All About Prostate Cancer

What is the prostate?

The prostate is a small gland that only men have. Normally, the prostate is about the size of a walnut. The prostate is located underneath the bladder and in front of the rectum. The prostate makes and stores fluid that is part of semen. This fluid is released from a man's penis during ejaculation.

The male hormone, testosterone, helps the prostate gland work as it should. Nerves to the penis, which are important in producing and maintaining an erection, run very close to the prostate. The prostate completely encircles the tube that carries urine from the bladder to the penis, called the urethra. If the prostate grows too big, it can block the flow of urine from the bladder, making it hard for a man to urinate.

What is prostate cancer?

Prostate cancer occurs when cells in the prostate begin to grow out of control. Often, prostate cancer is a slow-growing cancer. Most prostate cancers are adenocarcinomas. There are some rare types of prostate cancer including sarcomas, neuroendocrine tumors, transitional cell carcinomas or small cell carcinomas. The type of prostate cancer impacts the treatments used to treat the disease.

Sometimes prostate cancer will grow quickly and spread to nearby lymph nodes. Lymph nodes are small, pea-sized pieces of tissue that filter and clean lymph, a clear liquid waste product. If prostate cancer has spread to your lymph nodes when it is diagnosed, it means that there is a higher chance that it has spread to other areas of the body as well. If and when prostate cancer cells gain access to the bloodstream, they can spread to other parts of the body, at which point the prostate cancer is said to have metastasized.

What causes prostate cancer and am I at risk?

Every man is at risk for prostate cancer as he ages. Although prostate cancer can affect younger men, about 6 out of 10 cases are diagnosed in men over the age of 65. The average age of diagnosis is 66. After non-melanoma skin cancer, prostate is the most common cancer diagnosed in men in the United States. The American Cancer Society estimates there will be 248,530 new cases of prostate cancer each year.

Although there are several known risk factors for getting prostate cancer, no one knows exactly why one man gets it and another doesn't. Some important risk factors for prostate cancer are:

- **Age**: The chance of getting prostate cancer rises quickly after the age of 60. In fact, most men will have some form of prostate cancer after the age of 80. One of the sayings about prostate cancer is that men over the age of 80 are more likely to die with prostate cancer than from prostate cancer. This saying means that many older men have low-volume, slower-growing prostate cancer that is not going to affect life expectancy because the cancer will take a very long time to grow. However, this saying is only a generalization; sometimes prostate cancer can grow quickly, even in older men.
- **Ethnicity**: Prostate cancer is more common in African-American men and Caribbean men of African ancestry. African-American men have a 1.6-fold higher chance of being diagnosed with prostate cancer than Caucasian and Latino men. Asian and Native American men have the lowest chances of getting prostate cancer. The reason for these ethnic differences in prostate cancer risk is not known.
- **Genetics**: A family history of prostate cancer increases a man's chances of developing the disease, particularly in men with a father or brother who has had prostate cancer. There are also inherited genetic mutations that may increase the risk
of prostate cancer. These include BRCA1 and BRCA2 gene mutations and HPNCC (Lynch syndrome). There are several known gene mutations that raise your risk of prostate cancer. For more information, visit our genetics article.

- **Diet:** There is some evidence that a man's diet may affect his risk of developing prostate cancer. A high fat diet, particularly a diet high in animal fats, may increase prostate cancer risk. A few studies have suggested that a diet low in vegetables causes an increased risk of prostate cancer. In some studies, a diet high in tomatoes (lycopene) or a diet high in omega-3-fatty acids has been shown to decrease prostate cancer risk.

### How can I prevent prostate cancer?

The best way to try and prevent prostate cancer is to modify the risk factors for prostate cancer that you have control over. Eat a low-fat diet that is rich in fruits and vegetables and low in animal fats. It is always a good idea to maintain a healthy weight, get plenty of exercise and not to smoke or to quit smoking.

### What screening tests are used for prostate cancer?

There are two tests used for prostate cancer screening:

- **Digital rectal exam (DRE):** The DRE is performed in your provider's office. Because the prostate is so close to the rectum, your provider can feel it by inserting a gloved, lubricated finger into your anus. Your provider can feel if there are lumps, asymmetries, or if your prostate is enlarged. A digital rectal exam is uncomfortable, but not painful. It is a useful test, but it is not perfect. Some small cancers can be missed as only the bottom and sides of the prostate can be examined in this manner. Although it isn’t a full proof test, it becomes more useful when it is combined with another test called a PSA.

