

LIVE HEALTHY

WHILE ON ANDROGEN DEPRIVATION
THERAPY (ADT)



A healthy lifestyle guide designed for advanced prostate cancer patients undergoing androgen deprivation therapy

For advice on medical issues, you should always consult your medical practitioner. This booklet contains general information related to certain medical conditions and their treatment. This guide is not intended to offer personalized medical diagnosis or patient-specific treatment advice.

FREQUENTLY ASKED QUESTIONS



What does androgen deprivation therapy (ADT) do?

Prostate cancer develops when cells of the prostate show uncontrolled growth. The growth and function of prostate cells depend on testosterone, a male sex hormone that is made in the testicles. High levels of testosterone may help fuel prostate cell growth. Androgen deprivation therapy is used to lower levels of hormones, including testosterone.

Are there side effects of ADT?

Each patient may experience different side effects of ADT. Men undergoing ADT have reported side effects, including hot flashes, loss of libido, erectile dysfunction, loss of muscle mass and strength, fatigue, depression, and osteoporosis. Talk to your doctor about how ADT may affect you.

Can I lower my risk of the cancer progressing or coming back?

Unfortunately, for most cancers, there is no solid evidence that shows lifestyle changes can reduce the risk of cancer progression or recurrence. However, recent research suggests that men who exercise regularly after treatment may live longer than those who do not. Other research suggests that men who smoke are more likely to have their prostate cancer recur than men who don't smoke.¹ Adopting other healthy behaviors such as eating well and managing a healthy weight might also help. These types of changes can have positive effects on your health beyond your prostate cancer and may help you to live longer.



LIVING HEALTHIER

An advanced prostate cancer diagnosis may cause many emotions such as confusion, anger, and depression. These types of emotions are normal with any cancer diagnosis. The Advanced Prostate Cancer Patient and Caregiver Burden of Illness Survey was conducted to evaluate the physical and emotional impact of advanced prostate cancer on both patients and caregivers. The survey found that the majority of patients felt afraid and uncertain for the future but were determined to fight.²

Today is the perfect time to make changes that can have positive effects on your life—now, tomorrow, and every day moving forward.

Please consult with your doctor or other qualified healthcare professionals before implementing any of the lifestyle changes discussed within this guide.

“YOU CAN'T CHANGE THE FACT THAT YOU HAVE HAD CANCER. WHAT YOU CAN CHANGE IS HOW YOU LIVE THE REST OF YOUR LIFE—MAKING CHOICES TO HELP YOU STAY HEALTHY AND FEEL AS WELL AS YOU CAN.”

American Cancer Society

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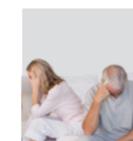
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FERRING PHARMACEUTICALS

Ferring Pharmaceuticals is a research-driven, biopharmaceutical company devoted to identifying, developing, and marketing innovative products in the fields of reproductive health, urology, gastroenterology, endocrinology, and orthopedics.

Ferring has an ongoing commitment to support caregivers and their loved ones with advanced prostate cancer.



JOGGING



BIKING



YOGA



SWIMMING

NEW RESEARCH SUGGESTS THAT MEN WITH PROSTATE CANCER WHO LEAD ACTIVE LIFESTYLES HAVE A BETTER SURVIVAL RATE THAN THOSE WHO DON'T.^{3*}



WEIGHTLIFTING



TENNIS



PILATES



GOLF

Muscles are not only critical to posture, balance, and movement, but they help maintain healthy bones. A regular exercise routine can not only boost your physical fitness, but also help to increase daily energy and happiness levels.

Please consult with your doctor or other qualified healthcare professionals before implementing any of the lifestyle changes discussed within this document.

Increase Your Energy

As a man living with cancer, you are likely to experience fatigue. Regular exercise can help to reduce this intense fatigue, giving you a better quality of life as you navigate your day-to-day life. Also know that adequate rest and sleep are necessary within any exercise plan or healthy lifestyle.

