.

### ***Grade Groups***

In recent years, doctors have come to realize that prostate cancer can be divided into more than just these 3 groups. For example, men with a Gleason score 3+4=7 cancer tend to do better than those with a 4+3=7 cancer. Likewise, men with a Gleason score 8 cancer tend to do better than those with a Gleason score of 9 or 10.

Because of this, doctors have developed Grade Groups, ranging from 1 (most likely to grow and spread slowly) to 5 (most likely to grow and spread quickly):

- Grade Group 1 = Gleason 6 (or less)
- Grade Group 2 = Gleason 3+4=7



- Grade Group 3 = Gleason 4+3=7
- Grade Group 4 = Gleason 8
- Grade Group 5 = Gleason 9-10

The Grade Groups will likely replace the Gleason score over time, but currently you might see either one (or both) on a biopsy pathology report.

### Other information in a pathology report

Along with the grade of the cancer (if it is present), the [pathology report](#)<sup>12</sup> often contains other information about the cancer, such as:

- The number of biopsy core samples that contain cancer (for example, “7 out of 12”)
- The percentage of cancer in each of the cores
- Whether the cancer is on one side (left or right) of the prostate or both sides (bilateral)

### Suspicious results

Sometimes when the prostate cells are seen, they don't look like cancer, but they're not quite normal, either.

**Prostatic intraepithelial neoplasia (PIN):** In PIN, there are changes in how the prostate cells look, but the abnormal cells don't look like they've grown into other parts of the prostate (like cancer cells would). PIN is often divided into 2 groups:

- **Low-grade PIN:** the patterns of prostate cells appear almost normal
- **High-grade PIN:** the patterns of cells look more abnormal

Many men begin to develop **low-grade PIN** at an early age but don't necessarily develop prostate cancer. The importance of low-grade PIN in relation to prostate cancer is still unclear. If low-grade PIN is reported on a prostate biopsy, the follow-up for patients is usually the same as if nothing abnormal was seen.

If **high-grade PIN** is found on a biopsy, there is about a 1 in 5 chance that cancer may already be present somewhere else in the prostate gland. This is why doctors often watch men with high-grade PIN carefully and may advise a repeat prostate biopsy, especially if the original biopsy did not take samples from all parts of the prostate.

**Atypical small acinar proliferation (ASAP):** This might also be called *glandular atypia* or *atypical glandular proliferation*. It might also just be reported as “suspicious for cancer.” All of these terms mean that the cells look like they might be cancer when seen under the microscope, but there are too few of them to be sure. If one of these terms is used, there’s a high chance that there is also cancer in the prostate, which is why many doctors recommend getting a repeat biopsy within a few months.

**Proliferative inflammatory atrophy (PIA):** In PIA, the prostate cells look smaller than normal, and there are signs of inflammation in the area. PIA is not cancer, but researchers believe that PIA may sometimes lead to high-grade PIN or to prostate cancer directly.

For more information about how prostate biopsy results are reported, see the [Prostate Pathology](#)<sup>13</sup> section of our website.

## Imaging tests to look for prostate cancer spread

[Imaging tests](#)<sup>14</sup> use x-rays, magnetic fields, sound waves, or radioactive substances to create pictures of the inside of your body.

If you are found to have prostate cancer, your doctor will use your digital rectal exam (DRE) results, prostate-specific antigen (PSA) level, and Gleason score from the biopsy results to figure out how likely it is that the cancer has spread outside your prostate. This information is used to decide if any imaging tests need to be done to look for possible cancer spread. Men with a normal DRE result, a low PSA, and a low Gleason score may not need any other tests because the chance that the cancer has spread is so low.

The imaging tests used most often to look for prostate cancer spread include:

### Bone scan

If prostate cancer spreads to distant sites, it often goes to the bones first. A [bone scan](#)<sup>15</sup> can help show whether cancer has reached the bones.

For this test, you are injected with a small amount of low-level radioactive material, which settles in damaged areas of bone throughout the body. A special camera detects the radioactivity and creates a picture of your skeleton.

A bone scan may suggest cancer in the bone, but to make an accurate diagnosis, other tests such as plain x-rays, CT or MRI scans, or even a bone biopsy might be needed.

