



# Patient Guide: Your Radiation Therapy Treatment

# Hours of Operation



## Regular Business Hours:

### CancerCare Manitoba (CCMB)

#### Radiation Therapy Department

675 McDermot Avenue, Winnipeg, MB

204-787-2252 Radiation Treatment Reception Desk

8:00 am to 5:00 pm Monday to Friday

204-787-2197 CCMB Main Floor Reception Desk

8:00 am to 4:00 pm Monday to Friday

### Western Manitoba Cancer Centre

#### Radiation Therapy Department

300 McTavish Avenue East, Brandon, MB

204-578-2222 Reception Desk

8:00 am to 4:00 pm Monday to Friday



## After Hours:

If you have an urgent medical issue outside of regular business hours or it is a holiday, please contact:

**Radiation Oncologist on-call at 204-787-2071**

**Emergencies:** Go directly to your closest Emergency Department, or dial 911.

### Cancer Helpline

204-787-8900

Monday to Friday from 8:00 am to 6:00 pm

A registered nurse will ask questions about your symptoms and provide you with further guidance.

### Urgent Cancer Care

675 McDermot, 1st Floor

Monday to Friday 8:00 am to 5:00 pm

If you are uncertain whether or not to attend Urgent Cancer Care, call the Cancer Helpline.

# Welcome to the Radiation Therapy Department

Our team is here to help you with this part of your cancer treatment.

This Radiation Therapy Patient Guide will help you prepare for your radiation appointments. It will give you information about radiation therapy and what to expect before, during and after your treatment.

You don't have to read this book front to back. This is a book for all radiation therapy patients, so **not all of the information may apply to your care plan**. Keep this book nearby and refer to it when you have questions.

Your *radiation therapy healthcare team* at CancerCare Manitoba will also give you more information about your radiation treatment.

You can ask any member of your team questions at any time. This will help us provide you with the best possible care.

Take it one day at a time.  
Ask for help when you need it.

## YOUR RADIATION THERAPY TEAM

### Radiation Therapy Team

The radiation therapy team includes: radiation oncologists, radiation therapists, nurses, medical physicists, nuclear electronic technologists, dosimetrists, unit clerks, unit assistants, social workers and dietitians.

# Table of Contents

- 5**      **Basic Radiation Therapy Information**
- 6**      **Your Step-by-Step Journey to Treatment**
- 7**      **Your Radiation Healthcare Team**
- 8**      **Your First Appointment with  
Your Radiation Oncologist and Primary Nurse**
- 9**      **Map of the Radiation Therapy Department**  
Floor Level 0 - 675 McDermot Avenue, Winnipeg, MB
- 10**     **Map of Western Manitoba Cancer Centre**
- 11**     **Signing the Consent Form**  
(Patient Consent)
- 12**     **Preparing for Your Treatment**  
Simulation
- 13**     **Preparing for Your Treatment**  
Making an Immobilization Aid (Thermoplastic Shells)
- 14**     **Preparing for Your Treatment**  
Making an Immobilization Aid (Vacuum Cushions)
- 15**     **Preparing for Your Treatment**  
Patient Education Session

**16**

## **Preparing for Your Treatment**

Treatment Planning

**17**

## **Treatment**

Radiation Treatment Schedules

**18**

## **Treatment**

During Treatment Clinic Visits

**19**

## **Treatment**

Follow-up Clinic Visits

**20**

## **External Beam Radiation Therapy**

**23**

## **Brachytherapy**

**24**

## **Frequently Asked Questions & Concerns**

**30**

## **Radiation Oncology Contact Information**

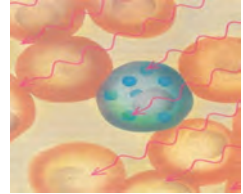
# Basic Radiation Therapy Information



Radiation therapy, radiotherapy and irradiation all mean the same thing. Intense beams of energy are used in a safe way to kill cancer cells.