Maintain Your Muscle Mass

Muscle loss can be prevented through proper and consistent exercise. Hormonal therapies associated with advanced prostate cancer (and the depletion of testosterone) can have a detrimental effect on muscle, leading to muscle loss and higher risk of bone fractures.

Live Life to the Fullest

A recent clinical study of more than 4,000 men with localized prostate cancer suggested that, in general, higher levels of physical activity, including walking, bicycling, and exercising, were associated with increased survival rates in men with prostate cancer.³

“THIS IS OF PUBLIC HEALTH RELEVANCE,” SAYS RESEARCHER STEPHANIE BONN, “AS THE NUMBER OF MEN SURVIVING AFTER A PROSTATE CANCER DIAGNOSIS IS INCREASING WORLDWIDE.”²

Stephanie Bonn

Keep Your Morale High

Like most other aspects of your journey, make sure you involve friends and family in your exercise plan. Having others involved may motivate you to continue exercising, as well as increase your enjoyment of the exercise.



MINUTES A DAY CAN MAKE A DIFFERENCE



In a study of men with localized prostate cancer, men who **walked or biked daily for at least 20 minutes** after their diagnosis had a **39% decreased risk** of dying from prostate cancer and a 30% decreased risk of dying overall, compared to those who were less active.³



In a study of men with localized prostate cancer, men who **walked briskly for 90 minutes or more per week** lowered their risk of death from any cause by 46%, compared to men who walked less quickly and less often.³

*A clinical study of more than 4,000 men with localized prostate cancer, followed for 10 to 15 years.

STRONG

Building muscle mass through resistance or weight training helps keep your muscles strong, and is an effective way to help change your metabolism. This is particularly important to men who have received hormone therapy due to the increased risk of weakening bones and muscles.



STOMACH

- Keep your heels on the ground
- Lift both shoulders
- Look upwards



LEGS

- Lunge forward on one leg
- Lower back knee to floor
- Alternate legs



LEGS

- Step up on one foot
- Alternate feet

MAKE IT ROUTINE

Exercise 2 to 4 times a week and walk every day for 30 to 60 minutes. You should do your best to make this a minimum weekly goal. Remember, the exercises should never be painful or unusually tiring. Before you begin a new routine it is important to speak to your healthcare provider to see what level of exercise is appropriate for you.



ARMS

- Bend and lift dumbbell to your chest
- Lower your arm slowly
- Alternate arms



ARMS

- Slowly lift arms over head
- Lower hands to shoulders while keeping elbows in place

KEGEL EXERCISES FOR MEN

Pelvic floor muscles support the bladder, bowel, and affect sexual function. A radical prostatectomy, diabetes, or overactive bladder can weaken your pelvic floor muscles. Kegel exercises strengthen the pelvic floor muscle and may benefit patients with incontinence or erectile dysfunction.

HOW TO DO KEGEL EXERCISES

Find the right muscles. To identify your pelvic floor muscles, stop urination in midstream or tighten the muscles that keep you from passing gas. If you contract your pelvic floor muscles, the base of your penis will move closer to your abdomen and your testicles will rise.

FIT

Stretching helps tone your muscles and may help reduce stress. Stress may accelerate prostate cancer development. Flexibility can help make you more mobile and comfortable. Before you begin any exercise routine, it is important to speak to your healthcare provider to see what level of exercise is appropriate for you.



LEGS

- Pull on one knee with both hands
- Stretch out your opposite leg



LEGS

- Keep your feet parallel
- Push your heel backwards



LEGS

- Hold your heel against your buttock
- Bend your supporting leg a little
- Tuck in your stomach



LEGS

- Cross one bent leg over the opposite outstretched leg
- Put your left arm on your right knee and swivel torso slowly to the right



ARMS

- Grab your elbow, pull gently
- Alternate arms

STAY HYDRATED

Regularly drinking water is recommended, especially during your exercise sessions. For increased bone health, focus on mineral waters rich in bicarbonates and calcium, for example, Perrier or San Pellegrino.