## Computed tomography (CT) scan

A [CT scan](#)<sup>16</sup> uses x-rays to make detailed, cross-sectional images of your body. This test isn't often needed for newly diagnosed prostate cancer if the cancer is likely to be confined to the prostate based on other findings (DRE result, PSA level, and Gleason score). Still, it can sometimes help tell if prostate cancer has spread into nearby lymph nodes. If your prostate cancer has come back after treatment, the CT scan can often tell if it is growing into other organs or structures in your pelvis.

CT scans are not as useful as magnetic resonance imaging (MRI) for looking at the prostate gland itself.

## Magnetic resonance imaging (MRI)

Like CT scans, [MRI scans](#)<sup>17</sup> show detailed images of soft tissues in the body. But MRI scans use radio waves and strong magnets instead of x-rays. A contrast material called *gadolinium* may be injected into a vein before the scan to better see details.

MRI scans can give a very clear picture of the prostate and show if the cancer has spread outside the prostate into the seminal vesicles or other nearby structures. This can be very important in determining your treatment options. But like CT scans, MRI scans aren't usually needed for newly diagnosed prostate cancers that are likely to be confined to the prostate based on other factors.

To improve the accuracy of the MRI, you might have a probe, called an *endorectal coil*, placed inside your rectum for the scan. This can be uncomfortable. If needed, medicine to make you feel sleepy (sedation) can be given before the scan.

## Lymph node biopsy

In a [lymph node biopsy](#)<sup>18</sup>, also known as *lymph node dissection* or *lymphadenectomy*, one or more [lymph nodes](#)<sup>19</sup> are removed to see if they have cancer cells. This isn't done very often for prostate cancer, but can be used to find out if the cancer has spread from the prostate to nearby lymph nodes.

## Biopsy during surgery to treat prostate cancer

The surgeon may remove lymph nodes in the pelvis during the same operation as the removal of the prostate, which is known as a *radical prostatectomy* (see [Surgery for Prostate Cancer](#)<sup>20</sup>).

If there is more than a very small chance that the cancer might have spread (based on factors such as a high PSA level or a high Gleason score), the surgeon may remove some lymph nodes before removing the prostate gland.

Sometimes the nodes will be looked at right away, while you are still under anesthesia, to help the surgeon decide whether to continue with the radical prostatectomy. This is called a *frozen section* exam because the tissue sample is frozen before thin slices are taken to check under a microscope. If the nodes contain cancer cells, the operation might be stopped (leaving the prostate in place). This could happen if the surgeon feels that removing the prostate would be unlikely to cure the cancer, but would still probably result in serious complications or side effects.

More often (especially if the chance of cancer spread is low), a frozen section exam is not done. Instead the lymph nodes and the prostate are removed and are then sent to the lab to be looked at. The lab results are usually available several days after surgery.

### **Lymph node biopsy as a separate procedure**

A lymph node biopsy is rarely done as a separate procedure. It's sometimes used when a radical prostatectomy isn't planned (such as for some men who choose treatment with radiation therapy), but when it's still important to know if the lymph nodes contain cancer.

**Laparoscopic biopsy:** A laparoscope is a long, slender tube with a small video camera on the end that is inserted into the abdomen through a small cut. It lets the surgeon see inside the abdomen and pelvis without needing to make a large cut (incision). Other small incisions are made to insert long instruments to remove the lymph nodes around the prostate gland, which are then sent to the lab.

Because there are no large incisions, most people recover fully in only 1 or 2 days, and the operation leaves very small scars.

**Fine needle aspiration (FNA):** If your lymph nodes appear enlarged on an imaging test (such as a CT or MRI scan) a doctor may take a sample of cells from an enlarged node by using a technique called *fine needle aspiration* (FNA).

To do this, the doctor uses a CT scan image to guide a long, hollow needle through the skin in the lower abdomen and into the enlarged node. The skin is numbed with local anesthesia before inserting the needle. A syringe attached to the needle lets the doctor take a small tissue sample from the node, which is then sent to the lab to look for cancer cells.

You will be able to return home a few hours after the procedure.

