

Information for
patients & families

Radiation Treatment



Treatment – Radiation

Access an electronic copy of the book or watch the class or video series at:

 www.ahs.ca/cancertreatment > Radiation Treatment

This book will help you, and your family and friends understand basic information about living your best during radiation treatment.

Read about:

- How radiation is used to treat cancer
- The steps involved in preparing for radiation treatment
- How to recognize side effects
- How to manage possible side effects with the help of your healthcare team

You don't have to read the whole book — pick and choose the sections you want to know more about.

Radiation Treatment Class – Attend in person (where available) or watch it online before



you start your treatment. This will help you get a sense of what to expect, how we keep you safe and some of the resources you can access. Watch it on:

www.ahs.ca/cancertreatment > Radiation Treatment

Bring this booklet to:

- The radiation treatment class
- Your first treatment appointment
- Your simulation appointment
- And then as you need it

Write your questions down — there is space throughout the booklet. If there's any information you don't understand, ask your healthcare team to review it with you.

For more information:



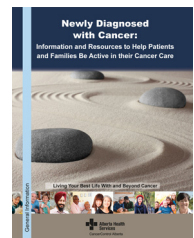
Visit the Patients and Families web pages for more resources.

 www.cancercarealberta.ca

Find community support resources with Alberta 211

 ab.211.ca  211

Check out the **Newly Diagnosed With Cancer Book** if you don't already have it.



My Plan:



I will have _____ treatments.



Write phone numbers or notes here.

Your healthcare team is here to help you and answer your questions.

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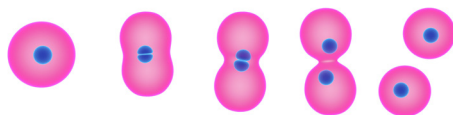
Just Diagnosed

Cancer Basics

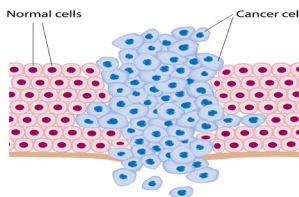
What is cancer?

It's important to understand what cancer is, so you can better understand your options and make decisions about your treatment.

Healthy cells dividing:

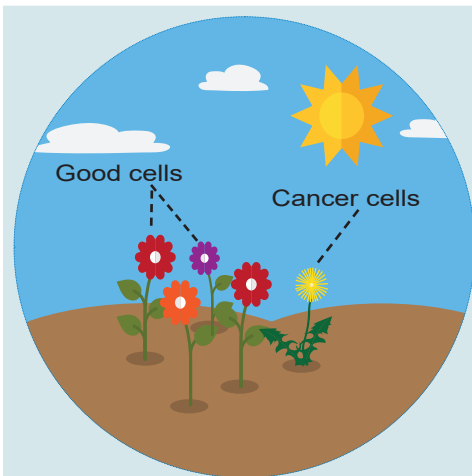


Our body is made up of many cells. **Healthy cells** follow the “rules” when they divide and they know when to die.



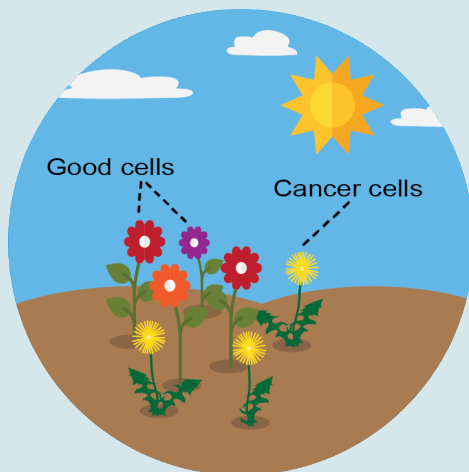
Cancer happens when cells start to grow out of control. When these cells grow and divide, they can form a lump called a **tumour**. Not all tumours are cancer. Some are non-cancerous (also called **benign**).

It might help to use the example of a garden:



A Healthy Body

Imagine your body as a garden. The soil is your immune system, the good plants are your good cells, and the weeds are the cancer cells. When you're healthy, the good plants grow and the soil helps keep the weeds away. When the odd weed starts to grow, the body is able to get rid of it by itself.



A Body with Cancer

Cancer cells are like weeds in your garden. Sometimes the body cannot get rid of the weeds and needs help.

There are many different types of cancer treatments including: systemic treatment, radiation treatment, surgery and cellular therapy. There are different books for different treatments.

Radiation Treatment

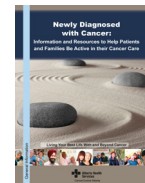
General Information

What is radiation treatment?

It is a cancer treatment that:

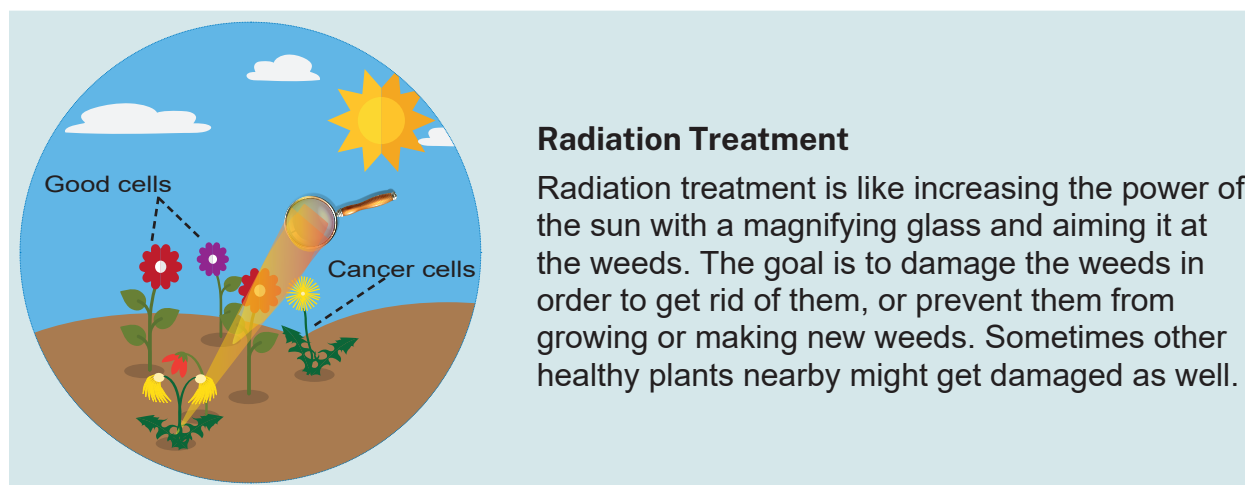
- Uses high energy x-rays to kill cancer cells and shrink tumours.
- Treats many types of cancer as well as some conditions that are non-cancerous.
- Can be used alone or combined with other treatments such as surgery, or chemotherapy.

Find out about all types of cancer treatment in the **Newly Diagnosed With Cancer Book**



When radiation passes through our bodies to kill cancer cells, it also causes damage to nearby healthy cells.

Healthy cells are usually able to repair the damage from the radiation. The damage done to the healthy cells is what causes side effects (see more on [page 19](#)).



Radiation Treatment

Radiation treatment is like increasing the power of the sun with a magnifying glass and aiming it at the weeds. The goal is to damage the weeds in order to get rid of them, or prevent them from growing or making new weeds. Sometimes other healthy plants nearby might get damaged as well.

How is radiation treatment given?

External Beam (most common):

The radiation is produced by a machine and aimed at the tumour, so the radiation source comes from **outside** of the body. ([page 10](#))

Internal Radiation:

The radioactive source is placed inside the body, either **inside** the tumour, or close to it. This is called brachytherapy. ([page 11](#))



How is Radiation Treatment Given?

Visit: www.ahs.ca/cancertreatment

What are the goals of radiation treatment?

The goals of treatment are different for everyone, and can change over time.

Possible goals of treatment are to:

- **Become cancer-free** — to get rid of the cancer from your body
- **Control cancer growth** — to stop the cancer from growing and spreading to other parts of your body
- **Relieve or reduce symptoms** that the cancer may cause such as pain, bleeding, or shortness of breath



How does my healthcare team decide what treatment they should recommend for me?

It depends on the type of cancer you have and where it is in your body. Research has shown us which treatments work best for which cancer. Other things we consider include:

- Your overall health
- If you've had radiation treatment before
- Your concerns and wishes

How much radiation will I get and how many treatments?

Your cancer doctor (radiation oncologist) will decide on a **total dose** (total amount) of radiation for you. Usually the total dose is divided so you only get a part of it each treatment (called **fractions**). The oncologist will also decide over how many day(s) you will get this radiation treatment.

The total dose and number of treatments depends on:

Your type of cancer: Some cancers are more sensitive to radiation and need less radiation to kill the cancer cells, while other cancers might need more.

The treatment goal: If the goal of treatment is to get rid of the cancer, the radiation amount will likely be greater than if the goal is to control the cancer, or to relieve symptoms.

