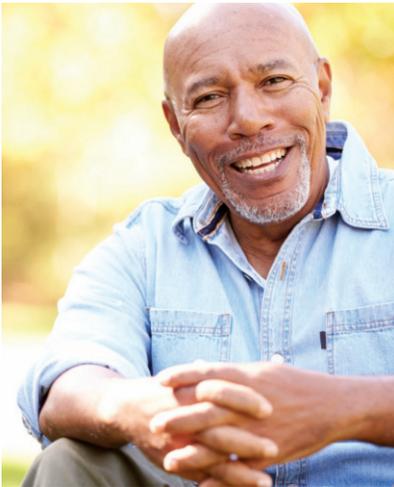


Prostate Cancer Treatment Guide

Every prostate cancer is unique. Every treatment plan should be, too.



Experts in Prostate Cancer Diagnosis and Treatment

The Leon Hess Cancer Center at Monmouth Medical Center continues to break barriers in cancer care. We take pride providing individualized care to each patient, taking into consideration the stage of cancer, age and overall health.

Our comprehensive multidisciplinary medical services are led by teams of

three major physician specialists whom patients can see all in one visit, including medical, surgical and radiation oncologists. Together, these three cancer specialists, in consultation with each patient's primary care physician, and in conjunction with the hospital's Cancer Care Management Team, work to create the most appropriate and effective treatment plan. Multidisciplinary panels meet on a regular basis to prospectively consider all elements of the patients' care, providing an opportunity for multiple second opinions for each patient.

Institute for Advanced Radiation Oncology

As the region's pioneer in delivering leading-edge cancer care, the Institute continues to gain international, national and state recognition for its clinical application and research of breakthrough methods of radiation therapy. These achievements have earned Monmouth Medical Center the distinction of becoming the first hospital in Monmouth County to receive accreditation from the American College of Radiation Oncology for the quality, safety and appropriateness of its radiation therapy.

Understanding Prostate Cancer



Other than skin cancer, prostate cancer is the most common cancer in men and the second leading cause of cancer death in the United States. The American Cancer Society (ACS) estimates 220,800 new cases of prostate cancer and 27,540 deaths from prostate cancer in 2015 in the United States.

While prostate cancer can be a serious disease, the good news

is that most men diagnosed with prostate cancer do not die from it. In fact, the ACS reports that more than 2.9 million men in the U.S. who have been diagnosed with prostate cancer are alive today.

Prostate cancer is a malignant tumor that usually starts in the outer part of the prostate and typically grows very slowly. Many men with the disease will never know they have the condition.

Prostate cancer is characterized by “grade” and “stage” – the size and extent of the tumor. Early stage prostate cancer – Stage T1 and T2 – are limited to the prostate gland. Stage T3 has advanced to tissue immediately outside the gland and Stage T4 has spread to other parts of the body.

Risk Factors

Although there are several known risk factors for getting prostate cancer, no one knows exactly why one man gets it and another doesn't. However, researchers have found several factors that might affect a man's risk.

Age

The risk of getting prostate cancer increases with age, with about 6 in 10 cases of prostate cancer found in men over 65. The majority of men will have some form of prostate cancer after the age of 80.

Race/Ethnicity

The reasons for racial ethnic differences are not clear. The ACS reports that prostate cancer is more common in African-American men and in Caribbean men of African ancestry than in men of other races. African-American men are more than twice as likely to die of prostate cancer as Caucasian men. Prostate cancer occurs less often in Asian-American and Hispanic Latino men than in non-Hispanic Caucasian men.

Diet

While the exact role of diet in prostate cancer is not clear, several factors have been studied. It appears that men who eat a lot of red meat or high-fat dairy products and fewer fruits and vegetables have a slightly higher chance of getting prostate cancer. Doctors aren't sure which of these factors is responsible for raising the risk.

Every prostate cancer is unique. Every treatment plan should be, too.

Leon Hess Cancer Center at Monmouth Medical Center

Family History

A family history of prostate cancer increases a man's chances of developing the disease. Having a father or brother with prostate cancer more than doubles a man's risk. The risk is higher for men with several affected relatives, especially if the relatives were young when cancer was found.

A variety of different genetic factors are currently being researched. Variations and mutations in certain genes may be responsible for some increases in prostate cancer rates in families.

Genetics

Scientists have found several inherited gene changes that seem to raise prostate cancer risk. Variations and mutations in certain genes may be responsible for some increases in prostate cancer rates in families. Men who carry mutations in genes known as BRCA1 or BRCA2 may have a 2 to 5 fold increase in prostate cancer risk. Men with high levels of testosterone or a hormone known as IGF-1 (insulin-like growth factor 1) seem to be at a higher risk for developing prostate cancer as well.