Radiation therapy may be used to:

- cure cancer
- slow the growth of cancer cells, or
- reduce discomfort such as pain



Radiation stops cells from growing, and spreading. When the cancer cells die, your body is able to get rid of them just like it gets rid of other waste products in the body.

Normal cells may also be damaged by the radiation, but they are able to repair themselves.

There are limits on how much radiation different parts of your body can be given. This is because the normal healthy cells that are being treated must be able to repair themselves. Your radiation oncologist uses this information to decide the best care plan for you.

It is important that you have all of the treatments prescribed by your radiation oncologist. However, we understand that things can occur which prevent you from making it in. (e.g. illness, weather, bad road conditions etc.). If unable to attend, please call 204-787-2252 (Winnipeg) and 204-578-2222 (Brandon).

# Your Step-by-Step Journey to Treatment

## STEP 1 - Your First Appointment with Your Radiation Oncologist and Primary Nurse

- Talk about your treatment options and possible treatment side effects.



## STEP 2 - Signing the Consent Form

You have decided to have radiation therapy.

- Planning for your treatment starts after you have signed the consent form.



## STEP 3 - Preparing for Your Treatment

These appointments get you ready for treatment:

1. Simulation
2. Making an Immobilization Aid (if needed)
3. Patient Education session



## STEP 4 - Treatment

- Patients often see their doctor/nurse in clinic during radiation treatments. If scheduled, this appointment will be on your weekly treatment schedule.
- On your last day of treatment, the radiation therapists will talk with you about your follow-up care.

# Your Radiation Healthcare Team

If you have any questions/concerns about your treatment talk with a member of your radiation healthcare team:

- **radiation oncologist:** This type of doctor specializes in giving radiation therapy to treat cancer. A radiation oncologist oversees radiation therapy treatments and works closely with other team members to develop the treatment plan. Radiation Oncologists will see you routinely to oversee your care.
- **radiation therapists:** This professional will perform your CT simulation, treatment preparation and administer your radiation treatments each day. Therapists also play an important role in counseling patients on possible side effects from treatment and providing advice on how to minimize them. You will see them at your simulation and at every treatment.
- **nurse:** You will meet a nurse in all areas of your care. They will guide your care, ask you questions, and check your symptoms or side effects. They will tell you what will happen, teach you about the tests and treatments you need, and will help you with problems you might have because of your illness or treatment. Nurses will also see you routinely during your radiation treatment schedule to help manage your potential side effects.
- **unit clerks:** these support staff will check you in at the reception desk and provide you with your treatment appointments.

If you can't reach someone from the above list, please call the **Cancer Helpline at 204 787-8900**. A registered nurse will ask questions about your symptoms and provide you with further guidance. Patients at CCMB should go to **Urgent Cancer Care** clinic if they have severe symptoms related to their cancer or side effects of their treatment.



# Your First Appointment with Your Radiation Oncologist and Primary Nurse



During your first appointment, the radiation oncologist will decide on a care plan for you. This is based on:

- the size and location of your cancer
- the type of cancer
- the reason for the treatment
- your general health



## Questions you may want to ask:

- Why do you think radiation is the best treatment for my type of cancer?
- What is the goal of the treatment?
- Is there a chance the cancer will spread or come back if I don't have radiation therapy?
- What will my treatment be like?



## Notes:

.....

.....

.....

