Introduction

Hearing you have advanced prostate cancer can take your breath away. It’s hard to believe the news. Most people feel desperate, upset or angry at first. Give yourself time and space to take in what’s happening. You’ll have big decisions to make about treatment, and your future. There is plenty of information and many sources of support available to you.

Fighting the battle against prostate cancer involves a team. Your urologist, oncologist, other health care providers, your family and friends may make up your team. Your treatment choice should be based on your personal health and age and fully discussed with your doctor and caregivers. While treatment choices differ, each year more men are provided with more options.

Advanced cancer can be difficult to treat, but researchers are making great strides in the fight. Treatments for advanced cancer are available. Sometimes, men with incurable disease who are treated with certain drugs may live nearly three times longer.

Phil’s Story

When I was 55 years old, I had a slightly elevated prostate-specific antigen (PSA) test of a little over five. I went ahead and had a biopsy. The biopsy came back negative. I assumed I was fine, I felt fine. I stayed fit and ran 15-20 miles a week. After a few years my wife, a nurse, would say, “You have to go and get yourself tested.” Finally at 60, she said “Phil, get a physical!” I did. The PSA level was up to 30. The most recent biopsy said I had advanced stage prostate cancer with a Gleason score of 10. I was still running daily and had no sense that I had cancer.

It was really tough to figure out what to do. I felt my choices were limited because the cancer was so advanced. When I look back now, I wish I didn’t wait so long to be tested again. We have to be our own advocates. We have to be reminded that bad stuff can happen if we don’t keep tabs on our health.

When diagnosed with advanced cancer, we all fear what we don’t know. What helped me most was to learn everything I could about my options. I began to learn about what I could do and what to expect, and it helped. By learning everything I could, it helped me make treatment decisions along with my doctor. I asked a lot of questions. I went with an aggressive form of treatment—and now I’m going to be around for quite some time.

Whether we’re talking with a surgeon or radiation oncologist, men can’t be afraid to ask questions and get second opinions. We must learn everything we can do to treat this cancer, and about its side effects!

It was tough when I had to deal with the side effects men really fear: impotence and incontinence. Fortunately, I had surgeries to correct these problems. I’m not the same as I was before, but I’m alive and well. I have learned to accept, appreciate and deal with what I’ve been dealt.

Now I work as a recovery coach. There are many men like me who are available to help men who are newly diagnosed talk through what to expect. I would say that the best support I had during this process was being able to talk to someone who’s been there.

I recommend going to support groups. Find someone to talk with. ‘You have to be open to talking about what you are going through. Men can feel better after talking to someone else who has been there. Remember you can live with this.

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What is the Prostate?

The prostate* gland is part of the male reproductive system. The prostate’s main job is to make fluid for semen. It is about the size of a walnut and weighs an ounce or so. It sits below the bladder and in front of the rectum. It goes around a tube called the urethra. The urethra carries urine from the bladder out through the penis. During ejaculation, sperm made in the testicles moves to the urethra. While the sperm moves through the urethra, fluid from the prostate and the seminal vesicles mixes with the sperm. This mixture—semen—goes through the urethra and out of the penis.

Prostate cancer spreads when they break away from a prostate tumor. They can travel through blood or lymph nodes to reach other parts of the body. After spreading, cancer cells may attach to other tissues. They can form new tumors that may damage those tissues.

When prostate cancer spreads to another part of the body, the new growth has the same type of cells. For example, if prostate cancer begins to spread to the bones, the cancer cells found there are the same type of cells as the prostate cancer cells for this reason, the disease is called “metastatic prostate cancer” and not bone cancer. It is treated as prostate cancer, no matter where it’s found.

Prostate Anatomy

What is Advanced Prostate Cancer?

Prostate cancer cells spread beyond the prostate. Men who have prostate cancer should talk with their health care providers about their options and the risks of each choice.

Prostate cancer cells can spread beyond the prostate and grow in the prostate gland. Not all abnormal growths, also called benign growths, are cancerous (malignant). Some tumors are benign, such as benign prostatic hyperplasia (BPH), and are not life threatening. They don’t spread to nearby tissue or other parts of the body.

Cancerous growth, such as prostate cancer, can spread (metastasize) to nearby organs and tissues such as the bladder or rectum, or to other parts of the body. If the abnormal growth is not treated, it can spread back. Prostate cancer can be life-threatening if it spreads far beyond the prostate (metastatic disease).

