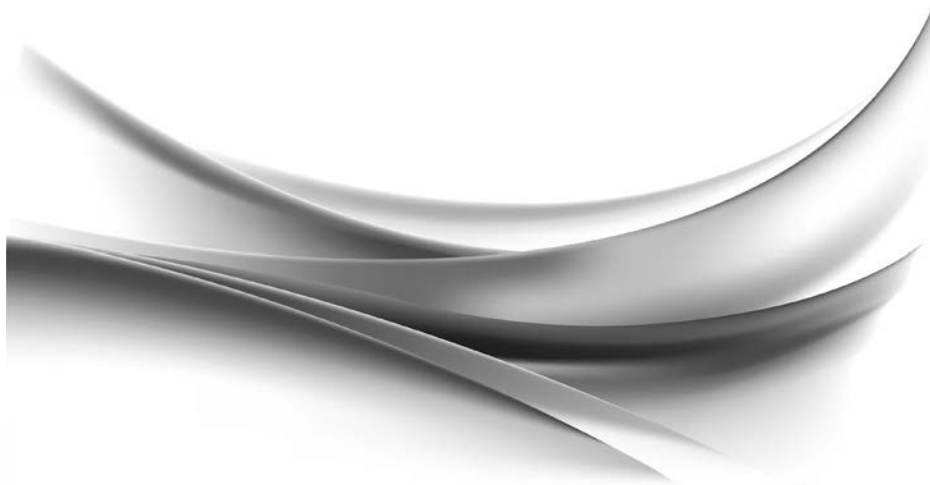


Patient Information for

Radiotherapy Treatment to the Eye (orbit)



Patient Information for Radiotherapy Treatment to the Eye (orbit)

There are a range of different non-cancerous (most frequently thyroid eye disease) and cancerous conditions that may require radiotherapy treatment to the eye (orbit). Your doctor will explain specific aspects of your treatment.

This leaflet describes the radiotherapy planning and treatment. It also explains the effects you may experience during and after treatment and how best to cope with them. We treat each person as an individual and the effects of treatment may vary from one person to another. The information given here is intended as a general guide.

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), which you will wear for your radiotherapy appointments. This is important because:

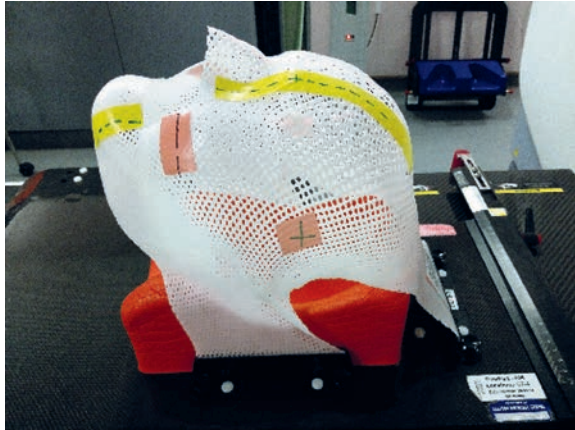
- It enables your radiographers to give your treatment in the correct area each day.
- It helps to support your head and keep it from moving during treatment.
- We put the marks necessary to guide us onto your shell and not your skin.

The mask is made to fit you in the **Mould Room**.

Appointment 1: Mould Room

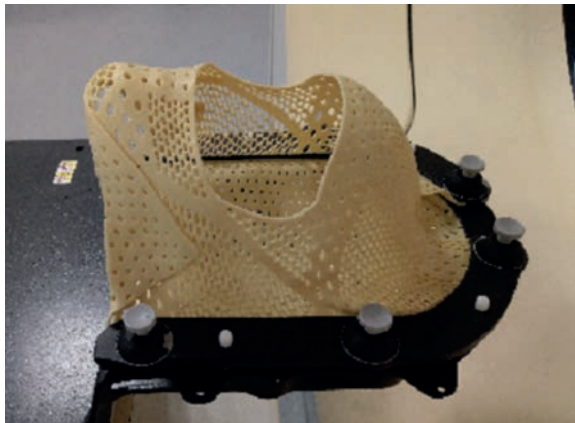
There are 2 types of shell which are used for radiotherapy to the eye. Your doctor will describe which type is best for you.

Type 1 is called an **orfit** mask or a beam directional shell (BDS). This is made of plastic mesh (see Picture 1).



