Intensity Modulated Radiation Therapy (IMRT)

And You

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 health care provider or health insurance provider.
This education material was made possible by a Grant from the California Department of Justice, Antitrust Law Section, from litigation settlement funds to benefit Californians diagnosed with cancer or their families.
Table of Contents

What Will I Learn By Reading This Booklet? ................................................. 4
What Is IMRT (Intensity Modulated Radiation Therapy)? .............................. 5
Who Will Help me During My IMRT Treatments? ......................................... 6
What Do I Need To Do To Get Ready For My IMRT Treatment? ................. 9
How Long Does IMRT Treatment Last? .......................................................... 14
What Will Happen During My Daily IMRT Treatments? ............................... 15
What Will Happen After My Daily IMRT Treatments? ................................ 17
When Should I Call the Doctor? .................................................................... 17
Are there Side Effects With IMRT? ............................................................... 19
What Side Effects May I Have During Or After My IMRT Treatments? ....... 21
    Urinary Problems.................................................................................... 21
    Bowel Problems.................................................................................... 23
    Erectile Dysfunction............................................................................. 26
    Skin Problems...................................................................................... 26
    Fatigue Or Tiredness............................................................................ 28
    Loss Of Appetite.................................................................................. 29
Will Side Effects From IMRT Limit My Activity? ........................................ 32
What Can I Do To Take Care of Myself During IMRT? ............................... 33
Will I Be Able To Have Sex During And After IMRT? ................................. 35
Will I Be Able To Have Children After IMRT? ............................................ 36
Will I Need To See My Doctor After My IMRT Treatment Is Over? .......... 37
What Have I Learned By Reading This Booklet ............................................ 39
Key Words ...................................................................................................... 40
What Will I Learn By Reading This Booklet?

You and your doctor may be talking about using IMRT (intensity modulated radiation therapy) to treat your prostate cancer. It is important for you to learn about IMRT 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 about the following:

- What IMRT is
- How you get ready for IMRT
- What to expect when you have IMRT
- Possible side effects (or unwanted changes in your body) of IMRT
- How you can take care of yourself before, during, and after IMRT

It is important to think about how you will work these things into your everyday life if you and your doctor decide that IMRT is the best way to treat 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 IMRT (Intensity Modulated Radiation Therapy)?

IMRT is a type of external beam radiation therapy. With IMRT your doctor uses a computer to plan the exact dose (or amount) of radiation that is aimed at your prostate cancer. The computer uses information about the size, shape, and location of your prostate cancer to figure out how much radiation is needed to kill your prostate cancer cells. IMRT uses high doses (or amounts) of radiation to kill your prostate cancer cells while protecting the healthy cells that surround your prostate cancer.
Who Will Help Me During My IMRT Treatment?

Many people will help you with your IMRT treatment and care. This group of health care providers is often called your "radiation therapy team." They work together to give you care that is just right for you. Your radiation therapy team includes a:

- **Radiation oncologist.** This is a doctor who uses radiation therapy to treat patients with cancer. Your radiation oncologist:
  - Will decide how much radiation you will get for your prostate cancer treatment
  - Plans how your prostate cancer treatment will be given
  - Closely follows you during your prostate cancer treatment
  - And, directs any care you need to help with any side effects (unwanted changes in your body) you may have during and after your prostate cancer treatment

The radiation oncologist will work with the other doctors, nurses, and health care providers on your team. After your treatment is over, your radiation oncologist will see you for follow-up visits. At these visits, your radiation oncologist will find out how well the radiation worked
to treat your prostate cancer and will help you with any side effects (unwanted changes in your body) that you may have.

- **Radiation physicist** (fiz-uh-sist). This person will make sure that the **linear** (li-ne-her) **accelerator** (ak-sel-ah-ra-ter) is working correctly. A linear accelerator is a machine that aims radiation at your prostate cancer during your IMRT treatment.

- **Dosimetrist** (doh-sim-i-trist). This person works with your radiation oncologist and the radiation physicist to make sure that you are given the right amount of radiation for the right amount of time. The dosimetrist helps plan your treatment so that your prostate cancer cells are killed and your healthy cells are protected.

- **Radiation nurse**. This person will take care of you during your radiation therapy. The radiation nurse will work with all the members of your radiation therapy team. He or she will talk with you about
your radiation treatment and help you manage any side effects (unwanted changes in your body) from your treatment.

