

Hormone Therapy and Prostate Cancer

The following information is based on the general experiences of many prostate cancer patients. Your experience may be different. If you have any questions about what prostate cancer treatment services are covered by your health insurance, please contact your healthcare provider or health insurance provider.

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Please feel free to read only those parts of the booklet you need now. You don't need to read everything right now. You can always read more later.

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What Will I Learn By Reading This Booklet?

You and your doctor may be talking about using **hormone therapy** to control your prostate cancer. It is important for you to learn about hormone therapy so that you will know what to expect and how best to take care of yourself before, during, and after treatment. In this booklet you will learn:

- What hormone therapy is
- Why you may need hormone therapy
- How hormone therapy works
- Ways to get hormone therapy
- What to expect when you have hormone therapy
- What **side effects** or unwanted changes in your body you may have from hormone therapy

It is important to think about how you will work these things into your everyday life if you and your doctor decide that hormone therapy is the best way for you to control your prostate cancer.

Words that appear in **bold** (dark text) can be found in the “Key Words” section at the end of this booklet.

What Is Hormone Therapy?

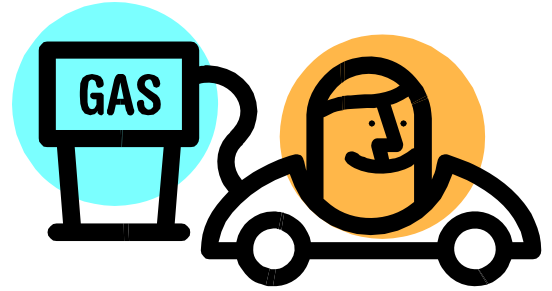
To help you understand what hormone therapy (or **androgen deprivation therapy**) is and how it may affect your prostate cancer, it is good for you to understand what **hormones** are and how they work in your body. Hormones control or manage your body's activities. Hormones are made by **glands** in your body and are carried by your blood to all areas in your body. Glands are groups of cells in your body that make and release materials needed by your body.

Testosterone is the main male hormone in your body. It makes you grow hair on your face and body and have a man's body shape and controls your desire for sex. Testosterone also controls your prostate gland. Your **testicles** make most of the testosterone in your body. A small amount of testosterone is also made by your **adrenal glands**. Your adrenal glands are located on top of each kidney. Your adrenal glands also make other hormones.

Prostate cancer is **hormone sensitive** or **hormone dependent**. This means that the testosterone in your body helps your prostate cancer to grow. The goal of hormone therapy is to lower the amount of testosterone in your body to stop or slow the growth of your prostate cancer. You can lower the amount of testosterone in your body by taking medicines or having surgery.

How Does Hormone Therapy Work?

Prostate cancer cells need testosterone to grow. These hormones act like a fuel to feed your prostate cancer cells and keep them active. Hormone therapy works by:



1. Reducing hormones in your body. By lowering the amount of testosterone in your body, hormone therapy cuts off the supply of hormones your prostate cancer cells need to live.
2. Changing your prostate cancer's ability to use hormones. Hormone therapy medicines can keep your prostate cancer cells from getting the testosterone they need to grow.

By reducing or changing the way your prostate cancer cells get testosterone, your cancer cells will either die or slow down and stop growing.

Can Hormone Therapy Cure My Prostate Cancer?

No, hormone therapy cannot cure your prostate cancer. The goal of hormone therapy is to stop or slow the growth of the prostate cancer cells in your body.

Hormone therapy can shrink prostate cancer tumors and may stop or limit the spread of your prostate cancer. Hormone therapy is used to control your prostate cancer.

When is Hormone Therapy Used for Prostate Cancer?

On its own, hormone therapy can be a good way to control the growth of your prostate cancer. It can also be used with another prostate cancer treatment to help it work better. You should keep in mind that the following things will affect when you have hormone therapy and if you have hormone therapy along with another type of prostate cancer treatment:

- The **grade** of your prostate cancer
- Your **Gleason score**
- The **stage** of your prostate cancer
- Your **PSA (Prostate-Specific Antigen)** level
- Your age
- Your general health

Your stage, grade, and Gleason score are determined by a **pathologist**. A pathologist is a specially trained physician who reviews **biopsy** results in order to find changes in your body caused by cancer. When you had your prostate biopsy, the pathologist looked at the tissue samples taken from your prostate gland and prepared your biopsy report. The report tells you and your doctor the following information:

- The grade tells you what your prostate cancer cells look like.

- The Gleason score. The Gleason score tells you what your prostate cancer cells look like compared to healthy cells and gives you an idea of how quickly your cancer is growing. Your Gleason score will range from 2 to 10.
- The stage tells how much prostate cancer you have and where your cancer is located.