Repeat 3 times a day. Aim for at least 3 sets of 10 repetitions a day. When your muscles get stronger, try doing Kegel exercises while sitting, standing, or walking.

Eating right can be hard for anyone, but it can be tougher during and after treatment. Before you eat, think about what goes on your plate. As part of your healthy lifestyle, please review the following suggestions from the United States Department of Agriculture's ChooseMyPlate campaign at choosemyplate.gov.⁴

Eat lots of fruits and vegetables. Focus on fruits and vegetables high in antioxidants. (Please see antioxidant rainbow to the right.)

Increase whole grains. Eat more whole wheat flour, bulgur (cracked wheat), oatmeal, whole cornmeal, and brown rice.

Drink water or low-fat milk. Stop drinking alcohol, soda, or high-sugar beverages. Drinking alcohol and high-sugar beverages increases the calories in your diet and can cause other health-related problems.

Reduce red meat. Increase fish, especially fatty fish (salmon, tuna, trout, etc) and soy-based foods. Choose steaming or baking over charbroiling or pan-frying. Monitor the temperature of the meat as it cooks to avoid charring or overcooking.



Calories Count

Everyone has a personal calorie limit. To calculate your suggested daily calorie requirements, visit any number of online calorie calculators. The American Cancer Society has a calculator that factors in your level of physical activity.

According to the 2010 US Dietary Guidelines for Americans, a sedentary man aged 61 or greater should consume about 2,000 calories per day.⁵ Increasing your activity level will increase the number of calories you should be eating daily. Consult your physician or nutritionist for a more accurate and personalized calorie target.

THE COLORS OF THE ANTIOXIDANT RAINBOW

As part of a healthy lifestyle, be sure to include an array of foods rich in antioxidants. Some antioxidants found in certain foods can be divided into groups by color.

ANTIOXIDANT	FOOD EXAMPLE
ANTHOCYANINS prevent inflammation.	POMEGRANATE, GRAPES, BERRIES, PLUMS
LYCOPENE is an antioxidant for prostate health.	TOMATOES, GRAPEFRUITS, WATERMELON
SULFORAPHANE & ISOTHIOCYANATES help to break down carcinogens in food.	BROCCOLI, BOK CHOY, BRUSSELS SPROUTS, CABBAGE, KALE
BETA-CRYPTOXANTHIN is converted in vitamin A.	ORANGES, PEACHES, PAPAYA, NECTARINES
ALLYL SULFIDES can trigger an antioxidant reaction in cells.	GARLIC, LEEKS, ONIONS, ASPARAGUS, SHALLOTS, CHIVES
BETA-CAROTENE helps with vision.	CARROTS, CANTALOUPE, MANGOES, APRICOTS
LUTEIN & ZEAXANTHIN aid in eye health.	GREEN PEAS, AVOCADO, COLLARD GREENS, SPINACH, YELLOW CORN, HONEYDEW MELON



KEEPING BONES HEALTHY

Age, as well as ADT, can increase a man's likelihood for developing osteoporosis. The good news is, there are several strategies to reduce the risk of osteoporosis, or lessen its effects if he already has it.

CALCIUM

Calcium plays a key role in building and maintaining bone strength.

Found in: Low-fat dairy products, dark greens, and leafy vegetables

VITAMIN D

Vitamin D plays an important role in calcium absorption and bone health.

Found in: Fatty fish (salmon, trout, tuna, etc) and whole eggs

EXERCISE

The best exercise for bone health is weight-bearing exercise, including walking, climbing stairs, dancing, and weight training.

WATER

For your bone health, focus on mineral waters rich in bicarbonates and calcium.

BONE EXAMS

Bone density scanning is a form of X-ray that is used to measure and track actual or potential bone loss. This test is also referred to as dual-energy X-ray absorptiometry (DEXA) or bone densitometry.