- **Radiation therapist.** This person works with you during each radiation therapy session. The radiation therapist:
  - Makes sure you are in the right position for your treatment, and
  - Runs the linear accelerator to make sure you get the dose of radiation set by your radiation oncologist

- **You.** You are also part of your radiation therapy team. Your role is to:
  - Be on time for all your IMRT appointments
  - Ask your doctor and health care team about any questions you have and to talk to them about your concerns
  - Let doctor and health care team know if you have any side effects (unwanted changes in your body)
  - Tell your doctor or health care team if you have any pain and
  - Speak with your doctor and health care team about how to take care for yourself during and after your IMRT treatments
What Do I Need To Do To Get Ready For My IMRT Treatment?

Getting ready for IMRT takes a great deal of planning. It can take two to three days for your radiation therapy team to plan your care. After giving you a physical exam and reviewing your medical history, your radiation oncologist will use different tools to plan your treatment. These tools will help your radiation oncologist decide the dose of radiation you need for your prostate cancer and how long your treatment will last.

Your radiation oncologist may send you to have one or more imaging tests to help plan where the radiation beams will be aimed. The imaging tests (ways used by doctors to take pictures of the inside of the body) your radiation oncologist will use to plan your treatment may include:

- **X-ray** – this test uses radiation to take a picture of the inside of your body. You may have seen a chest x-ray or x-ray pictures of your teeth or your bones.

- **CT (or CAT) Scan** – is a type of x-ray that uses a computer to make pictures of your prostate cancer and the area around your prostate. You may be given **contrast** through an I.V. (intravenous line) in your arm or
to drink by mouth. Contrast will help your prostate cancer show up better during the CT Scan.

- **MRI Scan (or Magnetic Resonance Imaging Scan)** – is a test that uses a large magnet to make pictures of your prostate cancer and the area around your prostate.

- **PET Scan (or Positron Emission Tomography Scan)** – is a test where you are given contrast before you have x-rays taken. The contrast will travel to the parts of your body where your prostate cancer is active. The x-ray will give your doctor a better picture of what your prostate cancer looks like.

After your imaging tests, your radiation oncologist will send you to the radiation therapist. The radiation therapist will use these tests to get you ready for your radiation therapy. The radiation therapist will take you through a process called **simulation** (sim-yuh-la-shuhn). Simulation is a rehearsal for your IMRT treatment. During simulation, you will be asked to lie very still on an examining table while the radiation therapist uses a special x-ray machine to define your **treatment area** (or **treatment field**). The treatment area is the exact place on your body where the radiation will be aimed. Simulation may take from 30 minutes to two hours.
Because IMRT aims radiation at a specific area, you need to be put in the same position each time you get radiation. The radiation therapist will often mark the treatment field on your skin with tiny dots of colored, permanent ink. These marks help your radiation therapist to aim the radiation in the same place each time you go for treatment. This is important to help make your treatment work well. If the dots appear to be fading, tell your radiation therapist who will darken them so that they can be seen easily.

Once your simulation is finished, your radiation oncologist will meet with the other members of your radiation therapy team. Based on the results of your medical history, any lab tests you have taken, and x-rays, your radiation therapy team will decide how much radiation you need to treat your prostate cancer and how many treatments you should have.

After you start your IMRT treatment, your radiation oncologist and the other members of your health care team will check how you are doing and how you are feeling at least once a week. When necessary, your doctor may change your prostate cancer treatment plan by changing the radiation dose or the number and length of your remaining radiation therapy sessions.
Your radiation nurse will be available at each one of your IMRT treatment sessions to talk with you about any concerns you have about your prostate cancer treatment and to answer any questions you may have. Be sure to tell your doctor or healthcare team if you have any side effects or if you notice any unusual symptoms (a sign of being sick).
Getting Ready For IMRT

- What imaging tests do you need? Write them down here. Include your appointment date(s) and time(s), and where you need to go.

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<th>Imaging Test</th>
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- When is your simulation appointment? Write down the date, time, and location of your simulation appointment.

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- When will your IMRT treatments start? Write down the date and time of your first appointment.

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How Long Does IMRT Treatment Last?

IMRT is usually given to you five days a week for four to eight weeks. The total dose of radiation and the number of treatments you need will depend on the size of your prostate cancer, your general health, and other medical treatments you may need.