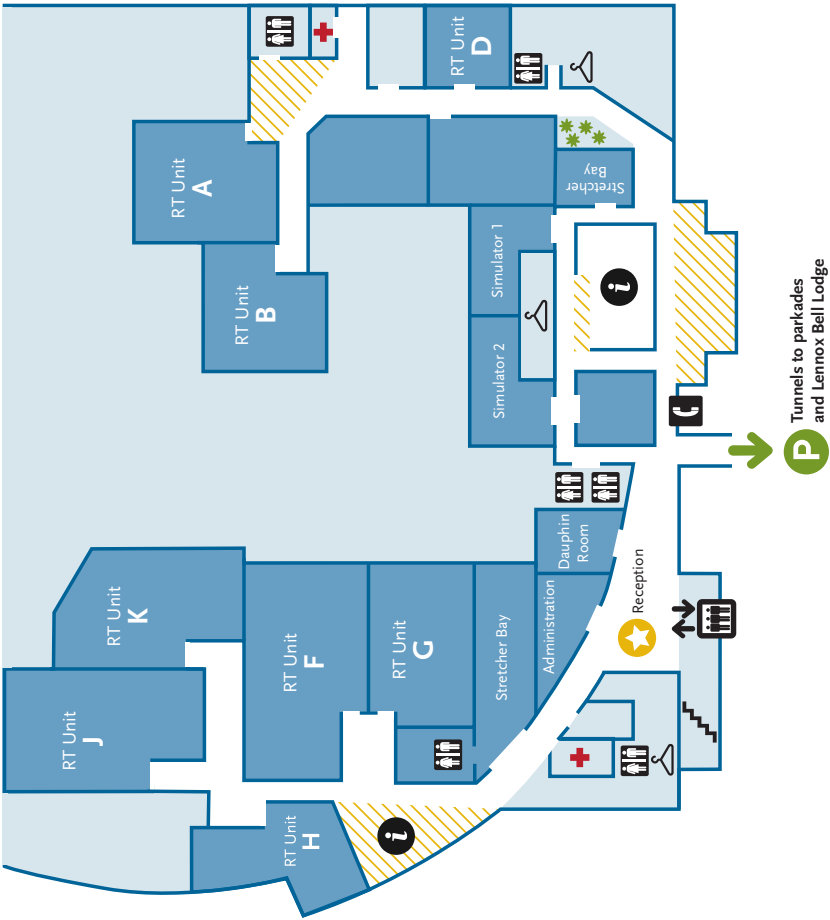
# Map of the Radiation Therapy Department

Floor Level 0 – 675 McDermot Ave, Winnipeg, Manitoba



**Legend**

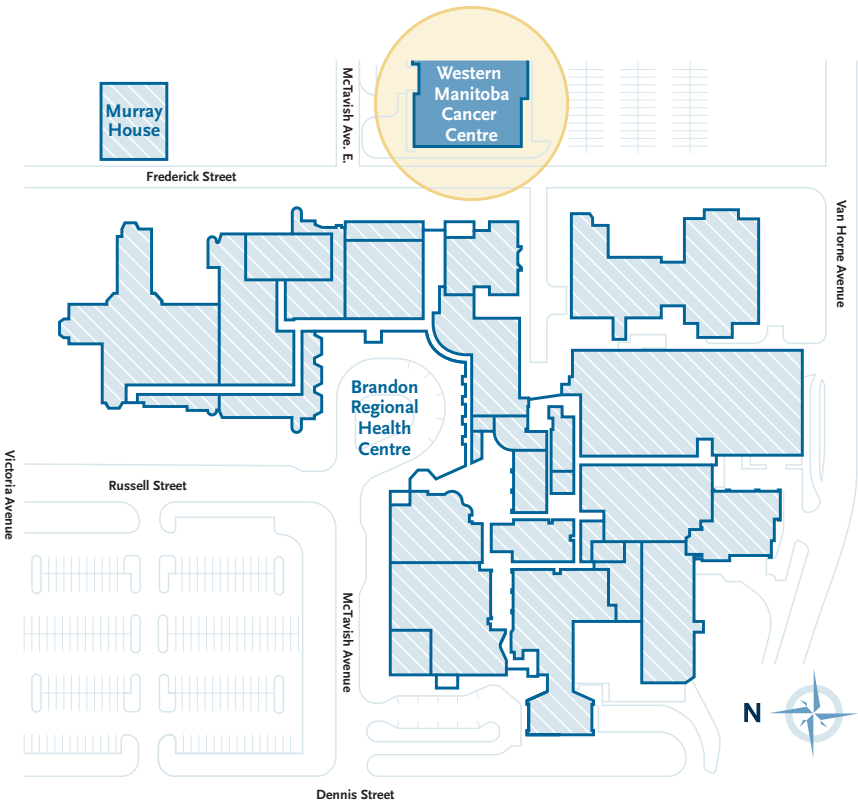
- Reception
- Information
- Waiting Room
- Telephone
- Exam Room
- Washroom
- Changeroom
- Elevator
- Stairs