- **Prostate specific antigen (PSA):** The PSA (prostate specific antigen) test is a blood test that looks for this specific protein that is only made in the body by the prostate gland. Normal prostate tissue makes some of this antigen, but prostate cancer usually makes much more and keeps making it, causing PSA levels to keep rising. By checking to see if your PSA is elevated, your provider can screen you for prostate cancer. The PSA test isn't perfect either, because some tumors won't elevate the PSA, while some other things (like benign prostatic hyperplasia/BPH and prostatitis) can cause it to be falsely elevated. However, the higher your PSA is, the more likely the elevation is to be caused by a prostate cancer. The cut-off that your provider often uses is 4.0 ng/ml, meaning that anything below 4.0 ng/ml is considered likely normal and anything above it is abnormal and may warrant a prostate biopsy. If your PSA is elevated, or you have an abnormal digital rectal exam, then you need to get further testing; however, this doesn't necessarily mean that you have prostate cancer. The only way to know for sure whether or not you have cancer is to get a sample of your prostate via biopsy.

The American Cancer Society (ACS) recommends that men make an informed decision on whether or not they should be screened after talking about the risks and benefits of screening with their healthcare provider. Screening is not recommended in men without symptoms of prostate cancer if they have a life expectancy of less than ten years. Men at average risk of developing prostate cancer should begin this conversation at age 50. African American men and men with one relative with prostate cancer should talk with their healthcare provider about screening beginning at age 45. Men at the highest risk, those with more than one first degree relative (brother, father) with prostate cancer at an early age should begin talking about screening at age 40. Repeat screening is based on baseline PSA results, but typically occurs every 1-2 years.

### What are the signs of prostate cancer?

Most early prostate cancers are detected with PSA tests or digital rectal exams before they cause any symptoms. However, more advanced prostate cancers can cause a variety of symptoms including:

- Trouble starting to urinate (pee).
- Urinating much more often than usual.
- The feeling that you can't release all of your urine.
- Pain with urination or ejaculation.
- Blood in your urine or semen.
- Impotence/erectile dysfunction.
• Bone pain.
• Numbness in the lower extremities.
• Loss of bladder or bowel control.

All of these symptoms can be caused by things other than prostate cancer, so experiencing them doesn't necessarily mean you have prostate cancer. When older men have problems urinating, it is usually caused by a problem called benign prostatic hyperplasia (BPH), which is not prostate cancer. If you have any of these symptoms, you need to see your provider for testing.

How is prostate cancer diagnosed?

If you have symptoms of prostate cancer, your provider will perform a digital rectal exam and a PSA blood test. If either of those two tests are abnormal, then most likely your provider will recommend that you have a prostate biopsy. A biopsy is the only way to know for sure if you have cancer, as it allows your providers to get cells that can be examined under a microscope.

The most common way that a biopsy is done is with a trans-rectal ultrasound (TRUS). A trans-rectal ultrasound is a thin cylinder that puts out sound waves and monitors them when they bounce off of tissue. It is inserted into your rectum, and allows the provider performing the biopsy to view your prostate and choose where to remove the tissue for further evaluation. Any suspicious areas are biopsied. In addition, some tissue will be removed from all of the different parts of the prostate (to make sure they don't miss any cancers that may be small and growing). The procedure is done while you are awake, with the help of some numbing medicine. Unfortunately, a trans-rectal ultrasound isn't a perfect tool. Even though many samples are taken, it can occasionally miss the area of the cancer. If this happens, and your PSA remains elevated, you may need to have the procedure repeated.

Once the tissue is removed, a provider called a pathologist will examine the specimen under a microscope. The pathologist can tell if it is cancer or not; and, if it is cancerous, the pathologist will characterize it by what type of prostate cancer it is and how abnormal it looks (known as the grade). The pathologist then characterizes how much the cancer looks like normal prostate tissue. This is known as the grade of the tumor. Pathologists often use a scale, called the Gleason score, when they grade prostate tumors. The Gleason score can range from 2 to 10, with 2 meaning the tumor cells look more like normal prostate tissue and 10 the tumor cells look most abnormal compared to normal prostate cells. Generally, the more abnormal the tumor looks, the more aggressive it is. Sometimes there are two scores, as two areas of tumor in the prostate are tested. This score, combined with your PSA and the stage of the tumor will result in your prostate cancer being assigned a risk group. This risk group helps define your treatment options. This system is included in the staging appendix at the end of this article.