Osteoporosis and ADT

Osteoporosis is a silent disease because it can weaken bones over the years without causing symptoms. For men coping with prostate cancer, weak bones may not seem very important. However, studies have shown a link between ADT for prostate cancer and both osteoporosis and broken bones.⁶

It is never too late to improve your bone health: osteoporosis can be treated and prevented. Don't wait for your doctor to bring up your bone health with you. Men being treated for advanced prostate cancer with ADT should discuss with their doctor whether bone mineral density (BMD) testing is a good idea.

Vitamins/Supplementation

As far as bone health is concerned, a well-balanced diet rich in calcium and vitamin D is important. Taking dietary supplements or multivitamins can also help ensure that you meet your body's daily calcium requirements. Check with your doctor before you begin taking any vitamins or supplements.

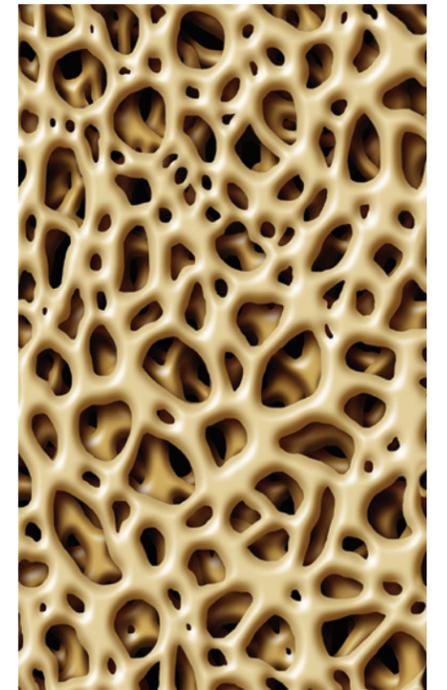
RECOMMENDED RANGES FOR KEY VITAMINS AND MINERALS

	Recommended Intake*	Upper Level Intake†
Vitamin A	900 µg/day	3,000 µg/day
Vitamin B ₆	1.7 mg/day	100 mg/day
Vitamin C	90 mg/day	2,000 mg/day
Vitamin D	400 IU/day	2,000 IU/day
Calcium	1,200 mg/day	2,500 mg/day
Folic Acid	400 µg/day	1,000 µg/day

*Recommended dietary allowances or adequate intakes to be used as goals for individual intake.
 †The maximum level of daily nutrient intake that is likely to pose no risk of adverse effects; represents total intake from food, water, and supplements. Values are for healthy males aged 51 to 70.
 Source: Institute of Medicine of the National Academies. Dietary reference intakes.

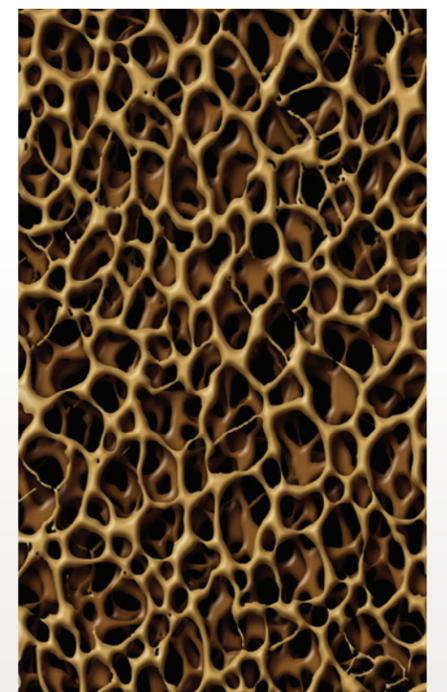
Other Medications

Beyond traditional preventative supplements (eg, supplemental calcium, vitamin D), your doctor may recommend other medications if supplements are not enough. Discuss other medications with your doctor if you feel you are at particular risk for osteoporosis.



NORMAL BONE

Normal tight honeycomb pattern, indicating a strong healthy bone.



