



BC Cancer Agency

CARE + RESEARCH

An agency of the Provincial Health Services Authority

Radiation Therapy

What to expect





BC Cancer Foundation

Supporting research & care at BC Cancer Agency

This booklet was made possible by donations to the BC Cancer Foundation, an independent charity that is committed to supporting radiation treatment and research in British Columbia

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 in your local
BC Cancer Agency Centre

Abbotsford Centre	604.851.4736
Centre for the Southern Interior	250.712.3921
Fraser Valley Centre	604.930.4084
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 at the start of your radiation therapy and you probably have some questions. This guide will provide you with some important general information about radiation therapy and help you understand what to expect during your treatment.

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, and you will have many chances to ask questions of different health professionals throughout your treatment.

If you are looking for information about the cancer centre that you are attending, please go to the main reception desk. The BC Cancer Agency's website (www.bccancer.bc.ca) can also provide you with additional information.

Who is involved in your treatment?

There will be a number of different health professionals caring for you while you are at the cancer centre getting your treatment. They will be happy to answer any questions you may have about your treatment or direct you to the best person to answer your question. They are described as follows:

Radiation Oncologists are cancer doctors who are experts in radiation therapy and make the decision about radiation treatment. The radiation oncologist is responsible for managing your cancer care and works in a team with other health professionals. You will likely visit the radiation oncologist before your treatment begins and once a week while receiving treatment.

Radiation Therapists are trained in planning and giving radiation therapy and providing patient care. They will be present during the planning of your treatment and you will see them every day of your treatment. 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 are trained in caring for patients with cancer. These nurses work with other health professionals to help you and your family manage any changes you may experience because of cancer and its treatment including assistance with physical care and managing side effects.

Medical Physicists are experts in the planning of radiation treatment. They are responsible for the radiation machines and computers used to plan and give radiation therapy. You may not meet these professionals or the specialized technical staff who assist them, but they are working to keep the machines working properly.

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

Nutritionists (or Registered Dietitians) are trained in the dietary needs of cancer patients. They can help make you more comfortable if you have symptoms such as constipation, diarrhea, nausea, loss of appetite, weight gain or loss, difficulty swallowing, sore throat, or sore mouth. They can also answer questions about your diet during your treatment. Your doctor, radiation therapist, or nurse can refer you to a nutritionist in your centre.

Patient & Family Counselling Counsellors are trained to deal with the emotional needs of patients and their families. If you are having difficulties with stress, anxiety, work, finances, multi-cultural issues, travel or relationships, please ask your doctor, radiation therapist, or nurse to refer you to a counsellor in your centre.

Pharmacists are trained to give you advice and information about any medications you may be required to take while receiving radiation therapy. If you have questions about any medications or complementary therapy you are taking please ask your doctor, radiation therapist or nurse to refer you to a pharmacist in your Centre.

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. Once in a while a student may accompany one of the above mentioned health professionals at your visit.

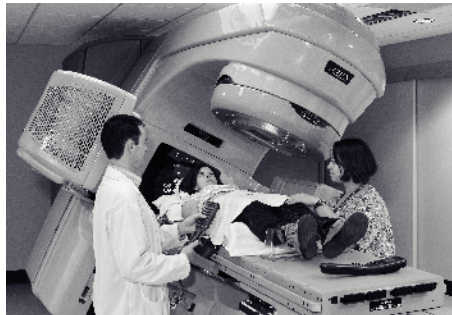
What is radiation therapy?

- Radiation therapy is a very effective therapy used to kill cancer cells by directing high-energy X-rays and/or electron beams to a specific area or inserting radioactive isotopes into the body. 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 divided into fractions delivered each day so that normal tissues can recover.
- Radiation therapy can be used alone or with chemotherapy (the treatment of cancer with drugs), hormonal therapy and/or surgery.
- External radiation therapy uses large machines called linear accelerators (linac), Cobalt units, or low-energy x-ray machines.
- Internal radiation therapy (brachytherapy) involves inserting radioactive materials into the tumour site and is used only for a few very specific cancers.
- Additional information will be provided to patients receiving internal radiation therapy.



*Above and top left:
External radiation therapy machines*

What is the treatment process?

Your treatment process may include a planning visit, perhaps a trip to the simulator room and treatment.

- **Your first visit to plan your treatment.** This may include a trip to the simulator room where the oncologist and radiation therapists use a machine to measure and map out the area that will be treated or you may go to the CT simulator. Your oncologist uses images from the CT scanner and a computer to outline areas for treatment. In some cases the radiation therapist will make an immobilization device to help position you and hold you in place during treatment. The radiation therapist may put marks on your skin where your radiation will be directed, and usually you will receive small tattoos that are hardly visible. You will likely not receive treatment on your first visit.
- **The time between your first visit to plan your treatment and the next visit to begin your treatment will vary.** This is different for each person and allows your treatment team to plan your specific treatment.
- **Once treatment begins, in most cases you will visit every day of the week with the exception of weekends and holidays.** Your appointment times may vary, but it is important you do not miss appointments. Please keep in mind that it is very difficult to reschedule and change appointment times.

- **The length of your treatment appointments will vary between 15 minutes and 1 hour.** However, the radiation is only directed at you for a few seconds or minutes. Plan to be at the centre for 1 hour. This allows time for your treatment.
- **While the radiation is being given, the radiation therapists will not be in the room with you.** They will be watching you on a video camera. There is a speaker and microphone in the room so you can talk with the radiation therapist at all times. The radiation therapists can interrupt the treatment beam if you need assistance. 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.
- **The number of weeks your treatment will last depends on your treatment plan.** Each person is different and each treatment plan is different; therefore, the number of weeks of your treatment may be different from someone else with a similar diagnosis. Many treatment plans are four to six weeks long, but some are shorter.