Picture 1: Mask or BDS

Type 2 is called an **encompass shell**. It is also made of plastic mesh (see picture 2).



Picture 2: Encompass shell

The mould room team will explain the process of making your shell at your mould room appointment. It is completely painless. The plastic mesh material has an open area over your nose and mouth which allow you to breathe freely.

If you have a thick beard, please trim it short or shave it off before you attend the mould room. This helps to ensure your shell fits well.

Internal eye shield

We may need to use an internal eye shield to protect your eye from the radiation. An internal eye shield is like a protective contact lens placed over your eye.

There are different sizes of eye shield available. Your doctor will select the best one for you. We need to use some drops to numb your eye before inserting the eye shield. We therefore advise you not to drive to or from your appointments. Your doctor will discuss this with you if necessary.

Appointment 2: Treatment Planning- CT Simulator

Before your course of radiotherapy can begin, we need to produce an individual treatment plan for you. You will visit the CT simulator for a CT scan. This is very similar to a normal CT scanner and is specially designed for planning radiotherapy treatment. This scan allows your doctor to ensure that all the area needing treatment is included and that other organs are avoided as much as possible. This appointment may be on the same day as your mould room appointment.



Picture 3: CT simulator

It is important to realise that this is a scan to plan your radiotherapy and 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. The needle will be removed and will leave a small tube of plastic in your vein. It will be taped in place and will stay in during the CT scan. We 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 before beginning to ensure it is unlikely to happen to you. Your doctor and radiographers will keep a close check on you during the injection and scan, so if you feel anything unusual please tell us.

The dye is only needed for the planning scan, you will not need to get it for your daily treatment.

Appointment 3: Radiotherapy Treatment

You will have treatment on a linear accelerator, which is a special type of X-ray machine. The staff who operate these machines are called therapy radiographers.



Picture 4: Linear Accelerator

The number of treatments you get depends on your particular condition. This can vary from 1-30 treatments. Your doctor will have discussed the number of treatments at your first visit.

Radiotherapy is usually only given once a day, Monday to Friday.

Your radiographers will explain everything to you before treatment starts and check that you know what to expect.

- 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 while the machine is on. They will be watching you the whole time on closed circuit TV.
- Your radiographers will take some X-ray pictures to ensure you are in the correct position.
- Radiotherapy treatment is painless and you should feel no different afterwards.
- The whole process only takes between 10 and 15 minutes.
- If you have any questions or are unsure about anything to do with your treatment, please speak to your radiographers.

General Advice during treatment

There is no reason to change your lifestyle completely during treatment. However it may help to:

- Try to get enough rest and sleep, especially if the treatment makes you feel tired. It is also important that you try to continue with some of your normal daily activities. A sensible balance between rest and activity may be most beneficial. Research has shown that exercise is 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. See 'Where can I get help?' section for further information.
- If you drive, please check with your doctor that it is safe to do so during and after treatment.

Skincare

Radiotherapy only affects the skin in the area being treated. Please follow these instructions during your radiotherapy and for a few weeks after it has finished:

- You should wash the area being treated but it is important that this is done very gently, using lukewarm water. Extra care should be taken when drying the area – carefully pat the skin dry with a soft towel.
- If you need to shave your face during treatment, you should dry shave with an electric razor. Any part of your beard /moustache that is in the treatment area will stop growing some time after starting radiotherapy. After treatment ends, it may eventually come back, although it may be finer than before.
- When washing your hair, try to take care and avoid the shampoo getting near your eyes.
- Make-up should not be used on the area of skin being treated. Do not use eye make-up including mascara during the course of your treatment.

- If the weather is hot and sunny it is best to avoid exposure to bright sunlight. You can do this by sitting in the shade, wearing sunglasses and a wide brimmed hat.

Early effects of radiotherapy treatment

Eye problems

Some patients may experience some irritation in the corner of the eye (medial canthus) and an increase in tears (watery eyes). You may also have some inflammation of your eyelids (conjunctivitis) which can be treated with steroids. Please tell us if you are troubled with any of these side effects.

Tiredness

You will become tired during treatment. This tends to start a couple of weeks after starting your treatment and can last for some time after treatment has finished. Tiredness may even start after your treatment has finished.

Skin

The skin in the treated area will be more sensitive and may become pink or red. Again, this tends to be a couple of weeks into treatment and even after treatment has finished. This can be treated with specific creams. The staff here can give you a cream to use. If you would prefer to use your own, please check with your radiographers that it is the correct type of cream.