Using many small doses (or amounts) of radiation each day rather than a few large doses (or amounts) helps protect your healthy cells in the treatment area. Weekend rest breaks let your healthy cells get better.

It is very important that you have all of your scheduled IMRT treatments. If you miss or put off your radiation treatments, your radiation therapy might not work as well as if you had all your radiation treatments.
What Will Happen During My Daily IMRT Treatments?

Before each radiation treatment, you may need to change into a hospital gown or robe. You should wear clothing that is easy to take off and put on again.

In the treatment room, you will be asked to lie down on the treatment table. Your radiation therapist will use the marks made on your skin during your simulation appointment to find the treatment area and to put you in the right position for your prostate cancer treatment. You will be in the treatment room about 15 to 30 minutes each time you go. You will only get radiation for one to five minutes. Getting IMRT is painless. It is just like having an x-ray taken. You will not hear, see, or smell the radiation.

The radiation therapist may put special shields (or blocks) between the machine and certain parts of your body to help protect your healthy tissues and organs. You need to stay very still during your treatment so that the radiation reaches only the area where it is needed and the same area is treated each time. You may breathe normally during your treatment.
The radiation therapist will leave the room before your prostate cancer treatment starts. The radiation machine is run from another area close to the treatment room. You will be watched on a television screen or through a window to make sure you are ok. You may feel alone, but your radiation therapist can see and hear you. They can even talk with you using an intercom (a way to talk between two rooms). If you feel ill or uncomfortable during the treatment, tell your radiation therapist right away. The radiation machine can be stopped at any time.

The machine used to give you your radiation treatments is very large, and makes noises as it moves around your body to aim at your treatment area from different angles. The machine may scare you at first. Remember that the machine is moved and controlled by your radiation therapist. If you have concerns about anything that happens in the treatment room, talk to your radiation therapist or health care team.
What Will Happen After My Daily IMRT Treatments?

You will be able to leave and do your normal daily activities after each treatment.

IMRT will not make you radioactive (ray-de-oh-ak-tiv) (a material that gives off high or low energy rays, such as x-rays). You do not need to stay away from other people because of your treatment. You won’t give people radiation if you hug, kiss, or have sex with them.
When Should I Call the Doctor?

You should call your doctor if you have:

- A pain that doesn't go away, especially if it's always in the same place
- New or unusual lumps, bumps, or swelling on your body
- Nausea, vomiting, diarrhea, or loss of appetite
- Unexplained weight loss
- A fever or cough that doesn't go away
- Unusual rashes, bruises, or bleeding
- Any symptoms (signs of being sick) that you are concerned about
- Any other warning signs mentioned by your doctor or health care team

If you have any of these signs talk to your doctor or health care team. There are medicines and treatments that can help you feel better. It is important that you talk to your doctor or health care team about any side effects you may have during or after your treatment. Your health care team can help treat these problems.

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**Are there Side Effects with IMRT?**

Yes, there can be side effects or unwanted changes in your body when you have IMRT. Side effects are different from person to person. Some people have no or very mild side effects. Some have bothersome side effects that may last for only a short period of time. Other men may have side effects that last for a longer period of time or forever. Some side effects occur within days or weeks of your treatment and others may not happen for six or more months after your treatment.

The side effects that you have depend on:

- The radiation dose you get during your prostate cancer treatment, and
- Your general health

Before beginning your treatment, your doctor and health care team will talk with you about the side effects you might have, how long they might last, and what you can do to help make them better.

The good news is that most side effects will go away in time. When you do have side effects, there are ways to make you feel better. If you have a side effect that is really bad, your doctor may stop your radiation therapy for a short time or change your treatment in some way.
Be sure to tell your doctor or health care team about any side effects that you have.
They can help you treat the problems and tell you how to lower the chances that
the side effects will come back.
What Side Effects May I Have During Or After My IMRT Treatments?

There are several side effects that you may have during or after your IMRT treatments. They are urinary problems, bowel problems, erectile dysfunction or impotence (difficulty in getting or keeping an erection of the penis), skin problems, loss of appetite and tiredness. Remember, that IMRT treatments are focused on your prostate cancer. This protects the healthy cells around your prostate, which means you may have fewer side effects and that the side effects you do have won’t be as bad.