Where the cancer is in your body: The radiation oncologist will prescribe the total tumour dose based on a number of factors such as the type of cells in the treatment area (pathology), stage of the cancer and your physical health.

Where can I have my radiation treatment?

This depends on where you live and the type of cancer you have. It is offered at the:

- Grande Prairie Cancer Centre in **Grande Prairie**
- Cross Cancer Institute in **Edmonton**
- Central Alberta Cancer Centre in **Red Deer**
- Arthur Child Cancer Centre in **Calgary**
- Jack Ady Cancer Centre in **Lethbridge**

Some kinds of radiation treatment are only available in Edmonton or Calgary.

Sometimes people who live out of town choose to have their radiation treatments in a city where they have friends or family to stay with. If you live out of town and do not have a place to stay, talk to your healthcare team to find out what your options are.



Who is part of my healthcare team?

Here are some of the people who play a role in your care:

- **Clerk** — will schedule your appointments
- **Medical Physicist** — checks your treatment plan
- **Nurses** — may teach you about cancer, tests, treatments and help you manage symptoms
- **Radiation Oncologist** (cancer doctor for radiation treatment) — prescribes your treatment and helps you manage your side effects
- **Radiation Therapists** — see you when you come for treatment, give you your CT Simulation, calculate and plan your treatment, deliver your radiation treatment, and help you manage side effects
- **Supportive Care Specialists** — such as dietitians and counsellors

External Beam Radiation Treatment

External beam is the **most common type** of radiation treatment, but there are a few different types of machines.

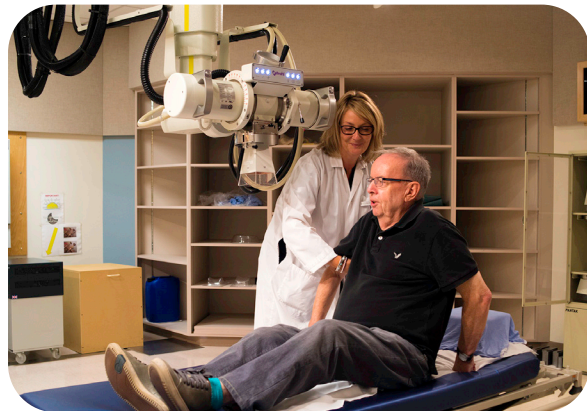
Linear Accelerator (or Linac)

- **Most common** type of treatment machine
- Rotates around you while you lie down in your treatment position
- Can treat any part of the body
- Used to treat cancer and non-cancerous conditions



You may hear some different sounds from the Linac:

- Sheets of metal slide in and out and block some of the radiation to help protect some of your healthy tissues.
- A buzzing noise happens when the radiation is turned **“ON”**.
- The Linac makes noises as it moves around you.



Radio-surgery

- Provides "surgery" to treat the brain using special radiation machines.
- Available in Edmonton at the University of Alberta Hospital using a Gamma Knife machine.
- Available in Calgary and Edmonton using a specialized Linac machine.

Orthovoltage

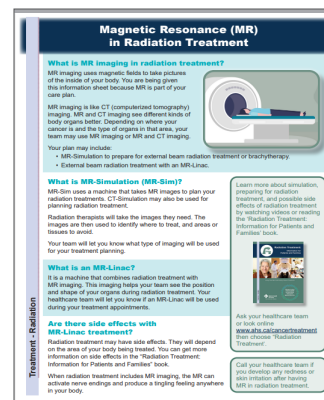
- Uses low energy radiation to treat skin cancer, cancer that has spread to the bones, and some non-cancerous conditions

MR Linac

It is a machine that combines radiation treatment with magnetic resonance (MR) imaging.



See the "Magnetic Resonance (MR) in Radiation Treatment" handout for more information



Internal Radiation Treatment

Internal Radiation treatment is also called Brachytherapy, which means "short distance" radiation treatment. This means the radiation source is close to, or inside your body.

There are different types of brachytherapy:

- High Dose Rate (HDR)
- Low Dose Rate (LDR)
- Intracavitary (in a body cavity)
- Interstitial (in a body tissue)
- Permanent Seed Implant
- Temporary Implant
- Superficial (on the surface of your skin)

Brachytherapy treatments are not covered in this booklet.

If you need brachytherapy, your healthcare team will give you more information about the treatment.

Protect yourself from falls at the cancer centre:

- Use a wheelchair if you need to — you may have a long walk to the treatment unit.
- Staff can use safety straps to help you stand up and move.
- The treatment bed is high above the floor during your treatment — wait for the therapist to tell you when it is safe to get off.
- Use the grab bars in the washrooms and change rooms to help you sit and stand up.
- Be extra careful on escalators, or use the elevator instead.

In Treatment

Preparing for Your Radiation Treatment



There are many steps to help prepare you for radiation treatment. The next few pages talk about what you can expect.

When you meet your radiation oncologist, you will talk about:

- Your cancer diagnosis and treatment goals
- How we use radiation to treat your cancer
- What your treatment schedule will look like

Consenting to treatment

Your radiation oncologist may recommend radiation treatment as part of your cancer treatment, but **you need to decide** if you want to have radiation treatment.

To help make your decision, you need to know the:

- Goals for treatment
- Risks and benefits to getting the treatment
- Other possible treatment options other than radiation
- Possible outcomes if you do not have treatment



You can use the free AHS **My Care Conversations** app to prepare for your next appointment and to audio record conversations with your healthcare team. You can listen to your recordings at home and share with family or trusted friends. Download it from the App Store or Google Play.



Pregnancy and Fertility

If you think you are pregnant talk to your radiation oncologist **before** you start your treatments. Radiation treatment to a pregnant person can affect the unborn baby.



Treatment to the pelvic area can affect your ability to have children later on — **this applies to everyone**. Talk to your doctor about fertility preservation options **before** you start treatment.

Everyone should **use some form of birth control** before and during treatments. If you think you could be pregnant during radiation treatment, tell your healthcare team.

Ask your radiation oncologist when it would be safe to get pregnant after treatment.

Your CT Simulation

A CT (“cat” scan; computerized axial tomography scan) simulation is a planning session that happens before you get your first external beam treatment. It helps the radiation therapists see:



where the tumour is in your body



shape of the tumour



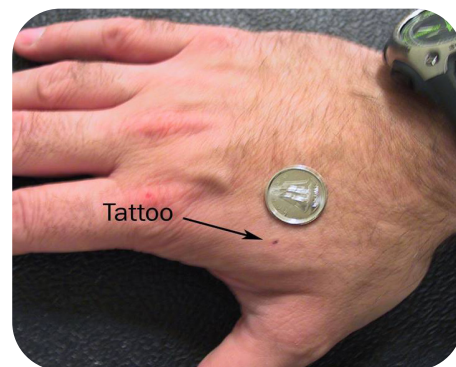
size of the tumour

At your CT simulation, the radiation therapists will put you in your treatment position and takes images of the area you need treated.

The images are used to develop a treatment plan just for you.

The CT simulation helps us be as accurate as possible.

When you come in for treatment, we can aim the radiation at the **same spot every time**, which means that less of your healthy tissues and organs are affected.



Most patients will get permanent tattoos near the treatment area. Each tattoo is the size of a small freckle. Tattoos help us get you into the right position for every treatment.

What is a treatment position?

It is the position you need to be in every time you get your treatment. The radiation therapist chooses your position based on the area being treated.

Some positions include:

- Lying on your stomach
- Lying flat on your back
- Having your arms up above your head
- Wearing a mesh mask over your head, neck, or other body part



Is there anything I need to do to prepare for the CT simulation?

You might get special instructions to help you prepare. They may include:

- Breathing — how to practice holding your breath for your CT scan and treatments
- Bowels — having a bowel movement before your CT scan and each treatment
- Bladder — how much to drink to have a full bladder for your CT scan and treatments
- If you are getting treatment to your head or neck, you will see the hospital dentist. This may happen before your CT simulation, or before your radiation treatments start.
- If you have an implanted cardiac device (ICD) like a pacemaker or defibrillator, there is a very small chance the radiation treatment will affect how your device works. The staff will carefully monitor your heart rate during each of your treatment appointments. You should make an appointment with your **device clinic** so they can check your device after all your radiation treatments are finished.

If you use a **continuous glucose monitor (CGM)**, the radiation from the CT simulation can damage the device. It may not read your blood sugars correctly.



- Throw away your CGM after your CT simulation.
- You can replace and continue to use a CGM until you start your radiation treatment.

During your radiation treatments you cannot use a CGM. You will need to monitor your blood sugar a different way.

Will I need to wear a mask?

Not everyone needs a mask for treatment, but if you do, we create the support especially for you. This ensures it will fit the body shape it is meant to support such as your head, hips or foot.

A mask is used to help your body stay in position, since it's very important for you to stay still during your treatment sessions.