• Benign growths, such as benign prostatic hyperplasia (BPH), are not life threatening. They don’t spread to nearby tissue or other parts of the body.

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• Biochemical Recurrence: This is when the prostate-specific antigen (PSA) level has risen after the first treatment(s) with no other sign of cancer.

• Non-Metastatic Castration-Resistant Prostate Cancer (nmCRPC): Prostate cancer growth is found even after the hormone (testosterone) is blocked in patients who had biochemically recurrent cancer. This is found by a rise in the PSA level, while the testosterone level stays low. Imaging tests do not show signs the cancer has spread.

Prostate cancer can spread beyond the prostate or returns after treatment, it’s often treated or watched closely. If prostate cancer spreads to another part of the body, the new growth has the same type of cells. For example, if prostate cancer spreads to the bones, the cancer cells found there are the same type of cells as the prostate cancer cells. For this reason, the disease is called “metastatic prostate cancer” and not bone cancer. It is treated as prostate cancer, no matter where it’s found.

Stage IV prostate cancer is not “cureable,” but there are many ways to control it. Treatment can stop advanced prostate cancer from growing and causing symptoms and help you feel better for longer. It helps to talk about your treatment options with a skilled health care provider.

There are several types of prostate cancer.

• Early Stage | Stages I & II: The tumor hasn’t spread beyond the prostate. This is often called “early stage” or “localized” prostate cancer.

• Locally Advanced | Stage III: Cancer has spread outside the prostate, but only to nearby tissues. This is often called “locally advanced prostate cancer.”

• Advanced | Stage IV: Cancer has spread outside the prostate to other parts such as the lymph nodes, bones, liver or lungs. This stage is often called “advanced prostate cancer.”

When an early stage prostate cancer is found, it may be treated or watched closely. If prostate cancer spreads beyond the prostate or returns after treatment, it’s often called advanced prostate cancer.

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shape and any things that look “off” are noted. Shadows are commonly noted as abnormal. Not all shadows are cancer, but they are a sign to look closer. Not all cancers can be seen.

Next, the prostate gland is numbed through the probe so you can’t feel any pain (or very little). Usually 12 or more small samples of prostate tissue are removed. The number of samples used depends on the size of the prostate gland, PSA test results, and past biopsies.

The biopsy takes 10 to 20 minutes. A pathologist (a doctor who classifies disease) looks for cancer cells within the samples. If cancer is seen, the pathologist will “grade” the tumor. After the biopsy, you may see blood in your ejaculate fluid, stool and urine. This will stop within a few days for urine and stool and a few weeks for semen. A few men will have a high fever after a biopsy. If so, antibiotics may be prescribed.

• Bone scan: If prostate cancer spreads to distant sites, it often goes to the bones first. A bone scan can help show if cancer has reached the bones. In these studies, a tracer dye is injected into the body. Images are then taken of the bones. Bones with cancer present appear darker with the dyes present.

Staging and Grading

Prostate cancer is grouped into four stages.

• Stages I & II: The tumor hasn’t spread beyond the prostate.
• Stage III: Cancer has spread outside the prostate, but only to nearby tissues.
• Stage IV: Cancer has spread outside the prostate to other parts such as the lymph nodes, bones, liver or lungs.

The stages are defined by how much and how quickly the cancer cells are growing. The Gleason Score and the T, N, M Scores help the doctors stage your cancer.

If a biopsy shows prostate cancer is present, the pathologist will give the cancer a Gleason Grade. The Gleason Score is a measure of the type of prostate cancer cells present and the level of their aggressiveness. Lower grades are given to samples with small, less aggressive cells. Higher grades are given to samples with more aggressive cells. The Gleason Score is set by adding together the two most common grades found in a biopsy sample. In the Gleason Scoring system, cells are given a score from six (least aggressive) to 10 (most aggressive). In advanced prostate cancer, low Gleason scores are almost never seen. It is important to know your Gleason Score to understand how fast the cancer might spread.

The T, N, M score is a measure of how far the prostate cancer has spread in the body. The T (tumor) score rates the size and extent of the original tumor. The N (nodes) score rates whether the cancer has spread into nearby lymph nodes. The M (metastasis) score rates whether the cancer has spread to distant sites.

