Who We Are

ZERO advances research, improves the lives of men and families, and inspires action. ZERO is a 501(c)(3) philanthropic organization recognized with four out of four stars by Charity Navigator, accredited by the Better Business Bureau, with regional chapters across the country. We dedicate 85 cents of every dollar to research and programs.

A Message from Dr. Alicia Morgans

Hello Friends,

As we are move through a second year of the COVID-19 pandemic, we continue to see delayed screenings and men coming to medical care with advanced disease that we wish had been diagnosed earlier. Our community faces increased financial and emotional needs as they try to cope with cancer in the midst of a global pandemic. While the increased availability of telemedicine has helped bridge some of the gaps, the extra hardships continue to weigh on patients and their families. Despite these challenges, there is always reason to have hope.

One exciting development is that we are now able to use Prostate-Specific Membrane Antigen, or PSMA, as a target for advanced imaging studies, and we believe that we may soon have the opportunity to use it to target treatment for prostate cancer, too. PSMA has been the subject of extensive and promising prostate cancer research over the past several decades, and it is thrilling that it is now a tool we can use. Since this year, PSMA targeted imaging is being used to find early recurrent prostate cancer, or metastatic spread of prostate cancer in men who otherwise appear to have localized disease. It is also being explored as a target for radioactive and other medications that are being used to treat prostate cancer in clinical trials. Targeting PSMA is just one of many examples of how precision medicine is helping to pave the way for additional new treatment options for patients who desperately need them.

With the additional need for direct support peaking during these unprecedented times, the recent merger of ZERO and Us TOO comes at the right moment. Bringing these two organizations together creates a united patient-centric powerhouse in your corner. With comprehensive support including case management services, transportation, mentoring, and local support groups, please know that you and your family are not alone. We are here for you.

Wishing you and yours health and wellness,

Dr. Alicia Morgans
PSMA as a Theranostic
Prostate-Specific Membrane Antigen, or PSMA, has been the subject of extensive and promising prostate cancer research over the past several decades. PSMA is a protein found on the surface of normal prostate cells, but it is found in higher amounts on prostate cancer cells. It is present in more than 80% of prostate cancer cells in men with prostate cancer. PSMA is now being used as a target for imaging to diagnose metastatic or recurrent prostate cancer, and it is also being explored as a target for medications that can treat prostate cancer. This dual purpose is why many refer to PSMA imaging methods and treatments as "theranostic" - a combination of the terms ‘therapeutics’ and ‘diagnostics’.

How is PSMA targeted for detecting prostate cancer?
A PSMA PET (positron emission tomography) scan is an imaging procedure used to help detect prostate cancer cells within the body. For this procedure, a radioactive agent is injected into the bloodstream prior to the PET scan. The agent then attaches to the PSMA protein on the prostate cancer cells. Once there, it glows in the PET images that are taken to indicate where prostate cancer cells that have traveled outside the prostate may be. This procedure allows prostate cancer cells to be found that may not have been picked up on traditional scans like CT scans and bone scans. Two PSMA PET imaging agents are now approved by the FDA for use in patients whose prostate cancer has recurred or spread.

How is PSMA targeted for treating prostate cancer?
Targeting PSMA proteins on a prostate cancer cell enables very active treatments against prostate cancer to be focused on the cancer cell itself, rather than on normal healthy cells in the body, allowing a precision medicine approach to treatment. PSMA treatments will likely be made available to patients who have PSMA protein detected on their cancer cells using a PSMA PET scan. Many forms of treatment that target PSMA are being developed. The one that is closest to being approved for use in patients is a radiopharmaceutical that delivers radiation therapy directly and specifically to cancer cells that have PSMA on their surface. This radiopharmaceutical treatment is called lutetium-177-PSMA-617 (nicknamed lutetium). It was studied in a recently reported phase III clinical trial that was described in June in the New England Journal of Medicine.

Questions to Ask the Doctor

- Is the PSMA PET scan right for me
- Do you offer PSMA PET scans?
- Are they covered by my health insurance?
- Is exposure to the radioactive agent in a PSMA PET safe?
- What are the side effects of the PSMA targeted radio pharmaceutical treatment?

ZERO Now Offers Support Groups
Terri Likowski, Director,
US TOO Support Groups
Prostate cancer survivors who participate in support group meetings - sometimes along with spouses/partners - can find invaluable information and perspective from their peers who have “been there, done that”. According to the Mayo Clinic, some benefits of participating in support groups may include:

- Feeling less lonely, isolated, or judged
- Reducing distress, depression, anxiety, or fatigue
- Improving skills to cope with challenges
- Staying motivated to manage chronic conditions or stick to treatment plans
- Gaining a sense of empowerment, control, or hope

Support groups are interactive and educational, and often they can facilitate conversations
that lead to empowering participants with knowledge that comes from experience.