There are many different kinds of masks, but most are made from a plastic material with holes in it. The steps to make a mask include:

1. The plastic mask is warmed using a waterbath or a dry oven to make it stretchy.
2. The stretchy plastic mesh is placed over your head and neck area (or other body part) and secured into position. The mesh is easy to breathe through.
3. The radiation therapists shape the plastic mesh to your body part.
4. It takes about 10 minutes for the mask to cool and harden into shape.



The radiation therapist can offer you ideas for relaxing during the mask making. Ask them if you are nervous.

MR Simulation

Some patients may have a simulation appointment that uses magnetic resonance (MR) imaging. This may be used in addition to a CT simulation, or on its own. If MRI will be used during your radiation treatment, you will get the “**Magnetic Resonance (MR) in Radiation Treatment**” handout.

Planning your Treatment

Who plans my treatment?

Your radiation oncologist, a radiation therapist and a medical physicist will all be involved in planning the best way to treat your cancer.

Treatment planning takes time. There are many things your healthcare team looks at when they make a treatment plan for you such as:

- The shape of your body
- Where the cancer is in your body
- Organs or tissues near the tumour so they can help protect them



How can I Prepare for Radiation?

www.ahs.ca/cancertreatment > Radiation Treatment

Quality Assurance and Safety

We make sure you get the best possible quality of treatment. At many points during the treatment process, we double check our work and our processes. This includes:

- A careful review by the medical physicist of the treatment plan and machine settings.
- A discussion by the radiation oncologist, radiation therapists, and medical physicist about your treatment plan.
- A careful review before every treatment by the radiation therapists to prepare for your treatment.

Your Radiation Treatment Days

Common Questions

When you come for your first radiation treatment, you may be nervous and wonder what is going to happen during treatment. It's important to know that:

- You cannot feel the radiation.
- Most treatment appointments take 10–15 minutes. Most of this time is spent getting you into your treatment position.
- You need to **stay still** for your radiation treatment.
- **You will not be radioactive** after your treatment.

Your first treatment appointment is the longest. For some people, it may take about 30 minutes.

Should I take my medications while I get radiation treatment?

- Take your regular medications as you normally would, unless you were told not to.
- If it's needed for treatment, take your anti-nausea, anti-anxiety, or pain medications as instructed.
- Continuous Glucose Monitors (CGM)** must be removed for all your radiation treatments. Use a different test to monitor your blood sugar. There is no safe level of radiation for a CGM. Continuing to use the CGM during your radiation treatment is dangerous.

What should I bring to my appointments?

- Photo ID, healthcare card
- Questions to ask your healthcare team

Come to all your radiation treatments if you can. If you do miss a treatment, we will have to add another treatment day to your schedule.



Can I still have my treatment if I am sick?

It depends, but usually yes. If you are not feeling well, you may be able to see our nurses to find out what is going on. If you have cold, flu-like, or COVID symptoms, call before coming in.



Why do I have to spell my last name and say my birth date before every treatment?

Safety is our priority. Your name and birth date helps us confirm that you are the person who is supposed to have that radiation treatment.



Will I have to change into hospital clothing for my treatment?

We may ask you to change into hospital clothing for your radiation treatment depending on what area of your body is being treated. This can make it easier for us to position your body and see the marks or tattoos on your skin.



Tell your radiation therapist before every appointment if you are or might be pregnant.

Who gives me my radiation treatment?

Often people think it is the radiation oncologist who delivers the treatment but it is actually trained radiation therapists who do this. Radiation therapists are regulated and licensed to work in Alberta by the Alberta College of Medical Diagnostic and Therapeutic Technologists. (ACMDTT).

Radiation therapists are trained in:

- **CT Simulation** — help to figure out the best treatment position for you
- **Planning** — use computers to plan your treatment (called **dosimetry**)
- **Treatment** — put your body in the right position, and operate the machines to deliver your radiation treatment(s)
- **Patient Care** — give you information about your treatment, possible side effects, and help you manage side effects during your treatment



What is a “Machine Maintenance Day?”



Our Linacs need routine maintenance **every 6 weeks**. **During a maintenance day you may or may not have your radiation treatment.** If you do have treatment, it may be on a different machine or very early in the morning before our specialists take the machine apart.

When will I see my doctor or nurse?



You may see your radiation oncologist or nurse at a regular weekly visit, or it may be scheduled as needed. Some visits can be done over the phone. If you need help managing a side effect, or if you have a concern, you or your radiation therapist can ask to arrange an appointment.

- Remember to ask for prescription refills at this appointment if you need them.
- If you are getting treatment to the area of your head and neck, you may also see a dietitian at this visit.

Connect Care — MyAHS Connect Patient Portal

MyAHS Connect is a secure, online, interactive patient portal provided by Alberta Health Services (AHS), which gives you access to your Connect Care health information.

MyAHS Connect will allow you to:

- communicate with your AHS cancer care team
- see the appointments we schedule for you
- fill out questionnaires before your visits
- add medications you are taking and let your healthcare team verify them with you

To learn more, visit: <https://bit.ly/myahsconnect>



Do not cancel appointments in MyAHS Connect!

If you need to change or cancel a radiation treatment appointment call Radiation Therapy Reception.

What Will Happen at My Treatment Appointments?



The radiation therapists will:

- bring you into the treatment room
- help you uncover the area of your body being treated so they can make sure any belts, zippers and metal objects are out of the way

To help position you the radiation therapists will:

- Use the tattoos or marks from your CT or MR simulation
- Touch and move your body into the correct treatment position
- Use lasers (light beams) to help straighten and level your body

The treatment bed can also help reposition you, so it may move.

You will usually have an X-ray, CT, or MR scan to confirm your body, your organs, or both are in the right position. This is done using the treatment machine. This is sometimes called 'taking pictures' or 'images'.



When you are in position it will be time to start treatment:

- You will hear a beeping noise or chiming sound when the radiation therapists are leaving the treatment room
- You will be alone in the treatment room, but the therapists have a camera and microphone so they can see, hear and talk to you if needed
- The radiation treatment will begin
- The treatment machine may move around you during the treatment
- The therapist may come into the treatment room to check or change something during your treatment - please continue to lie still

You will not feel the radiation



When the radiation treatment is done:

- The radiation therapists will come back into the room and will tell you that the treatment is done
- The therapists will lower the bed
- Once the bed is lowered you will be able to stand up



Side Effects

Possible Side Effects

Are there side effects from radiation treatment?

There are possible side effects. Your cancer care team will talk to you about them, but it does not mean you will have all or even any of them.

Everyone is different. Your treatments are planned just for you, so we can try to limit your side effects as much as possible.

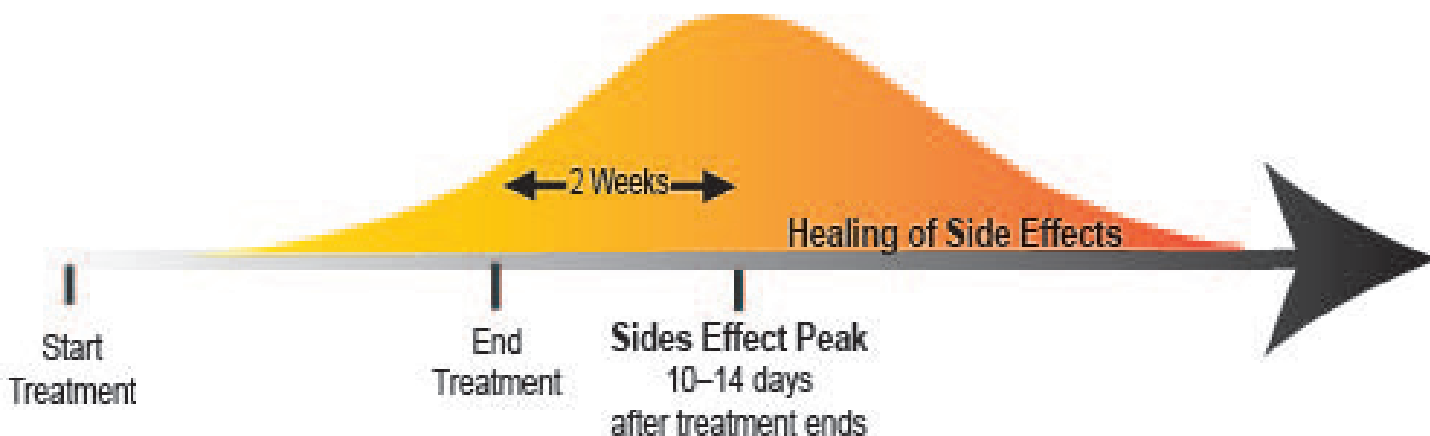
Why do you get side effects from radiation treatment?

The body is made up of billions of cells. Side effects happen when radiation treatment damages the healthy cells in our bodies. Over time, the healthy cells are able to fix themselves which is when the side effects go away.

When will the side effects happen?