Magnetic resonance imaging (MRI): MRI scans can give a very clear picture of the prostate and show if the cancer has spread into the seminal vesicles or nearby tissue. A contrast dye is often injected into a vein before the scan to see details. MRI scans use radio waves and strong magnets instead of x-rays.

Computed tomography (CT) scan: The CT scan is used to see cross-sectional views of tissue and organs. It combines x-rays and computer calculations for detailed images from different angles. It can show solid vs. liquid structures, so it is used to diagnose masses in the urinary tract. CT scans are not always as useful as MRI to see the prostate gland itself but are very good at evaluating surrounding tissues and structures.

Positron emission tomography (PET) scan: PET scans help your doctor better see where and how much the cancer is growing. A special drug (called a tracer) is usually given through your vein. Your cells will pick up the tracer as it passes through your body tissues. It shows the difference between healthy tissue and diseased tissue. The scanner allows your doctor to better see how much the cancer is growing and where.

Imaging

Imaging helps doctors learn more about your cancer. Some types of imaging tests are:

- Magnetic resonance imaging (MRI): MRI scans can give a very clear picture of the prostate and show if the cancer has spread into the seminal vesicles or nearby tissue.
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Prostate Cancer Stage Groupings

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1</td>
<td>Health care provider cannot feel the tumor</td>
</tr>
<tr>
<td>T1a</td>
<td>Cancer present in less than 5% of the tissue removed and low grade (Gleason less than 6)</td>
</tr>
<tr>
<td>T1b</td>
<td>Cancer present in more than 5% of the tissue removed or is of a higher grade (Gleason greater than 6)</td>
</tr>
<tr>
<td>T1c</td>
<td>Cancer found by needle biopsy done because of a high PSA</td>
</tr>
<tr>
<td>T2</td>
<td>Health care provider can feel the tumor with a DRE but the tumor is confined to prostate</td>
</tr>
<tr>
<td>T2a</td>
<td>Cancer found in 1/2 or less of one side (left or right) of the prostate</td>
</tr>
<tr>
<td>T2b</td>
<td>Cancer found in more than 1/2 of one side (left or right) of the prostate</td>
</tr>
<tr>
<td>T2c</td>
<td>Cancer found in both sides of the prostate</td>
</tr>
<tr>
<td>T3</td>
<td>Cancer has begun to spread outside the prostate</td>
</tr>
<tr>
<td>T3a</td>
<td>Cancer extends outside the prostate but not to the seminal vesicles</td>
</tr>
<tr>
<td>T3b</td>
<td>Cancer has spread to the seminal vesicles</td>
</tr>
<tr>
<td>T3c</td>
<td>Cancer has spread outside the prostate to other nearby organs</td>
</tr>
<tr>
<td>T4</td>
<td>Cancer has spread to nearby organs</td>
</tr>
<tr>
<td>N0</td>
<td>There is no sign of the cancer moving to the lymph nodes in the area of the prostate (becomes N1 if cancer has spread to lymph nodes)</td>
</tr>
<tr>
<td>M0</td>
<td>There is no sign of tumor metastasis (becomes M1 if cancer has spread to other parts of the body)</td>
</tr>
</tbody>
</table>
The goal of advanced prostate cancer treatment is to shrink the tumor(s), control symptoms and slow the progression of the disease. For patients with biochemical recurrence, nmCRPC, metastatic prostate cancer and/or mCRPC, there could be a lot of treatment choices to talk about. Advanced prostate cancer can be difficult to treat.

It is best to talk to your doctor about how to handle side effects before you choose a plan. It’s important to talk with more than just one urologist or oncologist with expertise in treating prostate cancer. Getting more than one treatment opinion can help you feel more confident about the treatment path you choose. Which treatment to use, and when, will depend on discussions with your doctor.

There are treatments available for advanced prostate cancer. In this guide, we share information about the most common treatments for men.

“Of the toughest things to deal with is making a decision about what you’re going to have done. Fortunately, we’ve come a long way with treatment options for men with advanced cancer.” - Phil

Hormone Therapy

Hormone therapy is a treatment that lowers a man’s androgen, or hormone, levels. This therapy is also called ADT: androgen deprivation therapy. Testosterone, an important male sex hormone, is the main fuel for prostate cancer cells, so blocking it may slow the growth of those cells. Hormone therapy slows prostate cancer growth in men when prostate cancer has metastasized (spread) or returned after other treatments. It may also be used to shrink a local tumor that has not spread.