Prostate Cancer Screening

The American Cancer Society (ACS) recommends that men should make an informed decision on whether or not they should be screened after discussing with their physician the risks and benefits of screening. The two most common prostate cancer screening methods are a digital rectal exam (DRE) and prostate specific antigen (PSA).

A DRE exam is performed in your primary care 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. Although it's a useful test, it is not perfect. Some small cancers can be missed and only the bottom and sides of the prostate can be examined in this manner. A DRE becomes more useful when it is combined with a PSA.

Every prostate cancer is unique. Every treatment plan should be, too.

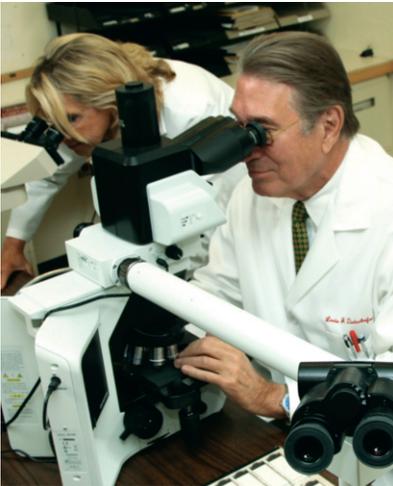
Leon Hess Cancer Center at Monmouth Medical Center

A PSA is a blood test that measures the amount of PSA in the bloodstream. Elevated levels may indicate prostate cancer or other non-cancerous conditions.

The ACS reports that most healthy men have levels under 4 nanograms per milliliter (ng/mL) of blood. The chance of having prostate cancer increases as the PSA level increases. If the PSA is more than 10, the chance of having prostate cancer is over 50%.

Further evaluation is recommended for tests showing an elevated PSA level and abnormal digital rectal exam.

Experts in Diagnosing and Treating Prostate Cancer



Throughout the course of your diagnosis and treatment, many members of our team will be involved with your individualized care, including:

Urologist – a physician specializing in the health of the urinary tract and male reproductive organs. The urologist performs biopsies, surgery, cryotherapy or brachytherapy.

Medical Oncologist – a physician who specializes in non-surgical treatment of cancer such as chemotherapy. The medical oncologist will make your cancer diagnosis, recommend treatment options and oversee your progress.

Surgical oncologist – a physician who specializes in the removal of the tumor and surrounding tissue during an operation.

Pathologist – a physician who specializes in interpreting laboratory tests and evaluating cells, tissues, and organs to provide expert diagnosis, second opinions and subspecialty consultation.

Radiation Oncologist – a specialist physician who treats cancer with radiation therapy (strong beams of energy) to kill cancer cells or keep them from growing and dividing. Radiation therapy, may be used in conjunction with surgery and chemotherapy.

Every prostate cancer is unique. Every treatment plan should be, too.

Prostate Cancer Diagnosis: What to Expect

If you're diagnosed with prostate cancer, here's a general overview of what to expect.

- Your doctor will review PSA levels, Gleason score and TNM score, meet with you to create an individualized treatment plan and recommend additional testing, if needed.
- Your doctor will discuss the treatment plan and any next steps with you and your family. Options may include surgery,

radiation therapy, chemotherapy, active surveillance, brachytherapy, cryotherapy and hormone therapy.

- Consider and fully understand options provided by doctors before you and your physician agree on the treatment path.
- Once treatment begins, you will have regular follow-up appointments with your doctor. The frequency depends on the aggressiveness of the cancer.

Treatment Options



Since there are different prostate cancer treatment options, it's important to have a conversation with different types of doctors before making a final decision on your treatment plan.

A urologist and radiation oncologist, both experts in the treatment of prostate cancer, can provide you with valuable insight about the benefits and risks of surgery, radiation

therapy and hormonal therapy. If your prostate cancer has already spread at the time of diagnosis, a medical oncologist can discuss chemotherapy treatment.

By working closely with your team of doctors, together, you can make the decision that's best for you.

Radiation

Radiation therapy is the use of high-energy rays, electron beams or radioactive isotopes to kill cancer cells and shrink tumors. It's another option - besides surgery- for early stage prostate cancer and it also helps avoid surgery in patients who are too ill to risk having anesthesia. Radiation therapy is usually performed for advanced stage prostate cancer.

Radiation can be produced from a machine outside the body (external radiation) or an internal source where small radioactive seeds - each the size of a grain of rice - are implanted into the patient's prostate (brachytherapy).

Every prostate cancer is unique. Every treatment plan should be, too.

Leon Hess Cancer Center at Monmouth Medical Center

TomoTherapy is a revolutionary way to treat prostate cancer with radiation that was introduced to central New Jersey by Monmouth Medical Center's Institute for Advanced Radiation Oncology.