Early side effects can start during your treatment, or shortly after. These side effects should go away. Early side effects usually:

- Take 2 to 3 weeks (14 to 21 days) to develop before you notice anything
- Last 1 to 2 weeks (7 to 14 days) after treatment until they start to get better
- Are the worse 1–2 weeks after your all of your treatments are complete



Late side effects may develop weeks, months, or years after treatment. These side effects are sometimes permanent. Talk to your radiation oncologist about late side effects that you could get.

Types of Possible Side Effects

Use this chart when talking to your radiation oncologist to identify the possible side effects you need to watch out for.

If you are also getting systemic treatment - talk with your healthcare provider about how this may impact your possible side effects.

General Side Effects

- may happen when you get radiation treatment to any part of your body **and are common to all radiation treatments**


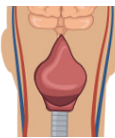
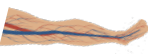
- Fatigue (cancer-related) (p. 22)
- Skin changes (p. 24–25)
- Sleep pattern changes (p. 23)
- Sexuality and intimacy changes (p. 26)

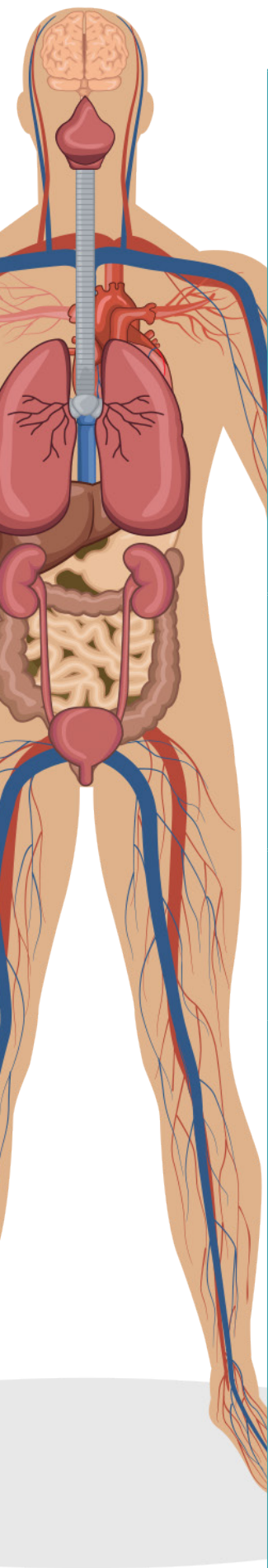
A high fever is not caused by Radiation treatment but it should not be ignored.


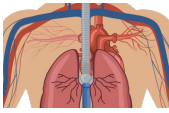
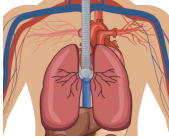
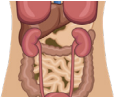
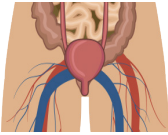
If you have a temperature of 38.0°C that lasts for longer than 1 hour or 38.3°C or higher go to the Emergency Department.

Specific Side Effects

- these side effects happen **only in the area** of the body being treated

Area of Treatment	What to Watch For:	
Brain 	<p>Go to the Emergency Room if you have:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Seizures/blackouts <input type="checkbox"/> Severe headaches <p>Go to the page if you have:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Hearing changes (p. 27) <input type="checkbox"/> Hair loss (p. 26) <input type="checkbox"/> Nausea and vomiting (p. 27) 	<p>Talk to your healthcare team if you have:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Vision changes <input type="checkbox"/> Headaches <input type="checkbox"/> Problems with balance or walking <input type="checkbox"/> A change in sensation in your face, body, arms, or legs such as numbness, tingling, loss of feeling, or weakness <input type="checkbox"/> Vomiting
Sinuses and Mouth 	<p>Go to the page if you have:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Difficult swallowing (p. 25) <input type="checkbox"/> Mouth problems (p. 26-27) <ul style="list-style-type: none"> • Dry mouth • Mouth sores • Dental 	<ul style="list-style-type: none"> <input type="checkbox"/> Hearing changes (p. 27) <input type="checkbox"/> Taste changes (p. 28) <p>Talk to your healthcare team if you have:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Difficulty speaking <input type="checkbox"/> Pain
Arms and Legs 	<p>Go to the page if you have:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Skin changes (p.19-20) <input type="checkbox"/> Hair loss (p. 26) 	



Area of Treatment	What to Watch For:	
<p>Neck, Throat and Upper Chest</p> 	<p>Go to the Emergency Room if you:</p> <ul style="list-style-type: none"> <input type="checkbox"/> are not able to swallow <p>Talk to your healthcare team if you have:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Difficulty speaking <input type="checkbox"/> Pain Shooting down Arm(s) <input type="checkbox"/> Lymphedema (swelling in your face or neck) 	<p>Go to the page if you have:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Difficult swallowing (p. 24) <input type="checkbox"/> Mouth problems (p. 25-26) <ul style="list-style-type: none"> • Mouth sores • Dry mouth • Dental <input type="checkbox"/> Skin changes (p. 19-20)
<p>Breast, Chest Wall</p> 	<p>Go to the Emergency Room if you have:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Chest Pain <p>Go to the page if you have:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Skin changes (p. 19-20) 	<p>Talk to your healthcare team if you have:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Cough or shortness of breath <input type="checkbox"/> Lymphedema (swelling in your arm)
<p>Chest, Lungs</p> 	<p>Go to the Emergency Room if you have:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Chest Pain <p>Go to the page if you have:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Increased cough (p. 24) <input type="checkbox"/> Difficult swallowing (p. 24) <input type="checkbox"/> Skin changes (p. 19-20) 	<p>Talk to your healthcare team if you have:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Heartburn <input type="checkbox"/> Lymphedema (swelling in your arm)
<p>Abdomen</p> 	<p>Go to the page if you have:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Bowel changes: (p. 22) <ul style="list-style-type: none"> • Diarrhea • Cramps • Constipation 	<ul style="list-style-type: none"> <input type="checkbox"/> Nausea and vomiting (p. 27) <p>Talk to your healthcare team if you have:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Increased gas
<p>Pelvis and Genitals</p> 	<p>Go to the page if you have:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Skin changes (p. 19-20) <input type="checkbox"/> Bladder changes (p. 22) <input type="checkbox"/> Bowel changes: (p. 22) <ul style="list-style-type: none"> • Diarrhea • Cramps • Constipation <input type="checkbox"/> Changes for women: (p. 23) <ul style="list-style-type: none"> • Menstruation or vaginal discharge • Vaginal dryness <input type="checkbox"/> Changes for men: (p. 23) <ul style="list-style-type: none"> • Erectile dysfunction 	<ul style="list-style-type: none"> <input type="checkbox"/> Fertility changes (p. 26) <input type="checkbox"/> Pubic hair loss (p. 26) <p>Go to the Emergency Room if you have:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Stopped being able to urinate <input type="checkbox"/> Excessive vaginal bleeding <p>Talk to your healthcare team if you have:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Lymphedema (swelling in your leg) <input type="checkbox"/> Rectal bleeding or blood in your urine
<p>Bone</p>	<p>Go to the page if you have:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Pain (p. 28) 	

Managing Common Side Effects

Fatigue

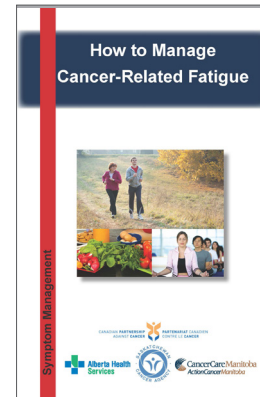
Fatigue or tiredness is a very common side effect related to treatment and cancer. Fatigue is best treated with regular exercise and good nutrition.

Fatigue can make you feel like you:

- are worn out, tired or sleepy, or have no energy
- can't concentrate or think
- lack interest in doing anything with friends or family
- have no interest in sex or being intimate with your partner
- are depressed, disconnected or uninterested in anything



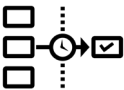

What can cause fatigue?

- cancer treatment
- poor nutrition or not enough calorie and protein intake
- weight loss
- stress
- changes in your daily schedule or interrupted sleep schedule
- low red blood cell count – red blood cells are responsible for carrying oxygen in your body



Get more tips and check out the booklet “How to Manage Cancer-Related Fatigue” — available at your cancer centre.

How can I manage my fatigue?

 <ul style="list-style-type: none"> • Stay as active as possible before and during treatment. Physical activity may be a simple walk once or twice daily. 	 <ul style="list-style-type: none"> • Set a goal of 8 hours night time sleep. A good sleep is more likely when you go to bed at the same time every night and follow a routine.
 <ul style="list-style-type: none"> • Pace yourself day by day. Prioritize and plan your activities according to how you feel that day. • You may not be able to do everything on your list so decide what's most important for you and ask for help from others to complete the remaining tasks. 	 <ul style="list-style-type: none"> • Eat smaller, more frequent meals and snacks. • Eat a balanced diet, with protein rich foods. • Ask to speak to a registered dietitian to learn how nutrition can help manage fatigue.