There are several types of hormone therapy for prostate cancer treatment, including medications and surgery. Your doctor may prescribe a variety of ADT medication therapies over time.

Hormone Therapy with Medications

There are different types of hormone therapy available as injections or as pills that can be taken by mouth. Some of these therapies stop the body from producing luteinizing hormone-releasing hormone (LHRH), also called gonadotropin-releasing hormone, or GnRH. LHRH triggers the body to make testosterone. Other therapies stop prostate cells from being affected by testosterone by blocking hormone receptors. Sometimes, after the first shot, a blood test is done. This is done to check testosterone levels. For both antagonists and agonists, you may also have tests to monitor your bone density.

With LH-RH therapy there is no need for surgery. The main downside to LH-RH treatment is the cost. The injections are more expensive than a one-time surgery. Check to see if your health insurance covers this option. Men who cannot or do not wish to have surgery are good candidates for this therapy. There are different types of medical hormone therapy that your doctor could prescribe to lower or stop your body’s production of testosterone. After your testosterone levels drop to almost zero, you are at “castration level.” It’s the same as if your testicles were gone. Once testosterone levels drop, prostate cancer cells decrease in growth and proliferation.

Types of Medications

- **Agonists (analog):** LHRH/GnRH agonists are man-made, powerful versions of LHRH/GnRH that mimic the hormone. LHRH/GnRH agonists such as leuprolide, goserelin, triptorelin, and histrelin are given as shots or as small pellets placed under the skin. Based on the drug used, they are given from once a month to once every six months. When first given, agonists cause the body to produce a burst of testosterone (called a “flare”). Agonists are longer acting than natural LH. After the initial flare, the drug tricks your pituitary gland into thinking that it does not need to produce LHRH/GnRH because it has enough. As a result, the testicles are not stimulated to produce testosterone.

  - **Side effects include:** The “flare” up from the agonist treatment. About 7-10 days later, these hormones stop being produced by your body.

  - **Antagonists:** These drugs also lower testosterone, but more quickly. Instead of flooding the pituitary gland with LH, they stop LH-RH from binding to receptors. There is no testosterone flare with an LHRH/GnRH antagonist because the body does not get the signal to produce testosterone. Degarelix is an LHRH antagonist given as a monthly shot under the skin for advanced prostate cancer.

  - **Anti-androgen drugs:** These drugs block testosterone by preventing the testicles from receiving the message to release testosterone. Drugs such as flutamide, bicalutamide and nilutamide are given as a daily pill. This method blends castration (by surgery or with the drugs described above) and anti-androgen drugs. The treatment blocks testosterone and stops it from binding to cancer cells.

  - **Castration (by surgery):** This method removes the testicles, which are the glands that produce testosterone. It is a one-time surgery.

  - **Androgen receptor inhibitors:** These drugs block the protein needed to make testosterone. Like anti-androgens, these drugs are taken as a pill to block the androgen receptor at multiple sites to prevent cancer cells from growing. Apalutamide and Enzalutamide are used to stop the effects of androgens in the prostate and throughout the body to stop cancer growth. These drugs may slow down the spread of cancer. Some men have done very well with these options, combined with ADT drugs.

Hormone Therapy Side Effects

- **Decreased libido (sexual desire) in most men**
- **Erectile dysfunction (inability to have or keep a strong enough erection for sex)**
- **Hot flashes (sudden spread of warmth to the face, neck and upper body, heavy sweating)**
- **Weight gain of 10 to 15 pounds. Dieting, eating fewer processed foods and exercising can reduce weight gain**
- **Mood swings**
- **Depression to include feeling loss of hope, loss of interest in enjoyable activities, not being able to concentrate or changes in appetite and sleeping**
- **Fatigue (feeling tired)**
- **Anemia (low red blood cell count) due to less oxygen getting to tissues and organs, causing tiredness or weakness**
- **Loss of muscle mass**
- **Bones getting thinner, brittle and may break easier**
- **Memory loss**
- **High cholesterol, especially LDL “bad” cholesterol**
- **Breast nipple tenderness or increased breast tissue growth**

Normally, testosterone would bind with these receptors. This fuels prostate cancer cell growth. With the receptors blocked, testosterone cannot “feed” the cells. The testicles produce almost all of the body’s testosterone. To stop your testicles from making testosterone you can have surgery or take oral drugs. The rest of the testosterone is made by the adrenal glands. Anti-androgen therapy blocks testosterone made by the adrenal glands.

