Why is radiation therapy used to treat brain tumours?

Brain tumours may be treated with a combination of treatments such as surgery, radiation therapy, and chemotherapy. Radiation Therapy uses radiation from high-energy X-ray machines to kill cancer cells. Radiation is used to shrink the brain tumour or lower the chance of the tumour returning in the brain.

What will happen on the day I come for my treatment planning?

Your first visit to the radiation therapy department is called your “treatment planning appointment”. This will take about 45 minutes.

Depending on what radiation technique will be used for your treatments, you may have a mask made. The mask is specially made for you and covers your head and neck area. The purpose of the mask is to help you stay still during your x-rays, markings, and treatment.

During your treatment planning appointment, you will be x-rayed and markings will be placed on your mask. Your x-rays for treatment planning may be done by an x-ray machine or a CAT scanner. The x-rays do not hurt and you do not have to hold your breath. It is important that you lie still.

Your Radiation Therapists will make every effort to make you comfortable during the x-rays. They will explain every step of what they are doing. The measurements from your x-rays will be used to plan your treatments.

Your Radiation Treatment Team members will answer any questions you may have. These may include questions about side effects, when your treatments will start, skin care, lodging or other questions. Many people find it helpful to bring someone along to your treatment planning or first treatment appointment.

In some cases, it is not necessary to have a mask made and you may not need to come for a planning appointment. In this case, your treatments will be given based on specific instructions from the Radiation Oncologist, and markings do not need to be put on your skin.
How long will it be until I start my radiation treatments?

After your treatment planning appointment, you will usually wait a few weeks before your treatments start. You will be notified of the start date for your radiation treatment as soon as your planning is completed and a time has been booked for the radiation treatment machine. Every reasonable effort will be made to start your treatments as soon as possible, and within recommended waiting times.

How long will my treatments take?

Once your treatments begin you should expect to have 1 to 6 weeks of radiation treatments. The treatments are given 5 days a week, Monday to Friday (except for holidays). You may not necessarily start your treatments on a Monday.

Your appointment each day will take about 15 minutes. This allows 5 to 10 minutes to get you into position and only a few minutes of actual radiation treatment. Your first treatment will be longer than 15 minutes, so expect to be at the clinic a little longer your first day.

Once a week, you will see your Radiation Oncologist and/or Oncology Nurse for a checkup after your treatment. Be prepared to be here longer that day. You may also ask to be seen any other day if you have an urgent problem or question.

What side effects will I have during the radiation treatments (and the first few weeks after)?

In general, radiation therapy to the brain causes mild to moderate side effects. In the first couple of weeks of treatment, there should be few side effects except for a little tiredness. For most people side effects appear toward the end of the radiation treatments and may peak 1 or 2 weeks after they are finished. The side effects should go away over the next several weeks.

If you have any questions during your treatments, please ask a member of your Radiation Treatment team - your Radiation Oncologist, Radiation Therapist, or Oncology Nurse.
Common side effects include:

- **Fatigue (Tiredness)**

  Radiation to the brain often causes noticeable fatigue. You may be more tired after a usual activity or may need to rest more than usual. You will be given an *information sheet* with suggestions to help you cope with the fatigue.

- **Skin Reaction**

  The skin in the radiation treatment area may become dry and itchy. Your skin may become pink, warm, or sensitive.

  We have listed some “Do’s and Don’ts” that will help you with your skin care, and may help prevent your skin reaction from worsening. You will be given an *information sheet* with suggestions to help you with your skin care during treatment.

  1. **You can wash your hair:** It is best if you take short showers or tub baths with lukewarm water. Try not to have the stream of water hit your scalp directly. Use a gentle shampoo like baby shampoo. After shampooing, dry off your scalp and forehead with a soft towel and pat dry…do not rub or scrub with the towel. You can use a hairdryer on the “Cool” setting.

  2. **Do not use any commercial creams, lotions or hair products in the treatment area:** Many commercial creams may make the skin reaction on your scalp worse. Your Radiation Treatment Team will recommend or prescribe creams if needed. Do not get your hair permed or coloured during treatment. Do not let hair gels or sprays touch your scalp.

