Radiation Therapy
What to expect
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How You Can Help:

Call the BC Cancer Foundation at:  604.877.6040
1.888.906.CURE/2873 (in BC)

You can also contact the Foundation at your local BC Cancer Agency Centre:

Abbotsford Centre  604.851.4736
Centre for the North  1.250.519.5554
Sindi Ahluwalia Hawkins Centre for the Southern Interior  250.712.3921
Fraser Valley Centre  604.930.4078
Vancouver Centre  604.877.6160
Vancouver Island Centre  250.519.5550
or visit their website at  www.bccancerfoundation.com
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Welcome

You are starting your radiation therapy and you probably have some questions. This guide will give you some important general information about radiation therapy and help you understand what to expect during treatment.

You should also have a copy of your local cancer centre’s “Guidebook for Patients”. This booklet has information about your local centre including maps and other BC Cancer Agency resources. The BC Cancer Agency’s website (www.bccancer.bc.ca) can also help.

Remember that radiation treatment of cancer is unique to each person. You will receive more information about your specific treatment during your visits to the radiation therapy department. You will also have many chances to ask questions of your treatment team throughout your treatment.
Meet your healthcare team

Your healthcare team is a group of healthcare professionals who work to treat your cancer. They may include:

**Radiation Oncologists** are doctors who specialize in the treatment of cancer patients, using radiation therapy. You will have an appointment with your radiation oncologist before your treatment begins and once a week during treatment.

**Radiation Therapists** plan and deliver radiation therapy and provide patient care. They will help you with problems you may have with side effects, and can answer questions you and your family may have about radiation therapy.
Oncology Nurses provide care and emotional support during your treatment. They will help you manage any side effects you may have.

Medical Physicists help to plan your radiation treatment. They are responsible for the radiation machines and computers used to plan and give radiation therapy.

Dentist and Dental Aides help prepare patients for radiation treatment to the head and neck areas.

Receptionist/Booking Clerks will schedule your appointments and can help you with general questions or directions.

Registered Dietitians can answer your questions about diet and nutrition throughout your treatment and recovery. Your doctor, radiation therapist, or nurse can make a referral within your centre.

Psychiatrists, Psychologists, and Counsellors are mental health specialists. They can help you and your family understand, manage and cope with feelings, thoughts, worries and behaviours. Your doctor, radiation therapist, or nurse can make a referral within your centre.

Pharmacists prepare cancer drugs and other medications and explain how they work.

Students are here as a part of their training because we are a teaching facility. They are an important part of the cancer care team. A student may accompany one of the above mentioned health professionals at your visit.
What is radiation therapy?

Radiation therapy is a very effective treatment used to kill cancer cells. It works by directing high-energy radiation beams to a specific area (external treatment) or inserting radioactive isotopes into the body (internal treatment). This treatment either kills the cancer cells or stops them from growing and reproducing.

The dose of radiation therapy used to treat the cancer is usually given as a course of treatment. The dose is divided up and given each day - it can vary from one treatment to many weeks.

Radiation therapy can be used alone or with chemotherapy (the treatment of cancer with drugs), hormonal therapy and/or surgery.

**External** radiation therapy uses different types of machines. The most common ones are called linear accelerators (linacs).

**Internal** radiation therapy (brachytherapy) involves inserting radioactive materials into the tumour site and is used only for a few very specific cancers. If you are having internal treatment you will get extra information.
The treatment process

• Your first visit to plan your treatment. This usually includes a scan using the CT simulator where we will measure and map out the area that will be treated. Your radiation oncologist uses the CT images to outline areas for treatment. In some cases the radiation therapist will make an immobilization device to help hold you in place during treatment. The radiation therapist may put marks on your skin with a pen where your radiation goes. Usually you will also have small tattoos done because the pen marks will wash off. The tattoos are very small and they are permanent. You will usually not have treatment on your first visit.

• The time between your first visit to plan your treatment and beginning your treatment will vary. This is different for each person and allows your treatment team to plan your specific treatment.

• Treatment usually takes about 15 to 30 minutes but the machine is only on for a few minutes. Plan to be at the centre for about one hour each time.

• During treatment the radiation therapists will not be in the room with you. But they will be watching you closely on a video camera. There is an intercom so you can talk with the radiation therapist at all times. You won't feel anything while the machine is turned on but you may hear a beeping noise. The radiation therapists can interrupt the treatment if you need help. Most rooms are also equipped with music. Feel free to request your favourite type of music.

• You may see a doctor once a week during treatment. On the days you are scheduled to see an oncologist, plan to be at the cancer centre a little longer. You can ask to see a nurse at any time if you need extra care or support.
• Once treatment begins, in most cases you will visit Monday to Friday. We are not open at the weekends or during holidays. Your appointment times may vary, but it is important you do not miss appointments. We do our best to accommodate everyone, but we have a lot of patients. So please keep this in mind when you change your appointment times.