The urinary problems you may have are:

- **Burning Feeling When You Urinate (Pee)**

  You may find that you have a burning feeling when you urinate (pee). This is called urethritis (yur-i-thri-tis). This is very common in men who have IMRT. This burning feeling can be very uncomfortable and may last up to two months after you finish your prostate cancer treatment. This feeling should go away with time. There are medicines you can take to make you feel more comfortable. Talk to your doctor or health care team if you have a problem like this.
• **Difficulty Urinating (Peeing)**

You may find that you have trouble urinating (peeing). You may need to urinate (pee) more than you usually do. This is called **frequency**. You may also have a sudden need to urinate (pee). This is called **urgent urination**. You may also feel like you need to urinate all the time, but when you try no urine comes out. Talk to your doctor or health care team if you have a problem like this. Your doctor may give you medicine to help you.

There are things you can do to help manage these side effects:

- Drink at least eight 8-ounce glasses of water a day during your IMRT treatments and for two to three weeks after your treatment is over. Try not to drink too much in the evening and before you go to bed so you can rest during the night.

- Stay away from acidic foods such as orange juice, lemon juice, coffee and colas.

- Don’t drink alcohol unless your doctor says it is ok.

- Don’t drink **carbonated** drinks.

- Stay away from chilies and spicy foods.
- Do not to eat chocolate.
- Stay away from drinks with caffeine such as coffee, tea, or colas.

The bowel problems you may have are:

- **Soreness in your rectal area**
  You may have soreness in your rectal area. This usually goes away by itself. If you are very sore, let your doctor or health care team know. There are medicines and things that you can do to be more comfortable.

- **Rectal Urgency**
  **Rectal urgency** is a feeling that you have to have a bowel movement.

- **Rectal Bleeding**
  Rectal bleeding is a very common side effect of external beam radiation therapy. If you have rectal bleeding, you will see red blood in your **stool** when you go to the bathroom. If you have rectal bleeding, let your doctor or health care team know. There are medicines that can help you.

- **Hemorrhoids**
  You may find that your radiation therapy causes you to have **hemorrhoids**. If you already have hemorrhoids, radiation therapy may make them worse. Hemorrhoids are swollen veins around your anus, which are itchy or painful. There are medicines you can take to help you.
- **Diarrhea**

Diarrhea is when you have loose and runny bowel movements three or more times in one day. The radiation you are given can affect the healthy cells in your body, including the cells that line the inside of your intestines. Your intestines help your body to take in food, water, and other liquids. If your radiation treatments affect the cells that line the inside of your intestines, they cannot take food and water into your body very well. The food and water stay in your intestines. This causes diarrhea. If you have diarrhea, you should tell your doctor and health care team right away. If your diarrhea is untreated, you may become **dehydrated** (when your body looses too much fluid). There are medicines that your doctor or health care team can give to you that will make your diarrhea better. There are things you can do to help deal with this treatment side effect.

- Do not take any **over-the-counter** medicines (medicines you buy without a prescription from your doctor) for your diarrhea without talking to your doctor or health care team.
- Drink at least eight 8-ounce glasses of water a day. It is important to put back the fluids you lose.
- Drink beverages and eat foods that are "clear," such as apple juice and ginger ale, soup broth, popsicles, and Jell-O®. These are usually gentler on your stomach and easier to digest.

- Eat foods that are gentle on your bowels like ripe bananas, grated apples, applesauce, boiled white rice, smooth peanut butter, skinless chicken or turkey, creamed cereals, tapioca, fish, washed, peeled fruit like apples, peaches, nectarines, mashed or baked potatoes without the skin, cooked vegetables, angel food cake, graham crackers, and vanilla wafers.

- Stay away from raw vegetables and vegetables that are hard to digest, such as broccoli, cabbage, cauliflower, and corn.

- Stay away from spicy foods, such as chili.

- Stay away from high-fiber foods, such as whole grain products (cereals, breads) and foods containing bran (bran muffins). These foods tend to speed up your digestion (when your body breaks down the food you eat so your body can use it) and can make your diarrhea worse.

- Eat small meals throughout the day instead of three large meals.

- Keep your anal (the area around your anus which is the opening through which stool passes out of your body) area clean and moist.
to prevent skin irritation. After each bowel movement, wash your anal area with warm water and gently pat dry.

- Write down how many runny bowel movements you have in a day and report this to your doctor.
- Speak to your doctor and health care team about medicines you can take to help you.

**The erectile dysfunction (or impotence) problem you may have is:**

- **Fewer erections**

  Most men do not have problems with erections or intercourse (having sex) during or right after IMRT. Over time, you may find that you are not having as many erections as you used to. This is because the radiation can harm the nerves near your prostate that help you have erections. Talk to your doctor or health care team if you have a problem like this.