Due to the COVID-19 pandemic, many support groups are now meeting virtually and while we all miss in-person meetings, we are proud of our Support Group Leaders who have made this pivot to keep everyone safe. Now, finding support and information can be as convenient as sitting down at your computer and joining a ZOOM call with the click of a button.

To find a Support Group Meeting go to: www.zero-cancer.org/supportgroups

ADT Side Effects

Mark Kellerman, M.D.,
Urology Center of Iowa

In 1941, two scientists, Charles Huggins and Clarence Hodges, discovered that prostate cancer cell growth was stimulated by the presence of androgens in the body. Decreasing the level of testosterone in the body led to tumor regression. This groundbreaking discovery ushered in the era of hormone therapy for prostate cancer.

Today, most men receive this therapy through an injection that is administered 2 or 3 times per year. The FDA also recently approved the first oral agent for achieving testosterone blockade. Fortunately, most patients respond well to therapy and will often receive the therapy for years or in some patients, even decades. As a result, most patients are subject to the development of both short and long-term side effects related to hormone therapy.

The primary short-term side effects are hot flashes and fatigue. About 70% of men will experience these during treatment. For most men they are manageable, but for those patients who experience a significant decrease in quality of life, there are many options. Antidepressant medications and progesterone derivatives are just a few of them. Regular exercise, eating a healthy diet, and minimizing stress through relaxation techniques can also make a difference. Rarely do men have to discontinue therapy because of these hot flashes. Similarly, patients can combat the increased fatigue by remaining active, eating healthy, and maintaining a regular sleep-wake cycle.

Many men also experience changes in sexual function. This may manifest as a decrease in erectile function, a decrease in libido, or a decreased interest in sexual activity. There are many pharmacological and non-pharmacological therapies available to address issues with erectile dysfunction and you should not hesitate to discuss this with your doctor.

Long-term side effects of hormone therapy include osteoporosis and heart disease. It is important to maintain a healthy diet and engage in regular physical activity to help offset the effects of hormone therapy on bone density and cardiovascular health. It is also important to supplement your diet with Calcium (1200-1500mg) and Vitamin D (1500IU-2000IU) daily.

In addition, your urologist or oncologist may discuss the benefits of supplemental pharmacological therapies that can further reduce the risk of developing treatment-related osteoporosis. The risk of osteoporosis increases the longer patients are on therapy. Your urologist or oncologist may perform periodic bone density scans to monitor your bone health. If you have a history of heart disease, be sure to continue regular check-ups with your primary care physician or cardiologist during hormone treatment.

Hormone therapy for prostate cancer continues to remain a mainstay in the management of patients with more advanced disease. Men are living longer than ever following diagnosis. As a result, the impact related to the potential side effects from hormone therapy has increased as well. Fortunately, most side effects can be managed so that there is minimal effect on overall quality of life. Do not hesitate to have a discussion about side effects that you may be experiencing with your treating physician. No patient should have to suffer silently.
Your Body’s Foundation: Building Stronger Bone

Jen Miramontes, Founder, Cancer Champion Fitness

There has been a recent surge in research and data promoting the importance of strength training. Much of this information is based on the benefits with regard to weight control and decreasing body fat percentage. These benefits are certainly going to grab your attention, but I would like to dive deeper...all the way to your bones. Perhaps not as widely understood is the important role that strength training plays in building and maintaining healthy bones. Inactivity causes loss of bone — a condition known as osteoporosis.

Protecting and improving bone health is critical when managing all stages of prostate cancer. Androgen deprivation therapy (ADT), a hormone therapy commonly used in treating prostate cancer, accelerates bone resorption (the process of bone remodeling), compromising bone mass and integrity starting early in treatment (Mbalaviele & Wang, 2019).

Exercise works on bones much like it works on muscles — it makes them stronger. Exercise plays an important role in building strong bones when we are younger, and it is essential for maintaining bone strength as we age. In general, when you exercise regularly, your bones adapt by building more bone and becoming denser, thus able to handle more physical stress. However, aerobic exercise alone might not be enough for some populations. Additionally, improvement in bone health also requires good nutrition, including adequate calcium and Vitamin D. But the purpose of this article is to focus on exercise.

