

Information for Patients Having

Radiotherapy and Chemoradiation to the Face and Neck Area



This leaflet is for patients receiving radiotherapy to the head and neck area. It describes:

- What is radiotherapy?
- How your treatment is planned and delivered.
- The side effects you may experience during and after treatment, and how best to cope with them.
- Who to contact if you have any questions or worries.

What is radiotherapy?

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

Therapy radiographers operate the radiotherapy planning and treatment machines. We have both male and female radiographers. They will be able to help with 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

If you have any of your own natural teeth, you must have a dental check before starting any treatment.

Mould Room

Your first appointment will be for the mould room. You will meet our mould room technicians. They will make an immobilisation shell which is moulded around your face, neck and shoulders. You will wear it for each radiotherapy appointment.

Picture 1: Shell



The shell is important as it keeps your head and shoulders still during your treatment. This helps to ensure your treatment is accurate.

We will ask you to remove your outer clothing down to your waist. We will keep you covered where possible. You may wish to wear a crop-top or vest which you can slip down.

We will help you to lie flat on our couch. You will have a headrest to support your head. When you are comfortable, we will start to make your shell.

The technicians will use a warm, softened sheet of plastic to take an impression of your head, neck and shoulders. There is an opening to ensure your nose and mouth remain uncovered. This allows you to breathe freely.

The plastic will begin to harden as it cools down. As it cools, it shrinks a little so you will feel it getting a little bit tighter. The shell should feel firm, but not too uncomfortable. Making the shell is painless.

This appointment will last around 30 minutes.

If you have a beard and/or moustache we advise you to shave it off before coming to the mould room. It is important that your skin is smooth before we start to make your shell.

If necessary for your treatment, we may ask you to use a 'mouth bite' which helps to keep your jaw steady during treatment. This helps to protect your mouth from some of the effects of radiation. This will also be made for you in the mould room.

If you have a laryngectomy/tracheostomy, a hole will be made around your stoma to allow you to breathe with ease. You should request a thin blue band from a member of staff to hold your tube in place.

CT Simulator

Following your visit to the mould room, the planning of your treatment will begin with a visit to the CT simulator (scanner). This is a special X-ray machine used to take images with you lying in the position you will be in when you are having your treatment. This will be the same position you were in when you visited the mould room. You will need to wear your immobilisation shell for this.

Picture 2: CT Simulator



Your radiographers will put some sticky tape and markers on your shell. These are used to position you each day you come for treatment.

Once your radiographers are happy you are in the correct position, they will leave the room to start your scan. They are watching you at all times.

The scan does not take long, usually 10-15 minutes. You must stay very still but you can breathe and swallow as normal.

These scan images will be used to produce a unique plan for your own individual treatment.

The head and neck area contains a lot of important structures. The brain, spinal cord and eyes can be affected by radiotherapy, but only if they are in the area being treated. We plan your treatment very carefully and do our best to minimise any treatment dose to these areas. If necessary this will be discussed in detail when you consent to radiotherapy.

MRI

Your doctor may request that you also have an MRI scan. In some cases this can help to show the tumour and surrounding organs more clearly. This information is used along with your CT scan to plan your treatment. You will wear your immobilisation shell for this scan. Your doctor will discuss this with you. If you require an MRI scan, it will be done here in the Beatson after your CT scan.

Picture 3: MRI scanner



Contrast (dye)

You may need to have an injection of contrast (dye) for your scan(s). This can 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. The needle is removed leaving a small hollow plastic tube. This will be taped in place and will stay in position during the scan. We will inject the dye through this tube. It may feel a little cold but you should not feel any discomfort. You will not need this dye for your treatment appointments.

Radiotherapy treatment

Your radiotherapy treatment will start 2 to 3 weeks after your planning scan(s). Your treatment can take from 4 to 7 weeks to complete. Radiotherapy is usually only given once a day, Monday to Friday. We will explain the exact number of treatments you will have individually.

When you attend for your first treatment, your radiographers will explain what will happen and answer any questions you may have.

Your treatment is given by a machine called a linear accelerator or linac.

Picture 4: Linear Accelerator



For each treatment you will be lying on your back wearing your shell. Your radiographers will dim the lights in the room while they ensure you are in the correct position.

They will move the treatment machine into position and check your personal treatment plan. They will then leave the room to begin your treatment. Although your radiographers are outside the room, they will monitor you closely on CCTV.

