

FOUNDATION BACKGROUNDER

The Prostate Cancer Foundation (PCF) is the world's leading philanthropic organization dedicated to funding life-saving prostate cancer research.

Every 2 minutes a man is diagnosed with prostate cancer, and millions of men and their families are fighting the disease globally. In the United States, prostate cancer affects 1 in 8 men, making it the



most common non-skin cancer in America. This means that a man is more likely to develop prostate cancer than he is to develop colon, kidney, melanoma, and stomach cancers combined. In 2022 alone, it is estimated that more than 268,000 men will be diagnosed with prostate cancer, and more than 34,000 will die from the disease. Black men are about 75% more likely to develop prostate cancer than Caucasian men, and over 2 times more likely to die from the disease.

For 29 years, PCF has demonstrated a firm commitment to saving lives and finding a cure for prostate cancer.

We have raised close to \$1 billion and provided funding to more than 2,200 research projects at more than 245 cancer centers and universities in 28 countries around the world. Each year at PCF, 82 cents of every dollar spent goes directly towards our prostate cancer research mission. In 2021, these funds resulted in a total of 10 team science awards supporting 62 individual investigators, and 33 early-career scientists funded. This research is pivotal to the development of new, life-extending therapies that will improve survivorship and quality of life for all men with prostate cancer.

PCF is unique in its innovative approach to medical research funding. PCF identifies the most promising research ideas and attracts brilliant individuals and teams of scientists early in their careers to PCF's Global Research Enterprise. By channeling resources directly to the world's top scientific minds, PCF is able to cut through red tape, speed scientific breakthroughs and deliver new treatments to patients. PCF funds a variety of different kinds of projects that vary in focus, scope and duration. PCF Challenge Awards fund teams of scientists working on critical unmet needs for advanced prostate cancer. PCF Creativity Awards support exceptionally novel projects to produce scientific breakthroughs. PCF Young Investigator Awards jumpstart research programs for early-career scientists and researchers. PCF researchers connect globally to exchange information and share scientific data in real time. In 2016, PCF committed to invest \$50 million in a multi-year partnership to advance precision medicine for America's veterans. Together, PCF and the U.S. Veterans Administration are building a network of Precision Oncology Centers of Excellence and created the PCF-VA Center of Excellence Awards to focus on expanding access to genomic sequencing and innovative clinical research.

Since inception, PCF has been a pioneer in new drug development, providing key funding for FDA-approved treatments that improve survivorship. Having recruited more than 2,000 of the best physician-scientists worldwide, many of the most important discoveries in the fight against prostate cancer since 1993 have resulted from PCF funding or coordination. Thanks in large part to the work of PCF-funded researchers, the number of drugs approved to treat prostate cancer doubled – from 12 drugs approved in nearly 30 years to another 13 drugs approved in the last 12 years. Of those 13 drugs, 8 were FDA-approved because they actually prolong patients' lives, rather than

simply ease their symptoms. As of 2022, there are now a total of 25 drugs approved by the FDA for treatment of prostate cancer, with even more in the pipeline.

By funding leading-edge research with innovative treatments now reaching patients, PCF has helped reduce the U.S. death rate from prostate cancer by more than 50%. Without a doubt, the prognosis for men diagnosed with prostate cancer has never been more encouraging. Recent advances enable men with prostate cancer to live longer, more productive lives, and when detected early through routine physical exams and minimally invasive blood tests, prostate cancer is nearly 100% treatable. Nearly 100% of men diagnosed with prostate cancer in the local or regional stages will be disease free after 5 years. Equally important is the fact that 4 discoveries in prostate cancer now extend to saving lives in more than 18 other forms of cancer, including breast, myeloma, colon, lung, ovarian, melanoma, pediatric neuroblastoma, bladder, and thyroid cancers. Because precision medicine targets genes and not organs, these same therapies that help men with metastatic prostate cancer have been shown to be effective in more than 70 other forms of human cancer.

By connecting patients, loved ones, care providers, and scientists to critical updates, new developments, best practices, and the latest news from the treatment pipeline, PCF provides hope for men diagnosed with prostate cancer. PCF is dedicated to keeping the pace of scientific progress moving rapidly to ensure new discoveries for years to come. Eliminating prostate cancer in our lifetimes is a possibility within reach, and the day when the disease becomes a manageable condition is closer than ever. PCF has become the model for other disease-research organizations and with your support, we will find a cure. Curing together, we can change the future.

For more information, please go to **pcf.org**.





ABOUT PROSTATE CANCER

Cancer of the prostate, a walnut-sized gland in the male reproductive system, is the most common non-skin cancer in men, affecting more than 3 million men in the U.S. and millions more worldwide.

Prostate cancer occurs when cells in the prostate become abnormal and start to grow uncontrollably, without the normal "brakes" that slow typical cell growth. The disease usually grows slowly, often causing no symptoms while the cancer is in an early stage. However, if the cancer takes a more aggressive form, it can spread quickly and can be potentially life-threatening.

Men may be twice as likely to develop the disease if they have a relative with a history of prostate cancer, and the risk may further increase if they have two or more relatives with prostate cancer.

PREVALENCE AND MORTALITY IN THE U.S.

- In the U.S., 1 in 8 men will be diagnosed with prostate cancer in his lifetime.
- It is estimated that there will be more than 268,000 new cases and 34,500 deaths from prostate cancer in 2022.
- A man is diagnosed with prostate cancer every 2 minutes.
- Despite significant advances in diagnosis and treatment, a man dies of the disease every 15 minutes.