What side effects will I have?

The number and types of side effects patients have is different for everyone. It usually depends on the type of cancer and treatment and what part of your body is being treated. In fact, some people do not have any side effects.

- Common side effects of radiation therapy may include nausea, diarrhea, constipation, hair loss, tiredness or fatigue, loss of appetite, skin reactions.
- Hair loss only occurs in the path of the radiation beam.
- Side effects may not show up until after two weeks into treatment and can last two to four weeks after treatment is finished.
- If you experience any side effects, tell your oncologist, radiation therapist or nurse. They will give you information to help you deal with them and make you more comfortable.
- Before you receive your first treatment you will be told more about specific side effects. You will also receive pamphlets that describe your individual side effects.

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 your treatments are complete, the effects of the radiation continue. The effects of radiation are cumulative and it is difficult to tell how well the therapy is working until after all treatments are complete and reactions and swelling have stopped. When you see your oncologist at the first follow-up after your treatment, he/she will be able to discuss how effectively your treatment worked.

What do I do when treatments are over?

Often a follow-up visit is scheduled with your oncologist four to eight weeks after your last treatment. If you experience 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 need to change your diet unless directed by a health professional. It is important to eat a well-balanced diet. Some side effects require a special diet. Please see a nutritionist if you have any questions about your diet or experience any trouble eating due to the following symptoms: diarrhea, constipation, loss of appetite, weight gain or loss, sore throat, sore mouth, trouble swallowing.

Can I keep doing my usual activities?

It depends how you feel. Some people continue working, while others prefer to take the 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. Ask your doctor, radiation therapist or nurse for more information; or visit www.bcdssp.com

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 will need to protect the area being treated from the sun. Your chances of sunburn on the area treated will be greater from now on. 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.

What about my pills and medications?

Please let your oncologist know about any medications, vitamins, or herbal remedies you are taking.

How do I deal with the stresses on 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.

How can I prepare for radiation therapy?

- Drink lots of fluids, especially water. This helps keep you from becoming dehydrated and may help lessen side effects such as fatigue.
- Bring a friend or family member along for support and to write down information given to you by the health professionals.
- Follow any special instructions given to you by your oncologist, radiation therapist or nurse.
- Try using relaxation techniques to reduce anxiety, such as deep breathing, music, reading, and visual imagery.

What if I am asked to take part in a research study?

Staff at the BC Cancer Agency are always trying to add to their knowledge and expertise in cancer care. This means that 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. Research studies have led to many improvements in cancer treatment but if you do not feel comfortable participating, you may say so.

Questions you may want to ask your health care professionals:

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 or words you may run into when reading about radiation therapy.

Brachytherapy (Brak-ee-ther-ah-pee)- internal radiation therapy using an implant of 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.

Cobalt 60 - a radioactive substance used as a radiation source to treat cancer.

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 container of radioactive material that is placed in, or near, a cancerous tumour. It is used in internal radiation therapy.

Linear Accelerator - a machine that creates and uses high-energy X-rays to deliver external radiation to a cancer tumour.

Radioactive Isotope - a different form of a common element. It has a less stable nuclear structure and undergoes radioactive decay.

Radiation Therapy - the use of high-energy penetrating rays (such as X-rays) to kill cancer cells. Sources of radiation include X-ray, cobalt and isotopes.

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

X-rays - a type of radiation that can be used at low levels to diagnose disease. In their high-energy form they are used to treat cancer.

Other resources

The following are a few more resources available to provide you with more information and make sure you are comfortable during your radiation therapy.

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. Please ask your doctor, radiation therapist or nurse for a referral or visit the reception desk at your centre to make an appointment with a counsellor. They can help you with any difficulties you are experiencing with stress, anxiety, work, finances, multi-cultural issues, travel, interpretation services or relationships. They offer both individual and group sessions, including support groups.

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.

Library - Each centre has information available about cancer such as pamphlets, books, and videos. Ask at the reception desk of your local cancer centre where this information is located. The main library at the Vancouver Centre is available to everyone and can be contacted at 604-675-8003 or toll free at 1-888-675-8001 Local 8003.

Spiritual and Religious Care - Chaplains and Chaplain Residents are available to help you through this difficult time. They have resources available for all religions. You can ask for information at your local cancer centre.

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 you require interpretation services, please contact Patient and Family Counselling at your cancer centre.

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 _____

Abbotsford Centre
32900 Marshall Road
Abbotsford, B.C. V2S 0C2
Phone: 604.851.4710
Toll-free: 1.877.547.3777

Centre for the Southern Interior
399 Royal Avenue
Kelowna, B.C. V1Y 5L3
Phone: (250) 712.3900
Toll-free: 1.888.563.7773

Fraser Valley Centre
13750 96th Avenue
Surrey, B.C. V3V 1Z2
Phone: 604.930.2098
Toll-free: 1.523.2885

Prince George Centre
(to open in 2012)

Vancouver Centre
600 West 10th Avenue
Vancouver, B.C. V5Z 4E6
Phone: 604.877.6000
Toll-free: 1.800.663.3333

Vancouver Island Centre
2410 Lee Avenue
Victoria, B.C. V8R 6V5
Phone: (250) 519.5500
Toll-free: 1.800.670.3322

BC Cancer Foundation
600 - 686 W. Broadway
Vancouver, BC V5Z 1G1
604.877.6040
1-888-906-CURE/2873 (in BC)

www.bccancer.bc.ca
www.bccancerfoundation.com



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