Your radiographers will take some X-ray images to finalise your position. This can take a few minutes but it is important to ensure your treatment is accurate. We can make small adjustments at this point and you may feel the couch move slightly. Once they are happy, they will deliver your treatment. You won't see or feel anything. The whole appointment takes about 10 minutes, but the machine is only on for a couple of minutes.

Your radiographers may also take a CT scan when you are in the treatment position. There are no results from this scan. It is used as an additional check of your treatment position and plan. Your radiographers will explain this to you.

Your radiographers can talk to you over an intercom and play music for you. This can often help you to feel more relaxed. Please speak to your radiographers if you think this would be helpful.

Chemotherapy and radiotherapy

Many patients having radiotherapy are also given drug treatment called chemotherapy. Chemotherapy intensifies the effectiveness of radiotherapy on cancer cells, but it is not suitable for everyone.

If you are getting chemotherapy with your radiotherapy, you will be more likely to experience the side effects discussed in this leaflet. We may ask you to come for extra blood tests and check-ups to monitor how you are managing treatment.

Whilst attending for your radiotherapy, you will receive an appointment to also attend the chemotherapy clinic. This is to allow us to prescribe your second chemotherapy.

If you are having chemotherapy, we will give you separate leaflets to explain about the treatment.

Early effects of radiotherapy treatment

Most radiotherapy side effects start 2-3 weeks into treatment and will become more noticeable as your treatment progresses. They last for several weeks after the treatment finishes, and may even get slightly worse before gradually improving.

We treat each person as an individual and the effects of treatment may vary from one person to another. This is a general guide to some of the effects you may experience. Your doctor, radiographer, and clinical nurse specialist will explain specific aspects in detail with you.

Hair loss - You will only lose hair from the area being treated- where the radiation goes in and out of your body. This hair loss is only temporary for most people, although for a very small number of people it may be permanent. You may wash your hair with your normal shampoo, rinsing off with lukewarm water and patting dry. Stop using shampoo if irritation occurs.

Mouth, throat and gullet - The cells lining the inside of your mouth, throat and gullet are very sensitive to radiation. You may therefore experience soreness, ulceration, redness, cracks and bleeding in these areas. We will give you mouthwashes and pain killers to treat these effects. Remember, only use the medication given to you by the Beatson staff for these issues.

Saliva - You may find that your saliva becomes thicker, stickier and there is less of it. This can be worse in the mornings and can take some time to loosen and clear. This thick saliva or mucus can make you feel sick or vomit. If you are feeling sick, please let your radiographers or review team know.

Infection - You may be more at risk of infections in your mouth due to a lack of saliva. This can be seen as white patches on the inner surface of your cheeks or on your tongue (oral thrush). If you notice this, please let your radiographers or review team know.

There is a separate leaflet called 'Looking after your Mouth', which discusses in detail how to look after your mouth and teeth during and after treatment. If you are not given this leaflet, please ask for it and let us know if you have any concerns about your mouth.

Swallowing - It may become uncomfortable and painful to swallow. When this happens we will give you medicine to take before meals to help you swallow. We will also give you appropriate painkillers.

Voice changes - Your voice may become hoarse or weaker for a time. Avoiding smoking and smoky places will help this. Your throat may become sore and uncomfortable when talking and your voice will become tired. Speak quietly and gently, giving your voice rests throughout the day. Our Speech Therapist will be able to give you further advice if you need it.

If you have a tracheostomy (breathing tube in your throat) or have had a laryngectomy (voice box removed), the Head and Neck Nurse or Speech Therapist will offer any extra advice you may need to cope with this during your treatment. It is sometimes necessary to add extra moisture to the air you breathe, to balance any drying effect of the radiotherapy. There are many ways to do this, including different stoma protectors and a nebuliser. Adhesive base plates should be removed to prevent worsening skin reaction over the stoma area.

Weight loss - We will weigh you at the start of treatment and every week thereafter at your weekly review. If you lose weight or need advice, our dieticians will help you. They may prescribe food supplements. They may also recommend that a feeding tube may be helpful. This will be explained to you in detail if it needs to be done. You will need to be admitted to the ward for a

short time so we can explain how to look after your feeding tube at home. **This is a common requirement with this treatment. The staff will take time to explain everything to you.**

Taste - Your sense of taste may change or be lost completely for some time. A lot of people find that food tastes more salty than usual. This usually improves but can take several months. Very few people lose their sense of taste forever.

Tiredness - You may get tired or fatigued as your treatment progresses. This tends to start a few weeks into your treatment and can last for several months after treatment has finished.