• The number of weeks of treatment depends on your treatment plan. Each person and treatment plan is different; so your plan may not be the same as someone with a similar diagnosis.
Common side effects

Side effects from radiation therapy may be different for everyone. It usually depends on the type of cancer, other treatments you may be having at the same time and what part of your body is being treated. In fact, some people do not have any side effects.

Side effects start slowly and can last many weeks after treatment ends. In general, most settle down after about a month. Common side effects from radiation therapy may include:

- A skin reaction: this is usually itchy dry skin or red warm skin like mild sunburn.

- Tiredness or fatigue: especially if you are also having chemotherapy.

- Hair loss: only where the radiation is directed (e.g. you will only lose the hair on your head if your head is being treated) or with certain chemotherapy drugs.

- Other side effects can include nausea, diarrhea or loss of appetite depending on the area being treated.

Before your first treatment you will be told more about your specific side effects. You will be given pamphlets that describe ways to help manage them.

If you experience any side effects, tell your radiation oncologist, radiation therapist or nurse. They will give you advice to help you deal with them and make you more comfortable.
Frequently asked questions

Do radiation treatments hurt?
No, you will not feel any pain during the radiation treatments.

Am I radioactive?
No, you are not radioactive. You can be around others at anytime during your treatments. If you have internal radiation therapy (brachytherapy), check with your oncologist or radiation therapist.

How do I know if the treatment is working?
Once treatment is over, the effects of the radiation continue. So it is difficult to tell how well it is working until after all treatments are complete and treatment reactions have settled down. When you see your radiation oncologist for the first follow-up after your treatment, she/he will be able to discuss how effective your treatment was.

What do I do when treatments are over?
Often a follow-up visit is scheduled with your radiation oncologist four to eight weeks after your last treatment. If you have any problems or have any questions in the meantime, please call your family physician or the cancer centre.

Do I need to change my diet?
You do not usually need to change your diet. But please see a registered dietician if you have any questions about your diet. Dieticians can also help if you have any problems eating due to diarrhea, constipation, loss of appetite, weight gain or loss, sore throat, sore mouth or trouble swallowing. It is important to eat a well-balanced diet and stay hydrated during treatment. Try to drink lots of fluids while you are on treatment.
Can I keep doing my usual activities?
It depends how you feel. Some people continue working, while others prefer to take time off. It may depend on the side effects you experience. Contact someone in Patient and Family Counselling if you have issues related to work. Remember that taking care of yourself comes first.

What about smoking?
It is a good idea to try to stop smoking. Tobacco products can make your side effects worse and (in some cases) make the treatment less effective. Ask your doctor, radiation therapist or nurse for more information; or visit www.quitnow.ca

Can I drink alcohol?
Alcohol can make your side effects worse, depending on the area being treated by radiation. Ask your doctor, radiation therapist or nurse.

Should I be careful in the sun?
You need to protect the area being treated from the sun. The area treated will always be more sensitive to sunburn. It is best to keep the treated area out of direct sunlight. Cover the area or use a sunscreen with a Sun Protection Factor (SPF) of at least 30, after the radiation reaction has subsided.

How do I deal with the stresses in my life and how I’m feeling?
Feelings of stress and anxiety are natural. If you have issues related to stress, anxiety, work, finances, travel or relationships, you can contact Patient and Family Counselling at any time before, during or after your treatment. They are here to help you and your family. You could also try using relaxation techniques to reduce anxiety, such as deep breathing, music, reading, and visual imagery.
What about my pills and medications?
Please let your oncologist know about any medications, vitamins, or herbal remedies (such as complementary treatments) you are taking.

What if I am asked to take part in a research study?
Research studies have led to many improvements in cancer treatment and you may be asked to participate in a research study. Participation in a research study is voluntary. You will be given information about the study, standard treatments for your condition and your rights as a research participant. Remember that if you do not feel comfortable participating, please say so.

What about pregnancy?
Radiation can harm a developing fetus. The risk is higher in the first few months of pregnancy. It is important for women to use birth control during treatment to avoid getting pregnant. If you are pregnant or think you may be pregnant, please let us know as soon as possible. Your treatment may be delayed until after pregnancy. If urgent, special precautions should be taken to protect the fetus. You and your treatment team will work together to decide what is best for you. If you need to, talk to your doctor about the best time to get pregnant after you have finished your treatments.
Questions you may want to ask your health care team:

Cancer centres and other healthcare facilities are very busy places. There may be several healthcare providers caring for you at once. You might feel that the amount of information is overwhelming and not clear to you. So it is important that you are an active member of your healthcare team. Ask questions to understand the information. Don’t be afraid, embarrassed, or hesitant to ask for exactly what you need from your team. It is important to be involved in and be vocal in the decisions that affect you. Also, sometimes taking notes can be helpful so you can refer back to them and share outcomes of meetings with family and friends. Or bring a friend or family member along for support and to write down information given to you.