**The skin problems you may have are:**

- **Irritated skin.**

  Your skin in the treatment area may become red or irritated. It may look as if it is sunburned or tanned. After a few weeks of treatment, your skin
may get very dry from the radiation therapy. Talk your doctor or health care team about how to relieve any itching or discomfort you have.

You may also get a *moist reaction,* in your treatment area. This is very common on parts of the body where there are skin folds. When you have a moist reaction, your skin is wet and can be very sore. Tell your doctor or health care team if your skin develops a moist reaction. They can tell you how to take care of this side effect.

During your IMRT treatments you will need to be very gentle with the skin in the treatment area.

- When you wash, use only lukewarm water and mild soap; pat dry.
- Do not wear tight clothing over the area.
- Do not rub, scrub, or scratch the skin in the treatment area.
- Try not to put anything that is hot or cold, such as heating pads or ice packs, on skin in your treatment area.
- Ask your doctor or health care team about things you can use on your skin that won’t cause skin irritation. Do not use any powders,
creams, body oils, ointments, lotions, or home remedies on your treatment area while you are being treated and for several weeks afterward unless your doctor or health care team says it is ok.

- Do not apply any skin lotions within two hours of a treatment unless your radiation nurse says it is ok.

Another problem you may have is:

- **Fatigue or tiredness**

You may feel more tired than usual during and after your IMRT treatments. You may feel tired all the time or you may get tired more easily when you do daily activities. This is a common side effect of IMRT treatment. There are things you can do to help deal with this side effect.

- Remember to get plenty of rest. Plan for times to rest during the day.

- 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.
- Drink plenty of fluids. Try to drink at least eight 8-ounce glasses of water each day.
- Eat a healthier diet. A healthy diet helps you keep up your strength, prevents body tissues from breaking down, and rebuilds tissues that the cancer treatment may have harmed.
- Stay away from drinks with caffeine in them before you rest.

If you have trouble figuring out how to make changes to deal with your tiredness, you may want to talk with your doctor or health care team.

**Another problem you may have is:**

- **Hair Loss**
  You may lose the hair in your pubic (groin) area. Your hair will grow back when your treatment ends.
- **Loss of Appetite.**

  Loss or lack of appetite is when you do not feel hungry, do not want to eat, or have no taste for food. Sometimes radiation treatment can cause you to feel this way. When you have IMRT, your body will need more energy to heal itself. It is important that you try to eat enough to help
your body heal. There are things you can do to help deal with this side effect.

- Eat when you are hungry, even if it is not mealtime.
- Eat several small meals and snacks throughout the day rather than two or three larger meals. For example, eat breakfast at 8 am, a snack at 10 am, lunch at noon, another snack at 2 pm, and then dinner at 5 pm. If you feel full after eating even small amounts of food, cut down on the amount of liquid you drink with your meal or drink liquids after you finish your meal.
- Use soft lighting, quiet music, brightly colored table settings, or whatever helps you feel good while eating.
- Try different foods and recipes. If you enjoy company while eating, try to have meals with family or friends. It may be helpful to have the radio or television on while you eat.
- Keep simple meals in the freezer to use when you feel hungry.
- If your doctor says it is ok, have a small glass of wine or beer during a meal. It may help to increase your appetite.
- If other people offer to cook for you, let them. Don't be shy about telling them what you'd like to eat.
- Keep healthy snacks close by in case you feel hungry.
If you have any side effects or problems right after or months after your IMRT treatments talk to your doctor or health care team. They can help you find ways to manage them.

Managing your side effects.

- What will you do if you are feeling more tired than usual?
  _____________________________________________
  _____________________________________________
  ____________________________________________

- Who can you speak to if you need help dealing with your side effects?
  _____________________________________________
  _____________________________________________
  ____________________________________________

- What things do you need to talk about with your doctor and health care team?
  _____________________________________________
  _____________________________________________
  ____________________________________________
Will Side Effects From IMRT Limit My Activity?

What you can do will depend on which side effects you have and how bad they are. Many patients are able to work, prepare meals, and enjoy their usual leisure activities while they have radiation therapy. Others find that they need more rest than usual and therefore cannot do as much. Try to keep doing the things you enjoy as long as you don't become too tired.

