

Radiotherapy to the Pituitary



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This leaflet is for patients receiving radiotherapy to the pituitary region of the brain. It describes:

- What radiotherapy is.
- Your radiotherapy planning and treatment.
- The effects that you may experience during and after treatment, and how best to cope with them.
- Who to contact if you have questions or concerns.

What is radiotherapy?

Radiotherapy is the use of carefully measured doses of radiation to treat tumours. It damages the cells and stops them dividing and growing. Most patients having radiotherapy are treated using a high energy beam of X-rays. The X-rays are used to treat the tumour and a small surrounding area.

Therapy radiographers operate the radiotherapy planning and treatment machines. They will be able to answer any questions or concerns that you may have.

If you are in doubt about anything or have any questions or problems, please let us know as soon as possible.

Preparation for treatment

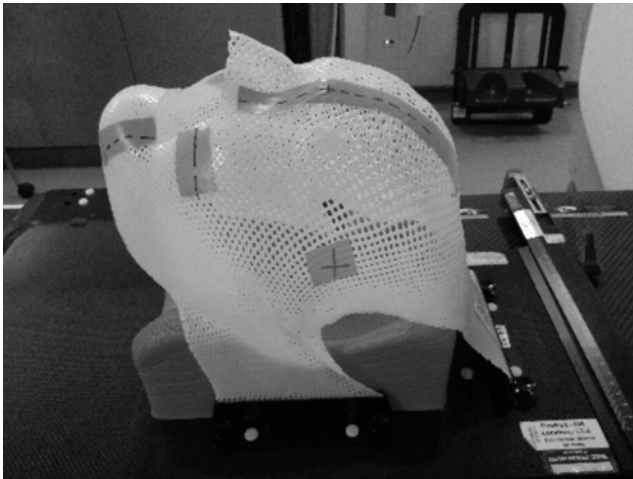
Before you begin your treatment, we must plan it carefully. You will need to have a shell made (also called a mask). You will wear it for each radiotherapy appointment. This is important because:

- It allows us to plan and deliver your treatment accurately each day.
- It helps to support your head and keep it from moving during treatment.
- We put the marks necessary to guide us onto the shell and not your skin.

The shell is made in the **Mould Room**.

Mould Room

The type of shell used for radiotherapy treatment to the head is called an orfit shell. It is made of plastic mesh (see Picture 1). It has small holes in it and an open area over your nose and mouth. This allows you to breathe freely. The mould room team will explain the process of making the shell. If you have any questions, please ask. Making the shell is completely painless.



Picture 1: Shell

Treatment planning

Before your course of radiotherapy can begin, we need to produce an individual treatment plan for you.

The planning process will involve appointments for brain scans. This will include a CT scan on the CT simulator and an MRI scan as well.

CT Simulator

You will visit the CT simulator. This is very similar to a normal CT scanner and is specially designed for planning radiotherapy treatment.



Picture 2: CT Simulator

Your scan appointment will be on the same day or within a few days of your mould room appointment.

It is important to realise that this is a scan to plan your radiotherapy. It does not necessarily give the same information as the scan used to diagnose your condition.

Your radiographers will make sure you are comfortable on the scanning couch. They will place your shell on. You may be aware of them putting some markers on your shell. They will then move the couch into the scanner and leave the room to begin the scan. Scanning usually takes around five minutes and during this time your radiographers will watch you closely. The scan is painless.

Contrast injection

For this scan you may need to have an injection of contrast (dye) that will help us to see the area we want to treat more clearly.

Your doctor or radiographer will put a small needle (cannula) into a vein, usually on the back of your hand or arm. They will remove the needle, leaving a small tube of plastic in your vein. They will tape this to keep it in place during your scan. They will then inject the dye through this plastic. It may feel a little cold but you should not feel any discomfort.

Some people can have an allergic reaction to the dye. This is rare but we will ask some questions to ensure it is unlikely to happen to you. Your radiographers will keep a close check on you during the injection and scan. If you feel anything unusual please tell us.

MRI scan

You will also visit the MRI scanner at the Beatson. This scanner is situated near the mould room on level 0. The MRI scan lasts about 15 minutes. The radiographers will position you lying on your back. They will let you know if you have to wear your shell for this scan.