## Hyperlinks

1. [www.cancer.org/cancer/prostate-cancer/early-detection.html](http://www.cancer.org/cancer/prostate-cancer/early-detection.html)
2. [www.cancer.org/cancer/prostate-cancer/early-detection.html](http://www.cancer.org/cancer/prostate-cancer/early-detection.html)
3. [www.cancer.org/treatment/understanding-your-diagnosis/tests.html](http://www.cancer.org/treatment/understanding-your-diagnosis/tests.html)
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17. [www.cancer.org/treatment/understanding-your-diagnosis/tests/mri-for-cancer.html](http://www.cancer.org/treatment/understanding-your-diagnosis/tests/mri-for-cancer.html)
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19. [www.cancer.org/cancer/cancer-basics/lymph-nodes-and-cancer.html](http://www.cancer.org/cancer/cancer-basics/lymph-nodes-and-cancer.html)
20. [www.cancer.org/cancer/prostate-cancer/treating/surgery.html](http://www.cancer.org/cancer/prostate-cancer/treating/surgery.html)

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## Prostate Cancer Stages

After a man is diagnosed with prostate cancer, doctors will try to figure out if it has spread, and if so, how far. This process is called **staging**. The stage of a prostate cancer describes how much cancer is in the body. It helps determine how serious the cancer is and how best to [treat](#)<sup>1</sup> it. Doctors also use a cancer's stage when talking about survival statistics. The stage is based on tests described in [Tests for Prostate Cancer](#), including the blood PSA level and biopsy results.

### The AJCC TNM staging system

A staging system is a standard way for the cancer care team to describe how far a cancer has spread. The most widely used staging system for prostate cancer is the **AJCC** (American Joint Committee on Cancer) **TNM** system, which was most recently updated in January 2018.

The TNM system for prostate cancer is based on 5 key pieces of information:

- The extent of the main (primary) **tumor (T category)**\*
- Whether the cancer has spread to nearby lymph **nodes (N category)**
- Whether the cancer has spread (**metastasized**) to other parts of the body (**M category**)
- The **PSA level** at the time of diagnosis
- The **Grade Group** (based on the **Gleason score**), which is a measure of how likely the cancer is to grow and spread quickly. This is determined by the results of the prostate **biopsy** (or **surgery**<sup>2</sup>).

\*There are 2 types of T categories for prostate cancer:

- The **clinical T** category (written as **cT**) is your doctor's best estimate of the extent of your disease, based on the results of the physical exam (including a digital rectal exam) and prostate biopsy, and any imaging tests you have had.
- If you have surgery to remove your prostate, your doctors can also determine the **pathologic T** category (written as **pT**). The pathologic T is likely to be more accurate than the clinical T, as it is done after all of your prostate has been examined in the lab.

Numbers or letters after T, N, and M provide more details about each of these factors. Higher numbers mean the cancer is more advanced. Once the T, N, and M categories have been determined, this information is combined (along with the Grade Group and PSA level if they are available) in a process called **stage grouping** to get the overall stage of the cancer.

The main stages of prostate cancer range from I (1) through IV (4). Some stages are split further (A, B, etc). As a rule, the lower the number, the less the cancer has spread. A higher number, such as stage IV, means cancer has spread more. And within a stage, an earlier letter means a lower stage. Although each person's cancer experience is unique, cancers with similar stages tend to have a similar outlook and are often treated in much the same way.

### Stages of prostate cancer

AJCC Stage	Stage grouping	Stage description
	<b>cT1, N0, M0</b> <b>Grade Group 1</b>	The doctor can't feel the tumor or see it with an imaging test such as transrectal ultrasound (it was either found during a <a href="#">transurethral resection of the prostate (TURP)</a> <sup>3</sup> )