  3. **You can use pure Aloe Vera gel:** Aloe Vera gel may help with dry, itchy skin. You can buy it at most stores and it is clear in colour. Make sure that it is alcohol free.

- **Hair Loss**

  The hair in the treatment area will probably fall out. Gradual hair loss will usually be noticed between 3 and 5 weeks after the start of your radiation treatments. You will be given an *information sheet* with suggestions to help you cope with your hair loss during treatment.
In many cases, hair loss is temporary and your hair would start to grow back over the next 3 to 6 months. In other cases the hair loss may be permanent in the treatment area. This depends on the technique and dose of radiation received.

Check with your Radiation Oncologist to find out whether your hair loss may be temporary or permanent.

• **Headache**

The radiation treatments may cause swelling in the brain which can cause headaches. If this happens you should tell your Radiation Therapist, Oncology Nurse, or Radiation Oncologist. Steroids are used to control the headaches. You will be given an information sheet about the use of steroids (Decadron). If you are on Decadron your dosage will be assessed weekly or as needed during and after your treatments.

• **Nausea and Vomiting**

Some patients have nausea and possibly even vomiting as a result of their radiation treatments. If this happens, you should tell a member of your Radiation Treatment Team. Medications can be used to help with the nausea, and the Radiation Oncologist may change your dose of Decadron.

• **Other Possible Symptoms During Treatment**

If you notice any of the following changes, contact your Radiation Therapist, Oncology Nurse or Radiation Oncologist:

1. change in vision, speech, or hearing
2. unsteady walk
3. weakness in your arms or legs
4. seizures or “blackouts”
How will the treatments affect My Sexuality?

Most people with cancer (and their partners) experience a number of physical, emotional and practical changes through their treatment and recovery. These changes can happen during treatment and recovery and may affect your sexual health.

There may be changes in how you look, or how you think you look, that can affect how you feel. This may affect how you respond sexually. Reactions of a partner can also add to how you see yourself as a sexual being.

You may notice periods of time during treatment and recovery when you have little interest in sex. This may be upsetting to you and your partner. You may have worries (like concerns about your cancer, treatments and how the illness is affecting your life) and these can affect both your own and your partner’s interest and enjoyment of sex.

If you are single, you may have different worries and challenges such as how to talk about sexuality and cancer with a new partner.

If you or your partner would like more information about how your treatment might affect sexual activity, or you would like to discuss concerns, please ask your Nurse, Radiation Therapist, or Radiation Oncologist. We can give you more information to read. If you would like to talk to someone, there are number of health professionals available in our cancer program who can discuss concerns about sexuality with you (and your partner).

What is Supportive Care?

Cancer is a physical disease but it also can affect how you think and feel. Your emotional health and well-being are very important as you go through your treatments. It is normal for you and your family to have many feelings at this time. You may feel anxious, frightened, worried, angry or depressed.

There is support available in the cancer program. A number of health care professionals may be available for you and/or your family: they can include a social worker, nurse, therapist, spiritual care counselor, psychologist, and psychiatrist. They can help you cope with cancer and the emotions you are experiencing, as well as help with stress management, lifestyle changes, financial concerns or medication coverage.

At any time you can ask your Radiation Oncologist, Nurse or Radiation Therapist to refer you to this support team. You will then receive a call from a member of the team to set up a separate appointment.
There are also Support and Wellness Groups available where you can talk with or listen to others who have a similar experience, or learn more about cancer and how to live well with it. Information about these groups is available at the reception desk at your Cancer Centre or through the Canadian Cancer Society – Nova Scotia Branch.

**Questions you may want to ask your Health Care Team:**

1. Do I have to do anything to prepare for my radiation markings or treatments?
2. Can I wash my hair during treatment?
3. What should I expect to happen during my treatments?
4. How will I cope with the side effects?
5. How will I know the radiation treatments are working?
6. What happens when the treatments end?
7. Do I need to come back for a checkup?
8. Will I have any long-term side effects from my treatments?
9. Can I continue driving my car?
10. How long do I have to keep taking my Decadron?
11. Who can I talk to if I have questions about supportive care; for example, medication costs, insurance, home care, transportation, emotional concerns, or any other questions?
12. Is there a research study for my cancer type that might be appropriate for me? (or that I could be involved in?)
Notes