This information is used to help your doctor chose the most effective type of hormone therapy for you. The types of hormone therapy include:

Neoadjuvant (nē-o-aj-uh-vuh nt) hormone therapy

If you have early stage prostate cancer, you and your doctor may decide on a **course** (a series of **doses** or amounts of medication) of hormone therapy prior to the start of your main prostate cancer treatment. This is called **neoadjuvant** (nē-o-aj-uh-vuh nt) or **pre-therapy**. This type of hormone therapy is used to help shrink your prostate cancer tumor. This helps make your main treatment more effective.

This is very common with men who get **radiation therapy**.

Adjuvant hormone therapy

Adjuvant (aj-uh-vuh nt) therapy is given to you at the same time you have your main prostate cancer treatment.

Salvage hormone therapy

Sometimes, your prostate cancer can come back or **recur** after you have surgery or radiation therapy. This **recurrence** may have happened because some prostate cancer cells moved outside your prostate gland before your treatment. These cells may not have been found because they were too small or there were not enough of them to be found. These cells then started to grow in the area where your prostate gland used to be or in another part of your body. If your PSA (Prostate-Specific Antigen) level starts to rise or your doctor finds an irregularity in your **DRE (Digital Rectal Exam)** after surgery or radiation therapy, your doctor may start you on hormone therapy. Please see the IMPACT patient education brochure, “When Prostate Cancer Returns,” for more information.

How Can My Testosterone Levels Be Lowered?

The amount of testosterone your body makes can be lowered by:

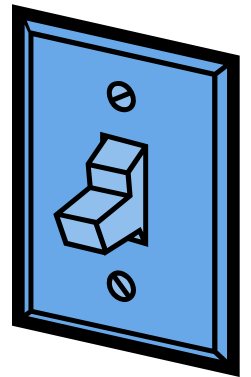
1. Using medicines to stop your testicles from making testosterone or blocking your prostate cancer cells from using your testosterone.
2. Removing your testicles by surgery. This is called an **orchiectomy**.

What Kinds of Medicines Can Be Used to Lower My Testosterone?

There are several types of medicines you can take to lower the amount of testosterone in your body. These are temporary ways to lower the amount of testosterone. When you stop taking these medicines, your testosterone level will begin to go up.

LHRH agonist

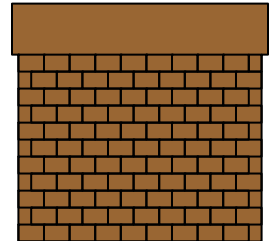
LHRH [(luteinizing-hormone releasing hormone) (loo-tee-uh-nahyz-ng)] is a normal human hormone that tells your body to make testosterone. An LHRH agonist is a man-made hormone similar to the one made naturally in your body. LHRH agonists work like a light switch to shut off the production of testosterone in your body. When you are given this medicine, your body will stop making the LHRH hormone and your testicles will stop making testosterone. When you are first given this medicine, your body will continue to make testosterone for a couple of weeks. This means that your testosterone level may go up for a week or two and then begin to drop. This type of medicine works as well as having an orchiectomy (an operation to remove your testicles). These medicines are given either monthly or every three months in a **shot (injection)**. The medicine may also be placed as small implants under your



skin. The implant gives you a steady dose of medicine. Depending on the type of implant the medicine may last from one to 12 months.

Anti-androgens

Anti-androgens act like a brick wall. They block the small amount of testosterone made in your adrenal glands from reaching your prostate cancer cells. This keeps your prostate cancer cells from growing. These medicines are pills that are taken **orally** (by mouth) one to three times a day.



Before you begin taking hormone therapy medicines, your doctor and health care team will tell you:

- How these medications work.
- When to take the medication.
- How they need to be taken (by mouth or injection). And,
- How long you need to take them.

While these medicines are effective at controlling the growth of your prostate cancer, they do cause side effects or unwanted changes in your body. These side effects and how you can manage them will be talked about later in this booklet in the section “Are there side effects with hormone therapy.”

How Are Hormone Therapy Medicines Used?

Hormone therapy medicines may be used alone, with another type of hormone therapy, or with another type of prostate cancer treatment.

Monotherapy

Monotherapy is when only one type of hormone therapy medicine is used to lower the amount of testosterone in your body. Monotherapy can be effective in shrinking a prostate cancer tumor, slowing the spread of your prostate cancer, and relieving pain caused by your prostate cancer. Monotherapy may be used with neoadjuvant therapy or adjuvant therapy. Please read “When is Hormone Therapy Used for Prostate Cancer?” to learn more about neoadjuvant and adjuvant therapy.

Combination therapy

Combination therapy is when two different types of hormone therapy are used together to lower the amount of testosterone in your body. For example, an LHRH agonist might be used with an anti-androgen medication to keep your body from making any testosterone. This is sometimes called **Complete or Maximal Androgen Blockade (CAB or MAB)**. CAB may be used with neoadjuvant therapy to reduce the size of your prostate cancer. CAB may also be used to help lower the side effects of a medication. For example, men using an LHRH agonist

may experience a side effect call a “**tumor flare.**” This may happen when you start taking an LHRH agonist because it takes a week or two for your testosterone level to go down after you start taking this medicine. Your doctor may give you an anti-androgen for a week to ten days before you start taking your LHRH agonist to lower your risk of getting this side effect.