Your provider may order other tests including a bone scan, CT scan or MRI to see if the cancer has spread to the bones, lymph nodes or other organs.

How is prostate cancer staged?

With these tests, a stage is assigned to help decide the treatment plan. The stage of cancer, or extent of disease, is based on information gathered through the various tests as the diagnosis and work-up of the cancer is being performed.

Prostate cancer is most commonly staged using the “TNM system” plus the Gleason score. The TNM system is used to describe many types of cancers. In prostate cancer it has four components:

• T- Describes the extent of the "primary" tumor (describes the tumor itself).
• N- Describes if there is cancer in the lymph nodes.
• M- Describes if there is spread to other organs (metastases).
• G- Describes the Gleason score and takes into account the PSA and the histologic grade of the tumor.

The staging system is very complex. The entire staging system is outlined at the end of this article. Though complicated, the staging system helps healthcare providers determine the extent of the cancer, and in turn, make treatment decisions for a patient's cancer.

What are the treatments for prostate cancer?
There are many different ways to treat prostate cancer. For prostate cancer, it is important that you get a second opinion and you will most likely be consulting multiple types of healthcare providers before making a final decision. You should talk to both urologists and radiation oncologists to hear about the benefits and risks of surgery, hormonal therapy and radiation in your particular case. If your prostate cancer has already spread at the time of diagnosis, you will also need a medical oncologist to talk about chemotherapy. The most important thing is to review your options and make a decision that best suits your lifestyle, beliefs and values.

**Active Surveillance (Watchful Waiting)**

Some patients choose not to receive any treatment for their prostate cancer in the hopes that it will grow very slowly. By avoiding any therapy, they avoid the side effects that come along with surgery, radiation, or hormones. Active surveillance is appropriate for older men with small, low-grade tumors, slowly rising PSAs, and multiple other medical problems. Active surveillance can be considered in patients who have a life expectancy of less than 10 years as long as the cancer isn't large or of a high grade. Men who choose to undergo watchful waiting should have a PSA every 6 months, a DRE every 12 months and need to have a repeat biopsy every 12 months. However, it is never really clear what change in clinical status should start active treatment. Also, if the tumor has progressed, they may no longer be eligible for curative therapy.

**Surgery**

Surgery is a common form of treatment for men with prostate cancer. Surgery attempts to cure prostate cancer by removing the entire prostate and getting all of the cancer out of the body. An attempt at a surgical cure for prostate cancer is usually done with early stage prostate cancers. However, sometimes surgery will be used to relieve symptoms in advanced stage prostate cancers. However, sometimes surgery will be used to relieve symptoms in advanced stage prostate cancers.

The most common surgical procedure for prostate cancer is a radical prostatectomy. Radical prostatectomy means that the entire prostate gland is removed from around the tube that connects the bladder to the penis (the urethra). This surgery can be done in two different ways, the retropubic approach and the perineal approach. The retropubic approach means an incision is made in the lower abdomen, while the perineal approach means that the incision is made between the scrotum and the anus. Often times during a retropubic approach, the surgeon will remove some lymph nodes in the area and have them quickly examined by a pathologist for signs of cancer. If the nodes have cancer, then the surgeon will not proceed with the operation. This is the major reason a retropubic approach is used in most surgeries today.

Radical prostatectomies are safe surgeries with few life-threatening complications; however, there is a significant risk for other side effects. Both urinary incontinence (not being able to hold in your urine) and impotence (inability to achieve and maintain an erection) are commonly associated with this procedure. Sometimes, particularly with lower grade and smaller cancers, a nerve sparing prostatectomy can be performed. This type of prostatectomy can decrease the chance that you will be impotent after the procedure. However, there is always a risk and not every patient is a candidate for a nerve sparing prostatectomy. The risk for impotency and incontinence increases with age; this is why younger men are often recommended to have surgery while older men are recommended to have radiation. The skill of your particular surgeon also influences your chances of having these side effects during a radical prostatectomy.