 For more information on how to manage cancer-related fatigue, visit <https://myhealth.alberta.ca/Alberta/Pages/cancer-fatigue.aspx>

Sleep Pattern Changes

Getting enough sleep helps with healing, digestion, emotional well-being, and cognitive functions like memory and problem solving.

What is a sleep pattern change?







- Difficulty falling asleep
- Difficulty staying asleep
- Waking up earlier than you normally do
- Sleeping more than usual but not waking up feeling rested

Why does this happen?

There are many things that can cause changes to your sleep, such as:

- The cancer itself
- Insomnia (where you can't seem to fall asleep)
- Side effects from the cancer treatment, such as diarrhea, or nausea
- Stress
- Pain
- Fatigue
- Emotional changes

What can I do to help improve my sleep pattern?

 <ul style="list-style-type: none"> • If you nap during the day, try and nap between 1 and 3 pm and only for 30 minutes. • Nap on the couch or in a recliner. Save the bed for sleeping at night. 	 <ul style="list-style-type: none"> • If you feel depressed – let your healthcare team know. • Speaking with a social worker or psychologist can help you to talk about your concerns in a safe and caring environment.
 <ul style="list-style-type: none"> • Take your medications as prescribed to help manage pain or your nausea and vomiting. 	 <ul style="list-style-type: none"> • Turn off all electronic devices 1 hour before you fall asleep — this includes televisions, cell phones, and laptops.
 <ul style="list-style-type: none"> • Exercise – even if it is for a short walk (page 39). 	 <ul style="list-style-type: none"> • Create a calm, quiet environment to sleep in.

Changes to Your Skin and Tissue Tightening

Radiation treatment can cause skin irritation during or after treatment. This depends on the:

- Dose of radiation given each day
- Area of the body being treated

The skin in some areas of the body is more likely to get irritated from the radiation treatment.

This can happen because of the shape of our bodies, or from the skin rubbing together in areas such as:

- Under the breast fold
- Groin
- Behind your ears
- Neck
- Armpit

What are the signs and symptoms?

- Dry, itchy or cracked skin
- Redness, warmth, or swelling
- Tenderness
- More sensitive to sunlight, wind and cold

How will I know if I have skin irritation?

There are different levels of skin irritation and different signs and symptoms:

Skin Changes	Mild	Moderate	Severe
Signs and Symptoms	Your skin becomes a little bit darker Warm Itchy	Your skin becomes more dark Dry with flaking Itchy	Your skin becomes a lot darker Blistering Weeping (fluid from the wound)

How can I prevent or manage my skin irritation?



- Use unscented creams and mild soaps that are gentle on your skin.
- Apply cream after you dry off from a shower, while your skin is still slightly damp — it will help to keep your skin moist and soft.
- Avoid creams, soaps, and other hygiene products with alcohol, perfume, lanolin or AHA (Alpha Hydroxy Acids). These can dry or irritate your skin.
- Ask your healthcare team what products **they recommend**.



- Wash the treated area daily
- Take short showers or baths in lukewarm, not hot, water.
- Pat your skin dry rather than rubbing it dry.
- Use a soft washcloth and towel.



- If your lips are in the treatment area and are dry, ask your doctor what to use to help keep them moist.



- Do not shave in the treatment area.
- Avoid waxing or hair removal creams in the treatment area — they can irritate your skin.



- Keep your nails clean, cut short, and avoid scratching.



- Keep your skin covered up.
- Wear a hat with a wide brim.
- Avoid sunscreen during radiation treatments in the area being treated.



- Protect your skin by not using heating pads, or ice packs in the treated area.



- Eat a healthy diet (p. 38).



- Use deodorant unless your radiation oncologist tells you to stop.



- Swimming in pools is fine as long as your skin changes are no more than mild (p. 24). Rinse well after and apply cream.
- Avoid using a hot tub or sauna during treatment.



- Avoid using tape or bandages in the area being treated.

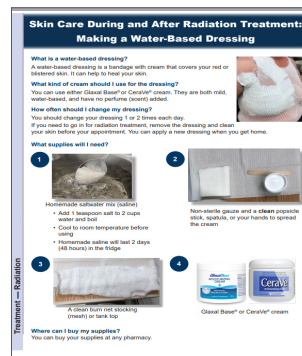


- Wear loose fitting clothes so they do not rub the treated area.
- Use a mild detergent to wash clothes.

Applying a Water-Based Dressing

Ask your healthcare provider how to apply a water-based dressing.

See the "Skin care during and after radiation treatment" handout for more information



Skin and Tissue Tightening (Fibrosis) in the Radiation Treatment Area

Signs and symptoms of tissue tightening in the area treated can include:

- Pulling sensation of the skin
- Reduced stretch in the skin
- Reduced flexibility in your joints – such as in your hips after pelvic radiation

Regular, gentle stretching can help. If you notice your range of motion is getting worse, tell your doctor. A physiotherapist can help you improve.



Sexuality and Intimacy Changes

Sexual health affects people of all ages, genders, sexual orientations, cultures and beliefs. It can be an important part of your personal identity. Cancer and the treatments can alter your sexuality and the intimacy you have with your partner in different ways. Sexuality can mean something different for each person and can change over time.

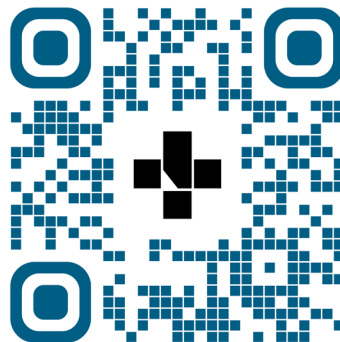
What are some common concerns for cancer patients?

- Vaginal symptoms — pain with sexual activity, vaginal bleeding, dryness or discomfort
- Erectile dysfunction — difficulty getting or maintaining a firm erection
- Hormonal changes — hot flashes, changes in body, fatigue
- Body image — changes in how you feel or think about your body
- Loss of libido — less interest in sex, loss of sexual fantasy or thoughts
- Difficulty with arousal or orgasm — feeling like your body is not responding sexually like it used to
- Relationships — changes in roles, not connecting with your partner
- Anxiety or fear related to sexual activity, loss of sexual confidence, uncertainty about being sexual

For more information or help talk to your healthcare providers, or

Visit <https://myhealth.alberta.ca/HealthTopics/cancer-and-sexuality>

or scan the QR Code below:



Managing Side Effects Specific to the Treatment Area

Bladder Changes

During your treatments, you may pee (urinate) more than usual. You may also have some discomfort, or difficulty peeing. There may be medicine that can help.

What can I do to manage bladder changes?



- Drink enough fluid during the day to keep your urine light yellow
- Drink less fluid in the evenings so you don't need to get up as often during the night
- Drink unsweetened cranberry juice to help prevent a bladder infection
- Do not drink alcohol or caffeine — these can cause you to pee more often



Tell your radiation healthcare team if you notice:

- pain
- burning
- your urine turning dark brown or red
- **Fever, chills, body aches, nausea or vomiting**
- **You are unable to pee**

If you have these symptoms after hours, go to an Emergency Room.

Bowel Changes

Radiation treatment can cause changes to your bowels.

What can I do to manage bowel changes?

Talk to your doctor about the best medicine for you.

Do not take any home remedies or over-the-counter medicine without speaking to your healthcare team first.

Talk to your healthcare team if you have any of these side effects during your treatments:

- cramps
- constipation
- diarrhea



- Try not to eat foods that are fried, greasy, or spicy.
- Try not to eat foods that cause gas.
- Eat small meals every few hours instead of eating 3 large meals a day.

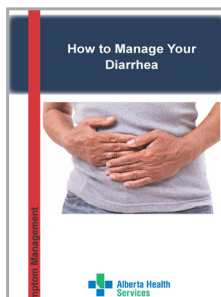


- Drink enough fluids to keep your urine light yellow.

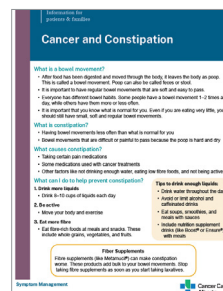


- Your healthcare team may suggest a supplement or over-the-counter medicine to help make your bowel movements more regular. Your healthcare team may also ask you to use an over-the-counter medicine to help stop diarrhea.

Ask for the booklet "How to Manage Your Diarrhea" at your cancer centre



Ask for the "Cancer and Constipation" handout at your cancer centre



Changes for Men

Radiation to the pelvis **may** cause long lasting damage to the blood vessels and nerves in the penis. This can result in men needing more stimulation to get an erection. Erections may not be as firm as before. These changes will not happen right away but may slowly develop over the months and years after your treatment



Your doctor may recommend a pill (oral medicine) to help with erections. In some cases, these medications may not be very effective.