Why is radiation the best treatment for me?

____________________________________________________________

What are the benefits and risks of radiation for me?

____________________________________________________________

How will we know if the radiation worked?

____________________________________________________________

Can I keep doing things that I used to do?

____________________________________________________________

Will radiation affect whether or not I can have children?

____________________________________________________________

Can I travel or take a vacation when I’m having radiation?

____________________________________________________________

What happens when the radiation ends?

____________________________________________________________
Glossary

The following are terms you may see when reading about radiation therapy.

**Brachytherapy** (Brak-ee-ther-ah-pee) - radiation therapy using implanted radioactive material placed directly into or near the tumour; also called “internal radiation therapy”.

**Cancer** - a general term for more than 100 diseases. It is the uncontrolled, abnormal growth of cells that can invade and destroy healthy tissues.

**Chemotherapy** - the treatment of cancer with drugs.

**CT Simulation** - the process used to plan radiation therapy so that the precise area for treatment is located and marked.

**External Radiation** - the use of radiation from a machine located outside the body to aim high energy X-rays at cancer cells.

**Implant** - a small amount of radioactive material that is placed in, or near, a tumour. It is used in internal radiation therapy.

**Linear Accelerator (linac)** - a machine that creates and uses high-energy X-rays to deliver external radiation to a tumour.

**Radiation Therapy** - the use of high-energy ionizing radiation (such as X-rays) to kill cells.

**X-rays** - a type of ionizing radiation that can be used to diagnose disease (e.g. a chest X-ray). In their high-energy form X-rays are used to treat cancer.
Other resources

For lots more BC and national resources please refer to your copy of your local cancer centre’s “Guidebook for Patients”. Ask at the reception desk if you don’t have one.

**Cancer Support Groups** - Each of the cancer centres offers a variety of support groups for patients and their families. Contact the front desk at your cancer centre or Patient and Family Counselling Services for more information.

**Internet site** - For more information visit the BC Cancer Agency website at www.bccancer.bc.ca and the BC Cancer Foundation at www.bccancerfoundation.com

**Interpreters** - If necessary we will arrange for an interpreter to come to your appointments. If you feel this is needed, please talk to any member of your health care team.

**Library** - Each centre has information available about cancer such as pamphlets, books, and videos. Ask at the reception desk of your local cancer centre. The main library at the Vancouver Centre is available to everyone and can be contacted at 604.675.8001 or toll-free 1.888.675.8001, local 678001

**Nutrition** - There are Registered Dietitians in every centre. To make an appointment with a Registered Dietitian, please ask your doctor, radiation therapist or nurse for a referral or visit the reception desk at your centre.

**Patient and Family Counselling Services** - There are counsellors and social workers in every centre. Ask your doctor, radiation therapist or nurse for a referral or visit the reception desk at your centre to make an appointment.
Who do I call if I have questions?

If you have questions, please call one of the following professionals:

Radiation Oncologist
Name ________________________________
Telephone ________________________________

Radiation Therapist
Name ________________________________
Telephone ________________________________

Oncology Nurse
Name ________________________________
Telephone ________________________________

Other contacts:
Name ________________________________
Telephone ________________________________

Name ________________________________
Telephone ________________________________
Notes
Abbotsford Centre
32900 Marshall Road
Abbotsford, BC V2S 1K2
604.851.4710 or toll-free 1.877.547.3777

Centre for the North
1215 Lethbridge Street
Prince George, BC V2N 7E9
250.645.7300 or toll-free 1.855.775.7300

Fraser Valley Centre
13750 96th Avenue
Surrey, BC V3V 1Z2
604.930.2098 or toll-free 1.800.523.2885

Sindi Ahluwalia Hawkins Centre for the Southern Interior
399 Royal Avenue
Kelowna, BC V1Y 5L3
250.712.3900 or toll-free 1.888.563.7773

Vancouver Centre
600 West 10th Avenue
Vancouver, BC V5Z 4E6
604.877.6000 or toll-free 1.800.663.3333

Vancouver Island Centre
2410 Lee Avenue
Victoria, BC V8R 6V5
250.519.5500 or toll-free 1.800.670.3322

BC Cancer Agency Research Centre
675 West 10th Avenue
Vancouver, BC V5Z 1L3
604.675.8000 or toll-free 1.888.675.8001

BC Cancer Foundation
150 - 686 W. Broadway
Vancouver, BC V5Z 1G1
604.877.6040 or toll-free 1.888.906.CURE/2873

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