Your doctor may choose to use anti-androgens for a short period of time (one to two months). It may be used long-term when androgen deprivation therapy (ADT) starts. Or, it may be used when other hormone therapies are no longer effective.

You and your doctor will weigh the benefits and risks of therapies. A good choice for you may depend partly on where the cancer has spread and how you feel.

- **Androgen synthesis inhibitors:** Abiraterone acetate is a drug you take by mouth as a pill. It stops your body from releasing the enzyme needed to make androgens in the adrenal glands, testicles and prostate tissue, resulting in reduced levels of testosterone and other androgens. Because of the way it works, this drug must be taken with an oral steroid called prednisone. It may be used before or after chemotherapy in men with mCRPC. These drugs are often called second-generation anti-androgens and are used along with other antiandrogen therapies.

- **Androgen receptor inhibitors:** These drugs block testosterone from linking to prostate cancer cells (like anti-androgens). These drugs are taken as a pill to block the androgen receptor at multiple sites to prevent cancer cells from growing. Apalutamide and Enzalutamide are used to stop the effects of androgens in the prostate and throughout the body to stop cancer growth. These drugs may slow down the spread of cancer. Some men have done very well with these options, combined with ADT drugs.

Hormone Therapy with Surgery

A man’s testicles make the hormone testosterone. Surgery to remove the testicles is called orchiectomy or castration. When the testicles are removed, the body stops making the hormones that fuel prostate cancer.

Orchectomy is a simple surgery. It is usually done as an outpatient procedure. The surgeon makes a small cut in the scrotum (the sac that holds the testicles). The testicles are then detached from blood vessels and removed. The vas deferens—the tube that carries sperm to the prostate (where ejaculation) is removed and the incision is sewn together. Orchectomy treatment is the surgical form of ADT and does what it aims to do right away—drop testosterone levels. Men who choose this therapy want a one-time surgical treatment. They must be healthy enough to have the surgery and willing to have their testicles permanently removed.

The main risks from this surgery are infection and bleeding. Many men feel uncomfortable with orchiectomy because it is not reversible. The scrotum looks empty. Concerns about body image or self-image may lead men to choose another treatment.

**Hormone Therapy Side Effects**

Unfortunately, such hormone therapy may not work forever, and it does not cure the cancer. Over time, the cancer may grow in spite of the low hormone level. Other treatments are also needed to manage the cancer.

Hormone therapies have many side effects. Learn what they are. Intermittent (not constant) hormone therapy may also be a good treatment option. Before starting any type of hormone therapy, talk with your health care provider.

“Not everyone has the same issues with side effects, but if you avoid treatment because you’re afraid of things like wearing a diaper for the rest of your life or never getting an erection again then you may miss the chance to treat this cancer. I was able to treat the hormone therapy and incontinence.” - Phil
Chemotherapy

Chemotherapy drugs can slow the growth of cancer. These drugs may reduce symptoms and extend life. Or, it may ease pain and symptoms by shrinking tumors. The main chemotherapy drugs Docetaxel and Cabazitaxel have been shown to be effective. Chemotherapy is useful for men whose cancer is widespread. Or it is used when hormone therapy (alone) is no longer able to control the cancer. Most chemotherapy drugs are given through a vein (intravenous, IV). During chemotherapy, the drugs move throughout the body. They kill quickly growing cancer cells and non-cancer cells. Side effects may include hair loss, fatigue, nausea and vomiting. There may be changes in your sense of taste and touch. You may be more prone to infections. You may experience neuropathy (tingling or numbness in the hands and feet).

Due to the side effects from chemotherapy, the decision to use these drugs may be based on:

- Your health and how well you can tolerate the drug
- What other treatments you have tried
- If radiation is needed to relieve pain quickly
- What other treatments or clinical trials are available
- Your treatment goals

If you use chemotherapy, you will be watched closely to manage side effects. There are medicines to help with things like nausea. Most side effects stop once chemotherapy ends. Scientists are studying new options and mixtures of drugs for mCPRC. Chemotherapy with hormone therapy may improve survival for men with advanced cancer.