To locate the prostate tumor, TomoTherapy uses 3-D imaging from computerized tomography (CT scanning), which gives physicians the ability to confirm its shape and position before therapy begins and target hard-to-reach prostate tumors by sculpting small, powerful and precise radiation beams at the tumors from a full 360 degrees.

This advanced treatment options lessens treatment-related side effects by minimizing damage to nearby healthy tissue.

Monmouth Medical Center's Institute for Advanced Radiation Oncology offers two forms of brachytherapy for prostate cancer.

- High-dose rate (HDR) brachytherapy is used for the treatment of intermediate or advanced-stage disease.
- Low-dose rate (LDR) permanent seed brachytherapy is used for the treatment of favorable risk prostate cancer or in combination with external beam radiotherapy for more advanced disease.

Brachytherapy is performed as a one-time insertion, in the operating room. It 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.

External beam radiation therapy requires patients to come in 5 days a week for up 6-9 weeks to a radiation therapy treatment center. The treatment takes just a few minutes, and it is painless.

Surgery

A radical prostatectomy – the complete removal of the prostate – is one of the most common treatments for prostate cancer. While every effort is made to spare the nerves that control erections during surgical procedures, there is still a risk of incontinence and impotence.

A radical prostatectomy can be performed in different ways.

Open Prostatectomy

During a traditional or “open” radical prostatectomy, the surgeon removes the prostate through a single long incision in the lower abdomen. This type of surgery is being performed less often than in the past.

Laparoscopic Radical Prostatectomy (LRP)

During a (LRP), the surgeon makes several small incisions, through which special long instruments are inserted to remove the prostate. One of the instruments has a small video camera on the end, which lets the surgeon see inside the abdomen.

Advantages over the open radical prostatectomy include less blood loss and pain, shorter hospital stays, and faster recovery times.

Every prostate cancer is unique. Every treatment plan should be, too.



Robotic-assisted Laparoscopic Radical Prostatectomy

Robotic-assisted surgery is one of the most innovative, minimally invasive treatments for prostate cancer. The advanced technology enables surgeons to perform delicate and complex operations through a few tiny incisions with increased vision, precision, dexterity and control.

During the procedure, the target site is tightly confined and surrounded by nerves affecting urinary control and sexual function. By using robotic technology, surgeons have a better tool to spare surrounding nerves, enhancing the recovery experience and clinical outcomes.

The da Vinci Surgical System consists of several key components, including: an ergonomically designed console where the surgeon sits while operating, a patient-side cart where the patient lays during surgery, four interactive robotic arms, a high-definition 3D vision system, and proprietary EndoWrist® instruments.

da Vinci is powered by state-of-the-art robotic technology that allows the surgeon's hand movements to be scaled, filtered and translated into precise movements of the EndoWrist instruments working inside the patient's body.

Hormone Therapy

Hormone therapy - also known as called androgen deprivation therapy (ADT) or

androgen suppression therapy - is a treatment that reduces levels of male hormones, called androgens, in the body, or to stop them from affecting prostate cancer cells. The main androgens are testosterone and dihydrotestosterone (DHT). Androgens stimulate prostate cancer cells to grow. By lowering androgen levels or stopping them from getting into prostate cancer cells, prostate cancers can shrink or grow more slowly for a time. Hormone therapy does not cure prostate cancer. Side effects associated with hormonal therapy may include impotence and the loss of libido.

According to the ACS, hormone therapy may be used:

- If the cancer has spread too far to be cured by surgery or radiation, or if you can't have these treatments for some other reason
- If your cancer remains or comes back after treatment with surgery or radiation therapy
- m Along with radiation therapy as initial treatment if you are at higher risk of the cancer coming back after treatment (based on a high Gleason score, high PSA level, and/or growth of the cancer outside the prostate)
- Before radiation to try to shrink the cancer to make treatment more effective

Chemotherapy

Chemotherapy (chemo) uses anti-cancer drugs injected into a vein or given by mouth. As chemo enters the bloodstream and goes throughout the body, this treatment is potentially useful for cancers that have spread (metastasized) to distant organs.

Every prostate cancer is unique. Every treatment plan should be, too.

Leon Hess Cancer Center at Monmouth Medical Center

While chemo is not a standard treatment for early prostate cancer, some studies are looking to see if it could be helpful if given for a short time after surgery. Chemo is sometimes used for advanced prostate cancers that are no longer responsive to hormone therapy.

Chemo is administered in cycles, with each period of treatment followed by a period of rest to allow the body time to recover. Each cycle typically lasts for a few weeks.

Active Surveillance

Also known as the “watch and wait” approach, active surveillance requires no treatment until your doctor detects signs that the cancer is growing more aggressively. This option is for patients who have cancer that is confined to the prostate gland and defined as low to medium in aggressiveness. It’s often offered

as an option to older men in poor health because it avoids the risks and side effects of treatment.