McDermot Avenue

# Map of Western Manitoba Cancer Centre

300 McTavish Avenue East, **Brandon**, Manitoba



The Western Manitoba Cancer Centre (WMCC) located in Brandon, MB is the only cancer treatment centre located outside of Winnipeg that provides radiation therapy treatments. The centre has one CT simulator and one Linear Accelerator. Most cases can be treated at WMCC, but there may be some, which require more specialized treatment at CancerCare Manitoba in Winnipeg.

Additional Health Care provider services available at WMCC include: Radiation Oncologists, Family Physicians in Oncology (FPO), Dietitian, Social Work, Pharmacist and Nurse Navigator.

## Signing the Consent Form (Patient Consent)

The Radiation Oncologist will explain the recommended treatment to you along with the possible benefits and risks. You may need to get some questions answered before deciding. Once you have decided to go ahead with the treatment, you will need to sign a consent form. This allows the radiation therapy team to begin preparing your treatment.

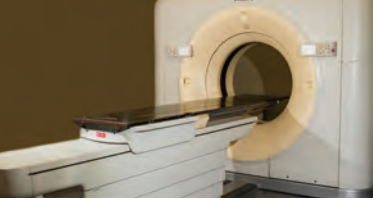


Note: If you are pregnant or think that you may be pregnant, tell your radiation healthcare team right away.

Do not try to become pregnant during radiation therapy treatment. Radiation can harm your unborn child.

- For your treatment you may need to change into hospital gowns or hospital pants.
- Radiation therapists will keep your body covered as much as possible during treatment.

# Preparing for Your Treatment: Simulation



Simulation is the process of taking images (pictures) using a CT Scanner and marking your skin or immobilization aid. **Radiation therapists will use these marks as a starting point to position you for your treatments.**

During the simulation, you may be asked to swallow or drink a contrast agent, or you may receive contrast through an IV. This contrast is used to get better images.

During simulation, the radiation therapists will:

- position you on the couch (flat bed)
- ask you to lie still
- tell you to breathe normally **unless** instructed otherwise
- take scans or images of your body

These scans or images will help plan your treatment. This visit lasts 30 to 60 minutes. You do not receive any treatment during the simulation. If an immobilization aid is required for your treatments, it will be made for you during your simulation appointment.

## Markings:

There are two ways that marks are put on skin:

- *With a marker* - **Do not wash off these marks.** Radiation therapists will darken them when they fade.
- *Tattoos* - Small permanent marks that are about the size of a freckle.

# Preparing for Your Treatment: Making an Immobilization Aid (Thermoplastic Shells)

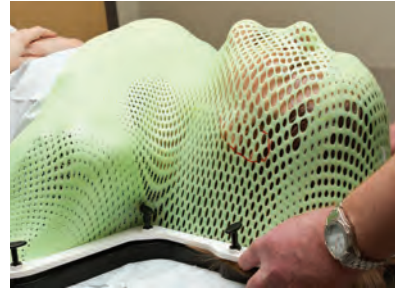
Immobilization aids may be used to help you hold your body still during simulation and treatment. There are two types of immobilization aids:

- thermoplastic shells - may be used for treatment in the head or neck area. They also may be used for treatment on arms or legs.
- vacuum cushions - may be used for treatment for different treatment areas of the body
- Both aids may also be used together.

The type of aid you may need will depend on the area your body is being treated.

## **Thermoplastic Shell - How it's made:**

The shell is made of broadly woven plastic mesh that you can see through and breathe through.



This process takes about 15 minutes.

1. A warm, flexible sheet of woven plastic mesh is placed over you and gently smoothed down.
2. You will be able to breathe normally.
3. When the sheet cools, it hardens.
4. The shell will then be ready to be lifted off.