OSTEOPOROSIS BONE

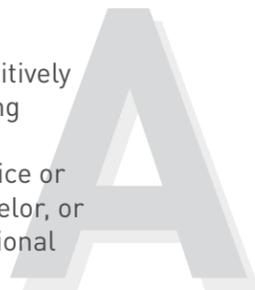
Honeycomb pattern with large holes due to osteoporosis, indicating the bone is less strong and at a higher risk for breaking.

THE ABC'S OF DISPELLING STRESS

Cancer and its treatments can be stressful for you, your family, and your caregivers. Relaxation techniques and other mind/body practices can help calm your mind and sharpen your ability to focus.

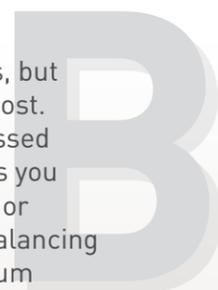
► Admit

Improving your emotional health can positively impact your physical health. Avoid keeping things to yourself. Admit your feelings to family and friends. If needed, ask for advice or support from your family doctor, a counselor, or a religious advisor. See page 17 for additional support resources.



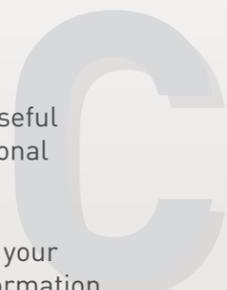
► Balance

It's important to deal with negative feelings, but a positive outlook can give your health a boost. Balance the things that make you feel stressed with things you enjoy. Rediscover the things you found fun as a child. Explore new interests or hobbies. Reward and treat yourself well. Balancing challenges with rewards can lead to optimum health in the physical, mental, and spiritual realms.



► Calm

Remaining calm and avoiding stress are useful ways to help both your physical and emotional health. Consider incorporating relaxation techniques such as deep breathing and meditation into your daily routine. Explore your local library or search online for more information.



DEEP BREATHING

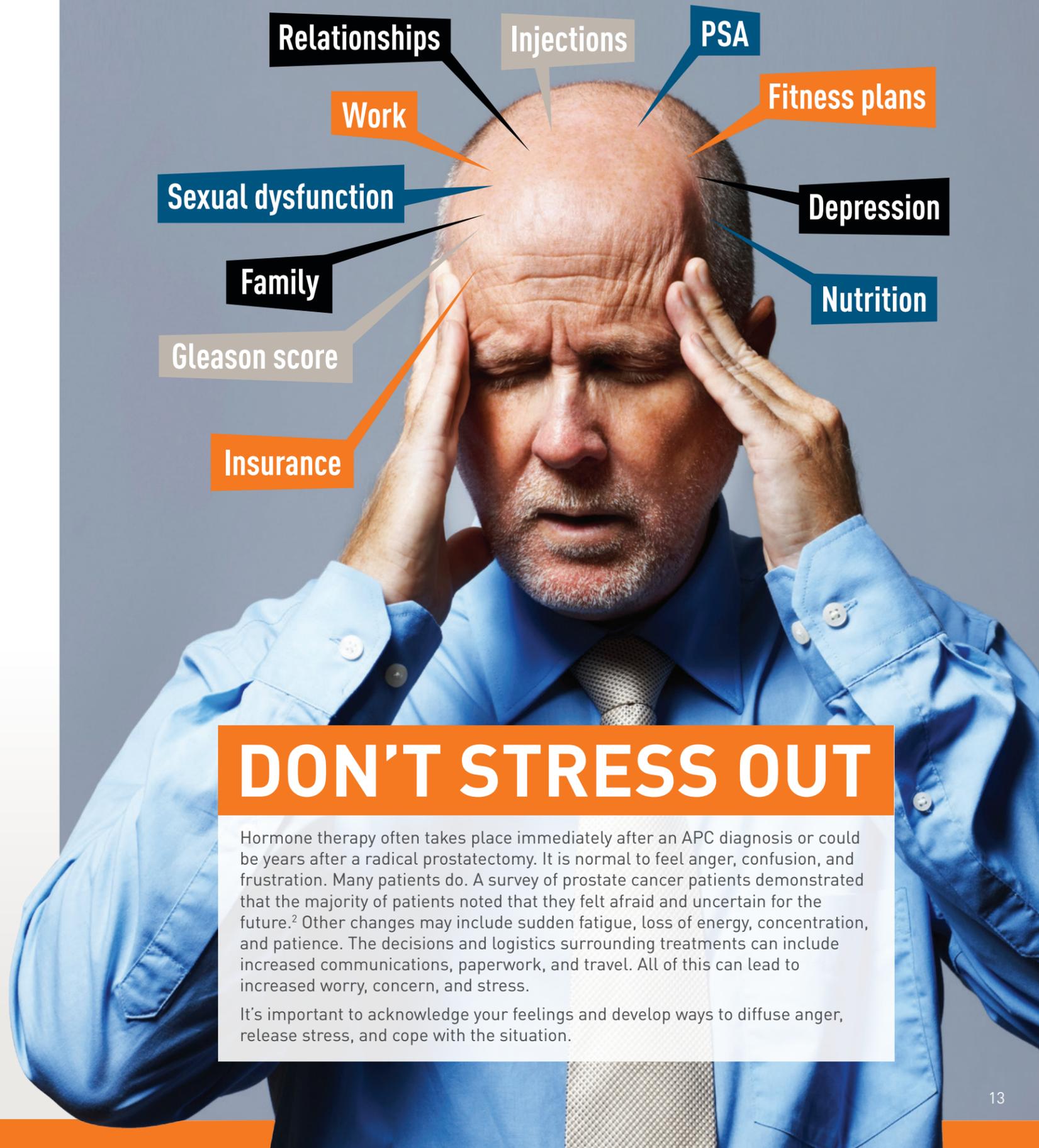
Having plenty of oxygen in our systems is important. Anxiety and stress can make us take short, shallow breaths, which does not allow enough oxygen to enter our bodies. When you feel stress or anxiety sneak up on you, take 3 or 4 deep, cleansing breaths. Inhale through your nose then hold your breath for several seconds. Exhale slowly through your mouth. Laughing and singing are other great ways to trick your body into breathing deeply.