There are other options for treating erectile dysfunction such as vacuum therapy or injection therapy.

Talk to your doctor or nurse, or check the resources on [page 26](#).

Changes for Women

Radiation therapy **may**:

- Cause early menopause which can lead to vaginal dryness and less interest in sex.
- Increase vaginal yeast infections and bladder infections. These can be treated easily with medication but intercourse might be uncomfortable.
- Cause women to have less natural lubrication when sexually aroused, which may cause pain with intercourse. Use a water-based lubricant to help make intercourse more pleasurable.



To help make intercourse and pelvic exams more comfortable, your radiation oncologist or nurse may recommend that you use a:

- Vaginal moisturizer such as Replens® if your labial (external genitals) or vaginal tissues become thin and dry. This is available over-the-counter in most drug stores.
- “Dilator” to help stretch and open vaginal tissues.

If you are feeling pain during intercourse, talk to your doctor or nurse. They can help.

Menstruation or Vaginal Discharge

Depending on the area being treated, you may find your periods become irregular or stop. Also, a small amount of vaginal discharge is normal.

Cough

Radiation treatments to your chest may cause you to cough. If you already had a cough before your treatments started, your cough may get worse.

The cough can be either dry and hacking or moist and produce mucus. You can speak to your doctor about possible medicines to help reduce your cough or mucus.

Tell your radiation healthcare team if:

- Your cough changes
- You are having problems with your breathing
- It hurts to breathe

What can I do to help with a cough?



- Increase the humidity in your home if you have a **dry cough**.



- If you have a **moist cough**, talk to your doctor about possible medicines or therapies to help with your cough.



- Drink enough fluids to keep your urine pale yellow. This will also help to loosen mucus.
- Try drinking club soda (no or low sodium) — it can help break up the mucus.



- Sleep with your head raised a little higher. You can do this by putting a wedge or block under the legs at the head of the bed.

Difficulty Swallowing

You may find you have a sore throat, trouble swallowing, or feel like you have a lump in your throat. This can make it harder to eat or drink, and sometimes to speak. You need to eat a diet that has a lot of protein and calories during your treatments.

To increase your protein when you are having trouble swallowing:

- Drink nutrition supplements such as Ensure® or Boost®.
- Mince or puree your meat.
- Add unflavoured protein powders to liquid or food.
- Talk to your radiation healthcare team or dietitian if you need more help.

What do I do if I have a sore throat or trouble swallowing my food?



- Eat soft, bland foods — spicy, acidic or citrus things such as tomatoes or foods with vinegar might irritate your throat.
- Keep food moist and easier to swallow by adding sauces, gravies, butters or oils.
- Eat foods served at room temperature.



- Try not to drink alcohol.



- Try not to smoke or use tobacco products.



- Choose drinks that are not acidic or citrus.
- Take sips of a liquid while eating.

Trouble swallowing your food? Call a dietitian or get a referral to a speech language pathologist for more help.

Mouth Problems

Dental Care

Radiation to your mouth area can cause problems with your teeth. If you need dental care and your jaw is in the treatment area, you may need to see the hospital dentist.

During and after your treatments, take good care of your teeth and mouth to decrease your discomfort and prevent infection. If you need other types of care for your mouth or jaw, your healthcare team will speak with you about your needs.



How can I keep my mouth clean?

- Brush your teeth and tongue 4 times a day with a soft toothbrush and mild toothpaste. Use toothpaste for sensitive teeth.
- Do not use mouthwashes with alcohol in them since they can dry your mouth.
- Rinse and gargle your mouth at least 2 times in the morning, afternoon and evening with club soda or a mixture of baking soda and water (1 tsp of baking soda in 2 cups of water, made fresh daily).

Dry Mouth

Radiation treatments to your head and neck area may cause you to have less saliva or thicker saliva. With less moisture, it may hurt to wear dentures.

Tell your radiation healthcare team if you have a dry mouth.

What can I do to help with a dry mouth?



- Keep foods moist and easier to swallow by adding sauces, gravies, butters, and oils.
- Eat small meals every few hours instead of 3 large meals per day.
- Try eating soft, bland foods — spicy, acidic, or citrus things such as tomatoes, or foods with vinegar can irritate your mouth and throat.
- Choose easy-to-swallow foods packed with energy:

Milk-based: milkshakes, smoothies, creamed soups, greek yogurt, cottage cheese, whipping cream or nutrition supplement drinks such as Boost® and Ensure®.

Non-milk options: fruit smoothie with protein powder, broth-based soups with meat/beans, high protein oatmeal, stew, soft or canned fruit, casseroles, soft cooked eggs, applesauce, mashed vegetables, flavoured dessert tofu



- Aim for at least 6-8 cups (1.5-2 liters) of fluids to keep hydrated.
- Take sips of a liquid while eating to keep foods moist.
- Try sipping club soda (no or low sodium) between bites/sips of milk products — it can help wash away mucus build up.
- If milk products cause more mucus for you, choose food and drinks without milk.



- Use a humidifier to keep the air moist, especially at night when you are sleeping.



Try not to drink alcohol — it can make your mouth more dry.



Try not to smoke or use tobacco products.

Sore Mouth and Throat

Dealing with a sore mouth or throat is similar to dealing with a dry mouth.

What can I do to help with a sore mouth and throat?



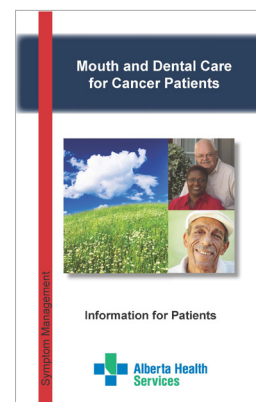
- Take your time eating, eat in a relaxed environment and choose foods that need less chewing.
- Keep your foods moist and easier to swallow by adding sauces, gravies, butters, and oils.
- Eat soft, bland foods that won't irritate your throat.
- Avoid spicy, citrus and acidic foods.
- Do not eat foods that are too hot or too cold.



- Take sips of a liquid while eating.
- Avoid spicy, citrus and acidic drinks.



- Try not to drink alcohol — it can make a sore mouth and throat hurt more.



Get more information from the "Mouth and Dental Care for Cancer Patients" booklet available at your cancer centre.

Taste Changes

Radiation treatments may cause changes in the way food tastes. Taste changes and difficulties eating may cause you to feel less hungry.

What can I do to help with taste changes?

Here are some tips you can use that might help you eat enough to keep up your strength.



- Try new foods, or foods that you have not tasted for a while.
- Try using plastic spoons, forks, and knives if the food seems to taste like metal.
- Eat small meals every few hours instead of eating 3 large meals a day.
- Eat foods that are high in protein and calories ([page 38-39](#)).

Hair Loss

If you do lose hair, it will only be on the part of your body being treated — it could be the hair on your head, arms, chest or even pubic hair. If you lose hair, it may or may not grow back. If it does grow back, it will start about 3 to 6 months after radiation treatments are done. Speak with your radiation healthcare team if you have any questions or concerns about hair loss.

If you do lose the hair on your head, these resources may be helpful:

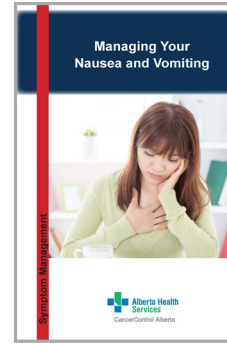
Canadian Cancer Society
Find a wig
 email info@cancer.ab.ca
 call toll-free 1-800-661-2262

Look Good...Feel Better
 call toll free 1-800-914-5665
 look online www.lgfb.ca

Alberta 211
 for resources in
 your area

Nausea and Vomiting

Nausea and vomiting are common side effects for patients who are treated in the abdomen area. You may feel sick to your stomach during your radiation treatments. This is called nausea and it may lead to vomiting.



Ask for the booklet "Managing Your Nausea and Vomiting" from your cancer centre

What can I do to manage nausea and vomiting?



- Eat small meals every few hours instead of eating 3 large meals a day.
- Choose foods that can be served cold or at room temperature. Hot foods sometimes have strong smells that can make your nausea worse.
- Have someone else prepare your food when possible.
- Try not to eat greasy, fried, or spicy foods.
- Eat foods high in protein and calories (see [page 38-39](#) for more information)



- Drink fluids before you eat
- Drink fluids between your meals to keep you from becoming dehydrated.
- Drink only a small amount with your meals.
- Drink 8-10 cups of fluid to keep hydrated (try diluted juices, popsicles®, fruit drinks, weak tea and gingerale)



- Try not to lie down for at least 2 hours after you eat.



- If you do not feel hungry, light exercise may help to build your appetite.



- Don't wear clothing that is tight around your waist or stomach.



- If your doctor prescribes medicine for you, start taking it when your doctor tells you to. Some medicine works to prevent nausea before it starts.



If the nausea or vomiting lasts longer than 24 hours (even though you are taking your anti-nausea medications), or you have side effects from the anti-nausea drugs, call the contact numbers your healthcare team gave you.