# Preparing for Your Treatment: Making an Immobilization Aid (Vacuum Cushions)



## Vacuum Cushions

### How it's made:

- Vacuum cushions create a mould of your body position to help you lie still during treatment.
- These bags are filled with tiny pellets, similar to a "beanbag".

This process takes about 15 minutes.

1. A cushion is placed under your body.
2. Radiation therapists move you into the correct position for your treatment.
3. A vacuum pump will remove the air out of the cushion.
4. The vacuum cushion then becomes firm and conforms to your body.

### Some patients may also have:

- A clear plastic sheet that covers you from the armpit/upper chest level down past the feet.
- In this case, a vacuum pump is used to remove the air from between the sheet and the bag.

# Preparing for Your Treatment: Patient Education Session

An education session will occur in person or by phone. It may be scheduled before or at the time of your first treatment appointment.

During this session, a radiation therapist will review the following information with you:

- COVID-19 screening
- your appointment schedule
- what to expect while receiving radiation treatments
- possible side effects that you might have while on treatment
- suggestions on what you can do to help feel better
- support services available

If you have any questions or concerns, please ask your health care providers.





# Preparing for Your Treatment: Treatment Planning

## How is your treatment plan made?



Members of the radiation therapy team review the information from the simulation, along with your previous medical tests.

- Under direction of the radiation oncologist, radiation therapists will use a special computer system to design your personalized treatment plan

This process may take up to 2 to 3 weeks. Some patients may start treatment sooner.

## Treatment: Radiation Treatment Schedules

Please check in with the reception clerks each day to let them know you have arrived for your radiation appointment.

- Weekly schedules are handed out every **Thursday**.
- We ask that you are changed and ready for treatment at your appointment time.
- Our treatment units are busy, but we do our best to run on time.
- Please try to call if you are going to be late. Come to your appointment even if you are late. We will do our best to fit you in.



Tell us as soon as you can when you have other medical appointments. If we have some notice it will be easier to reschedule your treatment appointment if needed.

Most patients will have one radiation treatment every day from Monday to Friday, however schedules may vary. Please ask your radiation therapist if you have questions about your treatment schedule.

Some patients may be scheduled for 2 radiation treatments scheduled in one day. If this happens, there needs to be at least 6 hours between the two appointments.

# Treatment:

## During Treatment Clinic Visits

### During Radiation Treatment - Clinic Visits

While on treatment you may also be scheduled for a clinic appointment with your radiation oncologist, a resident, or nurse.

- The time on your schedule is not necessarily the time you will be seen.
- Patients are seen in order of their arrival to clinic.
- Please allow for extra time on these days.



## Treatment: Follow-up Clinic Visits

### After Your Radiation Treatment - Follow-up Clinic Visits

A follow-up care plan will be decided between you and your health care provider based on your individual needs and requirements.

Your plan may involve a follow up visit with your oncologist or your family physician. This visit may occur in person or by virtual means such as phone or telehealth.

During this visit, lab work, x-rays and tests may be ordered or reviewed. Support for holistic and medical concerns may also be discussed at that time.

If follow-up is not at CancerCare Manitoba, please contact your Family Physician for any issues that occur.



# External Beam Radiation Therapy:

Linear Accelerator Treatment - Available in Brandon and Winnipeg

During external beam radiation therapy, a beam (or multiple beams) of radiation is directed through the skin to the cancer and the immediate surrounding area to destroy the tumor and any nearby cancer cells. The treatments are typically given five days a week, Monday through Friday, for a number of weeks. This allows enough radiation to get into your body to kill the cancer while giving healthy cells time to recover.

The radiation beam is usually generated by a machine called a **linear accelerator, or linac**. The linear accelerator is able to produce high-energy X-rays or electrons for the treatment of your cancer. Using treatment planning computers and software, your treatment team controls the size and shape of the beam, as well as how it is directed at your body, to effectively treat your tumor while sparing the surrounding normal tissue.

