

A Cancer Patient's Guide to Radiation Therapy



In this booklet you will learn about:

- What is radiation therapy
- The different stages in your treatment
- What happens during each stage
- Managing possible side effects
- Answers to your frequently asked questions

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What is radiation treatment?

Radiation treatment uses high-energy X-rays to treat cancer.

During radiation therapy, both cancer cells and healthy cells in the area that is being treated are affected. Unlike cancer cells, most healthy cells can recover from the damage.

Radiation treatment may be used alone or together with other forms of treatment such as surgery or chemotherapy.

How is radiation given?

External radiation: Most people receive external radiation treatments. This means radiation comes from a machine which is located about 2 feet (60 cm) from your body. These machines are used to give an exact dose of radiation to the area of your body decided upon by your Radiation Oncologist. External radiation is most often given as a course or series of treatments. Treatments are Monday to Friday and a course of treatment can last one day to several days or weeks.

Internal radiation: Internal radiation, also called *brachytherapy*, delivers radiation by placing a radiation source directly into and around the tumor inside your body. If a Radiation Oncologist decides brachytherapy is needed, the treatment may happen before, at the same time or after all the external radiation treatments are finished.

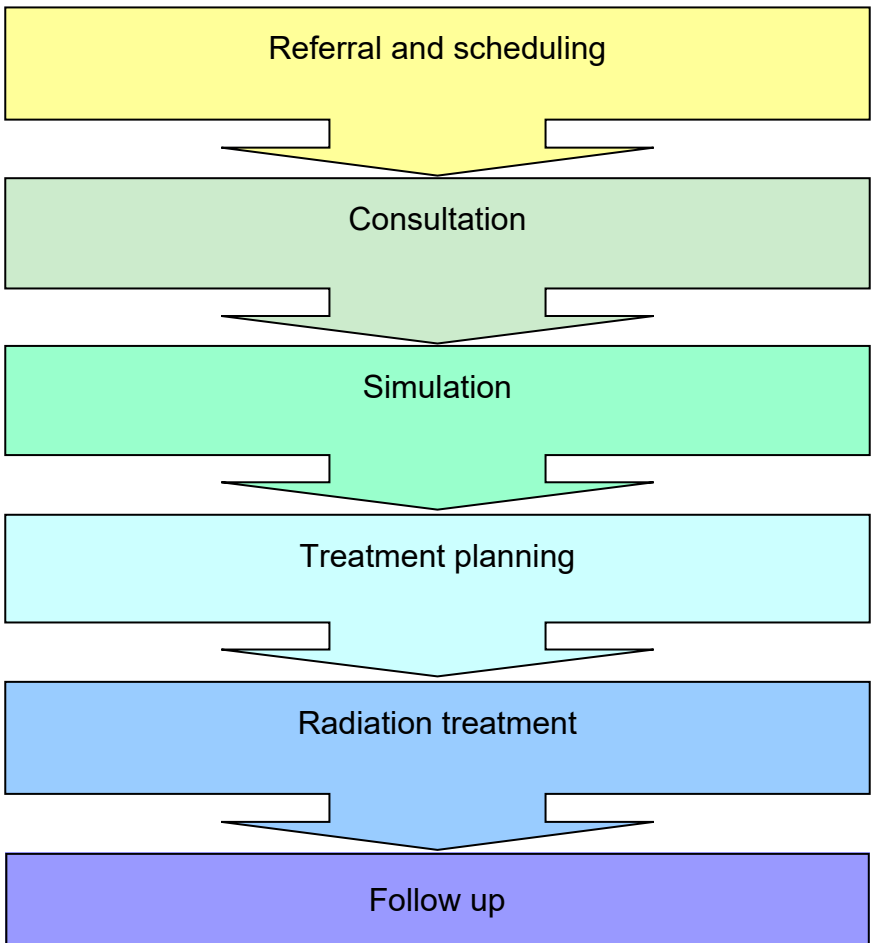
The information in this brochure is focused on external radiation treatment.

If you are unsure which type of treatment you will be having, please ask a member of your Care Team.

See page 15 for an explanation of your Care Team.

Overview of treatment

Here is a diagram that shows the different stages of your radiation treatment process:



Simulation and treatment planning

Your first visit to the Radiation Treatment department is a planning appointment called *simulation*. This appointment is not to treat your cancer, but to plan your radiation treatments which will begin 1 to 2 weeks later. The simulation appointment takes about 1 hour.