How Can I Lower My Testosterone with Surgery?

The majority of the testosterone in your body is made by your testicles. You can lower your testosterone with an operation called an orchiectomy. An orchiectomy is a simple and effective way to lower the amount of testosterone in your body. However, it is a permanent form of hormone therapy.

Your surgery

Before your orchiectomy, you will be given **anesthesia**. Anesthesia is a medicine given to you by an **anesthesiologist** so that you do not feel pain during your operation. An anesthesiologist is the doctor who gives you medicine to make you sleep during the surgery and who carefully watches you during the operation. Your doctor will make a small cut (**incision**) in your scrotum and remove your testicles. Most men who have an orchiectomy go home the same day of their surgery. Your penis and **scrotum**, the pouch of skin that holds your testicles, will not be damaged during this operation. It will take you about two weeks to heal from the surgery.

Some men are concerned about how their body will look after their testicles are removed. There are **testicular prostheses (pros-thee-sez)**, or **artificial testicles**, that can be placed in your scrotum to replace the testicles removed during your

surgery. The prostheses make your scrotum look like it did before surgery. If you are concerned about how your body will look, speak with your doctor or health care team about artificial testicles.

After surgery

Your scrotum may feel a little bit sore and may be swollen. You will be given medicines to relieve the soreness. You may use ice packs for the first day or two after your orchiectomy to help with the swelling. Remember, do not put the ice pack directly on your scrotum. Put a towel or piece of clothing over your scrotum, then place the ice pack on top of it. You will need to keep your incision clean and dry. Your doctor and health care team will tell you how to clean your incision. You will need to avoid heavy lifting or hard activity for one to two weeks following your surgery.

Follow-up tests

After your orchiectomy, your doctor and health care team will do simple blood tests to check your PSA (Prostate-Specific Antigen) level and to make sure that you do not have **anemia**. Anemia is when you do not have enough **red blood cells** to carry oxygen throughout your body. Your doctor may also order a test to check for **osteoporosis** (os-tee-oh-puh-roh-sis). Osteoporosis is a very common side

effect from hormone therapy. When your testosterone level drops it can weaken your bones making them brittle and easier to break.

Possible side effects

An orchiectomy causes sudden hormone changes in your body. This can cause you to have a variety of side effects. These side effects will be talked about later in this booklet in the section, “Will there be side effects with hormone therapy?”

More hormone treatment

When your testicles are removed, the amount of testosterone your body makes is greatly lowered. However, small amounts of testosterone are still made in your adrenal glands. Your doctor may decide to give you an anti-androgen to stop your adrenal glands from making testosterone.

Are There Side Effects with Hormone Therapy?

Yes, there are side effects or unwanted changes in your body caused by hormone therapy. Side effects are different from person to person, and may be different from one treatment to the next. Some people have no or very mild side effects. The good news is that there are ways to deal with most of the side effects.

The side effects that you have depend on:

- The type of hormone therapy you are taking, and
- Your general health

The side effects you have from hormone therapy may be acute or chronic. **Acute side effects** are sometimes called "early side effects." These types of side effects happen soon after the treatment begins and usually go away after you finish your hormone therapy. Other side effects are called **chronic side effects** or "late side effects." These side effects may happen several months after you start hormone therapy.

In order to reduce your chance of having side effects, your doctor may give you **intermittent (on-again, off-again) hormone therapy**. If you are on intermittent hormone therapy, your doctor and health care team will carefully watch your PSA

(Prostate-Specific Antigen) level. As it begins to go up, you are given hormone therapy medicine to lower your PSA. Another way for you to get intermittent hormone therapy is to take a medicine for a set period of time and then stop for a set period of time. For example, you may take a medicine for six months, stop for six months, and then start again for six months.

What Side Effects May I Have After I Start Hormone Therapy?

The side effects that you may have after you start hormone therapy include:

erectile dysfunction or impotence (difficulty in getting or keeping an **erection**), lower sexual desire (**libido**), hot flashes, **fatigue** (or **tiredness**), weight gain, breast enlargement, osteoporosis, anemia, memory loss, and **cardiovascular** (**kahr-dee-oh-vas-kyuh-ler**) problems.

The following side effects can happen as soon as you start your treatment.

Erection problems (impotence)

Difficulty getting or keeping an erection is a common side effect of hormone therapy for prostate cancer. This is also called impotence. Hormone therapy lowers the amount of testosterone in your body or stops your body from making testosterone.