Another benefit of regular exercise is that it improves balance and coordination. This becomes especially important as we get older because it helps to prevent falls, and the broken bones that may result. Now let’s talk about why, what, and how much.

Why?

It’s never too late to start exercising. For prostate cancer survivors, regular physical activity can:

- Increase muscle strength
- Improve balance
- Decrease risk of bone fracture or break
- Maintain or improve posture
- Relieve or decrease pain

Exercising when you have osteoporosis means finding the safest, most enjoyable activities for you given your overall health and amount of bone loss. Think about what kind of activities you enjoy most. If you choose an exercise you enjoy, you’re more likely to stick with it over time.

What?

These types of activities are often recommended for people with osteoporosis:

- Strength training exercises, especially those for the upper back
  - Resistance band or dumbbell row
  - Push-ups (toe, knee, or wall)

- Weight-bearing aerobic activities
  - Any aerobic exercise on your feet with your bones supporting your weight: walking, dancing, elliptical, stair climbing, low-impact aerobics.

- Flexibility exercises
  - Stretching (hamstrings, shoulders, etc)
  - Gentle yoga

- Stability and balance exercises
  - One-leg stand: Stand with your hands on a counter or the back of a firm chair. Balance on one leg while lifting the other off the floor.
  - Core work – crunches, bicycles, plank (knee or toe)

Because of the varying degrees of osteoporosis and the risk of fracture, you might be discouraged from doing certain exercises. Ask
your doctor or physical therapist whether you’re at risk of osteoporosis-related problems, and find out which exercises are appropriate for you.

How much?
There are many schools of thought with regard to strength training guidelines. For my clients, I recommend 30 minutes of weight-bearing activity, at least four days a week. Your 30 minutes of exercise can be done all in one stretch, or broken up into shorter intervals. A 10-minute brisk walk three times a day is a great way to get started. The most important thing is to GET STARTED.

Balancing Work and Caregiving
Joanna Fawzy Morales, Esq., CEO, Triage Cancer

Individuals diagnosed with cancer often experience employment challenges while working through treatment, taking time off work, or returning to work. But caregivers may face similar challenges. These include potential workplace discrimination because of their caregiving role and trying to balance their caregiving and work responsibilities. Caregivers who take extended periods of time off from work can also face issues getting back into the workforce.

However, there are some legal protections and resources to help caregivers better navigate work and caregiving.

Federal and state fair employment laws
Title I of the federal Americans with Disabilities Act (ADA) provides eligible caregivers with protection against discrimination in the workplace. Most states have laws similar to the ADA, but some are more protective. For example, the state law may cover smaller private employers than the ADA. So, caregivers should look at their federal protections as well as the state laws.

Financial help
If you are taking time off work under the FMLA, the leave is unpaid. As a result, many caregivers need to find a way to replace their lost wages. A few states offer paid leave programs for eligible caregivers who need to take time off of work, including: CA, NH, DC, NJ, RI, WA, NY, & MA. A few additional states have created programs that haven’t yet begun: CT (1/1/22), OR (9/3/23), and CO (1/1/24). There are also a number of federal proposals to create a federal paid leave program.

In addition, some state Medicaid programs provide eligible individuals with in-home assistance to help with activities of daily living. Activities can include getting dressed, grocery shopping, cooking, and transportation to medical appointments. These programs have different names in each state, such as In-Home Support Services or Home Help Programs. Some states allow an individual’s family member to provide the in-home assistance and get paid by the program. Contact your Medicaid program to see if this is an option in your state.

Other practical issues
For caregivers who are trying to balance work and their caregiving responsibilities, other daily activities can become more challenging, such as cooking meals, housekeeping, gardening, taking kids to school, and other activities. These are all tasks that family members and friends may be able to help with, if you ask. Lotsa Helping Hands and Meal Train have calendar tools allowing friends and family to sign up to deliver meals or help with other activities.

For more information about legal protections and other resources related to caregiving, visit: https://TriageCancer.org/Caregiving.

Clinical Trials
In 1962, the U.S. government passed a law that required the Food and Drug Administration (FDA) to test all new treatments and show they are safe and that they work. These tests are called clinical trials.

Clinical trials are research studies performed in people that are aimed at evaluating a medical, surgical, or behavioral intervention. They are the primary way that researchers find out if a new treatment, like a new drug or diet or medical device, is safe and effective in people.
In prostate cancer, many, many clinical trials are available. Oftentimes people do not participate in a clinical trial because they did not know they were eligible or that one is available. It is important to ask and learn about clinical trials when you are making a treatment decision since they may be an option for you.