How do I prepare for simulation?

Some patients will be given special instructions to follow before arriving for the simulation appointment.

If you have not been given any special instructions, please follow your regular routine before arriving for your simulation appointment.

For the simulation appointment, please bring:

- your health card
- list of any medications you are taking



What will happen during simulation?

1. A Radiation Therapist will check your personal information (such as name, date of birth, address) and take you to a machine called the *CT simulator*.
2. You will be asked to change into a hospital gown and take off any jewellery within the treatment area.

3. A Radiation Therapist will explain what will happen during your simulation.
4. You will be asked to lie on the simulator table in the same position as you will be lying for your treatment.

The simulator is a type of CT scanning machine used to outline the area for radiation treatment using X-rays.

You will not feel anything during simulation when the machine is taking X-rays.

It is important to keep still during simulation.



A patient during their simulation appointment.

5. Measurements of the treatment area are taken to help plan your treatment. A digital photo may also be taken of your position and the area to be treated.
6. During simulation, a Radiation Therapist will put some marks on your skin using a marker. These marks will wash off so you will need to have permanent marks called tattoos as well.

Tattoos are made with a sterile needle and ink. These marks are very small; they are 1-2 mm (1/16th inch) in diameter and are permanent. You will feel a slight pinch when the tattoos are given.

How will I feel after simulation?

You will not feel any effects from the simulation.

The tattoos you received are permanent, so don't worry if the marker on your skin washes off.

When will my radiation treatments begin?

All the information taken from simulation is used to make a treatment plan just for you. Most of the planning is done after you leave. The planning for your treatment can take up to two weeks to complete. The Radiation Oncologist, Medical Physicists and Radiation Therapists will work together on your treatment plan.

After your simulation, you will receive a phone call to tell you the date and time of your first treatment appointment.

First radiation treatment

What will happen during my first treatment?

For each visit, show your health card to the receptionist on Level 1 to register.



You will have a team of Radiation Therapists who will treat you throughout your course of treatment. At least 2 Radiation Therapists will be treating you each day.

More on next page...

1. One Radiation Therapist will come out to meet you before your first treatment. He/she will explain your treatment and answer any questions you have.
2. You may be asked to change into a hospital gown.
3. A Radiation Therapist will bring you into the treatment room where you will be asked to lie down on the treatment bed in the same position you were in at your simulation appointment.
4. A Radiation Therapist will use markers on your skin to highlight the tattoos.
5. The lights will be turned low while the Radiation Therapists position you as you were during simulation.



A patient on the treatment table. Lasers, which show up as lines on your skin, are used to get you in the exact position.

6. The Radiation Therapists leave the room while you are having your treatment. A closed circuit camera and intercom system is used so the Radiation Therapists can watch and listen to you at all times.

During the treatment:

It is important to keep your whole body very still. Breathe normally.

While the machine is on, you will not feel or see anything. You may notice a buzzing noise.

The radiation will switch off automatically at the end of treatment. It can be turned off at any time by the Radiation Therapists if necessary.

The machine will move around you but will not touch you. Depending on the treatment, a Radiation Therapist may or may not come into the room to move the machine or treatment table.

The treatment usually takes 15-30 minutes in total. Most of the time is spent getting you into your treatment position. The machine is usually on for less than 5 to 10 minutes.

On your first day of treatment, your appointment will be longer than the rest of your treatments. The Radiation Therapists will take X-ray images to check that your position is the same as it was during the simulation scan. These images are reviewed by your Radiation Oncologist.

What happens when I go home?

When you go home, you can follow your normal routine.

Please follow any advice your Care Team has given you to manage side effects.

What will happen during my other appointments?

Your treatment is the same every day.

Although the Radiation Therapists try to treat patients as close to their appointment times as possible, there may be times you will have to wait.

You will be given a new appointment schedule every week with your next 5 appointment times. These appointment times may change.

Once a week you will see your Radiation Oncologist and/or Primary Nurse. This appointment is called a “review”. At this appointment, you will have a chance to talk with your Radiation Oncologist and/or Primary Nurse about your concerns or questions and any side effects you may be having. On your weekly review days, you can expect to be at the cancer centre for at least an additional 30 minutes.

Helpful tip:

Before your review appointment, please write down any questions you may have and bring them with you.



Frequently asked questions

What are side effects?

