

A Patient’s Guide to Stereotactic Body Radiation Therapy (SBRT)

This handout explains what Stereotactic Body Radiation Therapy (SBRT) is and what you can expect. As you read it, make a list of questions or concerns. Bring this handout and that list to your next visit or treatment. Your doctor, nurse, or radiation therapist will go over them with you.

What is Stereotactic Body Radiation Therapy (SBRT)?

SBRT is a way of giving radiation to a tumor in the lung, liver, or other area. SBRT allows the doctor to treat the tumor and spare as much “normal” tissue as possible.

SBRT may be used based on:

- The tumor’s size and location.
- A high risk of side effects with other treatments.
- You may have trouble with other treatments.
- The tumor keeps growing despite other treatment.

How is SBRT different from standard radiation?

Standard Radiation	SBRT
<ul style="list-style-type: none"> • Treats the tumor along with some surrounding normal, healthy tissue. • Uses many small “fractions” of treatment. It is given 5 days a week over several weeks. 	<ul style="list-style-type: none"> • Targets the tumor and limits radiation to normal tissue. • Uses few “fractions.”

Both types of radiation may use a “mold” to help put you in the exact position for each treatment. The SBRT system uses a very specific body mold called a “Body-Fix.” A vacuum pump is used to shape the mold to your body. It holds you more securely than other methods but does limit how high your chest can rise with each breath. You need to stay as still as you can in the mold.

Before Treatment

A Body Fix mold must be made to fit you before you can start. You also need a CT scan and your doctor may want a PET scan. We will try to schedule all of these on the same day.

If your doctor wants you to get IV contrast during the CT, a blood test called a creatinine level is done before the scan. This ensures your kidneys are working well. Your local doctor can do this test, or it can be done at the hospital. Women between the ages of 12 and 55 also need a pregnancy test before the CT scan.

Step by Step

1. **Set-up (arrive 30 minutes before the body mold/CT)**
 You need to change into a hospital gown and remove everything from the waist up. Do not wear any necklaces or earrings. Your nurse may start an IV line if you need it for the CT scan.
2. **The “Body Fix” Mold and Half Mold**
 This mold is used for all your treatments. The body molding process takes about 20 – 30 minutes. You need to lie back on the table into a blue body mold. We will help you get into the proper position. The mold feels much like a beanbag chair when you first lie down. You need

to raise your arms above your head. If you have any concerns about being able to do this, please tell your doctor.

We then place small “pillows” across your chest or upper belly and feet. A thin clear plastic wrap like Saran® Wrap is placed across your body from your chest to your toes. **If you are allergic to plastic, please tell your doctor.**

A vacuum is applied to the mold to create an impression of your body. When the vacuum starts you will hear a loud humming noise. The mold will start to form around you. The plastic will be somewhat tight across your chest and belly. **If you are claustrophobic or afraid of being in confined spaces, please tell us.** Let your radiation therapist know if you have a hard time breathing.

3. The CT (CAT) Scan

A CT scan is a computerized x-ray exam that uses radiation to take pictures.

If you are allergic to CT contrast, shellfish, or iodine products, please tell your doctor or nurse.

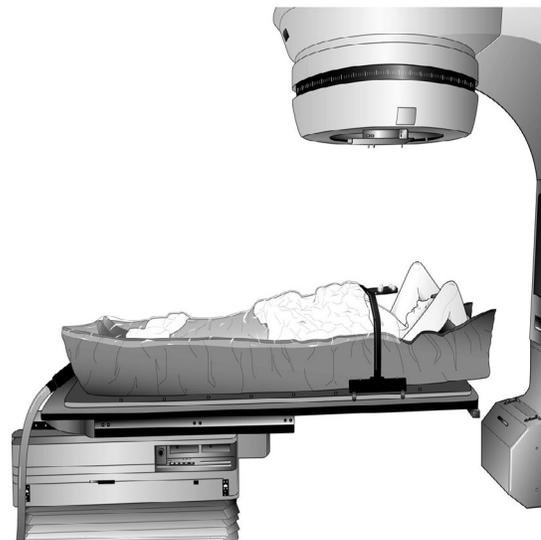
If you have diabetes and take metformin (Glucophage® or Glucovance®) or insulin, please tell your nurse or doctor.

You should have nothing to eat or drink for 4 hours before the CT scan.

Once the body mold is made, a CT scan is done. If you have never had a CT scan before, please let your nurse know. There is a handout that explains it in greater detail. If IV contrast is needed for your CT scan, it will be given in the IV placed earlier. The contrast gives us a

better picture of your tumor. Some people feel a warm flush with the contrast. You may have a metallic or strange taste in your mouth with the contrast. This is normal. It goes away after the contrast is done.