Lower sex drive (libido)

Testosterone is a hormone that makes you interested in sex. With hormone treatment, you may find that you are not interested in sex. Some men on hormone therapy say that their sexual desire is still strong, but they have problems getting an

erection. Or they may have problems reaching orgasm.

These side effects are common with all forms of hormone therapy but are different from man to man. Some men are able to feel desire and have erections and orgasms. Your ability to have an erection and your interest in sex may get better several months after your hormone treatment ends. It may be possible for you to have erections again once the treatment stops. This can take three months to a year, or even longer, after you stop the treatment. It depends on the type of hormone therapy you had. Your doctor or healthcare team will speak with you about what might work best for you if you have erectile dysfunction. For more information please read the IMPACT patient education booklet, “Dealing with Erectile Dysfunction During and After Prostate Cancer Treatment.”

Hot flashes and sweating

Hot flashes and sweating are a very common side effect of hormone therapy. They can be upsetting. They are the same as the hot flashes women friends and relatives may have had when going through menopause. Hot flashes happen when your body suddenly feels warm and may begin to sweat, even if the temperature in the room has not changed. When you have a hot flash your face may become



flushed and bright red. After a hot flash you may get very cold before you begin to feel a normal temperature again. Hot flashes are caused by your testosterone levels dropping. They may slowly get better as you get used to the treatment. Hot flashes are most common with LHRH agonists, since these medicines stop your body from making testosterone. Unfortunately, in some men hot flashes keep on happening as long as you take the medicine. If hot flashes are a problem for you, ask your doctor or health care team about prescription medicines or alternative medicine approaches to help you. There are also things you can do to make your hot flashes better:

- Stay away from alcohol and caffeine.
- Try not to smoke. The **nicotine (nik-uh-teen)** in tobacco products can actually make your hot flashes worse.
- Try to exercise regularly. While it seems that exercising would actually cause you to overheat, research studies have shown that exercise may lower the number of hot flashes you have and how long they last.
- Avoid spicy foods.
- Avoid eating large meals.
- Keep your room at a cool, comfortable temperature.
- Have a fan nearby at night or close to you if you start to have a hot flash.

- To avoid **night sweats**, which are really hot flashes that occur in your sleep, wear cotton pajamas and avoid satin or all polyester sheets.
- Wear layers of clothes so you can easily take off or put on a layer to adjust your temperature.
- Wear cotton clothes, as they absorb sweat better than man made fabrics like polyester and don't make you feel cold when they get wet.
- Drink at least eight glasses of healthy liquids or water each day unless your doctor or health care team gives you other directions. For most people, healthy liquids to drink are water, milk, and drinks that do not have caffeine.
- Take warm baths or showers instead of very hot baths or showers.

Breast tenderness or growth

Some men may find that their chest becomes sore and that their breasts get a little bit swollen. This is called **gynecomastia (gahy-ni-koh-mas-tee-uh)**. There are medicines and treatments that your doctor or health care team can give you to help with this side effect.

Fatigue

The drop in your testosterone level may make you feel very tired.

You may feel tired all the time or you may get tired more easily

when you do your daily activities. This is known as fatigue or tiredness. There are things you can do to help deal with this treatment side effect.



- Remember to get plenty of rest, but don't lie in bed or sit in a chair more than you have to. Too much rest can lower your energy level. In other words, the more you rest, the more tired you will feel. If you have trouble sleeping, talk to your doctor or health care team.
- Activity helps you fight fatigue.
- Try to plan your day so that light activities (eating, sitting, watching television, or reading) are spaced between activities that take more of your energy.
- Keep a regular sleep schedule. Go to bed the same time each night, even if you don't feel sleepy. If you never watched late-night TV before, don't start now. Don't sleep or nap after supper. Don't "sleep in" more or longer than you used to.
- Naps can be good if they last for short amounts of time (not longer than 30 to 40 minutes).

- Fatigue can also be caused by pain that is not well controlled or by not sleeping well at night (**insomnia**). Report any pain you have or trouble sleeping to your doctor or health care team.
- Try activities such as meditation, prayer, yoga, **guided imagery**, or **visualization**. These activities may help lower your fatigue.

Tumor flare pain

Tumor flare pain can worsen when you start hormone treatment and is very common when you take an LHRH agonist. Tumor flare may happen when you start taking an LHRH agonist because it takes a week or two for your testosterone level to go down after you start taking this medicine. Your doctor may give you an anti-androgen for a week to ten days before you start taking your LHRH agonist to lower your risk of getting this side effect. If your pain continues, your doctor or health care team can give you medicines to treat it.

The following side effects may happen if you take hormone treatment for a long period of time. These are:

Weight gain

While you are on hormone therapy you may put on weight. When you have less testosterone, you may lose muscle mass and increase your body fat. This can make it hard to keep your weight down. Watching your diet and exercising regularly may help. Speak with your doctor or health care team if you need help on how to eat healthy or what exercises you can do.