TOP 10 THINGS YOU SHOULD KNOW ABOUT PROSTATE CANCER

- 1. Prostate cancer is the most common non-skin cancer in men in the U.S., and the 4th most common tumor diagnosed worldwide.
- 2. In the United States, 1 in 8 men will be diagnosed with prostate cancer in his lifetime. For Black men, 1 in 6 will develop the disease.
- 3. Black men are about 75% more likely to develop prostate cancer than non-Hispanic White men, and are more than twice as likely to die from the disease.
- 4. In 2022, more than 268,000 U.S. men will be diagnosed with prostate cancer, and 34,500 will die from the disease. That's one new case diagnosed every 2 minutes and another death from prostate cancer every 15 minutes.
- 5. A man is more likely to develop prostate cancer than he is to develop colon, kidney, melanoma, and stomach cancers combined.
- 6. It is estimated that more than 3 million U.S. men are living with prostate cancer.
- 7. As men increase in age, their risk of developing prostate cancer increases exponentially. About 6 in 10 cases are found in men over the age of 65.
- 8. Men with relatives father, brother, son with a history of prostate cancer may be twice as likely to develop the disease.
- 9. Prostate cancer can be silent it's important to get checked, even if you have no symptoms.
- 10. 99% of patients with local or regional disease live 5 years or longer after diagnosis.

TOP 10 THINGS YOU CAN DO TO HELP PREVENT PROSTATE CANCER

- 1. Eat fewer calories and exercise more so that you maintain a healthy weight.
- 2. Try to keep the amount of fat you get from red meat and dairy products to a minimum.
- 3. Watch your calcium intake. Do not take supplemental doses far above the recommended daily allowance. Some calcium is OK, but avoid taking more than 1,200 mg per day.
- 4. Eat more fish evidence from several studies suggest that fish can help protect against prostate cancer because they have "good fat," particularly omega-3 fatty acids. Avoid trans fatty acids (for example, in margarine).
- 5. Incorporate cooked tomatoes (prepared with olive oil), which may be beneficial, and cruciferous vegetables (like broccoli and cauliflower) into many of your weekly meals. Soy-based foods and green tea are also potential dietary components that may be helpful.
- 6. Avoid smoking for many reasons. Drink alcohol in moderation, if at all.
- 7. Seek medical treatment for stress, high blood pressure, diabetes, high cholesterol, and depression. Treating these conditions may save your life and will improve your survivorship with prostate cancer.
- 8. Avoid over-supplementation with megavitamins. While a multivitamin is not likely to be harmful, you probably don't need it if you follow a healthy diet with lots of fruits, vegetables, whole grains, fish, and healthy oils. Ask your doctor about herbal supplements as some may harm you or interfere with treatment.
- 9. Relax and enjoy life. Reducing stress in the workplace and home will improve your survivorship and lead to a longer, happier life.
- 10. For men 45 or older (40 or older for African American men or those with a family history of prostate cancer), discuss the risks and benefits of screening with a PSA test and, if indicated, a rectal examination, with your doctor.

PCF RESEARCH IMPACT IN 73 CANCERS



Areas Affected

- Brain
- Eye
- Lip
- Neck
- Thyroid
- Esophagus
- Thymus
- Lung
- Liver
- Stomach
- Gallbladder
- Pancreas
- Kidney
- Colon
- Bladder
- Rectum
- Skin
- Nerve
- Blood
- Sarcoma
- Prostate
- Testicle
- Breast
- Cervix
- Ovary
- Uterus
- Childhood Brain Cancer
- Childhood Blood Cancer
- Childhood Kidney Cancer

TOP 5 AREAS OF ONGOING RESEARCH

1. Treat prostate cancer cells directly with precision radiation that targets only prostate cancer cells.

PCF-funded scientists are developing a promising new class of cancer treatments – radioactive drugs that target radiation directly to prostate cancer cells. PSMA-PET imaging is used to identify tumor sites in patients prior to treatment with PSMA-targeted radioligand therapy, demonstrating that if the tumor can be seen, it can be killed with agents against the same target.

2. Optimize successful immunotherapy treatments for prostate cancer patients.

CAR T cell therapy and checkpoint immunotherapy are treatments that harness a patient's own immune system to attack and kill tumor cells, and are effective in treating and even curing other cancers. PCF is actively funding the development and optimization of immunotherapy for prostate cancer.

3. Identify patients with gene mutations to provide precision treatment and family genetic counseling when the mutation can be inherited.

25-30% of men with metastatic prostate cancer have mutations in "DNA damage repair" genes such as BRCA1 and BRCA2. These mutations can either be inherited or develop in tumor cells. PCF is investing in research to define precision medicine treatments, such as PARP-inhibitors, for patients with these mutations and identify those who inherited them, as family members who are also carriers may be at higher risk for prostate, breast, ovarian, and other cancers.

4. See and treat new tumors far earlier.

PCF-funded researchers have developed a new prostate cancer imaging technology, PSMA-PET, that can detect sites of prostate cancer with better sensitivity than existing imaging methods. This new imaging method can help find metastatic tumor sites earlier which will help doctors make better, more timely treatment decisions.

5. Recommend effective, precision diagnosis and treatment for every patient through a simple, new blood test.

A PCF Challenge Award team is developing a "liquid biopsy" blood test to assess tumor mutations, replacing the need for invasive, painful, and expensive biopsies of tumors. These results can tell doctors which treatments may or may not be effective for an individual patient, increasing the number of healthcare providers that can deliver precision medical care to their patients. Results from this test will also improve predictions for tumor recurrence and patient prognosis.