



# RADIATION THERAPY

Brain

Regional Cancer Treatment Service (RCTS)  
Radiation Oncology Department



# **RADIATION THERAPY TO THE BRAIN**

A course of radiation therapy to the brain can take between 1-6 weeks, depending on the aim of the treatment.

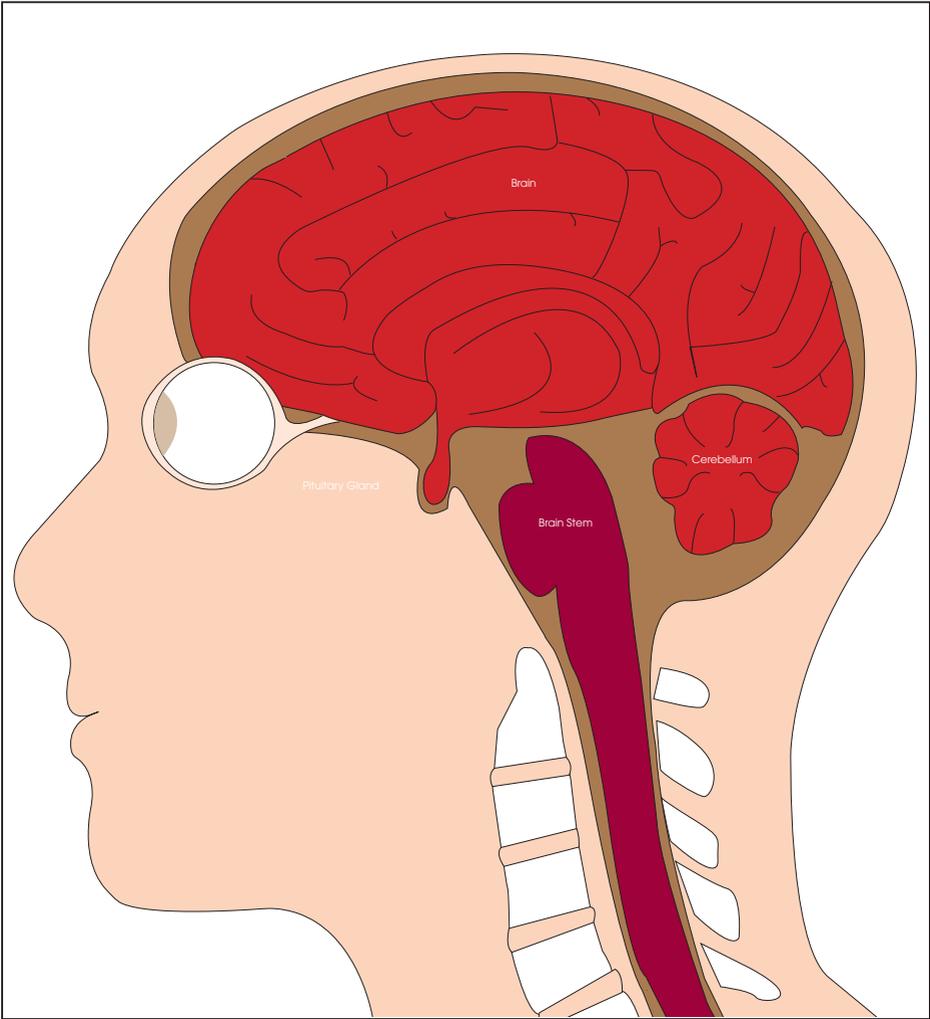
You may be prescribed chemotherapy in combination with the radiation therapy. If you are receiving chemotherapy treatment, your blood counts will be closely monitored as well as any additional side effects.

You may be on steroids at the start of radiation therapy. Your Radiation Oncologist may adjust the steroid dose; this will vary for each individual. Sometimes, the radiation therapy may cause some inflammation in the brain and this means your steroid dose might need to be increased for a short period of time. Your doctor will monitor for any signs of inflammation and adjust your steroid dose as needed.

## **PREPARING FOR YOUR PLANNING CT SCAN**

For treatment to the head and neck area, a mask is usually required. The mask is made to fit the contours of your head. If you have very long or thick hair, including facial hair, it may be necessary to have it trimmed prior to your CT appointment. If you are unsure if this applies to you, please contact us on 06 350 8096.

Information about the mask making process is available on the DVD enclosed in the back of the Radiation Therapy General InformationBooklet.



# SIDE EFFECTS

Radiation therapy can result in side effects that develop during treatment and continue for a few weeks after treatment finishes. These are known as acute side effects. You can also develop side effects many months to years after treatment. These are known as late side effects.

The side effects and their severity will vary for each person. You will not necessarily experience all the side effects mentioned. Chemotherapy in combination with radiation can increase acute side effects.

## ACUTE SIDE EFFECTS

These commonly start in the 2<sup>nd</sup> - 3<sup>rd</sup> week of your treatment and continue for a few weeks after your treatment finishes.