	<b>(Gleason score 6 or less)</b> <b>PSA less than 10</b>	or was diagnosed by needle biopsy done for a high PSA) [cT1]. The cancer has not spread to nearby lymph nodes [N0] or elsewhere in the body [M0]. The Grade Group is 1, and the PSA level is less than 10.
	<b>OR</b>	
	<b>cT2a, N0, M0</b> <b>Grade Group 1 (Gleason score 6 or less)</b> <b>PSA less than 10</b>	The tumor can be felt by digital rectal exam or seen with imaging such as transrectal ultrasound and is in one half or less of only one side (left or right) of the prostate [cT2a]. The cancer has not spread to nearby lymph nodes [N0] or elsewhere in the body [M0]. The Grade Group is 1, and the PSA level is less than 10.
	<b>OR</b>	
	<b>pT2, N0, M0</b> <b>Grade Group 1 (Gleason score 6 or less)</b> <b>PSA less than 10</b>	The prostate has been removed with surgery, and the tumor was still only in the prostate [pT2]. The cancer has not spread to nearby lymph nodes [N0] or elsewhere in the body [M0]. The Grade Group is 1, and the PSA level is less than 10.
	<b>OR</b>	
IIA	<b>cT1, N0, M0</b> <b>Grade Group 1 (Gleason score 6 or less)</b> <b>PSA at least 10 but less than 20</b>	The doctor can't feel the tumor or see it with imaging such as transrectal ultrasound (it was either found during a <a href="#">transurethral resection of the prostate (TURP)</a> <sup>4</sup> or was diagnosed by needle biopsy done for a high PSA level) [cT1]. The cancer has not spread to nearby lymph nodes [N0] or elsewhere in the body [M0]. The Grade Group is 1. The PSA level is at least 10 but less than 20.
	<b>OR</b>	
	<b>cT2a or pT2, N0, M0</b> <b>Grade Group 1 (Gleason score 6 or less)</b> <b>PSA at least 10 but less than 20</b>	The tumor can be felt by digital rectal exam or seen with imaging such as transrectal ultrasound and is in one half or less of only one side (left or right) of the prostate [cT2a]. OR the prostate has been removed with surgery, and the tumor was still only in the prostate [pT2]. The cancer has not spread to nearby lymph nodes [N0] or elsewhere in the body [M0]. The Grade Group is 1. The PSA level is at least 10 but less than 20.



	<b>OR</b>	
	<b>cT2b or cT2c, N0, M0</b> <b>Grade Group 1 (Gleason score 6 or less)</b> <b>PSA less than 20</b>	The tumor can be felt by digital rectal exam or seen with imaging such as transrectal ultrasound. It is in more than half of one side of the prostate [cT2b] or it is in both sides of the prostate [cT2c]. The cancer has not spread to nearby lymph nodes [N0] or elsewhere in the body [M0]. The Grade Group is 1. The PSA level is less than 20.
<b>II B</b>	<b>T1 or T2, N0, M0</b> <b>Grade Group 2 (Gleason score 3+4=7)</b> <b>PSA less than 20</b>	The cancer has not yet spread outside the prostate. It might (or might not) be felt by digital rectal exam or seen with imaging such as transrectal ultrasound [T1 or T2]. The cancer has not spread to nearby lymph nodes [N0] or elsewhere in the body [M0]. The Grade Group is 2. The PSA level is less than 20.
<b>II C</b>	<b>T1 or T2, N0, M0</b> <b>Grade Group 3 or 4 (Gleason score 4+3=7 or 8)</b> <b>PSA less than 20</b>	The cancer has not yet spread outside the prostate. It might (or might not) be felt by digital rectal exam or seen with imaging such as transrectal ultrasound [T1 or T2]. The cancer has not spread to nearby lymph nodes [N0] or elsewhere in the body [M0]. The Grade Group is 3 or 4. The PSA level is less than 20.
<b>III A</b>	<b>T1 or T2, N0, M0</b> <b>Grade Group 1 to 4 (Gleason score 8 or less)</b> <b>PSA at least 20</b>	The cancer has not yet spread outside the prostate. It might (or might not) be felt by digital rectal exam or seen with imaging such as transrectal ultrasound [T1 or T2]. The cancer has not spread to nearby lymph nodes [N0] or elsewhere in the body [M0]. The Grade Group is 1 to 4. The PSA level is at least 20.
<b>III B</b>	<b>T3 or T4, N0, M0</b> <b>Grade Group 1 to 4 (Gleason score 8 or less)</b> <b>Any PSA</b>	The cancer has grown outside the prostate and might have spread to the seminal vesicles [T3], or it has spread into other tissues next to the prostate, such as the urethral sphincter (muscle that helps control urination), rectum, bladder, and/or the wall of the pelvis [T4]. It has not spread to nearby lymph nodes [N0] or elsewhere in the body [M0]. The Grade Group is 1 to 4, and the PSA can be any value.
	<b>Any T, N0, M0</b>	The cancer might or might not be growing outside the