Memory problems

Some men feel that their memory gets worse when they've been on hormone treatment for a while. This will not get better while you are taking the hormone treatment, but should get better once you stop hormone therapy. It is natural to feel cheated and upset if you have this particular side effect. There are things you can do to help yourself if you are having memory problems:

- Keep your brain healthy. Exercise your brain by trying new games, recipes, languages, driving routes, technology and other new skills.
- Make lists so you don't forget things.
- Try to eat a healthy diet.
- Get plenty of rest.
- Try to exercise regularly.

- Try activities such as meditation, prayer, yoga, guided imagery, or visualization. These activities may help lower your stress level and improve your memory.
- Talk to your doctor or health care team if you feel this is having a major effect on your life.

Anemia

Anemia is when you do not have enough red blood cells to carry oxygen throughout your body. The oxygen your red blood cells carry is the fuel your body needs to stay active. There are things you can do to help deal with this treatment side effect:

- Sleep more at night and take short naps or rest during the day if you can.

Feeling tired is one of the most common side effects of anemia.

- Naps can be good if they last for short amounts of time (not longer than 30 to 40 minutes at a time).

- Drink at least eight glasses of healthy liquids or water each day unless your doctor or health care team gives you other directions. This will help keep you from feeling dizzy when you stand or sit up. It also will help your muscles feel stronger.



- Eat a healthy diet to keep up your strength. Speak to your doctor or health care team about what to eat.
- Speak to your doctor or health care team about medicines you can take to help manage your anemia.

Bone thinning (osteoporosis)

Men who get hormone therapy for long periods of time may develop thinning of the bones. As your testosterone level drops, it can weaken your bones making them brittle and easier to break. Your doctor may follow the density of your bones during hormone therapy and give you medicines to keep you from having problems from osteoporosis.

There are several ways you can help to lower your osteoporosis risk

- Make sure you get enough calcium in your diet. The main source of calcium in our diets comes from dairy products, such as milk,



cheese and yogurt. If you don't eat dairy foods, calcium is also found in green vegetables, such as cabbage, broccoli and okra, Soy products, including tofu, fish such as sardines and salmon, nuts, dried fruit, and whole wheat breads and cereals. In order for your body to use calcium, you also need vitamin D. Your body needs sun to make vitamin D. If you like being outside, then you will probably get enough sun during the summer months to give you a vitamin D supply for a year. Remember, if you are out in the sun, use sunscreen to protect yourself against skin cancer. Vitamin D is found in margarine, oily fish, such as salmon, and egg yolk. Your doctor may suggest taking a supplement of 400 units of vitamin D and 500 mg of calcium in addition to the calcium you get from your daily diet.



- Cut down on caffeine and alcohol. These can keep your body from getting the calcium it needs to strengthen your bones.
- Don't smoke.
- Try to exercise regularly. Exercise is important for bone health. The best type of exercises for your bones are **weight bearing** exercises. Weight bearing exercises are any activities that you do on your feet that work your bones and muscles against gravity. This help your bones and muscles

become stronger. If you already take part in sports, that's great.

But many of us exercise regularly. The best way to start to tackle this is to try and bring exercise into your daily life. Walking is good. So are household activities such as cleaning, gardening, shopping or even going up and down stairs. Or you could join an exercise group or class. It doesn't have to be very energetic.



Gentle controlled exercise such as Tai Chi can be very good for you.

Swimming is not a weight bearing exercise. When you swim, the water supports your weight. Although swimming doesn't help, exercise classes that you take at the swimming pool can. Walking and exercising in the pool is quite hard work because of the resistance of the water.

The most important thing is that you get into the habit of exercising; however you choose to do it. Speak to your doctor or health care team before starting any new exercise.

Cardiovascular problems

Cardiovascular problems are related to your heart and your blood vessels.

When your testosterone level drops your blood pressure and cholesterol may increase. This can put you at risk for cardiovascular problems such as a heart attack. The longer you are on hormone therapy the greater your risk is. Your doctor and health care team will carefully watch you for cardiovascular problems while you are on hormone therapy.



Will Side Effects Limit What I Can Do?

What you are able to do will depend on which side effects you have and how bad they are. Many men are able to work, cook meals, and enjoy their usual daily activities when they have hormone therapy for their prostate cancer. Other men find that they need more rest than before they started hormone therapy so they can't do as much. You should try to keep doing the things you enjoy as long as you don't get too tired.

How Might I Feel During Hormone Therapy?

Nearly all men being treated for prostate cancer say that they feel emotionally upset at different times during their hormone therapy. It's not unusual to feel anxious, depressed, afraid, angry, frustrated, alone, or helpless. Hormone therapy may affect your emotions because it lowers the amount of testosterone in your body.

Some men find it helps to learn about their disease and treatment because it makes them less afraid of their treatment. Find out as much as you want to know. Do not be afraid to ask questions. Your emotional health is as important as your physical health.