Pain

What effect will the radiation have on my pain?

If you had bone-related pain before starting radiation treatments, it may get worse after your treatments start. For 3 to 7 days after treatment, you may notice a little to a lot more pain or discomfort in the treatment area. The goal is to eventually reduce your pain.

What can I do if I do have pain?

Keep taking your pain medicine. If you don't have any pain medicine and you need some, speak with your radiation oncologist.

How long does this side effect last?

This increase in pain usually goes away within days to 1 or 2 weeks after you finish your radiation treatments.

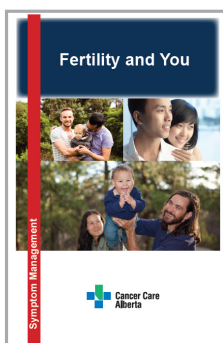
Hearing Changes

If your ear is close to the treatment area, you may have swelling in the ear. This swelling could cause you to have an earache. These symptoms will go away after your treatments are done. Tell your healthcare team if you have pain or trouble hearing.

Fertility

People who have radiation treatment to the pelvis area may not be able to have children since radiation treatment can damage sperm or eggs. These changes may gradually go away after treatment, or they may be permanent.

If fertility is important to you, be sure you talk with your doctor about fertility preservation options, **before** you start your treatment.



Ask for the booklet "Fertility and You" from your cancer centre

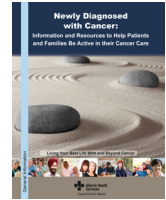
Living Your Best

Emotional Self-Care and Awareness

Difficult emotions often happen during cancer and its treatments. Experts can offer counselling to patients and family members to help reduce emotional distress and explore coping techniques.

They help with things such as communication, stress, coping with treatment side effects, mood changes, quality of life, body image or loneliness. Patients and family members are welcome to call and ask for an appointment or information.

Find out more and get contact information in the **Newly Diagnosed With Cancer Book**



Anxiety

What is anxiety?

Anxiety is a feeling of worry, fear, or being nervous and is a normal feeling for patients and families to have when going through a cancer diagnosis.

People who learn about their cancer and treatment options may feel more in control and have less anxiety.

Be ready for your appointments with a written list of questions, and bring a support person if you can.

What are signs and symptoms of anxiety?

- Feeling restless, worried, or not able to relax
- Feeling moody or stressed
- Tense muscles
- Trouble sleeping

Some people have strong anxiety which can cause anxiety attacks. You may feel:

- Feelings of doom
- Shortness of breath
- Heart palpitations (your heart feels like it is fluttering or pounding)
- Dizziness and nausea
- Chest pains

What causes cancer-related anxiety?

- Finding out you have cancer
- Waiting for test results
- Dealing with an anxiety disorder before you had cancer
- Medications, like steroids or some anti-nausea medications
- Fear of cancer coming back, suffering, or dying
- Having new symptoms that scare you
- Worrying about your family, especially if you have kids
- Feeling like you have no control over your life
- Worrying about money, your job and other practical things
- Feeling badly from side effects like nausea and pain
- Depression

Depression

Depression is when feelings of sadness are strong and will not go away for weeks or months. A person who is depressed cannot just “snap out of it” or “cheer up”. It can cause physical and emotional symptoms and may make it harder to cope with cancer and enjoy other aspects of your life. It is normal to feel sad when you have cancer.



If you are having thoughts of self-harm or ending your life, call 911 or go to your nearest Emergency Room right away.

What causes cancer-related depression?

- Learning you have cancer or your cancer has returned
- News your cancer cannot be cured
- Feeling a loss of what your life was like before cancer
- Depression or addiction before your cancer diagnosis
- Feeling isolated
- Some chemotherapy medications or hormonal treatments
- Pain or fatigue
- Side effects like hair loss, nausea, or sexual problems
- Changes in your body, like losing a breast

What are the symptoms of depression?

People can have both physical and emotional or mental symptoms when they have depression. Some of the symptoms are:

Physical symptoms:	Emotional and mental symptoms:
<ul style="list-style-type: none"> • Low energy • Feeling sluggish or restless and agitated • Sleeping and eating more or less than before 	<ul style="list-style-type: none"> • Feeling hopeless or worthless • Not enjoying the things you used to enjoy • Feeling of guilt or regret • Wanting to die • Worsened anxiety • Having trouble thinking or remembering things

What can I do to help my depression or anxiety?

Find support:



- Talk to someone you trust and who is a good listener — friends, family or co-workers
- Talk to a social worker or psychologist about support programs at your cancer centre and in your community
- Get professional help. Professional counselors can help you learn new ways to manage your anxiety and worry

Focus on things that make you feel better:



- Think about the positive parts of your life and the things you can control
- Spend time with people who make you laugh and avoid those who are negative



- Get a good sleep — this can give you more energy and help you feel better emotionally



- Exercise and take care of your body. It is a good way to help you feel better and improve your mood



- Some people find writing in a journal or expressing their feelings through art can help



- Try to limit or avoid alcohol because it can lower your mood



- Try relaxation activities like listening to music, yoga, or deep breathing

If you feel depressed, let your healthcare team know. With professional counselling, you can learn about different ways to help you cope and feel better.

In addition to counselling support, it may also help to see other specialists such as resource counsellors for practical concerns or psychiatrists.

Maintaining and Improving Quality of Life — What Palliative Care Can Offer

Palliative care is often misunderstood and can be seen as a negative or scary thing. In fact, it can provide many benefits to both patients and families.

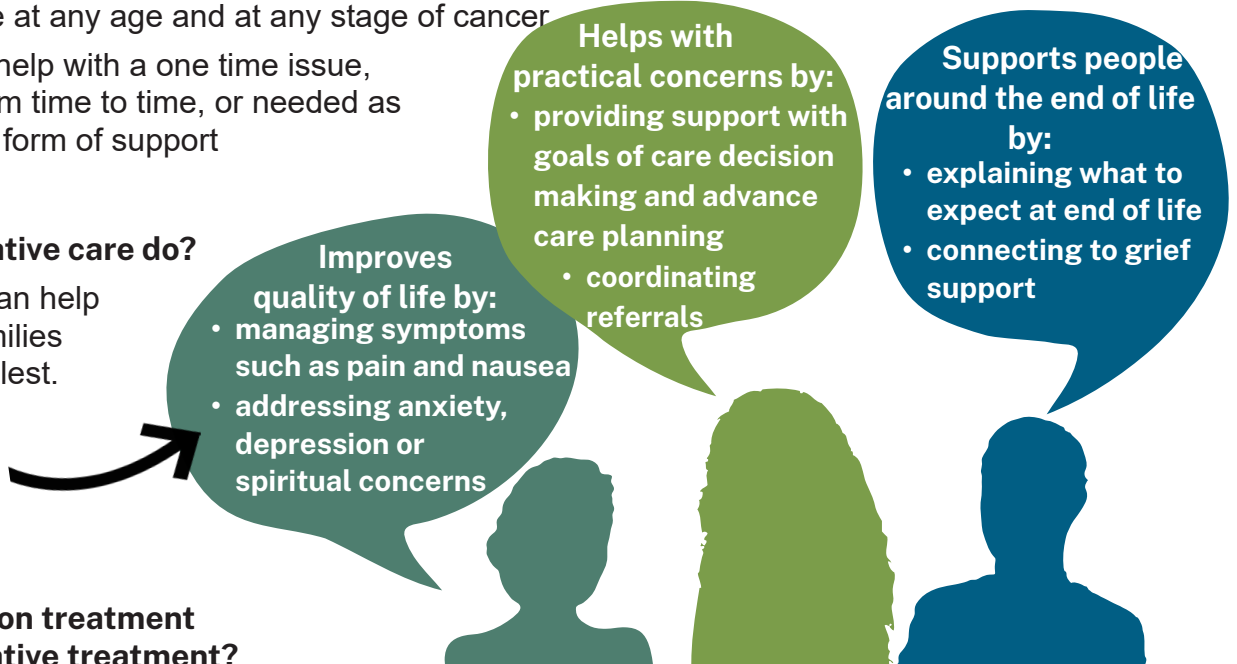
Palliative care can be:

- provided along with treatment for the cancer or by itself
- an added layer of support for you and your family
- appropriate at any age and at any stage of cancer
- needed to help with a one time issue, needed from time to time, or needed as a longterm form of support

What can palliative care do?

Palliative care can help patients and families live life to the fullest.

Palliative care:



When is radiation treatment used as a palliative treatment?

Radiation is used to treat tumours that have spread to other areas of the body and are causing pain or other symptoms. It doesn't get rid of the cancer completely but it can help you be more comfortable so you can do the things you want to.

Who provides palliative care?

Your current care team can provide some palliative care. There are also specialized palliative care teams (doctors, nurses, pharmacists, social workers and other professionals) who work together with you, your cancer doctor and your family doctor to focus on issues important to you. This team works with you to make care plans based on your values, preferences and wishes.

