Stereotactic Body Radiation Therapy (SBRT) to your liver

SBRT is a type of high dose radiation used to treat small tumours in different parts of your body. This handout gives you the information you need to understand this treatment. It is important you read this handout to help you prepare for your appointments.

After each radiation treatment, it is safe for you to be around other people (including children) and pets. You are not radioactive.

Understanding your CT simulation appointment

CT simulation is the first step in preparing you for SBRT treatment. Your liver moves around when you breathe. CT simulation allows your radiation oncologist to see your tumour better as your liver moves with your breathing.

It is important your liver stays in the same place during your treatments. There are 2 ways to do this. Your healthcare team will choose the way that works best for you.

1. **Using an Active Breathing Coordinator (ABC) device**
   The ABC device helps you hold your breath after you exhale (breathe out). A radiation therapist will tell you how to use this device. You will need to use the ABC device for your CT simulation as well as your radiation treatments. This will help you hold your breath when the radiation therapist asks you to (see picture #1 below).

   Picture #1. This picture shows the ABC device that will help you hold your breath.

2. **Breathing normally**
   A custom cushion will be made for you. An inflatable belt will be placed around your abdomen. (see picture # 2 on the next page). The cushion will mold to your back and arms to help you stay in one position during your treatments. Tell your radiation team if you have any problems with this.
Picture # 2. The picture above shows the cushion with the inflatable belt over your abdomen.

You will be given permanent tattoos (small markings) at this appointment. These tattoos will be used to position you for daily radiation treatment.

**Having IV contrast (dye) during your CT simulation**

Your radiation oncologist would like you to have your CT simulation with IV (intravenous) contrast. IV contrast helps your radiation oncologist see certain areas inside your body. This is used by your radiation team to plan your radiation treatments. For this procedure you will have an IV put into your arm. You will be given an injection of contrast through your IV.

Most people have the injection of IV contrast without any problems. You may have a mild, allergic skin reaction such as itching and hives. This reaction may go away without treatment. It can be treated with medication if needed. Some people have a severe allergic reaction. This could cause a drop in your blood pressure or changes in your heart rate. Your radiation team knows what to do if this happens. In very rare cases, stroke or death can occur.

**It is important** to tell us before your CT simulation if you’ve ever had an allergic reaction to IV contrast.

**Preparing for your CT simulation appointment**

**The day before your CT simulation appointment**

- Drink 8-10 cups (1 cup = 250ml) of non-caffeinated fluids plus 2 cups (500ml) of soup broth/bouillon (example: OXO cubes dissolved in water). This will help your body flush out the IV contrast after your CT scan. Ask your radiation oncologist about this if you are on a fluid restricted diet. Your radiation oncologist will tell you what you need to do.

**The day of your CT simulation appointment**

It is important for you to:

- Take your regular medications. You do not need to make any changes in your medications unless your radiation oncologist tells you to.
- **If you are taking a medication called Metformin HCL (Glucophage) for diabetes, do not take it on the day of your CT simulation.**
Choose the instructions below based on the time of your appointment.

☐ If your appointment is in the morning
  - Do not eat breakfast.
  - Drink 1 cup of tea, coffee or other non-carbonated drink, and eat 2 slices of bread or toast about 1 hour before your appointment. Allow time to finish drinking and eating to make sure you do not drink or eat anything for 1 hour before your appointment.

☐ If your appointment is in the afternoon
  - Eat breakfast 5 hours or more before your appointment.
  - Drink 1 cup of tea, coffee or other non-carbonated drink, and eat 2 slices of bread or toast about 1 hour before your appointment. Allow time to finish drinking and eating to make sure you do not drink or eat anything for 1 hour before your appointment.

After your appointment, you can eat your normal diet.

Your CT simulation with IV contrast
You will have an IV line put into a vein in your arm. As the contrast is put into your IV, you may have a metal-like taste in your mouth or a warm feeling in your body. This is normal and doesn’t last. If you feel anything different, tell a member of your healthcare team.

After your CT simulation is done, your IV will be taken out. You will need to stay in the radiation department for about 15 minutes before you can go home.

After your CT simulation appointment
  - Eat your normal diet after your CT simulation appointment. Drink 8-10 cups (1 cup = 250ml) of non-caffeinated plus 500 mL (2 cups) of prepared soup broth/bouillon (example: OXO cubes dissolved in water). Ask your radiation oncologist about this if you are on a fluid restricted diet. Your radiation oncologist will tell you what you need to do.
  - If you are taking a medication called Metformin HCL (Glucophage) for diabetes, start taking your Metformin HCL (Glucophage) 48 hours after your CT simulation appointment.
  - You will have a bandaid or small dressing over the area where your IV was put in. Remove this bandaid/dressing after two hours if it is dry (no bleeding). Call your primary nurse if you see any swelling or bleeding.

Before each of your radiation treatment appointments
It is important for you to:
  - Take your regular medications. You do not need to make any changes in your medications unless your radiation oncologist tells you to.
Choose the instructions below based on the time of your appointment.

☐ **If your appointment is in the morning**
  - Do not eat breakfast.
  - Drink 1 cup of tea, coffee or other non-carbonated drink, and eat 2 slices of bread or toast 1 hour before your appointment.

☐ **If your appointment is in the afternoon**
  - Eat your regular breakfast 5 hours or more before your appointment.
  - Drink 1 cup of tea, coffee or other non-carbonated drink, and eat 2 slices of bread or toast 1 hour before your appointment.

After your appointment, you can eat your normal diet.

**Your radiation treatments**

You will know how long each radiation treatment will be after you have your first one. Each treatment will be about 1 hour.

Radiation treatments do not hurt. You will be positioned using your tattoos. Once you are in the right position on the treatment bed, it is important you don’t move. This will make sure the treatment is given correctly. If you normally have muscle or bone pain, it may help to take a pain medication (acetaminophen or ibuprofen) before your radiation treatment appointments. This will help you to be comfortable during your treatments.

It is important for your healthcare team to find the exact position of your tumour(s) before and during each treatment. X-ray images will be taken to verify the position of your tumour(s). Changes to your position will be made if needed. To make these changes the treatment bed you are lying on may move a little.

![Image](image3.png)

**Picture #3.** This picture shows the type of radiation machine that is used to give your SBRT treatment.
You will be scheduled for follow up appointments with your radiation oncologist after your radiation treatments are finished.

**Side effects of your radiation treatment**

At your CT simulation appointment, you will be provided with the handout “Radiation Therapy to the Abdomen” which gives you information about the possible side effects of radiation therapy. You can find more information in the Canadian Cancer Society booklet “Radiation Therapy: A Guide for People with Cancer.”

Please talk to a member of your healthcare team if you have questions or do not understand any of the information in this handout.

**If you have a problem or concern about a cancer related symptom**

1. Call your primary nurse at the cancer centre from 8:30 am to 4 pm, Monday to Friday (except on holidays). Your primary nurse will have given you the number to call.

2. Call the After-hours Symptom Management Telephone Service at 1-877-681-3057.
   - From 5 pm to 8:30 am, Monday to Friday.
   - On weekends and holidays at any time of the day or night.

If you are having a medical emergency, call 911 or go to the emergency department at the hospital closest to you.

Last revised: November 2019