## What will happen?

- During set up and treatment, the machine will move around you, but will not touch you.
- Once you are in position, the radiation therapists will leave the room.
- Images are taken to check your position and you may feel the bed move slightly.
- It is important that you **lie very still, but breathe normally, unless instructed otherwise**.
- The treatment will begin and you may hear a "humming" sound when the treatment beam is on.
- All machine and bed movements are controlled by the radiation therapists.
- Do not move until the radiation therapists tell you treatment is done.
- You will be in the treatment room between 15-45 minutes. Certain treatments may take longer.

# External Beam Radiation Therapy:

Linear Accelerator Treatment - Available in Brandon and Winnipeg

## Shaping the treatment beams:

- The treatment units have internal shielding that lets your radiation oncologist shape the radiation beam to match the size and shape of the treatment area.
- This reduces the radiation dose given to the surrounding normal healthy tissue.

The radiation therapists are in the console just outside the room while you are having your treatment. They can see and hear you at all times on their monitors. Tell them if you are uncomfortable or feel ill, so they can stop the treatment and come back inside the room to help you.



# External Beam Radiation Therapy:

Superficial Treatment - Available in Winnipeg

## Orthovoltage-Superficial X-ray Treatment:

Orthovoltage radiation treatments use lower x-ray energy than linear accelerators. These treatments are used for superficial lesions such as scars and skin cancers.

This machine is smaller than the other treatment units and produces a lower energy.



## What will happen?

- Unlike the other machines, this one gently touches your skin during treatment.
- Some patients may need to have a lead cutout to protect the surrounding normal tissue from the radiation.
- There may be a “humming” sound when the machine is on.
- You will be in the treatment room for about 15 minutes. This may be longer on your 1st day.



# Brachytherapy:

High Dose Rate - Available in Winnipeg

## **Brachytherapy, also known as Internal Radiation Therapy (inside of the body)**

### **HDR Unit (High Dose Rate) Brachytherapy**

At CCMB we use this type of treatment for some gynecological patients. During HDR an applicator is placed into the vagina. Tiny radioactive sources travel through the applicator and remain in position for a certain amount of time. Treatment usually lasts for a few minutes; however some patients may need to stay in the department longer.

For some cervix treatments anesthetic or conscious sedation may be required. The conscious sedation puts you in a light sleep and prevents you from feeling any discomfort during the treatment.

- If this is necessary, you will be informed prior to your treatment.



# Frequently Asked Questions & Concerns

## **Can you feel the radiation as it is being given?**

No, you can't feel radiation.

## **Can I still take my medications?**

Tell your radiation oncologist or nurse about any medication you are taking (bring a list or bring the bottles the medicine came in). This includes all vitamins, herbs, supplements, drops and lotions.

## **Will I be radioactive?**

No - if you are receiving external radiation treatments or HDR brachytherapy. The radiation does not stay in your body after treatment.

- After you have had radiation treatment, it is safe for you to be around other people, including children and pregnant women.
- There is no restriction on travelling across borders after having radiation therapy treatment. You will not set off any airport security equipment due to having had radiation treatments.

## **Is it a problem if I miss a treatment?**

- Completing the number of treatments that you have been prescribed is important to your care. However circumstances like sickness, family emergencies or poor road conditions may cause you to miss a treatment.
- Missed treatments will be rescheduled.

# Frequently Asked Questions & Concerns

- If you are going to miss a treatment or if you are going to be late please call your treatment unit. The phone number is **204-787-2252 (Winnipeg) or 204-578-2222 (Brandon)**.

## **Can I tell if the treatments are working?**

No, it is difficult to tell if the radiation has worked while you are still on treatment.

- You will get the maximum benefit from treatment a few weeks after your last treatment.

## **Can I be treated with radiation again?**

Sometimes people have more than one course of radiation treatments. Everyone's cancer is different, so talk with your radiation oncologist about whether or not this is a safe or reasonable choice for you.

## **Will I get side effects?**

Some patients have little or no side effects. Your radiation healthcare team will go over the possible side effects that you might experience while on treatment. Radiation therapy can cause early and late side effects.