<b>IIIC</b>	<b>Grade Group 5 (Gleason score 9 or 10)</b>  <b>Any PSA</b>	prostate and into nearby tissues [any T]. It has not spread to nearby lymph nodes [N0] or elsewhere in the body [M0]. The Grade Group is 5. The PSA can be any value.
<b>IVA</b>	<b>Any T, N1, M0</b>  <b>Any Grade Group</b>  <b>Any PSA</b>	The tumor might or might not be growing into tissues near the prostate [any T]. The cancer has spread to nearby lymph nodes [N1] but has not spread elsewhere in the body [M0]. The Grade Group can be any value, and the PSA can be any value.
<b>IVB</b>	<b>Any T, any N, M1</b>  <b>Any Grade Group</b>  <b>Any PSA</b>	The cancer might or might not be growing into tissues near the prostate [any T] and might or might not have spread to nearby lymph nodes [any N]. It has spread to other parts of the body, such as distant lymph nodes, bones, or other organs [M1]. The Grade Group can be any value, and the PSA can be any value.

Prostate cancer staging can be complex. If you have any questions about your stage, please ask someone on your cancer care team to explain it to you in a way you understand.

## Prostate cancer risk assessment tools

Doctors are now looking for other ways to tell how likely a prostate cancer is to grow and spread, which might help determine a man's best treatment options:

- One way to do this is with risk assessment models, which take into account factors such as a man's overall health and the results of certain lab tests, among other things.
- Another way to do this is with genomic tests, which look at which genes are active inside the prostate cancer cells.

Doctors are still trying to determine the best use of these types of models and tests. Many of them are now being studied, but as of now there is no single tool that can help in every situation.

If your doctor suggests using one of these ways to help determine your treatment options, have them explain what it can tell you, as well as how accurate it's likely to be.

## Hyperlinks

1. [www.cancer.org/cancer/prostate-cancer/treating.html](http://www.cancer.org/cancer/prostate-cancer/treating.html)
2. [www.cancer.org/cancer/prostate-cancer/treating/surgery.html](http://www.cancer.org/cancer/prostate-cancer/treating/surgery.html)
3. [www.cancer.org/cancer/prostate-cancer/treating/surgery.html](http://www.cancer.org/cancer/prostate-cancer/treating/surgery.html)
4. [www.cancer.org/cancer/prostate-cancer/treating/surgery.html](http://www.cancer.org/cancer/prostate-cancer/treating/surgery.html)

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American Joint Committee on Cancer. Prostate. In: *AJCC Cancer Staging Manual*. 8th ed. New York, NY: Springer; 2017: 715-725.

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# Survival Rates for Prostate Cancer

Survival rates can give you an idea of what percentage of people with the same type and stage of cancer are still alive a certain amount of time (usually 5 years) after they were diagnosed. They can't tell you how long you will live, but they may help give you a better understanding of how likely it is that your treatment will be successful.

**Keep in mind that survival rates are estimates and are often based on previous outcomes of large numbers of people who had a specific cancer, but they can't predict what will happen in any particular person's case. These statistics can be confusing and may lead you to have more questions. Talk with your doctor about how these numbers may apply to you, as he or she is familiar with your situation.**

### What is a 5-year relative survival rate?

A **relative survival rate** compares men with the same type and stage of prostate cancer to men in the overall population. For example, if the **5-year relative survival rate** for a specific stage of prostate cancer is 90%, it means that men who have that cancer are, on average, about 90% as likely as men who don't have that cancer to live for at least 5 years after being diagnosed.

## Where do these numbers come from?

The American Cancer Society relies on information from the SEER\* database, maintained by the National Cancer Institute (NCI), to provide survival statistics for different types of cancer.

The SEER database tracks 5-year relative survival rates for prostate cancer in the United States, based on how far the cancer has spread. The SEER database, however, does not group cancers by [AJCC TNM stages](#) (stage 1, stage 2, stage 3, etc.). Instead it groups cancers into localized, regional, and distant stages.

- **Localized:** There is no sign that the cancer has spread outside of the prostate. This includes AJCC stage I, II, and some stage III cancers.
- **Regional:** The cancer has spread outside the prostate to nearby structures or lymph nodes. This includes mainly stage IIIB and IVA cancers.
- **Distant:** The cancer has spread to distant parts of the body such as the lungs, liver, or bones. For prostate cancer, this includes stage IVB cancers.