Picture 3: MRI scanner

You will also have a contrast injection for this scan. Your radiographers will inject the contrast through the cannula that was put in at CT. You won't feel anything during the scan. Some patients find the scanner noisy. Your radiographers working on the scanner may play some music for you.

Once the scan is complete, you may need to wait for 15 minutes before we can remove the cannula. This is to make sure that you feel ok and that you haven't taken a reaction to the contrast. Then you can go home.

Treatment

Your radiographers will explain everything to you before treatment starts. Your radiotherapy will be given in small daily doses, Monday to Friday.

Your treatment is delivered by a machine called a linear accelerator. It will move around you but will not touch you.

- Your radiographers will ask you to lie on the couch, just as you were in the CT simulator.
- They will put your shell on, dim the lights in the room and position you for your treatment.
- Your radiographers will leave the room. They will be watching you the whole time on closed circuit TV.
- Before starting your treatment, they may take some X-ray pictures to ensure you are in the correct position.
- The whole process only takes between 10 and 15 minutes.
- Radiotherapy treatment is painless and you should feel no different afterwards.
- If you have any questions or are unsure about anything to do with your treatment, please speak to your radiographers.



Picture 4: Linear Accelerator

Effects of treatment (early)

These are the side effects most people commonly experience during the course of radiotherapy and for a few weeks after it finishes. These effects vary from person to person and can last a different length of time for each person. The side effects can get gradually worse during treatment and for about 10-14 days afterwards. The majority of side effects wear off within 6 weeks of radiotherapy stopping. Please ask if you are unsure or have questions.

- **Tiredness:** You may begin to feel quite tired during treatment or just after treatment finishes. A sensible balance between rest and activity may be most beneficial. Research has shown that gentle exercise is also beneficial for people who have had a cancer diagnosis both in the short and longer term. There are programmes available that can help with this. Please let us know if you are interested in finding out more.
- **Skin reaction** (in the treatment area): Your skin will become more sensitive and may become pink, itchy or dry.
- **Hair loss:** Hair in the area receiving treatment will gradually fall out. In most cases this is minor and the hair should regrow.

- **Nausea and taste change:** Very rarely, some patients comment on the unusual effects of nausea and altered sensation of taste. Please let us know if this happens. Your doctor can provide medication to help with the nausea.

Skin care during treatment

- You may bath or shower and wash your hair during treatment. Avoid having the water too hot. Pat your hair dry gently with a soft towel and allow to dry naturally. Try not to rub the treated area. Avoid using heated styling equipment such a straighteners.
- You should avoid exposing your head to the sun. Sit in the shade or wear a wide brimmed hat.
- Only use creams or lotions in the treatment area which have been recommended or given to you by the staff here in the Beatson. However soothing others may seem they may make your reaction worse.

Effects of treatment (late)

We believe that the benefits of your radiotherapy treatment far outweigh any risks involved. However, there are some potential long-term side effects you should be aware of. It is important to point out again that people can experience different side effects. Your doctor will discuss specific individual issues to you personally. The following effects can be taken as a general guide:

- As explained earlier, hair loss from the treated area is usually temporary. However a few people may experience long-term hair loss where hair does not grow back.
- It is important you protect the treatment area from the sun when the weather is hot. This area will always be much more sensitive to the sun. You will need to be especially careful for the first year after your treatment has finished.

You should wear a hat and sit in the shade. We advise you use sunscreen with both UVA and UVB protection and minimum SPF 50.

- Due to the radiotherapy, there is a significant chance that there will be damage to your pituitary in the future. For that reason, you will be given regular check-ups by an endocrine (hormone) doctor after your treatment. If you show signs of pituitary failure you will be offered drug therapy to correct any problems. If you do not have an appointment with an endocrinologist, please let us know.
- To give the necessary treatment to your pituitary, some small parts of normal brain tissue will receive some of the radiation. There have been reports of visual deterioration (eyesight becoming worse) or some damage to normal parts of the brain. However these side effects are very rare. By giving the radiotherapy in small daily doses (treatments) over a number of weeks, we can greatly reduce the possibility of damage.
- A very rare but potentially important side effect is that radiation can cause tumours. Although this is a serious possible consequence of your radiotherapy, it is important to bear in mind that this is very rare. If it does occur it is likely to be years after your treatment.