Immunotherapy

Immunotherapy uses the body’s immune system to fight cancer. It is a choice for men with mCPRC who have no symptoms or only mild symptoms. If the cancer returns and spreads, your doctor may offer Sipuleucel-T. This cancer vaccine can boost your immune system so that it can attack the cancer cells. Side effects are often in the first 24 hours after treatment and may include fever, chills, weakness, headache, nausea, vomiting and diarrhea. You may also have low blood pressure and rashes.

Combination Therapy

There are also many drug combinations for patients with mCPRC. Your doctor may suggest some of the options below based on your symptoms:

- Minor or no symptoms. Options include Abiraterone + Prednisone, Enzalutamide, Docetaxel, or Sipuleucel-T may be offered.
- Cancer that’s spread to bones. Options include Abiraterone + Prednisone, Enzalutamide, Docetaxel, Radium-223.
- Other treatments did not work well. Options include Abiraterone + Prednisone, Enzalutamide, Ketconazole + Hormone therapy, Radiodamycide Therapy.
- Options for men who’ve taken Docetaxel. Options include Abiraterone + Prednisone, Cabazitaxel or Enzalutamide, or often Radium-223 can help with bone pain.

Bone-targeted Therapy

Bone-targeted therapy may help men with prostate cancer that has spread to the bones as they may get “skeletal-related events” (SREs). SREs include fractures, pain and other problems. Two drugs that may stop the cancer and reduce SRE’s are Zoledronic Acid and Denosumab. Both help prevent pain and weakness from cancer growing in your bones.

Radiopharmaceuticals are drugs with radioactivity. They can be used to help with bone pain from metastatic cancer. Some are called Strontium-89 and Samarium-153. Radium-223 may also be used for men whose mCPRC has spread to their bones. It may be offered when ADT is not working. It gives off small amounts of radiation that go to the exact parts where cancer cells are growing. Calcium and Vitamin D are also used to help protect your bones. They are often recommended for men on hormone therapy to treat prostate cancer.

Radiation

Radiation uses high-energy beams to kill tumors. It can help with pain and other symptoms if prostate cancer spreads to the bones. There are many types of radiation treatments.

Active Surveillance

Some men choose active surveillance. Active surveillance is often used if you have a small, slow growing cancer. It may be good for men who do not have symptoms or want to avoid sexual, urinary or bowel side effects for as long as possible. Others may choose surveillance due to their age or overall health. Active surveillance is mainly used to delay or avoid aggressive therapy.

This method may require you to have many tests over time to track cancer growth. This lets your doctor know how things are going, and prevents treatment-related side effects. This will also help you and your health care team focus on managing cancer-related symptoms. Talk with your care team about whether this is a good choice for you.

Incontinence

Incontinence can sometimes result from prostate cancer treatment. This is the inability to control the release of urine. There are different types of incontinence:

- Stress Incontinence (SUI): Urine leaks when coughing, laughing, sneezing or exercising. This is the most common type.
- Urgent Incontinence: The sudden urge to pass urine, even when the bladder isn’t full because the bladder is overly sensitive. This is also called overactive bladder (OAB).

Incontinence may affect your physical and emotional recovery, it is important to understand how to manage this problem. Treatment for incontinence depends on the type and severity of the problem:

- Kegel Exercises – can strengthen your bladder control muscles.
- Lifestyle Changes – can improve your urinary functions. Try eating healthier foods, limiting smoking, losing weight, making timed visits to the bathroom.
- Medication – can help improve bladder control. They affect the nerves and muscles around the bladder.
- Neuromuscular Electrical Stimulation – strengthens bladder muscles.
- Surgery - to control urination. Could include injecting collagen to tighten the bladder sphincter, implanting a urethral sling to tighten the bladder neck, or an artificial sphincter device.

Follow-up Care

You and your doctor will set a reasonable schedule of office visits for tests and follow-up over time. There are certain symptoms your doctor should know about right away, such as blood in your urine or bone pain. You may want to keep a diary of how you are feeling to help you remember.

Look at the sample “Questions to Ask Your Doctor” listed at the end of this guide to stay informed about your care.

Other Considerations

Clinical Trials

Clinical trials are research studies that test new treatments or learn how to use existing treatments better. Clinical studies aim to find the treatment strategies that work best for certain illnesses or groups of people. For some patients, taking part in a clinical trial may be the best treatment. You may qualify for one, and it may offer you hope. Talk with your doctor about whether you qualify for a clinical trial. Learn about the risks and benefits of the treatment being studied.

