

This information is to be used in conjunction with **My Treatment Booklet**. It provides unique details about receiving radiation to the **brain**.

Pathway



1 First specialist appointment

Your radiation oncologist may prescribe temozolamide, a type of oral chemotherapy given to *some patients* with brain tumours. If prescribed, you will have weekly blood tests to monitor possible side effects. **Please refer to My Treatment Booklet.**

2 Orientation

A patient care specialist (radiation therapist or nurse) will explain the procedure in more detail and answer any questions or concerns you may have about the process or treatment.

You may be given a temozolamide diary and weekly blood test forms by the ARO nurse or educator.

3 Planning CT Simulation

Position:

You will most likely lie flat on your back with arms by your side and a support placed under your knees. The radiation therapists will make sure you are as comfortable as possible.

To hold you in the correct position for treatment, immobilisation equipment is made specifically for you. This typically includes a specially moulded mask and neck cushion. If you have significant facial hair this may need to be trimmed before the mask is made.

The mask is made from a thermoplastic material which, when warmed, is gently moulded over your head. It takes 20 minutes to set. Positioning marks are drawn on your mask to help position you the same way each day for radiation therapy.

Sometimes the thought of having your head immobilised may bring about a feeling of claustrophobia.

If you are claustrophobic, please discuss this with an ARO staff member prior to your appointment so we can provide suitable support. Please also bring any medication that helps you.

Scan:

You will have a CT scan in the above position.

*The best way to communicate with your mask on is to use hand signals. **Thumbs up is you are OK, thumbs down means you need assistance.** While the scan is taking place radiation therapists are outside the room watching you through a viewing window. **If you need help give a wave with one of your hands.***

You may need additional scans e.g. PET and/or MRI which all give helpful information to plan your radiation therapy. These scans may be undertaken at a different location and with or without your immobilisation equipment. On occasion intravenous (via a vein) contrast may be used during one of these scans to highlight specific areas (additional consent is required for this).

4 First day of treatment

Please refer to My Treatment Booklet.

5 During treatment

Your radiation oncologist will advise you of possible side effects during and then after treatment is complete. *Please speak to an ARO staff member about any concerns or changes so we can provide advice and support to meet your needs.*

Possible short-term side effects

Fatigue

Tiredness will likely occur. Some people continue to work while others find this too tiring.

Self-care:

- *Keep hydrated (drink 1.5-2L a day, preferably water). Minimise alcohol.*
- *Eat as well as you can.*
- *Exercise regularly e.g. relaxed walking three times per week can be beneficial. You can continue your usual level of activity or introduce mild exercise. Please listen to your body, do not over exert yourself, and rest when you feel the need.*
- *Try to get a good nights' sleep.*

Headaches and nausea

Radiation causes inflammation, and brain tissue, being enclosed by the skull, has nowhere to expand. Depending on the tumour location you may already be experiencing headaches prior to treatment. A steroid called dexamethasone may be prescribed to reduce brain inflammation. It can take time to get the right dosage and the prescribed amount is likely to be reduced toward the end of treatment or after treatment has finished. Dexamethasone can affect your sleep so is best taken in the morning to lessen the likelihood of sleeplessness at night.

Self-care:

- *If your immobilisation mask begins to feel tighter, please talk to a radiation therapist.*
- *Dehydration can also cause headaches so maintain good fluid intake.*
- *Anti-nausea medication may help and can be prescribed by a radiation oncologist.*

Hair loss

Only anticipated in areas of high dose and likely to be patchy (not necessarily whole head).

Self-care:

- *Response to hair loss is very personal and some people choose to wear scarves or a hat.*
- *Wig/hair piece and head covering options are available and ARO can provide a subsidy support letter.*

Skin reaction

Skin colour may progressively redden or darken and is often first noticed in the second week of treatment. Skin may feel irritated, itchy or tender, with the reaction peaking 7-14 days after treatment completion.

Self-care:

- *When washing the treatment area, use warm water, avoid scrubbing, and gently pat dry. If using soap use mild soap such as Dove extra sensitive or Simple soap from the supermarket. Using normal shampoo and conditioner is ok.*
- *Do not apply heating or cooling devices in the treatment area such as wheat or ice packs.*
- *Do not use a hairdryer on the treatment area.*
- *Avoid wet shaving/waxing in the treatment area during the course of treatment and until any skin reaction has completely gone. An electric razor is fine.*
- *Avoid swimming in chlorinated pool until any skin reaction has completely gone.*
- *Keep the treatment area protected from the sun and wind.*
- *Do not apply sunblock to the treatment area during radiation therapy. Following radiation therapy, once skin reactions are completely gone this area will **always** be more sensitive to the sun. Please wear a hat (cover) or apply at least 30+ SPF (sun protection factor) to exposed skin (balding) areas.*

Seizures

This risk increases slightly when having radiation therapy and is more common in patients who have experienced seizures prior to treatment. This can be controlled with medication prescribed by your radiation oncologist.

Balance, walking pattern (gait) and memory issues

These are often affected prior to radiation treatment and may have been some of the first indications that something was wrong. Inflammation caused from radiation can worsen issues and is likely to be temporary.

Hearing

Radiation near the ear can result in hearing changes/loss and ringing in the ears.

6 Last week of treatment

Please refer to My Treatment Booklet.

On your last day you will see a nurse or doctor.

7 After treatment

Please continue with the current management and self-care of side effects for at least 2-3 weeks after treatment.

Possible long-term side effects

- Skin pigmentation and texture can change slightly (often unnoticed under hair).
- Radiation near the ear can result in permanent hearing damage. Your radiation oncologist will discuss this if you are at risk.
- Less than 5% of patients develop problems with healing in the bone or soft tissues, this can occur many years after treatment.
- An extremely small risk of damage to the nerves and/or the spinal cord.
- Very rarely treatment near the eye can result in decreased vision due to damage of the retina or optic nerves.
- A greater risk of a stroke and endocrine deficits.
- A risk of developing different cancers. This is rare and usually many years after radiation.

Self-care:

- Visit Support Services on **www.aro.co.nz** for additional services before, during and after treatment.