Hair loss

There will be a loss of hair in the area treated and in the area where the radiotherapy beam exits. You may find that you lose your eyelashes. This is usually temporary, although in some patients they may not re-grow.

After radiotherapy

Most early effects of radiotherapy will begin to settle a few weeks after treatment has finished. Your doctor will organise a follow-up appointment to see you at the Beatson clinic roughly 6-8 weeks after your treatment has finished. You will have further regular follow up appointments after this. Your doctor will let you know how often these will be.

Possible later effects of treatment

We believe that the benefit of your radiotherapy treatment outweighs any longer-term risks involved. However, you should be aware of these **potential** long-term effects which **may** affect a small number of people. It is important to point out again that effects can vary from person to person and your doctor will explain specific individual issues to you personally. The following effects are a general guide:

- The area you have had treated will always be sensitive to the effects of the sun; especially during the first year after your treatment. Protect yourself with total sun block- SPF 50 with both UVA and UVB protection, sunglasses and a hat.
- You may have slightly 'gritty' eyes, which sometimes require long-term use of eye drops and/or ointment. Your doctor will advise you about this.
- You may lose your eyelashes permanently.
- A cataract (cloudiness of the lens) may occur because of radiotherapy. If it occurs, it usually happens several years after treatment. Again, your doctor will be able to advise you further about this.
- There is a risk of complications which may result in damage to your eye. This could mean that you have reduced vision, or complete loss of vision. This risk is higher if you have a pre-existing eye condition, or if your radiotherapy treatment is very close to your eye. Your doctor will discuss this with you.

- A very rare but potential 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 it is extremely rare. If it does happen, it is likely to be many years after treatment has ended.

If you are having treatment for thyroid eye disease, the risk of developing a tumour due to radiotherapy is low (0.02%).

Driving

During radiotherapy your vision may be affected and you may become tired. It is advisable not to drive during the course of radiotherapy and within 3 months after the end of treatment.

Where can I get help?

Information and support

This leaflet deals with the physical aspects of your treatment but your emotional wellbeing is just as important to us. If you are diagnosed with cancer, it can be a deeply distressing time for you and those closest to you. Within the department we have a counselling and clinical psychology service to help you if necessary. If you think this may be helpful to you, please ask staff to put you in touch.

Macmillan Information Radiographer & Counsellor:

☎ 0141 301 7423

Information and Support Radiographer: **☎ 0141 301 7427**

If you want to discuss any aspect of your treatment before attending the Centre, please call.

The Beatson Cancer Centre has a **Radiotherapy Advice Line** available for patients who have completed treatment. The Advice line is not manned full time but checked at intervals for messages. Please leave your full name, telephone number and a brief description of your reason for calling and we will call you back. It can help us a lot if you can also leave your hospital number (CHI) or date of birth. Tel: **☎ 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 Tel: ☎ 0141 301 7990

National 8pm-8am Tel: ☎ 0800 917 7711

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**

There are also voluntary organisations providing information and support. Please note the Cancer Centre is not responsible for the content of any of these sites and it is up to yourself as an individual to decide if they are helpful to you. These include:

Macmillan Cancer Support	☎ 0808 808 0000
Providing practical, medical and financial support for those affected by cancer.	
Maggie's Gartnavel:	☎ 0141 357 2269
Maggie's Lanarkshire, Monklands Hospital:	☎ 01236 771 199
Maggie's Forth Valley:	☎ 01324 868 069
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
Provides emotional and practical support on a one-to-one basis and through community based groups. Complementary therapies available.	
🌐 www.cancersupportscotland.org	
Changing Faces	☎ 0300 012 0275
Offers help, advice and information for anyone who has a condition or injury that affects their appearance.	
🌐 www.changingfaces.org.uk	
Let's Face It	☎ 01843 491 291
Provides supportive links for people with experience of facial disfigurement, especially facial cancer.	
🌐 www.lets-face-it.org.uk	
Thyroid Eye Disease Charitable Trust (TeDct)	☎ 07469 921 782
Provides information, care and support to those affected by Thyroid Eye Disease.	
🌐 https://tedct.org.uk	
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.nhs.uk/active

Beatson Cancer Centre – if you want to find out more about our Centre please visit:

 www.beatson.scot.nhs.uk

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