Talking with an understanding friend, relative, minister or another patient may be helpful. Your doctor's office may be able to give you a list of local prostate cancer support groups. There will be men in the support groups who have had hormone therapy. You may also contact the American Cancer Society at 1-800-227-2345 or the National Cancer Institute's Cancer Information Line at 1-800-422-6237 to find out about cancer resources in your local community.

Many people don't understand prostate cancer or its treatment. They may stay away from you because they're not sure what to say or how to help. Try to be open when you talk to other people about your illness, treatment, needs, and feelings. People will often be willing to lend their support. If you get tired easily, limit your activities and do only the things that mean the most to you.

It is ok if you want to find out about other prostate cancer treatments or ways to help manage the side effects from your treatment besides the ones your doctor tells you about. You might like to try new things to help you deal with treatment and its side effects, such as meditation or **relaxation** exercises. Make sure that you tell your doctor about other treatments, vitamins, or herbal medications you may take. Remember everyone needs some support during difficult times. Don't be afraid to ask for help from your doctor or health care team, during or after your treatment.

What Things Should I Think About Before Starting Hormone Therapy?

If you and your doctor are talking about hormone therapy as a way to control your prostate cancer, you should think about the following things:

- There are several kinds of hormone therapy. They work in different ways and have different side effects.
- Hormone therapy does not cure prostate cancer. It controls the growth of prostate cancer cells for a period of time.

Speak with your doctor or health care team about what kind of hormone therapy is best for you.

Will I Need To See My Doctor During and After Hormone Therapy?



Yes, you will need regular medical checkups while getting hormone therapy.

During these checkups your doctor will look at your medical history and give you a physical exam. Your checkup may include blood tests and imaging tests. For example:

- Some hormone therapy medicines can cause problems with your liver. So your doctor will watch your liver function with a blood test before you start treatment and at regular time points during the first four months of your treatment, and at regular times after that.
- Other hormone therapy medicines can cause you to get diabetes or become **insulin (in-suh-lin) resistant**. In this case, your doctor may watch your blood sugar during your treatment. Insulin is a hormone produced by your body that helps change the food you eat into energy. When you are insulin resistant your body needs to make more and more insulin. Over time, this can cause you to have diabetes.
- Some hormone therapy medicines can increase your risk for cardiovascular problems. When your testosterone level drops your blood pressure and cholesterol may increase. This can put you at risk for cardiovascular problems

such as a heart attack. Your doctor will watch your blood pressure and cholesterol.

- Your doctor will also check to make sure you don't have anemia. This is done with a simple blood test.
- Your doctor may also order a bone density test to check if you have osteoporosis.

Imaging studies are ways used by doctors to take pictures of the inside of your body, such as **x-rays** or a **CT Scan (also known as a CAT Scan)**.

These check-ups are important because:

1. They help your doctor find any changes in your health, and
2. They help you and your doctor make a plan to deal with any side effects from your hormone therapy.

All men who have treatment for their prostate cancer should have regular checkups.

What Should I Tell My Doctor During My Checkups?



During each visit, you should tell your doctor about any:

- **Symptoms** (signs of being sick) that you have
- Pain that bothers you
- Problems that keep you from doing your daily activities, such as fatigue (**tiredness**), hot flashes, pain, problems with your **bladder**, bowel, or ability to have sex, trouble sleeping, and weight gain or loss
- Medicines, vitamins, or herbs or over-the-counter products you are taking and any other treatments you may use
- Emotional worries you may have, such as **anxiety** or **depression**

It is important for you to look out for changes in your health and to tell your doctor or health care team so that they can help you.

Planning Before You Start Hormone Therapy

- What type of hormone therapy will you use?

- If you are taking medicine for your hormone therapy, what kind of medicine are you taking and how often do you need to take it?
Write down the medicine, the dose, and when you need to take it.

Medicine	Dose	When to take Medicine

- If you are having an orchiectomy where do you need to go, when will you have your surgery? Write down the place and your appointment time.

Hints for Talking with Your Doctor

These tips may help you keep track of the information you and your doctor talk about during your visits:

- Make a list of questions you want to ask your doctor before your appointment.
- Bring a friend or family member to sit with you while you talk with your doctor. Some people get very nervous when they visit their doctor. Sometimes you can't remember everything that you talk about with your doctor. A friend or family member can help you remember what you and your doctor talked about.
- You, or the person who goes with you, may want to take notes during your appointment.
- Ask your doctor to slow down if you need more time to write down your notes.
- You may want to ask your doctor if you can use a tape recorder during your visit. Take notes from the tape after your visit is over. This way, you can review your talk with your doctor as many times as you want.



Questions To Ask Your Doctor

These questions may be useful to you when you talk to your doctor about your hormone therapy:

About hormone therapy

- Why are you suggesting hormone therapy for me?
- What type of hormone therapy will be used?

