

Fractionated brain radiotherapy

Your doctors have recommended that you have a course of radiotherapy to the brain. This is to reduce the risk of damage to the brain from a tumour. They have weighed the expected benefits against possible side effects. The risk of damage from an untreated tumour is far greater than the possible small risk of damage caused by radiation treatment.

This factsheet explains what this means, what it involves and the possible side effects during and after treatment. Your doctor will have discussed alternative treatments with you.

On your first visit to see the doctor in the outpatients department, we will give you appointments to attend the mould room and a date for a CT scan as part of the planning for the radiotherapy. The preparation for radiotherapy will take approximately two to three weeks.

Why is there a gap before I start treatment?

After the CT scan is taken, the doctors looking after you will use the pictures to decide exactly where to give radiation. Through a process called computer planning, they will decide exactly how it should be given. This process involves a team of doctors, physicists and radiation technologists (sometimes called planners) and takes about one week.

We will give you the start date of your radiotherapy treatment as well as a list of telephone numbers for people to contact if you have any problems. We will provide written information about CT planning, brain tumours, hair care and radiotherapy in general. This is also available online via [The Royal Marsden Patient Information library](#).

What happens before the first treatment with radiotherapy?

Mould room

The first appointment before you start treatment will be with the mould room. At this visit, we will make an impression of your head and face to make an accurately fitting face mask. This is not painful or uncomfortable. The whole process will take around 20 minutes. The mask is put on during treatment to make sure that you lie in the same position each time.

You will have a CT scan in this mask, so that we can plan your treatment. You may or may not have contrast (injection of dye) for this procedure. If so, we will ask you not to eat or drink for one hour before the scan to reduce the risk of being sick. Please tell the radiographer before the investigation if you have any known allergies to contrast or to iodine. You might require a blood test in preparation for this scan; we will inform you if this is the case. Please note that this is not a diagnostic scan.



What happens during treatment?

Radiotherapy treatment is usually daily (excluding weekends and bank holidays) over a period of several weeks (fractionated). We will discuss the length of your treatment with you in clinic but it is usually about six weeks. Each treatment session will take between 10 and 20 minutes. Although you will be on your own during treatment, the radiographers are able to see you and hear you by means of a TV monitor and an intercom system through which they can talk to you.

The radiotherapy treatment itself takes a few minutes. The radiotherapy machine may move and make different noises during treatment. This is normal and nothing to worry about. While you are having treatment you should not feel anything; it is a painless procedure.

What problems should I expect during and after treatment?

During treatment you are likely to notice skin changes, lose some of your hair and get tired. Feeling sick (nausea) is not generally associated with radiotherapy to the brain. However, if you feel sick, please mention it when attending for treatment or when you are seen in clinic and we will give you anti-sickness medication. The nurse specialist working with your medical consultant will see you regularly during treatment in the on treat clinic to monitor your progress and to discuss issues relevant to your care.

Skin changes to the scalp

Skin changes due to radiotherapy only happen in the area being treated. Your scalp may become red, as though you have been sitting out in the sun. It may feel hot and itchy. This is usually followed by dry and flaky skin. It may appear unsightly to you but this is part of normal skin healing. During this stage it is best to apply an unperfumed moisturising cream such as aqueous cream or E45. For a short time the skin on your head will be more sensitive to the sun after radiotherapy. You should protect your head from direct sunlight with a scarf or a hat and use sun cream containing sun protection factor (SPF) indefinitely after radiotherapy.

Hair loss

It is usual to lose hair during radiotherapy. Your hair will start to fall out from the area which gets treated within 10 – 14 days of starting treatment. Hair loss may be permanent following the course of radiotherapy but this depends on the exact position of the tumour. We will discuss this with you in more detail during your first visit. During radiotherapy, you can continue to wash your hair as frequently as you normally would, with some minor precautions:

- Use tepid water and a mild shampoo
- Do not use colourants or perm your hair
- Do not rub but pat your hair and scalp dry with a soft towel afterwards
- Do not use a hair dryer, as even on a low setting it can cause irritation to the scalp
- If you are used to having a facial wet shave, you may continue to do this.

If you would like a wig, please discuss this when you are seen in clinic.



Tiredness

Radiotherapy may make you feel exhausted and you may find that your energy levels are lower than before. The tiredness can last for six to eight weeks after finishing radiotherapy. We tend to call this feeling 'somnolence'. During this period, have frequent rests, drink plenty of fluids and try not to overexert yourself.

Late effects of radiation on the brain

The reason for giving radiation is to reduce the risk of damage to the brain from a tumour. While you may be concerned about the potential damage from radiation, however small, the risk of damage from the untreated tumour is far greater than the risk of damage caused by treatment. Radiotherapy is given so that the tumour and a margin (an area around the tumour) is treated over a period of weeks.

The chances of radiotherapy damaging the brain are small – 5% (five in 100 people). This type of damage from radiation is called 'radiation necrosis' and would cause similar problems to the tumour itself. Treating the brain may have an effect similar to speeding up the ageing process. This may result in reduced short-term memory and concentration which may become noticeable many years after treatment. In very rare cases, the treatment can affect the eyesight causing varying degrees of visual loss and hearing may also become impaired.

We will discuss the risks and benefits of radiotherapy with you before you give consent to treatment. If you are unsure or do not understand what is being said, please tell the doctor or the specialist nurse working with your consultant.

Other things to be aware of:

Support

At times, it may be necessary to involve other members of the hospital or community such as the physiotherapist, district nurse, occupational therapist or hospice nurse in your care. This is to ensure that all necessary support is there for you during and after treatment.

We will always discuss changes in your care with you and any change to the services provided will not be introduced unless you agree.

Steroids

If you are taking dexamethasone tablets (a steroid), please take them with food or with a milky drink. It helps not to take them late in the day (no later than mid-afternoon) as they may keep you awake at night. Please do not stop taking steroids without medical advice. Always bring a list of your medications when attending clinic.

Driving

If you have had a brain operation and have a brain tumour, you must not drive until the DVLA allows you to. Please contact the DVLA to let them know about your condition and ask the clinic staff to discuss this with you in more detail, if needed.

Finance

If you take anti-epileptic medication (anticonvulsants), have cancer or have a continuing physical disability which means that you cannot go out without the help of another person, you are entitled



to free NHS prescriptions. Ask at the chemist or pharmacy for an exemption certificate form FP92 and have your doctor sign this.

You may be entitled to other benefits. Please discuss this with the nurse specialist who can refer you to the welfare benefits advisor.

It may also help to keep a list of questions that you may wish to ask when attending treatment or clinic.

Follow up

Please make sure that you have a follow up appointment for medical review on completion of your radiotherapy. If you do not have one, please ask. If you need to change any of your appointments for any reason, please telephone the radiotherapy reception on 020 8915 6020.

Some of the words used in this leaflet may be unfamiliar; please do not hesitate to ask one of the team for further explanation if there is anything you do not understand.

Neuro-oncology team contact details

Please see separate sheet.