MEDITATION

Meditation is a process to relax the body and calm the mind. Pick a quiet place to relax, select an affirming word, and repeat it to yourself for 15 to 20 minutes (eg, peace, love, or hope). As your mind jumps around, simply observe the pattern of your thoughts and gently guide them back to focus on your breath or affirming word.

GUIDED IMAGERY

This stress-reducing technique combines deep breathing and meditation. As you practice deep breathing, imagine a peaceful scene or setting, perhaps from a memory. Popular scenes may include gazing at a peaceful lake or strolling an ocean beach. Once you are relaxed, try to wholly focus on that place. Try to engage all of your senses and allow your concerns to fade away.



DON'T STRESS OUT

Hormone therapy often takes place immediately after an APC diagnosis or could be years after a radical prostatectomy. It is normal to feel anger, confusion, and frustration. Many patients do. A survey of prostate cancer patients demonstrated that the majority of patients noted that they felt afraid and uncertain for the future.² Other changes may include sudden fatigue, loss of energy, concentration, and patience. The decisions and logistics surrounding treatments can include increased communications, paperwork, and travel. All of this can lead to increased worry, concern, and stress.

It's important to acknowledge your feelings and develop ways to diffuse anger, release stress, and cope with the situation.

HOW ADT CAN IMPACT YOUR SEX LIFE



KEEP IT REAL

Fortunately, with the right kind of advice and help, it is possible to overcome many of the sexual side effects of cancer treatments.

Prostate cancer, and the associated treatments, cause physical and emotional changes that may affect a man's desire and ability to have sex. ADT can reduce desire and may cause erectile dysfunction in some men because it reduces testosterone levels.

Reduced Sex Drive

If you notice a decreased sex drive and find it troublesome, talk to your doctor about your options. Reduced sexual interest also impacts your partner, so be sure to talk to them about what you are experiencing, which is a common problem in men who are on ADT.