Swelling - After neck surgery, if any of your glands have been taken away, your neck and chin area will swell slightly. This will get worse while you are having treatment but will improve slowly when treatment is completed. You will have been given exercises by the physiotherapist after your surgery. You should continue doing these exercises moving your face and neck muscles gently, through their full range of movement, to prevent stiffness and reduce any swelling. This should not be painful, so please let us know if you are having difficulties and we will arrange for you to see a physiotherapist.

Hearing problems - Certain chemotherapy drugs or radiotherapy near your ears can affect your hearing. You might experience some temporary hearing difficulties or ringing in your ears. Please let your radiographers or review team know if you experience this.

Skin - During radiotherapy, the area being treated will gradually respond in a way similar to an 'inflammation'. The skin in the treated area will be more sensitive and may become pink, red, sore or itchy. You will be given moisturiser to use during your treatment. This can help to ease any discomfort you may experience. The skin can sometimes blister and break. This tends to be a couple of weeks into treatment. If you require dressings on this area, the nursing staff here will do these for you.

Skin care - Radiotherapy only affects the skin that is within the area being treated. Please follow these instructions to wash and care for the skin in the treated area:

- You may bath and shower during treatment.
- You may use your normal soap, however stop if skin irritation occurs.
- You should wash using lukewarm water, and then pat the area dry with a soft towel. Do not rub your skin.
- Only use the creams given to you or recommended by our staff. Any creams should be gently applied with the fingertips and not rubbed in, even if it says so on the tube.
Do not use any other creams on your treatment area.
- Facial hair- we advise **not** to wet shave, but instead to use an electric razor. Any part of your beard /moustache growth that is in the treatment area will stop growing sometime after starting radiotherapy. After treatment ends, it may eventually come back, although it may be finer than before.
- Please don't wear any make-up, or use perfume or after-shave on the treatment area. Do not apply lip balms to dry lips, use only creams given by the treatment review clinic team.
- Avoid friction to the area being treated, such as tight clothing. Use natural fabrics when possible, like cotton or silk, which are soft and let your skin breathe.
- Avoid exposing the area you are having treated to the sun. Lightly cover the area with a soft silk scarf, wear a wide brimmed hat or stay in the shade. Do not use sun screen/ lotion on the area during treatment. After your treatment is finished and your reaction has healed, you should use sunscreen with both UVA/UVB protection and minimum SPF 50 while in the sun.
- Chlorine can irritate your skin, therefore do not go swimming until after your treatment is over and your skin is back to normal.

- When your skin is no longer red or itchy you can go back to washing and shaving normally.

By following advice given to you by staff, you can help minimise side effects. Please tell us how you are feeling, so we can help you if necessary. You will have a weekly review (on a Wednesday) with a member of the head and neck team while you are on treatment. **Please make sure you attend this weekly check-up.**

General advice during treatment

Try to get enough rest and sleep, especially when the treatment begins to make you feel tired. It is also important that you try to continue with some of your normal daily activities.

Research has shown that gentle 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. Please let us know if you are interested in finding out more.

Medications - Contact your GP to have any medicines you already take changed to a liquid or soluble form. It is very important to continue with all your medicines. It is important you let us know if you are having difficulties.

Soft diet - It may be easier to eat a **softer diet** such as scrambled eggs, soups, and puddings etc. Try using more gravies and sauces. Avoid food that is too hot, too cold, spicy or acidic. You can increase the nourishment in your food by adding more full fat milk and cream to porridge, soups etc. and adding cheese and butter to mashed potatoes. We recommend that you try to drink as much as possible during your treatment. At least 8-10 glasses of fluid a day is ideal.

Smoking & drinking - Smoking and drinking alcohol will make the side effects of radiotherapy worse. We will be happy to offer any help with giving up smoking or you can contact Smokeline yourself. During treatment, many people find it better to give up alcohol completely, especially spirits, until their mouth has healed.

- **Smokeline:** ☎ 0800 848484
- **Alcoholics Anonymous:** ☎ 0800 9177 650

Possible later effects of treatment

Effects vary from person to person depending upon the area being treated. Your doctor will explain particular issues that are likely to affect you.