Your doctor may suggest that you limit activities that might irritate the area being treated. In most cases, you can have sex if you wish. You may find that your desire to have sex is lower because radiation therapy may cause you to feel more tired than usual. For most men, these feelings will go away when the treatment is over.
What Can I Do To Take Care of Myself During Therapy?

Each person’s body responds to radiation therapy in its own way. That's why your doctor must plan, and sometimes change, your treatment.

During radiation therapy, you need to take special care of yourself to protect your health and to help your treatment succeed.

- It is important for you to let your doctor know about any medicines that you are taking, even over-the-counter medicine (medicines you buy without a prescription from your doctor) like vitamins, herbs, or aspirin that you are taking before you start your treatment. Make a list of all the medicines you are taking and how often you take them. Your doctor can tell you if you should stop taking any of these medicines before you start your radiation therapy. Call your doctor or health care team if you have any questions about the medicine you are taking. Let your doctor know about any allergies you have.
- Fatigue or tiredness is very common during radiation therapy. Your body will use a lot of extra energy over the course of your treatment, and you may
feel very tired. Be sure to get plenty of rest and sleep. It is common for fatigue to last for four to six weeks after your treatment has ended.

- Eating a healthy diet is very important. Try to eat a balanced diet that will keep you from losing weight during your treatment.
- Try not to wear tight clothes over your treatment area.
- Be extra kind to your skin in the treatment area:
  - Ask your doctor or health care team if you may use soaps, lotions, medicines, perfumes, or talcum powder on the skin in your treatment area.
  - Wear loose, soft cotton clothing over your treatment area.
  - Do not scratch, rub, or scrub the skin in your treatment area.
  - Do not apply heat or cold (heating pad, ice pack, etc.) to the treated area. Use only lukewarm water when you take a shower or bath.
- If you have any questions, ask your doctor or health care team.
Will I Be Able To Have Sex During And After My IMRT Treatments?

Most men who get IMRT for their prostate cancer worry about not being able to have intercourse (sex). Most men do not have a problem with erections (the penis getting hard enough for sex) or intercourse (sex) during or right after IMRT.

Over time, you may find that you are not having as many erections as you used to. This is because the radiation can harm the nerves near your prostate that help you have erections. If this happens, talk to your doctor or health care team about things you can do to deal with this. If you could not get an erection (the penis getting hard enough for sex) before IMRT, this will not get better after IMRT.

You may find that during treatment that your desire to have sex is lower. This is probably caused more by the stress of you having cancer or fatigue than your treatment. Once the treatment ends and you get better, your sexual desire will probably return.

If you have questions or concerns about having sex during and after your prostate cancer treatment, talk to your doctor or health care team.
Will I Be Able To Have Children After IMRT?

Before your IMRT treatment starts, talk with your doctor about your plans for a family. Let your doctor know if you would like to have children after treatment. Your doctor can help you learn about what you can do now to plan for your family's future. He or she can talk with you about sperm banking (storing your sperm for use after your treatment ends). Or your doctor can refer you to a fertility specialist, a doctor who helps people who have trouble having children.
Will I Need to See My Doctor After My IMRT Treatment Is Over?

Once your IMRT is finished, it is important for you to have regular visits with your doctor to check how well your treatment is working and to deal with any side effects (or unwanted changes in your body) that you may have. Your doctor will want to see you every three to four months for two to three years. Your doctor will schedule your appointments and order any tests you need to make sure you have the best follow-up care possible. Don't be afraid to ask about any tests or treatments that your doctor orders. Use these appointments to learn about the things you need to do to take good care of yourself following your prostate cancer treatment. (See IMPACT Brochure called, “Radiation Therapy and Prostate Cancer,” for more information).
**Helping Yourself After Your IMRT Treatments.**

- **When do you need to see your doctor or health care team?**
  
  ___________________________________________________
  ___________________________________________________

- **How can you reach your doctor or health care team?**
  
  ___________________________________________________
  ___________________________________________________
What Have I Learned By Reading This Booklet?

In this booklet, you learned about:

- IMRT

- How to get ready for this treatment

- What you can expect to happen before, during and after your radiation therapy

- Possible side effects of IMRT

- What things you can do to take care of yourself

If you have any questions, please talk to your doctor or health care 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

**Allergy:** when your body is reacts to something in a bad way to something that is normally harmless such as medicines, certain foods, plants or animals.