Remember, we believe that the benefits of your radiotherapy treatment far outweigh the risks described here.

After treatment ends

Any symptoms which have developed during treatment will wear off a few weeks after it ends, however the tiredness will take a little longer. You may begin to wash normally once your skin no longer looks red or feels itchy. Your radiotherapy doctor will arrange to see you 6 weeks or so after treatment ends.

Where can I get help?

Information and support

All our staff are here to make sure your treatment goes as smoothly as possible. They will try to help with any questions or problems you may have. Further specialist help is available from:

Information and Support Radiographer

☎ 0141 301 7427

The **Macmillan Information & Support Centre** is on Level 1 at the main entrance of the Beatson. They offer emotional support, information and signposting to services within and near to the Beatson and in your own local area. Open Monday to Friday 8:15am to 4:15pm. ☎ 0141 301 7390

The Beatson Cancer Centre has a **Radiotherapy Advice Line** available for patients who have questions or concerns and have completed treatment. This is an answer phone service, available Monday – Friday. Please leave your name, date of birth and telephone number and a radiographer will call you back as soon as possible. ☎ 0141 301 7432

The Cancer Centre also has a **Cancer Treatment Helpline** for urgent calls. This is for patients on or within 6 weeks of treatment who have urgent or severe symptoms such as:

- Shivering or flu-like symptoms.
- Temperature greater than 37.5°C.
- Gum/nose bleeds or unusual bruising.
- Worsening or sudden breathlessness.
- Leg weakness/difficulty walking.
- Severe nausea/vomiting/diarrhoea/constipation.
- Sudden increased or uncontrolled pain.
- Other concerning symptoms associated with your cancer treatment.

The line is available 24 hours for emergencies, although it would be helpful if you called early in the day if this is at all possible.

For Urgent Calls:

Beatson 8am-8pm ☎ 0141 301 7990

National 8pm-8am ☎ 0800 917 7711

Clinical Psychology

This leaflet deals with the physical aspects of your treatment, but your emotional well-being is just as important to us. Being diagnosed with cancer can be a deeply distressing time for you and those closest to you. Within the department we have a clinical psychology service that can help with worries and difficulties you might be having. If you think this may be helpful to you, please ask staff to put you in touch.

There are also voluntary organisations providing information and support. These include:

Macmillan Cancer Support:	☎ 0808 808 0000 🌐 www.macmillan.org.uk
Providing practical, medical, emotional and financial advice for those affected by cancer.	
Maggie's Gartnavel Maggie's Lanarkshire, Monklands Hospital Maggie's Forth Valley	☎ 0141 330 3311 ☎ 01236 771 199 ☎ 01324 868 069 🌐 www.maggies.org
Maggie's Centre provides a comprehensive cancer support programme for people and their families affected by cancer.	

Cancer Support Scotland – The Calman Centre, Gartnavel Complex.	Freephone ☎ 0800 652 4531 🌐 www.cancersupport scotland.org
Provides emotional and practical support on a one-to-one basis and through community based groups. Complementary therapies available.	
Beatson Cancer Charity	☎ 0141 301 7667
Provides support for patients and families within the Beatson Cancer Centre. Services available for in-patients.	
Macmillan Benefits Team (within the Beatson)	☎ 0141 301 7374
Provides free and confidential advice for people affected by cancer and their carers.	
If you are interested in finding out about becoming more active, please visit: 🌐 www.nhsggc.org.uk/getactive	
Beatson West of Scotland Cancer Centre	🌐 www.beatson.scot.nhs.uk
If you want to find out more about our Centre please visit our website.	
NHS 24	☎ 111

You may find some useful information on the websites listed above. However, it is important to note that The Beatson West of Scotland Cancer Centre cannot accept responsibility for the quality and content of any information provided by other organisations.

Care Opinion



We welcome your comments and feedback about our service.
If you would like to give us feedback please go to:

🌐 www.careopinion.org.uk or ☎️ 0900 122 3135 or
scan the QR code:



Notes

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