Clinical trials follow strict scientific standards. These standards protect patients and help produce reliable study results. You will be given either a standard treatment or the treatment being tested. All of the approved treatments used to treat or cure cancer began in a clinical trial.

To search for information on current or recent clinical trials for the treatment of prostate cancer, visit UrologyHealth.org/clinicaltrials.
### Erectile Dysfunction

Men may have sexual health problems following their cancer diagnosis or treatments. **Erectile dysfunction** (ED) is when a man finds it hard to get or keep an erection strong enough for sex. ED happens when there is not enough blood flow to the penis, or when nerves to the penis are harmed.

Cancer in the prostate, colon, rectum and bladder are the most common cancers that can affect a man’s sexual health. Treatments for cancer, along with emotional stress, can lead to ED.

The chance of ED after prostate cancer treatment depends on many things, such as:

- **Age**
- **Overall health**
- **Medications you take**
- **Sexual function before treatment**
- **Cancer Stage**
- **Damage to your nerves or blood vessels from surgery or radiation**

There are treatments that may help ED. They include pills, vacuum pumps, urethral suppositories, penile injections and implants. Treatment is very individualized. Some treatments may work better for you than others. They have their own set of side effects. A health care provider can talk with you about the pros and cons of each method. They can help you decide which single or combination of treatments is right for you.

### Lifestyle Changes

**Diet**

A healthy diet may increase your energy levels and enhance your immune system.

It’s important to think about the foods you eat and to try to maintain a healthy weight. Healthy eating habits can improve your health and risks.

Healthy food choices may include:

- Plenty of fruits and vegetables
- High fiber foods
- Low fat foods

- **Limited amounts of simple sugars**
- **Limited amounts of processed foods (especially processed meats like deli foods and bacon)**

Because prostate cancer treatment can affect your appetite, eating habits and weight, it is important to try your best to eat healthy. If you have a hard time eating well, reach out to a registered dietitian/nutritionist (RDN). There are ways to help you get the nutrition you need.

**Exercise**

**Exercise** may improve your physical and emotional health. It can also help you manage your weight, maintain muscle and bone strength and help manage side effects.

If approved by your doctor, men may want to strive to exercise about 1.5 to 3 hours per week. This can include walking or more intense exercise. Physical exercise may help you to:

- **Reduce anxiety**
- **Improve energy**
- **Improve self-esteem**
- **Feel more hopeful**
- **Improve heart health**
- **Reach a healthy weight**
- **Boost muscle strength**

**Pelvic floor exercise** may help men being treated for prostate cancer. The pelvic floor is a group of muscles and structures in your pelvis between your legs. The pelvic floor supports the bowel, bladder, and sexual organs. They help with urinary and fecal functions as well as sexual performance. The muscles contract and relax, just like any other muscle in your body. Pelvic floor exercises can help with side effects like erectile dysfunction and urinary incontinence.

**Questions to Ask**

- What does “advanced cancer” mean for me?
- What are the treatment options for this grade/stage of this cancer?
- Are there other tests I should have get to understand how advanced my cancer is?
- What is the average lifespan for people managing my grade/stage of cancer?
- Is the goal of my treatment to help slow the growth of my cancer, manage side effects, or both? For how long?
- What are my treatment choices?
- Which treatment do you recommend for me and why?
- How long should I try a treatment type before we know whether it works?
- Would a clinical trial be an option for me?
- What kind of care will I receive to keep me comfortable if I decide not to have active treatment?
- Can you refer me to another expert for a second (or third) opinion?
- What can I do to manage my symptoms?
- What can I do to manage or prevent treat side effects?
- Can you refer me to a palliative care specialist to help?
- Can you refer me to an oncology social worker or support group to help me manage my mental health?
- How can I make sure I have the best quality of life possible – that I am comfortable and free of pain?
- Do you have resources to help my family and loved ones?
- How can I get help with my spiritual needs?
- How do I decide whether to continue or to stop cancer treatment?
- When should I consider having hospice care?
- Can I have hospice care in my home, or do I have to go somewhere else?
- How can I get help with financial and legal issues (for example, paying for hospice care or preparing a will or an advance directive)?
**Benign Prostatic Hyperplasia (BPH)**
Enlarged prostate not caused by cancer; symptoms include problems passing urine because as the prostate grows, it squeezes the urethra.

**Biopsy**
Samples of prostate tissue are removed for review under a microscope to see if they contain cancer or other abnormal cells.