**Anal:** the area around your anus, which is the opening through which stool passes out of your body.

**Anus:** the opening in your body through which stool passes.

**Bowel:** your intestines.

**Carbonated:** when carbon dioxide is added to a drink. This gives the drink bubbles.

**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.

**Contrast:** A medicine that you take orally or by IV that helps your prostate cancer show up better during a CT Scan.

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

**Dehydrated:** when your body looses too much fluid.

**Diarrhea:** when you have loose and runny bowel movements three or more times in one day.

**Dose:** amount of medicine or radiation.
Dosimetrist (doh-sim-i-trist): a person works with a radiation oncologist and the radiation physicist to make sure that you are given the right amount of radiation for the right amount of time.

Erectile dysfunction (dis-fuhngk-shuhn): difficulty in getting or keeping an erection of the penis.

Erection: the penis getting hard enough for sex.

External beam radiation: radiation given from outside your body to treat prostate cancer.

Fatigue: mental or physical tiredness.

Fertility specialist: a doctor who helps people who have trouble having children.

Frequency: the need to urinate (pee) more than you usually do.

Hemorrhoids: a swollen area around your anus, which are itchy or painful.

I.V. (also known as intravenous (in-tra-vee-nuhs)): medications that are given to you through a needle in your vein.

Imaging study: 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.

Impotence: difficulty in getting or keeping an erection of the penis.

IMRT (Intensity Modulated Radiation Therapy): a type of external beam radiation therapy where your doctor uses a computer to plan the exact dose of radiation that is aimed at your prostate cancer.
**Intercom:** a machine that allows you to talk between two rooms.

**Intercourse:** the act of having sex.

**Intravenous (in-tra-vee-nuhs) (also known as I.V.):** medications that are given to you through a needle in your vein.

**Linear (li-ne-her) accelerator (ak-sel-ah-ra-ter):** a machine that directs high energy x-rays at your prostate cancer in external beam radiation therapy.

**Loss of appetite:** when you do not feel hungry, do not want to eat, or have no taste for food.

**Moist reaction:** a common side effect of external beam radiation therapy where your skin becomes wet and sore.

**MRI scan (also known as Magnetic Resonance Imaging scan):** an imaging test that uses a large magnet to make pictures of your prostate cancer and the area around your prostate.

**Nausea:** an unpleasant feeling in the back of your throat and stomach that may cause you to vomit.

**Over-the-counter:** medicines you buy without a prescription from your doctor.

**PET scan (also known as Positron Emission Tomography scan):** an imaging test where you are given contrast medicine before you have x-rays taken.

**Pubic:** groin area.
**Radiation nurse:** A member of your radiation therapy team who works with you and the other members of your team. He or she will talk with you about your radiation treatment and help you manage any side effects (unwanted changes in your body) from your treatment.

**Radiation oncologist:** a doctor who specializes in the treatment of people with cancer.

**Radiation physicist (fiz-uh-sist):** A person will make sure that the linear (li-ne-her) accelerator (ak-sel-ah-ra-ter) is working correctly.

**Radiation therapist:** A person that works with you during each radiation therapy session.

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

**Radioactive (ray-de-oh-ak-tiv):** a material that gives of high or low energy rays, such as x-rays.

**Rectal urgency:** a feeling that you have to have a bowel movement.

**Rectal:** Concerning or found near the rectum.

**Rectum:** the final part of the intestines that ends at the anus.

**Shields:** blocks.

**Side Effects:** unwanted changes that may occur in your body during or after prostate cancer treatment.
**Simulation** (sim-yuh-ley-shuhn): A rehearsal for your IMRT treatment where you will be asked to lie very still on an examining table while the radiation therapist uses a special x-ray machine to define your treatment area.

**Sperm banking:** storing your sperm for use after your treatment ends.

**Stool:** the fecal matter that comes out at each movement of your bowels.

**Symptoms:** a sign of being sick.

**Treatment area:** the exact place on your body where the radiation will be aimed.

**Treatment field:** the exact place on your body where the radiation will be aimed.

**Urethritis** (yur-i-thri-tis): a burning feeling when you urinate (pee).

**Urgent urination:** a sudden need to urinate (pee).

**Urinary:** the parts of your body, which make and get rid of urine.

**Urinate:** to pee.

**Vomiting:** a powerful tightening of your stomach muscles that causes the contents of your stomach to come up through your mouth; Throwing up.

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