Erectile Dysfunction

If you are experiencing erectile dysfunction (ED), talk to your doctor about ways he/she can help. ED is common in men receiving ADT treatment and your doctor may have suggestions to support you throughout your ADT treatment.

Depression

Research has shown that ADT may increase depression in men with prostate cancer.⁷ If you are feeling depressed, it is important to discuss your feelings with your partner and your healthcare provider.



You are not alone, **90%** of men receiving ADT experienced sexual dysfunction (decreased sex drive and ED).⁸



TIP 1: Practice talking openly about non-sexual topics before you start talking about sex.

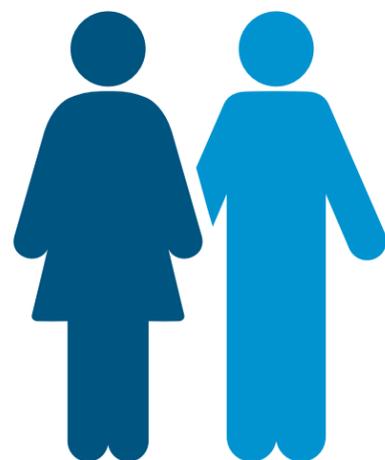


TIP 2: Write down what you like about sex with your partner. Consider new techniques or fantasies that you find appealing. Practice talking about them.



TIP 3: Through prostate cancer support groups, you can meet other couples that are dealing with similar issues, including sexual concerns.

6 STEPS TO CAREGIVING

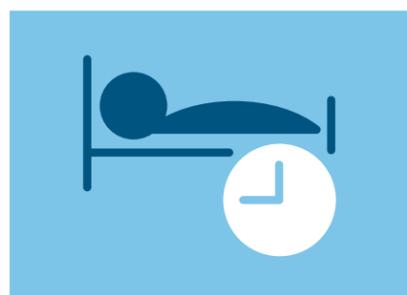


Your caregiver plays an important role before, during, and after your treatment. Share these helpful tips with the caregivers in your life.



ONE: BE OPEN

A prostate cancer diagnosis brings many emotions. Be open to emotions and feelings. If he can't or won't share his feelings with you, remind him that talking with someone will help.



TWO: TAKE CARE OF YOURSELF

Balancing caregiving with other daily chores can be challenging. Know your own limitations and don't forget to take time to relax and recharge.



THREE: THINK POSITIVE

Maintaining a positive attitude can impact everyone around you. Many studies show there is real power in positive thinking.



FOUR: FIND OUT

The more you know, the more empowered you will feel. Come to doctor's appointments with a list of questions and don't leave until you have the answers you need.



FIVE: FILE IT

Treating prostate cancer brings lots of logistics. Organize appointments, medicines, receipts, and insurance information for easy reference and access.



SIX: SEEK HELP

Feel comfortable reaching out to family, friends, and support groups for help when you need it.

RESOURCES

Educating yourself and your family about prostate cancer is important in empowering your own treatment. There are many resources available to assist you.*

Patient Advocates for Advanced Cancer Treatments [PAACT]

A great source for information and further resources on prostate cancer management for both patients and physicians.

www.paactusa.org
1-616-453-1477

The Prostate Cancer Foundation

The leading prostate cancer research organization for all those involved and affected by the disease.

www.pcf.org
1-800-757-CURE (2873)

Us TOO International

An organization started by prostate cancer survivors aimed at providing useful information regarding diagnosis and treatment.

www.ustoo.org
1-800-80-US-TOO (808-7866)

ZERO

An organization that aims to lower suffering for patients as they navigate their lives during and post treatment and recovery.

www.zerocancer.org
1-888-245-9455

National Cancer Institute

The nation's leader in cancer research.

www.cancer.gov
1-800-4-CANCER

Help for Cancer Caregivers

A resource geared toward cancer caregivers. The site offers solutions to daily struggles surrounding cancer.

www.helpforcancer.org

Cancer.net

A website that offers advice on coping with cancer as a caregiver, patient, and loved one.

www.cancer.net

Cancer Care

An online resource offering counseling, support groups, and a variety of other resources that help on your journey.

www.cancercare.org
1-800-813-HOPE (4673)

The United States Department of Agriculture

A great resource for those looking to watch what they eat and exercise more.

www.choosemyplate.gov

American Cancer Society

A nationwide voluntary health organization dedicated to eliminating cancer.

www.cancer.org
1-800-227-2345

*Ferring is providing a list of resources solely for your information and convenience and should not be construed as an endorsement of the organizations listed.