Once the CT scan is done, the therapists make 3 black marks or “tattoos” on your skin by the treatment area. This is done with a black dye and a small pinprick. These are used each day for the treatment. It helps to get you into the right position.



4. The PET Scan

A PET scan shows how cells and organs in your body are working. It measures how much energy a cell is using. Scar tissue and tumors that have responded to treatment do not use much energy. Cells and tumors that are growing or active use a lot of energy. A PET scan can help tell the difference between these types of cells.

A PET scanner is a special camera that can take pictures of the inside of your body by sensing a tracer. For most studies this tracer is a radioactive

glucose (sugar) called FDG. Before your PET scan you will be given an injection of a small amount of FDG.

The PET scan therapists will send you an information packet to explain the test. This packet should arrive about a week before your PET scan. If you don't receive it, please contact them at **608-265-8731**.

What happens next?

Treatment planning takes 10 – 14 days. The length of time depends on how complex your case is. It also depends on how soon we can get you into our schedule.

The first treatment takes about 60 – 90 minutes because of the length of time needed for set up. The rest of the treatments take about 60 minutes. Due to the complex nature of these treatments and the staff needed, the treatments are done at certain times. The radiation therapists will call you when the planning process is done. They set up visits with you. A typical schedule would be to receive 5 treatments within 2 weeks. You would get at least one day off between treatments. Your radiation oncologist will tell you the scheduling that is preferred. One sample schedule is:

- **Week #1:** Treatments on Tuesday and Thursday
- **Week #2:** Treatments on Monday, Wednesday and Friday

What happens while I go through treatments?

The radiation therapist gets you ready for your treatment. They set you up in the same position you were in for the CT scan. They use your Body Fix mold. Each day a special x-ray or scan is taken using the treatment machine. ***The radiation therapist and radiation oncologist will check over the scan and your position and make any needed

adjustments before going ahead with your treatment.

You will see your doctor or nurse at least once a week to watch for side effects. If you have questions at any time, please let the therapist know and he or she will arrange for you to meet with your doctor. On one of the last days of treatment you will meet with your doctor to discuss follow-up care. Most often, the doctor will see you in one month to check on how you are feeling and for any side effects you may have. Then, the doctor will see you again in about 2 – 3 months. Some of these visits may involve more CT scans.

What are the side effects of treatment?

Most of the time there are few side effects. The most common side effects are listed below.

- **Feelings of claustrophobia** – The plastic wrap and the mold fit close to your body. Some people may feel too confined. If you know you are afraid of being in tight spaces or feel this while the mold is being made, please let us know. There are medicines we can give you.
- **Allergic reactions** – There are a small number of people who may be allergic to the plastic used in the molding process. If you know you have one of these allergies, please tell your doctor or nurse. If you notice a rash or have a hard time breathing while in the mold, please tell us right away.
- **Skin irritation** – Red, dry skin, like a sunburn, may occur on your chest or back. The amount of skin irritation is often minor; however, everyone's skin reacts different. During your treatments we will

check your skin, give you a cream, and talk with you about ways to protect your skin.

- **Hair loss** – Hair loss, if it occurs at all, is often minor. It may occur in small patches in the treated area.
- **Fatigue** – You may feel fatigue. Many patients find they do their normal routines with very little problem. Some find that they begin to feel more tired near the end of treatments and may need to rest more. Taking rest breaks is very important. You will need to listen to your body and rest as needed.
- **Nutritional needs** – Nutrition affects how you feel during treatment and how quickly you recover after treatment. Good eating and drinking habits will help lessen the side effects you have. You should aim for three servings of protein per day and drink 8 – 12 glasses of water per day. Avoid alcohol and smoking. Your goal should be to maintain your weight.
- **Sore throat and trouble swallowing** – Some people will start to have a sore throat near the end of treatment. As the throat becomes sorer, please tell your doctor if you have any problems swallowing.

Medicines can be ordered to help ease the pain.

- There may be other side effects not listed here, which are due to the site of your tumor. Your doctor will discuss these with you.
- **Late or delayed side effects** – These may sometimes occur. Your doctor will discuss this with you.

What should I do if I have questions or problems?

While you have treatment, you will see your doctor or nurse every week. If you have any questions at any time during your treatments, please let the radiation therapists working with you know and they will help set up time for you to meet with your doctor.

If you have any questions or problems, please call the Radiation Oncology Clinic at **608-263-8500**. If the clinic is closed, your call will transfer to the hospital paging operator. Ask for the **radiation oncology** doctor on call. Leave your name and phone number with the area code. The doctor will call you back.

If you live out of the area, please call **1-800-323-8942**. Ask for the Radiation Oncology Clinic.

Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person's health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright © 1/2019 University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing. HF#6015