SIDE EFFECTS	CARE
<p><b>FATIGUE:</b> It is common to feel tired and have a reduction in energy levels because of the treatment. This may start a few days into treatment and it can vary in its severity. It is a very individual response.</p>	<ul style="list-style-type: none"><li>• Get plenty of rest/sleep when possible. You may find light exercise helpful to increase your energy levels. However, understand that you may not be up to doing as much as usual.</li></ul>
<p><b>HAIR LOSS:</b> Hair loss may occur in the treatment area. Hair will often grow back in a few months, although in some cases hair loss may be permanent.</p>	<ul style="list-style-type: none"><li>• Your doctor will be able to tell you if your treatment will result in total or partial hair loss.</li><li>• They will also be able to give you an idea as to whether the hair loss is likely to be permanent.</li><li>• You may be eligible for a wig subsidy.</li></ul>
<p><b>NAUSEA AND DIZZINESS:</b> You may develop nausea and/or dizziness during treatment.</p>	<ul style="list-style-type: none"><li>• If you develop these symptoms, let the nurses or doctors know so that medications can be prescribed.</li></ul>

SIDE EFFECTS	CARE
<p><b>HEADACHES:</b> If you are suffering from headaches before radiation therapy, these may temporarily worsen on treatment. If you are not suffering from headaches, these may develop on treatment.</p>	<ul style="list-style-type: none"> <li>• If this occurs, let your doctor know so that your medications can be altered or prescribed.</li> </ul>
<p><b>SKIN:</b> Your skin in the radiation field may become pink and tender like a mild sunburn. It may also become itchy.</p>	<ul style="list-style-type: none"> <li>• Bathe or shower as you normally would, but be gentle with your skin in the treatment area, especially when washing your hair.</li> <li>• Before applying anything to the treatment area, check with your radiation therapist or doctor.</li> <li>• Do not use any harsh products such as exfoliants or loofahs in the treatment area.</li> <li>• When drying the skin in the treated area, do not rub your skin with a towel but gently pat it dry.</li> </ul>
<p><b>HEARING:</b> If radiation is being delivered near to your ear, your ear canal and middle ear can become inflamed. This can result in reduced hearing in that ear (as if you were under water).</p>	<ul style="list-style-type: none"> <li>• Hearing loss caused by the inflammation of radiation will gradually improve over the weeks to months after your treatment finishes.</li> </ul>

## LATE SIDE EFFECTS

These can take many months to years to develop, and you may never develop these side effects. The benefit of receiving radiation therapy as part of your cancer management is felt to outweigh the potential long-term risks of this treatment. If you have any concerns in relation to these side effects, please discuss them with your radiation oncologist.

### POTENTIAL LATE SIDE EFFECTS INCLUDE

**HAIR:**

If you lose your hair during the radiation therapy, it is possible that this hair will not regrow in the future. This depends on the dose of treatment you have received. Your radiation oncologist will advise you if your hair loss is likely to be permanent. If your hair grows back, this will usually happen 2–3 months after the end of your radiation therapy. The hair that grows back may be of a slightly different texture or colour than before radiation therapy.

**THINKING:**

After radiation therapy, there is a possibility your thinking will become slower and it may take you longer to think through problems and take in information. Your radiation oncologist can discuss this with you further.

**PITUITARY GLAND:**

Your radiation therapy may need to deliver radiation to the pituitary gland. This can result in your pituitary gland no longer working. The pituitary gland secretes hormones into the bloodstream that are important for your metabolism. If your doctor thinks your pituitary gland is not working properly, it can be easily tested by taking a sample of your blood. If your pituitary gland stops working, you can be prescribed medication that replaces the hormones your pituitary gland would normally secrete.

**HEARING:**

Your radiation therapy may need to deliver radiation close to your ear. Usually if you suffer any hearing side effects due to radiation they are temporary. However, occasionally your hearing loss in the affected ear may be permanent.

**SOMNOLENCE SYNDROME:**

This is very rare syndrome. It shows with extreme tiredness and you end up sleeping most of the day. Somnolence syndrome usually starts 4 to 6 weeks after treatment has finished, just when you think you are getting over your radiation therapy. It will pass in time on its own, without any specific treatment. It rarely lasts more than a month.

## POTENTIAL LATE SIDE EFFECTS INCLUDE

### **STROKE RISK:**

You may be at a slightly increased risk of a stroke a few years after radiation therapy finishes. This risk depends on the dose of radiation your brain received and the area of your brain treated. Your radiation oncologist will be able to discuss this with you further.

### **SECOND CANCER:**

There is a very small risk of a new cancer developing in the area of your brain which received treatment. This is a very uncommon side effect and occurs 10–20 years after radiation therapy.

The location of radiation treatment in the brain may have a risk of other specific side effects that your Radiation Oncologist will discuss with you.

## FURTHER INFORMATION

### **DRIVING**

Please check with your Radiation Oncologist whether or not it is safe to drive.

### **CONTRACEPTION**

For women receiving radiation therapy, we recommend that you do not get pregnant while receiving radiation therapy as radiation can be damaging to a developing baby. We advise you use contraception during sexual intercourse if there is a chance pregnancy could occur.

### **TRY TO STOP SMOKING**

Smoking during radiation therapy may increase the severity of your radiation reaction. We strongly advise all patients to stop smoking. If you need help giving up smoking, we can put you in touch with support services.

## **AFTER TREATMENT IS FINISHED**

At the end of your radiation therapy course, you will be advised regarding follow-up. If you have any concerns about side effects following treatment, please phone the contact number on your discharge form. If you do not have a contact number, phone the radiation therapy nurses on (06) 350 8438.

## **QUESTIONS AND CONCERNS**

The radiation oncology team are here to help you through your cancer therapy journey. If you have any questions or concerns, please feel free to approach any one of our team members. You will see the radiation therapists at each of your treatment, appointments, and nurses may be seen when necessary. Routinely during your treatment, you will see the radiation oncologist or registrar who will check how you are managing with treatment and its side effects.

## **CONTACT US**

Radiation Oncology reception (06) 350 8430

## **FEEDBACK**

We encourage feedback and assurance is given that comments will not adversely affect your current or future care.

You can do this:

- through discussion with MidCentral Health staff providing your care
- by completing "Tell us what you think..." pamphlets available from all services
- by contacting our Customer Relations Co-ordinator, PO Box 2056, Palmerston North 4440, or phone (06) 350 8980
- by contacting a Health and Disability Commissioner Advocate, phone 0800 112 233.