## 5-year relative survival rates for prostate cancer

(Based on men diagnosed with prostate cancer between 2008 and 2014.)

SEER Stage	5-year Relative Survival Rate
Localized	nearly 100%
Regional	nearly 100%
Distant	30%
All SEER stages combined	98%

## Understanding the numbers

- **These numbers apply only to the stage of the cancer when it is first diagnosed.** They do not apply later on if the cancer grows, spreads, or comes back after treatment.
- **These numbers don't take everything into account.** Survival rates are grouped based on how far the cancer has spread, but your age, overall health, how well the

cancer responds to treatment, [PSA level](#), [grade group](#), and other factors can also affect your outlook.

- **Men now being diagnosed with prostate cancer may have a better outlook than these numbers show.** Treatments improve over time, and these numbers are based on people who were diagnosed and treated at least five years earlier.

\*SEER= Surveillance, Epidemiology, and End Results

## Hyperlinks

1. [https://seer.cancer.gov/csr/1975\\_2015/](https://seer.cancer.gov/csr/1975_2015/)

## References

American Cancer Society. *Cancer Facts & Figures 2019*. Atlanta, Ga: American Cancer Society; 2019.

Noone AM, Howlader N, Krapcho M, Miller D, Brest A, Yu M, Ruhl J, Tatalovich Z, Mariotto A, Lewis DR, Chen HS, Feuer EJ, Cronin KA (eds). SEER Cancer Statistics Review, 1975-2015, National Cancer Institute. Bethesda, MD, [https://seer.cancer.gov/csr/1975\\_2015/](https://seer.cancer.gov/csr/1975_2015/) ([seer.cancer.gov/csr/1975\\_2015/](https://seer.cancer.gov/csr/1975_2015/))<sup>1</sup>, based on November 2017 SEER data submission, posted to the SEER web site, April 2018.

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# What Should You Ask Your Health Care Team About Prostate Cancer?

It's important to have honest, open discussions with your [cancer care team](#)<sup>1</sup>. Feel free to ask any question, no matter how small it might seem. Here are some questions you might want to ask:

## When you're told you have prostate cancer

- What are the chances that the cancer has spread beyond my prostate? If so, is it still curable?
- Do I need any [other tests](#)<sup>2</sup> before we decide on treatment?
- Should I see any other types of doctors before deciding on treatment?
- What is the [clinical stage](#) and [Gleason score \(grade\)](#) of my cancer? What do those mean to me?
- If I'm concerned about the [costs and insurance coverage](#)<sup>3</sup> for my diagnosis and treatment, who can help me?

## When deciding on a treatment plan

- How likely is my cancer to cause problems if I'm not treated right away?
- Should I consider [active surveillance](#)<sup>4</sup> as an option? Why or why not?
- Do you recommend a [radical prostatectomy](#)<sup>5</sup> or [radiation therapy](#)<sup>6</sup>? Why or why not?
- Should I consider [laparoscopic or robot-assisted prostatectomy](#)<sup>7</sup>?
- What types of radiation therapy might work best for me?
- What [other treatment](#)<sup>8</sup>(s) might be right for me? Why?
- What risks or side effects should I expect from my treatment options?
- What are the chances that I will have problems with incontinence or impotence?
- What are the chances that I will have other urinary or rectal problems?
- How quickly do I need to decide on treatment?
- What should I do to be ready for treatment?
- How long will treatment last? What will it be like? Where will it be done?
- How might treatment affect my daily activities?
- What are the chances my cancer will come back with the treatment plans we have discussed? What would be our next step if this happened?

## During treatment

Once treatment begins, you'll need to know what to expect and what to look for. Not all of these questions may apply to you, but getting answers to the ones that do may be helpful.

- How will we know if the treatment is working?
- Is there anything I can do to help manage [side effects](#)<sup>9</sup>?

- What symptoms or side effects should I tell you about right away?
- How can I reach you on nights, holidays, or weekends?
- Do I need to change what I [eat during treatment](#)<sup>10</sup>?
- Are there any limits on [what I can do](#)<sup>11</sup>?
- Can you suggest a mental health professional I can see if I start to feel [overwhelmed, depressed, or distressed](#)<sup>12</sup>?