Another surgical approach, which is being used more and more commonly, is the robot-assisted radical prostatectomy (RAP). As with non-robotic prostatectomy techniques, the entire prostate is removed. To perform the procedure, several tiny incisions are made in the patient's abdomen and long, thin laparoscopic tools are inserted and attached to the robot. The robot moves the instruments according to the instruction of the urologist who is seated at the robotic console. Therefore, the surgeon is controlling the movement of the robot the whole time. The rationale for this approach is that the slender arms of the robot can reach places and turn at angles that a surgeon’s hand cannot. RAP has some advantages over traditional prostatectomy techniques, such as decreased blood loss and shorter hospitalization and recovery. However, it costs more, and also carries the risks of impotence and incontinence. Research studies have found that cancer cure rates with RAP are equivalent to traditional radical prostatectomy. Of course, as with all surgical techniques, success will depend in part on the skill and experience of the surgeon.

Talk to your surgeon about their complication rates before your operation. With surgery, urinary incontinence and impotence are often most severe right after the operation and generally get better with time. There are things that your providers can recommend to help you with either of these problems. Talk to your urologist about your options.
Radiation
Prostate cancer is commonly treated with radiation therapy. Radiation therapy uses high energy rays (similar to x-rays) to kill cancer cells. Radiation is used in various stages of prostate cancer. Radiation helps avoid surgery in patients who are too ill to risk having anesthesia. Radiation is usually offered to older patients in the case of early stage prostate cancer because risk of side effects may be less than with surgery in the elderly. Radiation can have impotence rates similar to surgery, but the risk of urinary incontinence is very low. Impotence develops months to years after the radiation treatment, unlike with surgery, which tends to have the side effects occur immediately. Other side effects from radiation include bladder irritation, which can cause urinary frequency and urgency, as well as bladder pain, and diarrhea or rectal bleeding. Your radiation oncologist tries to limit the amount of radiation to other organs, but often the bladder and rectum can get some radiation exposure because they are so close to the prostate.

Radiation therapy for prostate cancer either comes from an external source (external beam radiation) or an internal source, where small radioactive seeds are implanted into the patient's prostate (brachytherapy). (Which type is right for me?) External beam radiation therapy requires patients to come in 5 days a week for 6-9 weeks to a radiation therapy treatment center. The treatment takes just a few minutes, and it is painless. Brachytherapy is done as a one-time insertion, in the operating room. Brachytherapy cannot be done in all patients and is usually reserved for early stage prostate cancers. Your radiation oncologist can answer questions about the utility, process, and side effects of both of these types of radiation therapy in your particular case.

Another form of external beam radiation therapy for prostate cancer uses protons rather than x-rays to kill tumor cells. Protons are the positively charged components within the nucleus of an atom. They are used to deliver radiation because they deposit most of their cell-killing energy within the tumor site (in this case, the prostate gland). Less of the dose is delivered to the tissues where the proton beams entered, and virtually no dose is delivered beyond the area being treated (so-called "exit dose"). Because of the potential to decrease dose deposition within normal tissues, many researchers are interested in learning whether treatment with protons has fewer and/or less severe long-term side effects compared to standard x-ray radiation treatments. Protons may have a theoretical advantage, but so far there is little evidence to "prove" that they are superior.

Hormonal Deprivation Therapy
Both normal prostate tissue and prostate cancers depend on male sex hormones, called androgens, to grow and replicate. Testosterone is an androgen that is very important to the prostate gland. Men make androgens in their testicles. One of the ways to treat prostate cancer is to remove androgens from the body, thus making the cancer shrink and then grow more slowly. This is called androgen deprivation therapy (ADT). There are a few different ways to remove androgens:

- **Orchiectomy**: Removal of a man's testicles.
- **Medications**:
  - LHRH agonists: Block the production of androgens.
  - Anti-androgens: Block androgen receptors.
  - Estrogen/DES.

The choice of which ADT to use is based on the extent of disease, and concurrent (with radiation) or neo-adjuvant (before radiation) treatment being given. Sometimes, a combination of methods of decreasing androgens is used in the same patient. Using LHRH agonists with anti-androgens can achieve what is known as a total androgen blockade. Another use for hormones is in patients who present with metastatic disease. After a while, all prostate cancers will become resistant to hormonal therapy. However, this often takes many years. Hormonal therapy can increase survival time in patients with extensive disease or patients who choose not to have surgery or radiation.

There are a number of side effects associated with hormonal therapy. Hormonal therapy will almost always cause impotence and the loss of your sex drive. It can also cause breast enlargement, hot flashes, and muscle and bone loss (osteoporosis). There are some things your providers can prescribe to help with bone loss and hot flashes, but little can be done about loss of libido and impotence.