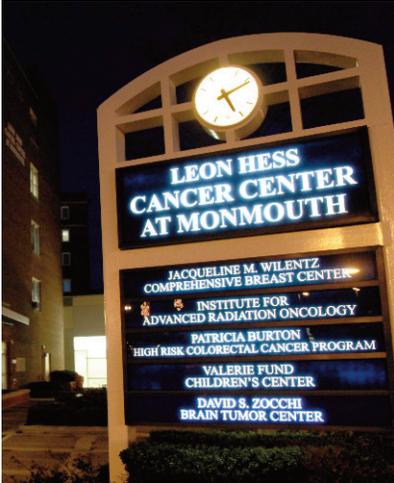
Social Services

Licensed clinical social workers at the Leon Hess Cancer Center offer a host of services to help patients and families to cope with the emotional aspects of a cancer diagnosis, including supportive counseling, education, referral services and support groups. The US TOO: Prostate Cancer Support Group meets on the first Thursday of the month at the Cancer Support Community, located in Suite ST-007 at Monmouth Medical Center. To register or learn more, call **732.923.6090**.



Every prostate cancer is unique. Every treatment plan should be, too.

Leon Hess Cancer Center



The Leon Hess Cancer Center at Monmouth Medical Center stands at the forefront of providing the most extensive array of highly advanced cancer services, delivered by a team of specialists in a caring and supportive environment.

For more than 25 years, Monmouth Medical Center has earned national approval as an accredited Academic Comprehensive Cancer

Program from the American College of Surgeons' Commission on Cancer. As an ongoing initiative to uphold this premier status as one of the nation's leading academic cancer centers, the Leon Hess Cancer Center has worked to ensure that it is in full compliance with a total of 36 commission standards by demonstrating that patients receive:

- Quality care close to home.
- Comprehensive care offering a range of state-of-the-art services and equipment.
- A multidisciplinary team approach to coordinate the best cancer treatment options available.
- Access to cancer-related information, education and support.
- A cancer registry that collects data on cancer type, stage and treatment results, and offers lifelong patient follow-up.
- Ongoing monitoring and improvement of care.
- Information about clinical trials and new treatment options.

The new Cheryl L. Diamond Cancer Care Pavilion at the Leon Hess Cancer Center facilitates more than 46,000 cancer visits each year and centralizes Monmouth Medical Center's vast array of comprehensive cancer care, sustaining world-class protocols close-to-home.



Every prostate cancer is unique. Every treatment plan should be, too.

Questions to ask your Doctor



It's completely normal to feel scared when you're told you have prostate cancer. While you can access general information from organizations like the American

Cancer Society (ACS), the best source of information is your doctor.

It's a good idea to ask your doctor questions to help you better understand your situation and treatment options. The ACS offers a sampling of questions – although all may not apply to you.

When you're told you have prostate cancer:

- What type of prostate cancer do I have?
- How do I get a copy of my pathology report?
- What's my PSA (prostate-specific antigen) level?
- What does this mean?
- What's the cancer's clinical state and grade (Gleason score)?

- What does this mean?
- What are my chances of survival, based on my cancer?
- What are my treatment options, what are the pros and cons, and what do you recommend?

When deciding on a treatment plan:

- What are the chances the cancer will return after this treatment?
- What would we do if the treatment doesn't work or if the cancer comes back?
- Will I be able to have children after treatment?
- How long will my treatment last?
- What are the risks and side effects?
- What are the chances that I will become incontinent or impotent?

Every prostate cancer is unique. Every treatment plan should be, too.

Contacting the Leon Hess Cancer Center

If after reviewing this guide you have additional questions, the Leon Hess Cancer Center's oncology patient navigators can help. Please call the Leon Hess Cancer Center at **732.923.6575**.

Ready to schedule an appointment with a prostate cancer specialist? Please call our toll-free physician referral line at **888.724.7123**.

Urologists

Michael Esposito, MD
Vincent Lanteri, MD
Maywood; 201.487.8866

Jules M. Geltzeiler, MD
Ira G. Keselman, MD
Sam Litvan, MD
Ilan Waldman, MD
Eatontown; 732.963.9091

Pierre Mendoza, MD
Neptune; 732.840.4301

Radiation Oncologists

Sang E. Sim, MD
Mitchell D. Weiss, MD
Long Branch; 732.923.6890

Medical Oncologists

Seth D. Cohen, MD
Rosemary P. Fiore, MD
Patrick C. Lee, MD
David J. Sharon, MD
West Long Branch; 732.222.1711



Leon Hess Cancer Center

Every prostate cancer is unique. Every treatment plan should be, too.