Side effects are unwanted symptoms caused by the radiation treatment. The side effects you may experience will depend on the amount of radiation you receive and the area of your body being treated.

Most side effects start gradually, usually toward the end of the second week of treatment. Side effects continue throughout the remainder of your treatment and slowly disappear over several weeks after your treatment is finished.

Different people may experience different side effects, even if the same area of the body is treated.

Your Care Team will review the possible side effects with you and give you more detailed information.

Should I be careful in the sun?

During the course of your radiation treatment, the area being treated should always be protected from the sun by a piece of clothing (not sunscreen).

The area treated will always be more sensitive to the sun. Once all radiation treatments are complete, always protect your skin from the sun with sunscreen and clothing.



Protect your skin from the sun by wearing a hat and loose fitting clothing over the treatment area.

What about smoking?

Quitting smoking is one of the best things you can do to help your cancer treatment. Radiation therapy works better if the level of oxygen in your body is normal. When you smoke, the level of oxygen in your blood drops, making it harder for radiation to do its job.

The best way to quit using tobacco, such as cigarettes or chew, is by using both counselling and medication, which can triple the chance of success. You can make an appointment with the Cancer Program's **Tobacco Support Coach** for support to reduce and/or quit by asking a member of your cancer care team to refer you or you may make your own appointment by calling 705-728-9090 ext. 43520.



Important!

If you cannot quit smoking, then please avoid smoking for 2 hours before and 2 hours after your radiation treatment.

If you are travelling in a vehicle to your treatment with a smoker, please ask them not to smoke around you.



What about sex/intimacy during treatment?

Sometimes your desire and feelings about sex may change. The side effects of radiation treatment, tiredness, the use of medication, hormones or chemotherapy treatments may lower your desire to be intimate. Everyone is different. If you have any concerns, please discuss them with your Radiation Oncologist or Primary Nurse. There is also a Sexual Health, Intimacy and Cancer (SHIC) Clinic available for private, confidential and professional support. You can make an appointment by calling 705-728-9090 ext. 43520.



You should not get pregnant while you are having radiation treatment. You or your partner should use birth control while you are on treatment and for a few months after your treatment finishes. Talk to your doctor about the best birth control option for you and your partner.

If you think you might be pregnant, please inform someone on your Care Team **immediately** as radiation can have harmful effects on an unborn baby.

After the last treatment

After you complete your radiation treatments, you will be given a follow-up appointment to see your Radiation Oncologist and Primary Nurse. If you have any questions before your follow-up appointment, please contact your Primary Nurse.

Your Care Team

At the Simcoe Muskoka Regional Cancer Centre, the care provided by our staff is tailored to the needs of each individual patient. The staff at the Cancer Centre will work together to provide the best care, education and support that's just right for you.

Your Care Team may include the following health care professionals:

Physicians

The physicians at the cancer centre are specialists in treating cancer. These doctors, called *oncologists*, further specialize in specific ways to treat cancers.

Surgical Oncologists/General Surgeons are physicians who perform surgical procedures related to cancer such as biopsies and removal of lumps or tumours.

Medical Oncologists are physicians who treat cancer using medications, such as chemotherapy.

Radiation Oncologists are physicians who treat cancer with radiation treatment.



Radiation Therapists are health professionals involved in planning and delivering radiation treatment. The therapists will be providing you support on a daily basis.

Primary Nurses will work with your Radiation Oncologist to help you and your family identify your individual needs and make decisions about your care. You will see your Primary Nurse each week of your treatment.

Clerical Staff will register and schedule your radiation treatment and review appointments.

Medical Physicists are professionals who are in charge of the safety and accuracy of the radiation treatment machines and treatment planning computers.

Clinical Dietitians can help you deal with eating problems, weight changes, special diets and the use of nutritional supplements.

Social Workers can help you and your family cope with changes due to cancer and treatment and they can help you access community support services.

Spiritual and Religious Caregivers are available to meet with you and your family members when you are dealing with spiritual and emotional issues.

You can talk to any member of your Care Team if you have any questions or concerns. **We're all here for you!**

Help is a Phone Call Away

If you are having side effects related to your cancer treatment, please contact:

Symptom Support Telephone Service



**During the day:
Cancer Centre Symptom Support
705-728-9090 x43333**



**Evenings, weekends and holidays:
Bayshore CAREchart 1-877-681-3057**

Please visit www.rvh.on.ca for the latest information and hours of operation.



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