- **Saliva** - Due to the effect of radiotherapy, you may have a smaller amount of saliva, or it may become thicker. This can cause a dry mouth. There are saliva substitutes available in both spray and gel form, some with fluoride. It may help to drink water along with your meals.
- **Changes to taste and smell** - Radiotherapy to the head and neck can cause damage to the surface of your tongue, mouth, nose and throat. You may therefore experience changes to the smell and taste of food during treatment and for some time after.
- **Tooth decay** - You will also be at increased risk of tooth decay. To prevent this, if you have your own natural teeth, they should be kept in good condition. Brush with fluoride toothpaste twice a day (in some cases your dentist will provide you with a high fluoride prescription toothpaste), floss daily, use a low or non-alcohol fluoride mouthwash and see your dentist/ hygienist every 3-6 months. Always inform your dentist that you have had radiotherapy to the mouth or throat.
- **Sun sensitivity** - You will always be sensitive to the effects of the sun in the area you have had treated, especially during the first year after your treatment. Protect yourself with UVA/UVB sunscreen protection with a minimum SPF 50 and a hat.

- **Tumours** - 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.
- **Osteonecrosis/osteoradionecrosis** - Another rare complication of radiotherapy and surgery is osteonecrosis or osteoradionecrosis. This is damage to the jaw bone. If you develop pain or discomfort in the bone of your jaw please seek advice from your GP or surgeon. This complication may simply require antibiotics or pain killers to treat it. Very occasionally surgery may be required to remove the damaged bone.

Please do remember that we believe the benefits of your treatment for your current condition out-weigh the longer term risks involved.

After radiotherapy

When your radiotherapy finishes, it still continues to work inside your body. Your side effects may therefore be at their worst around 10-14 days after your treatment finishes. They should settle after 4-6 weeks. The tiredness may take a little longer. Some people feel worse physically and mentally when treatment is finished.

Your surgeon will see you for follow-up about 6 to 8 weeks after completing your treatment. It is important to keep in touch with us if you feel worse, as we can see you earlier if necessary.

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. Being diagnosed with cancer 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.

- Head & Neck Specialist Nurses: ☎ 0141 301 7588/ 7589
- Advanced Practitioner Radiographer: ☎ 0141 301 9901
@ Lisa.Hay@ggc.scot.nhs.uk
- Information Radiographer & Counsellor: ☎ 0141 301 7423
- Information and Support Radiographer: ☎ 0141 301 7427

Dietitian: 🌐 www.beatson.scot.nhs.uk/patients-and-visitors/wards-departments/dietetics/

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. Please visit or phone on ☎ 0141 301 7390. Open Monday to Friday 8:15am to 4:15pm.

The Beatson Cancer Centre has a **Radiotherapy Advice Line** available for patients who have completed treatment. This is an answer machine service available from Monday to Friday. Please leave your name and telephone number and you will be called 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

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

Macmillan Cancer Support	☎ 0808 808 0000
Nurses can provide information on all aspects of cancer and its treatment, and on the practical and emotional aspects of living with cancer.	
🌐 www.macmillan.org.uk	
Maggie’s Gartnavel Maggie’s Lanarkshire, Monklands Hospital Maggie’s Forth Valley	☎ 0141 357 2269 ☎ 01236 771 199 ☎ 01324 868 069
Maggie’s Centre provides comprehensive cancer support programme for people and their families affected by cancer	
🌐 www.maggies.org	
Cancer Support Scotland, The Calman Centre, Gartnavel Campus	☎ 0800 652 4531
Provides emotional and practical support within the Centre and the community. Complementary therapies and Counselling also 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

Provides supportive links for people with experience of facial disfigurement, especially facial cancer.

 www.lets-face-it.org.uk

Cancer Laryngectomy Trust

Advice and help after laryngectomy.

 www.cancerlt.org

National Association of Laryngectomy Clubs

 **020 7730 8585**

Encourages the formation of clubs to assist rehabilitation.

 www.laryngectomy.org.uk

Smokeline

 **0800 84 84 84**

Offers help to give up smoking.

Alcoholics Anonymous

 **0800 9177 650**

Offers help to reduce alcohol intake by providing support in local groups. Find your local meeting at:

 www.alcoholics-anonymous.org.uk/

Al-Anon family Groups

 **0800 0086 811**

 www.al-anonuk.org.uk/

Macmillan Benefits Team (within the Beatson)	☎ 0141 301 7374
---	------------------------

Provides free and confidential benefits advice for people affected by cancer.

If you are interested in finding out about becoming more active, please visit:

🌐 www.nhs.gov.uk/getactive

Beatson Cancer Centre

if you want to know more about our Centre please visit

🌐 www.beatson.scot.nhs.uk/

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 telephone:

☎ 0900 122 3135 or scan the QR code:



Leaflet reviewed by: F. Campbell/ J. Tyczynski/ L. Hay December 2022
QA approved by: H. Reid December 2022
Review Date: December 2024