About your treatment

- How often will I need this medicine?
- How long will I be on hormone therapy?
- Are there other choices of treatment in my case?
- Will I need regular blood tests while I am on hormone therapy?
- What will these tests tell us?
- Do I need to eat a special diet?
- Should I exercise?

About Side Effects

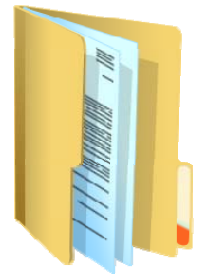
- Will I lose my sex drive and become impotent? Will this be temporary or will it last forever?
- What other side effects might I have?
- How long will these side effects last?

- When will these side effects happen?
- Are there any side effects I should tell you about right away?
- What can I do to manage my side effects?

About Contacting Your Doctor

- How do I get in touch with you or my health care team after your office is closed?

What Kinds Of Medical Information Should I Keep?



It is important for you to keep a copy of your prostate cancer treatment records. You may not always see the same doctor for your follow-up care, so having this information to share with another doctor can be very helpful. The following is a list of medical information you may want to keep.

- The results of any tests you have taken such as your **Prostate-Specific Antigen (PSA) test**.
- When you found out you had prostate cancer.
- Information on the kinds of treatment you have had for your prostate cancer including:
 - The places and dates where you had your treatment.
 - What type of treatment you had. And,
 - Any medicines you took before, during, and after your prostate cancer treatment.
- Contact information for all your doctors and the other members of your health care team who helped with your prostate cancer treatment and follow-up care.
- Any side effects or problems you had during and after your prostate cancer treatment.

- Any **supportive care** you got during your treatment. Supportive care is treatment given to keep, control, or make your side effects better and to make your life better. For example, pain medicine, emotional support, and nutritional supplements.

Remember, you have the right to copies of all your medical paperwork and the actual slides, x-rays and any other information about your health care and treatment. A good idea would be to create two copies of your medical information and keep them in folders. Keep one folder at home and take the other one with you to your doctors' appointments.

Whenever you see a new doctor, it is important for you to let them know about your prostate cancer and any treatment that you have had.

What Have I Learned By Reading This Booklet?

In this booklet, you learned about:

- What hormone therapy is
- Why you may need hormone therapy
- How hormone therapy works
- Ways to get hormone therapy
- What to expect when you have hormone therapy
- What side effects you may have from hormone therapy

If you have any questions, please talk to your doctor or healthcare team. It is important that you understand what is going on with your treatment. This knowledge will help you take better care of yourself and feel more in control so that you can get the most from your treatment.

Key Words

Acute side effects (or early side effects): side effects that happen soon after your treatment starts and are usually gone within a few weeks of finishing your treatment.

Addicted: when you become dependent on a substance such as alcohol or nicotine.

Adjuvant (add-ju-vent) hormone therapy: hormone therapy given to you at the same time you have your main prostate cancer treatment.

Adrenal gland: Glands are located on top of each kidney which make a small amount of testosterone.

Androgen deprivation therapy (or hormone therapy): A cancer treatment that lowers the amount of testosterone in your body.

Anemia: when you do not have enough red blood cells to carry oxygen throughout your body.

Anesthesia: the medicine the doctor gives you to help you sleep or numbs your body so that you don't feel pain when you have an operation.

Anesthesiologist: a doctor who gives you anesthesia and carefully watches you during an operation.

Anti-androgen: a hormone therapy medicine which blocks the testosterone made in your body from reaching your prostate cancer cells.

Anxiety: state of worry and nervousness.

Artificial testicles: Silicone or saline implant placed in your scrotum.

Biopsy: The removal and examination of a sample of tissue.

Bladder: the organ in your body that holds your urine until you urinate (pee).

Cardiovascular: related to your heart or blood vessels.

CAT Scan (also known as a CT Scan): a special kind of X-ray machine that takes pictures of your body from many different views at one time.

Chronic side effects (or late side effects): side effects that happen months or years after your treatment ends and are usually permanent.

Combination therapy: the use of two different types of hormone therapy together to lower the amount of testosterone in your body.

Complete Androgen Blockade (CAB) (or combination therapy or Maximal Androgen Blockage): the use of two different types of hormone therapy together to lower the amount of testosterone in your body.

Course: a series of doses or amounts of medication.

CT Scan (also known as a CAT Scan or Computerize Axial Tomography scan): a special kind of x-ray machine that takes pictures of your body from many different views at one time.

Depression: a state of sadness or low spirits.

Digital Rectal exam (DRE): an exam done for men as part of a complete physical examination to check the prostate gland.

Dose: amount of medicine.

Early side effects (acute side effects): side effects that happen soon after your treatment starts and are usually gone within a few weeks of finishing your treatment.

Erectile dysfunction: When a man's penis does not get hard enough for him to have sex.

Erection: When your penis is hard enough to have sex.

Fatigue: mental or physical tiredness.