Below are a few prostate cancer clinical trials that you may be interested in. To learn about other available clinical trials, please visit our new clinical trial finder tool at www.zerocancer.org/find-a-clinical-trial.

**Phase 1 Study of TAS3681**

Do you have metastatic castrate-resistant prostate cancer? A trial investigating safety & efficacy of a new treatment may be an option for you. Learn more: [https://clinicaltrials.gov/ct2/show/NCT02566772#studydesc](https://clinicaltrials.gov/ct2/show/NCT02566772#studydesc)

**Living with Metastatic Castration-Sensitive Prostate Cancer (mCSPC)?**

Have you been diagnosed with metastatic castration-sensitive prostate cancer? Do you have a DNA Damage Repair (DDR) gene alteration? You may be eligible to take part in a clinical trial studying a potential treatment for this type of cancer. The TALAPRO-3 trial is evaluating whether talazoparib (the study drug) when taken with enzalutamide, an existing approved treatment for metastatic prostate cancer, can help keep tumors under control for longer than enzalutamide taken with placebo (an inactive medication). The trial will also explore the safety of this drug combination.

Learn more: [https://www.pfizerclinicaltrials.com/nct04821622](https://www.pfizerclinicaltrials.com/nct04821622)

**Introducing P-PSMA-101: CAR-T for prostate cancer**

The P-PSMA-101-001 study is a Phase 1 clinical trial now enrolling patients at multiple locations in the United States. Conducted by Poseida Therapeutics, this study is testing P-PSMA-101, a new immunotherapy called a CAR-T. P-PSMA-101 is made from your own white blood cells that have been genetically modified in a lab to recognize a protein called PSMA. PSMA is commonly located on the surface of prostate cancer cells and P-PSMA-101 is designed to kill the cancer cell. P-PSMA-101 is given via an intravenous infusion and you may be eligible to receive one or more infusions during the study.

The purpose of this study is to determine if P-PSMA-101 is safe and will help treat patients with metastatic prostate cancer. You may be eligible for the study if you have progressing metastatic, castration resistant prostate cancer; and you have already been treated with a 2nd generation hormone therapy and a chemotherapy called a taxane.

For more information about the P-PSMA-101-001 study including hospitals enrolling patients visit the study registry at: [clinicaltrials.gov/ct2/show/NCT04249947](https://clinicaltrials.gov/ct2/show/NCT04249947)

Or contact Poseida at (858) 779-3103 or clinicaltrials@poseida.com

[https://poseida.com/patients/#clinicaltrials](https://poseida.com/patients/#clinicaltrials)

**Veterans Update**

Prostate cancer is the most common cancer diagnosis among American Veterans with one in five being diagnosed in their lifetime. With almost half a million Veterans currently being treated within the Veterans Health Administration (VHA), Veterans remain one of the most vulnerable groups.

To help address these issues, ZERO is providing prostate cancer educational materials and support for Veterans, active duty military, and their physicians. We have a strong group of Veteran Champions who are willing and able to support policies that will improve the lives of their brothers in arms, and to share education and resources with those at risk. ZERO has convened the Veterans Prostate Cancer Working Group to help guide our policy efforts, including supporting the Veterans’ Prostate Cancer Treatment and Research Act, which was recently introduced both in the House (H.R. 4880) and Senate (S. 2720).

ZERO recently also conducted the 2021 Veterans Prostate Cancer Survey, which gathered responses from over a thousand Veterans about their prostate cancer awareness and experience. The results of the survey will help inform our policies and programs.

Check [www.zerocancer.org/veterans](https://www.zerocancer.org/veterans) to see the full analysis and learn more about ZERO’s efforts to help Veterans with prostate cancer.
ZERO’s Support Programs
ZERO offers direct resources for all those impacted by prostate cancer.

ZERO360: Comprehensive Patient Support
1-844-244-1309 (Toll-Free)
zerocancer.org/zero360

Us TOO Support Groups
zerocancer.org/supportgroups

Online Support Services
https://www.facebook.com/groups/zeroconnect/
www.inspire.com/groups/zero-prostate-cancer

Peer Support
zerocancer.org/mentor
zerocancer.org/caregiver-connector

ZERO Drive
zerocancer.org/drive

Educational Resources
zerocancer.org

Join us at the ZERO Prostate Cancer Summit
March 4-8, 2022 • Virtually, Everywhere!
Register for free at zerocancer.org/summit

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