- **Early side effects** may happen during treatment or soon after the end of treatment. They may last for several weeks. Some patients notice they reach a peak about 10 days after their last treatment, then they slowly recover.
- **Late side effects** may take months to years to develop and may not go away.

## **Are side effects the same for everyone?**

No, radiation side effects depend on the part of your body being treated, and will affect each person differently.

- You may experience little or no side effects over your course of treatment. However, some people do experience more severe side effects.
- The side effects experienced also depend on the amount of radiation you receive for your personalized treatment plan.

# Frequently Asked Questions & Concerns

## **Should I avoid activity while on treatment?**

No, but you may tire more easily. Fatigue is a very common side effect no matter what area of the body is being treated.

- Fatigue is a daily lack of energy; a feeling of tiredness, weakness or exhaustion. It may come on suddenly and it does not result from activity or exertion.
- Some patients find their energy level is better at different times of the day.
- We encourage you to stay active as much as possible.
- Avoid staying in bed unless your doctor tells you to. Staying in bed all of the time can cause more health problems.
- If you need to take a nap during the day, limit it to only 15 - 20 minutes.

## **Can I work while I am on treatment?**

The effects of radiation treatment are different for everyone. Generally, radiation causes fatigue, which people may struggle with if they continue to work.

- Monitor your energy level and adjust your activity.

## **Can I drive while I am on treatment?**

Most patients are able to drive while they are having radiation therapy treatment unless your radiation oncologist tells you it is not recommended.

**Can I drink alcohol?**

Be cautious about drinking alcohol while on treatment. Alcohol may worsen your side effects, depending on the part of your body being treated.

**Can I smoke?**

We recommend you do not smoke while you are on treatment. Smoking lowers the oxygen levels in your body and radiation treatment works best with higher levels of oxygen. Smoking may also worsen your side effects.

**If you are interested in joining the Quit Smoking Program**

- Call 204-787-1202 or Toll Free 1-888-775-9899 and leave a message.
- Ask a member of your radiation healthcare team to call the Quit Team.
- A Quit Team member will call you to discuss the program and set-up an appointment.

# Frequently Asked Questions & Concerns

## How will I feel emotionally?

Many patients feel tired during radiation therapy, and this can affect your emotions.

- You might feel overwhelmed and anxious at times.
- You may experience unexpected and unsettling mood swings.
- You may feel depressed, angry and frustrated.

The Department of Patient and Family Support Services includes social workers, psychologists and psychiatrists who are specially trained to help you cope.

- Many individuals and families have found it helpful to talk to a professional counsellor.
- A counsellor can meet with you, or together with you and your family or caregiver.
- All support services are offered at no cost to you and your family.



To arrange to talk with a counsellor or for information on support groups and programs call **Patient and Family Support Services** at CancerCare Manitoba at 204-787-2109 or Toll Free 1-866-561-1026 (Winnipeg) or 204-578-2206 (Brandon). You may also ask a member of your radiation healthcare team to refer you.

### **Will having radiation treatments affect my ability or desire to enjoy sex?**

Living with cancer can affect sexual functioning in various ways. Radiation to the *pelvis* may result in sexual changes for both men and women.

- For men it is common to experience difficulty achieving and/or maintaining an erection as well as decreased ejaculate (sperm).
- Women may experience vaginal and/or vulval dryness, as well as shortening and tightening of the vagina.
- Changes in the ability to be sexual with one's partner often lead to decreased desire and feelings of guilt. It is not uncommon for this to cause problems in the couple's relationship.



- Counselling may help you and your partner deal with sexual and intimacy concerns.
- Sexuality information and counselling services are offered through Patient and Family Support Services. Call the office at 204-787-2109 (Winnipeg) or ask a member of your radiation healthcare team to refer you. All the counsellors are available to discuss sexual concerns.

# Radiation Oncology Contact Information:



Your radiation oncologist is:

Your nurse is:

Phone number:

Notes & Questions for Your Radiation Healthcare Team:

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....



---

*All funds raised stay in Manitoba.*

CancerCare Manitoba Foundation provides funding for clinical trials, research and other programs that support our patients.

Version 1.5