Glands: groups of cells in your body that make and release materials needed by your body.

Gleason score: The Gleason score tells what your prostate cancer cells look like compared to healthy cells and gives an idea of how quickly your cancer is growing.

Grade: description of what your prostate cancer cells look like.

Guided imagery: A relaxation method in which the person focuses on positive images in his mind.

Gynecomastia (gahy-ni-koh-mas-tee-uh): the enlargement of breast tissue or breast pain caused by hormone treatment.

Hormone dependent (or hormone sensitive): cancer that uses a hormone in your body to grow.

Hormone refractory prostate cancer: When hormone treatment fails and prostate cancer cells begin to grow again.

Hormone sensitive (or hormone dependent): cancer that uses a hormone in your body to grow.

Hormone therapy (or androgen deprivation therapy): A cancer treatment that lowers the amount of testosterone in your body.

Hormone: Substance made by your body which control or manage your body's activities.

Imaging test: ways used by doctors to take pictures of the inside of the body. Some ways to take these pictures are x-rays and CT scans.

Implant: Hormone medicine that is put under your skin so that you get a constant dose of medicine for a set period of time, usually one year.

Impotence: When a man's penis does not get hard enough for him to have sex.

Incision: Small cut made by a surgeon during an operation.

Injection (or shot): Medicine given by a shot.

Insomnia: a long period of time when you cannot get enough sleep.

Insulin (in-suh-lin): a hormone produced by your body that helps change the food you eat into energy.

Insulin resistant: when your body needs to produce more and more **insulin** in order to change the food you eat into energy.

Intermittent hormone therapy: On-again, off-again hormone therapy. When you take hormone medication for set periods of time and then stop and then start again.

Late side effects (or chronic side effects): side effects that happen months or years after your treatment ends and are usually permanent.

LHRH agonist: A hormone therapy medication which shuts off the production of testosterone in your testicles.

Libido: Your sex drive.

Luteinizing-hormone releasing hormone (loo-tee-uh-nahyz-ng): A normal human hormone that tells your body to make testosterone

Maximal Androgen Blockade (MAB) (or combination therapy or Complete Androgen Blockade): the use of two different types of hormone therapy together to lower the amount of testosterone in your body.

Monotherapy: the use of only one type of hormone therapy medicine to lower the amount of testosterone in your body

Neoadjuvant (nē-o-aj-uh-vuh nt) hormone therapy (or pre-therapy): a course (a series of doses or amounts of medication) of hormone therapy prior to the start of your main prostate cancer treatment.

Nicotene: A substance in tobacco products to which smokers can become **addicted**.

Night sweats: hot flashes that happen when you are sleeping.

Orally: Taken by your mouth.

Orchiectomy: a form of hormone therapy in which your testicles are removed during an operation.

Osteoporosis (os-tee-oh-puh-roh-sis): A weakening or thinning of your bones which makes them brittle and easier to break.

Outpatient: visits to the hospital or treatment center where you do not need to stay overnight.

Pathologist: A specially trained physician who reviews biopsy results in order to find changes in your body caused by cancer

Pre-therapy or [Neoadjuvant (nē-o-aj-uh-vuh nt) hormone therapy]: a course (a series of doses or amounts of medication) of hormone therapy prior to the start of your main prostate cancer treatment.

Prostate-Specific Antigen (PSA) test: a blood test used to measure a protein made by the prostate gland, which shows if there is cancer.

Radiation therapy: a cancer treatment that uses high energy beams, such as x-rays, to kill cancer cells and to stop them from spreading.

Recur: to come back

Recurrence: when your cancer comes back.

Red Blood Cells: cells in your blood that carry oxygen from your lungs throughout your body.

Relaxation: a way to lower your stress and anxiety.

Salvage hormone therapy: hormone therapy given to you after your prostate cancer recurs.

Scrotum: The pouch of skin that holds your testicles.

Sex drive: Your Libido.

Shot (or injection): Medicine given by injection.

Side effects: unwanted changes that may occur in your body during or after prostate cancer treatment.

Stage: Tells how much prostate cancer you have and where your cancer is located.

Supportive care: Treatment given to keep, control, or make better the side effects a person has from his/her cancer treatment and to make the life of this person better.

Symptoms: a sign of being sick.

Testicles: Glands found in your scrotum that make the most of the testosterone in your body.

Testicular prostheses: Silicone or saline implant placed in your scrotum.

Testosterone: Male hormone that is made in the testes and is needed for erection to happen and for a man to be interested in sex.

Tiredness: mental or physical fatigue.

Tumor flare: An increase in cancer pain due to the start of hormone therapy.

Tumor: abnormal tissue growth.

Visualization: A relaxation method in which the person forms positive images in his mind.

Weight bearing exercises: activities done on your feet in order to work your bones and muscles against gravity.

X-ray: an imaging test that uses radiation to take a picture of the inside of your body.