## After treatment

- Are there any limits on what I can do?
- What symptoms should I watch for?
- Should I [exercise or follow a special diet](#)<sup>13</sup>?
- What type of follow-up will I need after treatment?
- How often will I need to have follow-up exams and imaging tests?
- Will I need any blood tests?
- How will we know if the [cancer has come back](#)<sup>14</sup>? What should I watch for?
- What will my options be if the cancer comes back?

Along with these sample questions, be sure to write down some of your own. For instance, you might want to ask about recovery time so that you can plan your work or activity schedule. If you still might [want to have children](#)<sup>15</sup>, ask if there is a possibility you could become impotent or sterile. You also might want to ask if you qualify for any [clinical trials](#)<sup>16</sup>.

Keep in mind that doctors aren't the only ones who can give you information. Other health care professionals, such as nurses and social workers, can answer some of your questions. To find out more about speaking with your health care team, see [The Doctor-Patient Relationship](#)<sup>17</sup>.

## Hyperlinks

1. [www.cancer.org/treatment/finding-and-paying-for-treatment/choosing-your-treatment-team.html](http://www.cancer.org/treatment/finding-and-paying-for-treatment/choosing-your-treatment-team.html)
2. [www.cancer.org/treatment/understanding-your-diagnosis/tests.html](http://www.cancer.org/treatment/understanding-your-diagnosis/tests.html)
3. [www.cancer.org/treatment/finding-and-paying-for-treatment.html](http://www.cancer.org/treatment/finding-and-paying-for-treatment.html)
4. [www.cancer.org/cancer/prostate-cancer/treating/watchful-waiting.html](http://www.cancer.org/cancer/prostate-cancer/treating/watchful-waiting.html)
5. [www.cancer.org/cancer/prostate-cancer/treating/surgery.html](http://www.cancer.org/cancer/prostate-cancer/treating/surgery.html)

6. [www.cancer.org/cancer/prostate-cancer/treating/radiation-therapy.html](http://www.cancer.org/cancer/prostate-cancer/treating/radiation-therapy.html)
7. [www.cancer.org/cancer/prostate-cancer/treating/surgery.html](http://www.cancer.org/cancer/prostate-cancer/treating/surgery.html)
8. [www.cancer.org/cancer/prostate-cancer/treating.html](http://www.cancer.org/cancer/prostate-cancer/treating.html)
9. [www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects.html](http://www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects.html)
10. [www.cancer.org/treatment/survivorship-during-and-after-treatment/staying-active/nutrition.html](http://www.cancer.org/treatment/survivorship-during-and-after-treatment/staying-active/nutrition.html)
11. [www.cancer.org/treatment/survivorship-during-and-after-treatment/staying-active.html](http://www.cancer.org/treatment/survivorship-during-and-after-treatment/staying-active.html)
12. [www.cancer.org/treatment/treatments-and-side-effects/emotional-side-effects.html](http://www.cancer.org/treatment/treatments-and-side-effects/emotional-side-effects.html)
13. [www.cancer.org/treatment/survivorship-during-and-after-treatment/be-healthy-after-treatment.html](http://www.cancer.org/treatment/survivorship-during-and-after-treatment/be-healthy-after-treatment.html)
14. [www.cancer.org/treatment/survivorship-during-and-after-treatment/understanding-recurrence.html](http://www.cancer.org/treatment/survivorship-during-and-after-treatment/understanding-recurrence.html)
15. [www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/fertility-and-sexual-side-effects.html](http://www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/fertility-and-sexual-side-effects.html)
16. [www.cancer.org/treatment/treatments-and-side-effects/clinical-trials.html](http://www.cancer.org/treatment/treatments-and-side-effects/clinical-trials.html)
17. [www.cancer.org/treatment/understanding-your-diagnosis/talking-about-cancer/the-doctor-patient-relationship.html](http://www.cancer.org/treatment/understanding-your-diagnosis/talking-about-cancer/the-doctor-patient-relationship.html)

## References

See all references for Prostate Cancer ([www.cancer.org/cancer/prostate-cancer/references.html](http://www.cancer.org/cancer/prostate-cancer/references.html))

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