How do I get palliative care?

Palliative care is available in the home, community, nursing homes, outpatient clinics and hospitals. If you think palliative care may help you ask your care team for more information.

For more information:

- Talk to your healthcare team
- Find out more about palliative care in Alberta or find programs and services in your community - <https://myhealth.alberta.ca/palliative-care> (Alberta)
- Check out www.virtualhospice.ca and livingmyculture.ca (Canada)

Improving Your Health and Lifestyle

Taking care of yourself is important during treatment. Listen to what your body is telling you and don't push it – do what you can for that day. Every day is a new day and how you feel, physically and emotionally, depends on the day. Here are some helpful tips to help you achieve living your best through treatment:

- Carry on with everyday activities if you feel up to it
- Ask for help, and accept it when it's offered
- Explore what works best for you – not everything is going to work for everybody
- Surround yourself with people who can help and support you

“When possible, attend the classes offered at your cancer centre. Not only is there good info, but you'll learn about great resources and likely find a fellow patient you can relate with. — C.K.”

Exercise

Cancer and treatments can sometimes make you feel very tired or fatigued. This is a common side effect for people getting treatment. You might find you lack the energy to do much, but even a little bit of light exercise can help you feel better. Always talk to your healthcare team before you start a new exercise program.

Studies show that exercise helps patients feel better — even something as short as a 10–15 minute walk.

“Get moving any way you can. If you feel like you are just not up to it, get dressed anyway, get out the door and take a few steps. You may just find you make it further than you thought you could. — C.K.”

Keeping active can help you:

- Have more energy, and less fatigue
- Maintain or build muscle
- Improve your coordination and balance — this may lower your risk for falling and injuring yourself
- Have less nausea
- Have greater independence in your daily activities
- Improves your memory and helps you sleep

Rehabilitation Oncology

Rehabilitation (also called “**rehab**”) aims to help you return to normal activities as soon as possible and is very important for patients with some types of cancer and cancer treatments. You may need a referral for this service, so ask your healthcare team.

Rehab can include physiotherapy, occupational therapy, and speech-language pathology.

Nutrition

Nutrition can improve your treatment outcomes and quality of life. Adopt a high calorie and protein diet to provide your body the energy to heal.

Choose a variety of foods:

- vegetables and fruits
- whole grain foods
- protein foods

Eat foods with protein to help you:

- heal and recover
- meet your protein needs
- maintain strength and muscle health
- keep your immune system healthy

Eat enough so you don't lose weight

If your appetite is poor, it may help to eat smaller meals more often, and eat snacks between meals. It may help to eat foods that are higher in energy (calories).

During cancer treatment, **protein and water are very important**. Protein helps your body rebuild healthy cells, and water helps flush away waste, cushions your joints, and helps regulate your bowels.

Higher calorie foods with protein:



beef, pork, poultry, fish, and eggs



milk, cheese, yogurt, and cottage cheese



beans, lentils, nuts, nut butters, seeds, and tofu



protein powders, nutrition supplement drinks, and soy beverage

Higher calorie foods:



avocado, dried fruit, granola, whipping cream, sour cream, and wheat germ



margarine, butter, vegetable oil, salad dressing, mayonnaise, creamy sauces, gravy, and coconut milk



sugar, syrup, jam, candy, and desserts

If you want more information on what to eat, drink, or both, tell your healthcare team you would like to speak with a dietitian. A dietitian can give you guidance and tips for healthy eating during your treatment.

If you have lost weight, or your appetite has changed, talk to your dietitian or nurse.

www.albertahealthservices.ca/nutrition/Page11115.aspx

Alcohol

With some drugs, you may need to limit the amount of alcohol you drink or avoid it altogether. Ask your clinic nurse, doctor, or pharmacist.

If you find you have questions or need help, let your healthcare team know. There are resources available to support you and your loved ones during your cancer treatment.

Tips from the Canadian Cancer Society to help you reduce your alcohol:

- Plan ahead and set a limit on the amount you will drink
- Choose the smallest serving size
- Dilute alcoholic drinks, or choose low-calorie or low-alcohol alternatives.
- Don't drink alcohol when you are thirsty. Have a glass of water or a soft drink first
- Keep at least a few days each week alcohol free
- Avoid salty snacks such as potato chips or nuts while drinking alcohol.
- Drink alcoholic beverages slowly and space out your drinks.
- Eat before and while you are drinking.
- Don't use alcohol to cope with stress.

Tobacco Products

We know stopping the use of tobacco can be difficult and often takes several tries. By stopping your tobacco use after a cancer diagnosis, **you can improve your health and your body's response to treatment**, whether it's surgery, radiation treatment or systemic treatment.

Studies show many important benefits of quitting the use of tobacco after a cancer diagnosis, including:

- A better chance of successful treatment
- Fewer serious side effects
- Faster recovery from treatment
- Decreased risk of the cancer coming back, or getting another cancer diagnosis
- Lower risk of infection
- Easier breathing
- More energy
- Better quality of life

Cancer patients who quit tobacco say they **feel better physically, emotionally, and have a better quality of life!** Now is the BEST time to be tobacco free.

To find out more, visit:

Alberta Quits: www.AlbertaQuits.ca or call 1-800-QUIT(7848)

Healthier Together: myhealth.alberta.ca/healthier-together



Integrative Oncology

Integrative Oncology is a patient-centred, evidence-informed part of cancer care that uses complementary therapies such as mind and body practices, natural products, and/or lifestyle changes along with standard cancer treatments.

Integrative oncology aims to improve health, quality of life, and clinical outcomes, and to empower people to become active participants before, during, and after cancer treatment.

Complementary therapies can include:

Psychological	Physical	Nutritional
<ul style="list-style-type: none"> • Mindfulness and spiritual practices • Meditation • Breathing and relaxation techniques • Art and music therapy 	<ul style="list-style-type: none"> • Exercise • Yoga, Tai Chi, Qigong • Massage therapy • Acupuncture • Heat or cold therapy 	<ul style="list-style-type: none"> • Nutrition and counselling • Supplements (vitamins and minerals) • Herbal products • Pre and probiotics

Talk to your oncologist or family doctor if you are thinking about using complementary therapies or if you have any questions or problems. Check with your pharmacist or registered dietitian to see if there are possible interactions with medications or supplements.

Does my healthcare team need to know if I am using complementary therapies?



Yes. Tell your oncology team about any complementary therapies you are using or natural products you are taking. Some complementary medicine may make your treatment less effective. It's always best to talk to your healthcare team before you start any additional treatments or therapies.

The Action Centre

The ACTION Centre (Alberta Complementary Therapy and Integrative Oncology Centre) promotes and facilitates evidence-based integrative oncology care throughout Alberta.

To find out more, visit www.action-centre.ca

- Nutrition classes
- Exercise, yoga and mindfulness programs
- Integrative oncology video series
- Evidence-based resources

After Treatment

Completing Your Treatment

After your treatment is done, continue to manage your side effects until you start to feel better. In general, side effects start to lessen 7–10 days after radiation treatment is complete. Most short-term side effects should clear in about 6–8 weeks. If you are on other treatment such as chemotherapy, you may feel the side effects for a longer time.

As long as you have side effects, continue to do the things that help manage them. If you need help managing the side effects, contact your cancer centre.

Most people will have a follow up appointment 6–12 weeks after radiation treatment is complete.

- **This gives your body time to heal from treatment.**
- You may need to do some tests before coming for this follow up appointment — your healthcare providers will let you know.

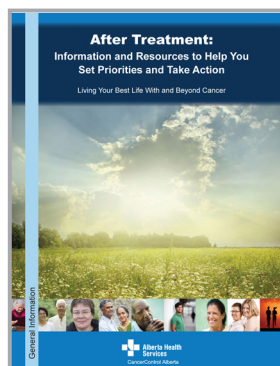
Your Cancer Follow-Up Appointments

After you finish **all of your treatments** for cancer at the cancer centre, your oncologist or healthcare provider will talk to you about your follow-up care. There are 2 possibilities for your follow up care:

1. **Shared Care:** you may have your follow-up appointments at the cancer centre. Speak to your healthcare team about your schedule. **You will need to see your family doctor for all other health concerns.**

OR

2. **Primary Care:** your oncologist might transfer your follow-up care from the cancer centre to your primary healthcare provider (such as your family doctor). You will see your primary healthcare provider for any tests and follow-up appointments for routine cancer checks (surveillance).



Ask for the book
"After Treatment"
or view online at:

www.ahs.ca/aftercancer

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The information is to be updated every 3 years, or as new clinical evidence emerges. If there are any concerns or updates with this information, please email cancerpatienteducation@ahs.ca.

For your next appointment



Bring this booklet



Arrive 15 minutes early



Bring a list of your medications



Bring a list of questions

For other Cancer Care Alberta
resources, visit
cancercarealberta.ca