**Bladder**
The balloon-shaped pouch of thin, flexible muscle in which urine is stored before leaving the body through the urethra.

**Bone-Targeted Therapy**
Treatments to help strengthen the bones, to keep bones healthy, and to decrease the number of skeletal-related events.

**Chemotherapy**
The use of medications to kill prostate cancer cells that have spread throughout the body.

**CT Scan (Cat Scan)**
The use of X-rays and computer calculations to see and evaluate cross-sectional views of tissue and organs.

**Digital Rectal Examination (DRE)**
The insertion of a gloved, lubricated finger into the rectum to feel the prostate and check for anything abnormal.

**Ejaculation**
Release of semen from the penis during sexual climax.

**Erectile Dysfunction (ED)**
Problems getting or keeping an erection.

**Gleason Score**
Common grading system for prostate cancer where cells are given a score from two (least aggressive) to ten (most aggressive).

**Hormone Therapy**
Medication used to decrease or block testosterone and other male hormones, which stops or slows the growth of prostate cancer.

**Immunotherapy**
A treatment that boosts the ability of the immune system to fight prostate cancer.

**Incontinence**
The leakage of urine that you can’t control ranging from stress, overflow, urge, mixed and continuous types.

**Lymph Nodes**
 Rounded masses of tissue that produce cells to fight invading germs or cancer.

**Metastatic**
Cancer that spreads beyond its point of origin - for example, spreading from the prostate to the bladder.

**MRI**
Magnetic resonance imaging (MRI) uses radio waves and a strong magnetic field to create highly detailed pictures.

**Oncologist**
A doctor specializing in the treatment of cancer.

**Orchiectomy**
Surgery to remove the testicles.

**Pathologist**
A doctor who identifies diseases by studying cells and tissues under a microscope.

**Pelvis**
The lower part of the abdomen, between the hip bones.

**Penis**
The male organ used for sex and going to the bathroom.

**Prostate**
In men, a walnut-shaped gland below the bladder that surrounds the urethra that makes fluid for semen.

**Prostate-Specific Antigen (PSA)**
A protein made only by the prostate. High levels of PSA in the blood may be a sign of cancer or other prostate health issues.

**Radiation**
Use of radiation to treat prostate cancer; two options include brachytherapy (small radioactive “seeds” implanted in the prostate) and external beam radiation (rays targeted at the tumor from outside the body).

**Radiopharmaceuticals**
Drugs with radioactivity that can target radiation to the exact areas where cancer cells are growing in the bones.

**Rectum**
The lower part of the bowel, ending in the anal opening.

**Recurrence**
The return of cancer after treatment in the same location or another part of the body.

**Seminal Vesicles**
A gland that helps produce semen.

**Sperm**
Also called spermatozoa. Male reproductive cells made in the testicles that can fertilize a female partner’s eggs.

**Testicles**
Glands that are inside the scrotum, the pouch below the penis. They produce sperm and the male hormone testosterone.

**Tissue**
Group of cells in an organism that is similar in form and function.

**Tumor**
An abnormal mass of tissue or growth of cells.

**Urethra**
A narrow tube through which urine leaves the body. In males, semen travels through this tube during ejaculation. Extends from the bladder to the tip of the penis.

**Urinary Tract**
Organs of the body that make and void urine. These include the kidneys, ureters, bladder and urethra.

**Urine**
Liquid waste, usually yellow in color, filtered from the blood by the kidneys, stored in the bladder and removed from the body through the urethra by the act of passing urine.

**Urologist**
A doctor who specializes in problems of the urinary tract and make sex organs.

**X-Ray**
A test that uses radiation to make pictures of the tissues, bones and organs inside the body.
The Urology Care Foundation is the world's leading urologic Foundation—and the official Foundation of the American Urological Association. We provide information for those actively managing their urologic health and those ready to make healthy changes in their lives. Our information is based on the American Urological Association resources and is reviewed by medical experts.

To learn more about different urologic issues, visit UrologyHealth.org/UrologicConditions. Go to UrologyHealth.org/FindAUrologist to find a doctor near you.

Disclaimer

This information is not a tool for self-diagnosis or a substitute for professional medical advice. It is not to be used or relied on for that purpose. Please talk to your urologist or health care provider about your health concerns. Always consult a health care provider before you start or stop any treatments, including medications.