Chemotherapy
Chemotherapy is the use of anti-cancer drugs that go throughout the entire body. Chemotherapy for prostate cancer is generally only reserved for very advanced cancers that are no longer responsive to hormonal therapy. There are a number of
Chemotherapy drugs that can be used for prostate cancer, and they are often used in combinations. Common medications used in the treatment of prostate cancer include docetaxel and cabazitaxel in combination with corticosteroids (prednisone). Metastatic prostate cancer may be treated with additional therapies including abiraterone, enzalutamide and mitoxantrone.

Immunotherapy uses the body’s immune system to fight cancer. Two immunotherapy medications, sipuleucel-T and pembrolizumab may be used in the treatment of some patients with prostate cancer. Sipuleucel-T (Provenge) is a form of immunotherapy that involves harvesting a specific type of the patient’s own white blood cells and combining the cells with a protein called prostatic acid phosphatase (PAP) found on prostate cancer cells, in order to activate the white blood cells. The cells are then given back to the patient about 3 days later, in a process similar to a blood transfusion. Pembrolizumab is indicated in prostate cancers that have a microsatellite instability-high (MSH)/mismatched repair deficient (dMMR). Your provider will test your tumor for this abnormality.

If prostate cancer cells spread, they often metastasize to the bone and treatment becomes necessary. Two medications are recommended for the treatment of bone metastasis in prostate cancer are zoledronic acid and denosumab.

Targeted therapy is a type of treatment that attacks cancer cells, while largely leaving normal cells alone. These medications attack the inner parts of a cancer cell, which sets them apart from healthy cells. Targeted therapies change how cancer cells grow and divide, and how they act within the body. Examples of targeted therapies for prostate cancer are rucaparib and olaparib. Both of these medications work when there is a mutation in either your BRCA1 or BRCA2 gene. Your provider will test you for this before treatment with these medications.

Clinical Trials

There are clinical research trials for most types of cancer, and every stage of the disease. Clinical trials are designed to determine the value of specific treatments. Trials are often designed to treat a certain stage of cancer, either as the first form of treatment offered, or as an option for treatment after other treatments have failed to work. They can be used to evaluate medications or treatments to prevent cancer, detect it earlier, or help manage side effects. Clinical trials are extremely important in furthering our knowledge of disease. It is through clinical trials that we know what we do today, and many exciting new therapies are currently being tested. Talk to your provider about participating in clinical trials in your area. You can also explore currently open clinical trials using the OncoLink Clinical Trials Matching Service.

Follow-up Care and Survivorship

Once you have been treated for prostate cancer, you should be closely followed for a recurrence. At first, you will have follow-up visits fairly often. The longer you are free of disease, the less often you will have to go for checkups. Your provider will tell you when they want follow-up visits, PSAs, and x-rays or scans, depending on your case. Your provider will also probably do digital rectal exams regularly during your office visits. It is very important that you let your provider know about any symptoms you are experiencing, and that you keep all of your follow-up appointments.

Fear of recurrence, relationship challenges, financial impact of cancer treatment, employment issues and coping strategies are common emotional and practical issues experienced by prostate cancer survivors. Your healthcare team can identify resources for support and management of these practical and emotional challenges faced during and after cancer. Cancer survivorship is a relatively new focus of oncology care. With almost 17 million cancer survivors in the US alone, there is a need to help patients transition from active treatment to survivorship. What happens next, how do you get back to normal, what should you know and do to live healthy going forward? A survivorship care plan can be a first step in educating yourself about navigating life after cancer and helping you communicate knowledgeably with your healthcare providers. Create a survivorship care plan on OncoLink.

Resources for More Information

Prostate Cancer Foundation

Leading philanthropic organization funding and accelerating prostate cancer research globally. Also provides information about prostate cancer, treatment and resources to help patients and families.
http://www.pcf.org/

Us Too

Offers peer-to-peer support and educational materials to help men and their families/caregivers make informed decisions about prostate cancer detection, treatment options and related side effects.

http://www.ustoo.org/Home

MaleCare

Provides cancer support for men with anal, prostate and breast cancer, with emphasis on African-American and gay males. Provides multiple language support.

http://malecare.org/

His Prostate Cancer

A support network for women whose husband or partner has prostate cancer.

http://www.hisprostatecancer.com/

Prostate Health Education Network

A support and education resource for African American men with prostate cancer.