KEEPING TRACK OF IT ALL

Keeping track of all your healthcare providers can be challenging. Use this page to list key contacts.

PRIMARY CARE PHYSICIAN
AFFIX PHYSICIAN BUSINESS CARD HERE

UROLOGIST

Name: _____
Phone: _____
Fax: _____
Email: _____
Web: _____
Notes: _____

ONCOLOGIST/RADIATION ONCOLOGIST

Name: _____
Phone: _____
Fax: _____
Email: _____
Web: _____
Notes: _____

FAMILY PRACTICE

Name: _____
Phone: _____
Fax: _____
Email: _____
Web: _____
Notes: _____

HEALTH INSURANCE REPRESENTATIVE

Name: _____
Phone: _____
Fax: _____
Email: _____
Web: _____
Notes: _____

PSYCHIATRIST/PSYCHOLOGIST/COUNSELOR

Name: _____
Phone: _____
Fax: _____
Email: _____
Web: _____
Notes: _____

“THE KEY IS TO SEE YOUR LIFE IN A NEW WAY—WITH A NEW SET OF LIFESTYLE CHANGES ALL DESIGNED TO TURN YOU FROM A PROSTATE CANCER SURVIVOR INTO A PROSTATE CANCER THRIVER.”

David Heber, MD, PhD

Prostate Cancer Foundation



PLEASE CONSULT WITH YOUR DOCTOR OR OTHER QUALIFIED HEALTHCARE PROFESSIONAL BEFORE IMPLEMENTING ANY OF THE LIFESTYLE CHANGES DISCUSSED WITHIN THIS DOCUMENT.

Reference: **1.** American Cancer Society. Lifestyle changes after having prostate cancer. <http://www.cancer.org/cancer/prostatecancer/detailedguide/prostate-cancer-after-lifestyle-changes>. Accessed August 8, 2015. **2.** ZERO - The End of Prostate Cancer survey. The Prostate Cancer Patient and Caregiver Survey. Conducted by M3 Global. April 2014. **3.** Bonn SE, Sjölander A, Lagerros YT, et al. Physical activity and survival among men diagnosed with prostate cancer. *Cancer Epidemiol Biomarkers Prev.* 2015;24(1):57-64. **4.** United States Department of Agriculture. <http://www.choosemyplate.gov/>. Accessed November 6, 2015. **5.** United States Department of Agriculture. Dietary Guidelines for Americans 2010. <http://health.gov/dietaryguidelines/dga2010/DietaryGuidelines2010.pdf>. Accessed November 9, 2015. **6.** National Institutes of Health. What Prostate Cancer Survivors Need to Know About Osteoporosis. http://www.niams.nih.gov/health_info/bone/osteoporosis/conditions_behaviors/osteoporosis_prostate_cancer.asp?print=yes. Accessed June 3, 2015. **7.** Lee M, Jim HS, Fishman M, et al. Depressive symptomatology in men receiving androgen deprivation therapy for prostate cancer: a controlled comparison. *Psychooncology.* 2015;24(4):472-477. **8.** Nguyen PL, Alibhai SM, Basaria S, et al. Adverse effects of androgen deprivation therapy and strategies to mitigate them. *Eur Urol.* 2015;67(5):825-836.

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This guide is produced by Ferring Pharmaceuticals to help support patients with advanced prostate cancer. *Live Healthy While on ADT* was designed to inform and support advanced prostate cancer patients throughout their ADT therapy.