http://www.prostatehealthed.org/

Appendix: AJCC Complete Staging for Prostate Cancer (8th ed., 2017)

| Primary Tumor-Clinical (cT) | Description |
|-----------------------------|-------------|
| TX                          | Primary tumor cannot be assessed |
| T0                          | No evidence of primary tumor |
| T1                          | Clinically inapparent tumor that is not palpable |
| T1a                         | Tumor incidental histologic finding in 5% or less of tissue resected |
| T1b                         | Tumor incidental histologic finding in more that 5% of tissue resected |
| T1c                         | Tumor identified by needle biopsy found in one or both sides, but not palpable |
| T2                          | Tumor is palpable and confined within prostate |
| T2a                         | Tumor involved one-half of one side or less |
| T2b                         | Tumor involved more than one-half of one side or less |
| T2c                         | Tumor involved both sides |
| T3                          | Extraprostatic tumor that is not fixed or does not invade adjacent structure |
| T3a                         | Extraprostatic tumor that is not fixed or does not invade adjacent structures |
| T3b                         | Tumor invades seminal vesicle(s) |
| T4                          | Tumor is fixed or invades adjacent structures other than seminal vesicles such as external sphincter, rectum, bladder, levator muscles, and/or pelvic wall |
### Pathological Tumor (pT)

| pT | Description                                                                 |
|----|-----------------------------------------------------------------------------|
| T2 | Organ confined                                                              |
| T3 | Extraprostatic extension                                                   |
| T3a| Extraprostatic extension (unilateral or bilateral) or microscopic invasion of the bladder neck |
| T3b| Tumor invades seminal vesicle(s)                                            |
| T4 | Tumor is fixed or invades adjacent structures other than seminal vesicles such as external sphincter, rectum, bladder, levator muscles, and/or pelvic wall |

### Regional Lymph Nodes (N)

| N  | Description                                      |
|----|--------------------------------------------------|
| NX | Regional lymph nodes cannot be assessed          |
| N0 | No positive regional nodes                      |
| N1 | Metastases in regional node(s)                  |

### Distant Metastasis (M)

| M  | Description                           |
|----|---------------------------------------|
| M0 | No distant metastasis                 |
| M1 | Distant metastasis                    |
| M1a| Non-regional lymph node(s)            |
| M1b| Bone(s)                               |
| M1c| Other site(s) with or without bone disease |

### Histologic Grade Group

| Grade | Gleason Score | Gleason Pattern |
|-------|---------------|-----------------|
| 1     | ≤6            | ≤3+3            |
| 2     | 7             | 3+4             |
| 3     | 7             | 4+3             |
| 4     | 8             | 4+4, 3+5, 5+3   |
| 5     | 9 or 10       | 4+5, 5+4, 5+5   |

### Stage Grouping

| Stage | T               | N   | M   | PSA          | Grade Group |
|-------|-----------------|-----|-----|--------------|-------------|
| I     | cT1a-c cT2a pT2 | N0  | M0  | PSA <10      | 1           |
|       | cT2a pT2        | N0  | M0  | PSA <10      | 1           |
| II A  | cT1a-c cT2a pT2 | N0  | M0  | PSA ≥10<20   | 1           |
|       | CT2b cT2c       | N0  | M0  | PSA ≥10<20   | 1           |
| IIB   | T1-2            | N0  | M0  | PSA<20       | 2           |
|       | cT2a pT2        | N0  | M0  | PSA<20       | 1           |
|       | CT2b cT2c       | N0  | M0  | PSA<20       | 1           |
| Stage   | T     | N     | M     | PSA   | Grade |
|---------|-------|-------|-------|-------|-------|
| IIC     | T1-2  | N0    | M0    | PSA<20| 3     |
|         | T1-2  | N0    | M0    | PSA<20| 4     |
| IIIA    | T1-2  | N0    | M0    | PSA≤20| 1-4   |
| IIIB    | T3-4  | N0    | M0    | Any PSA| 1-4 |
| IIIC    | Any T | N0    | M0    | Any PSA| 5    |
| IVA     | Any T | N1    | M0    | Any PSA| Any |
| IVB     | Any T | Any N | M1    | Any PSA| Any |

OncoLink is designed for educational purposes only and is not engaged in rendering medical advice or professional services. The information provided through OncoLink should not be used for diagnosing or treating a health problem or a disease. It is not a substitute for professional care. If you have or suspect you may have a health problem or have questions or concerns about the medication that you have been prescribed, you should consult your health care provider.