

A large teal graphic on the left side of the page, composed of several concentric, thick, curved segments that resemble a stylized smile or a series of overlapping arcs.

Oral care for patients receiving radiotherapy that involves the mouth

Radiotherapy

A guide for patients and carers

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This information leaflet is for patients who are going to be having treatment with radiotherapy to their mouth area.

The mouth area often needs to be treated using radiotherapy when the primary cancer site is within or close to the mouth, or when treatment is targeting the lymph nodes near to the mouth.

This leaflet explains how you should care for your teeth before, during and following your radiotherapy treatment. Please read this leaflet very carefully. If there is anything you do not understand, then please ask any member of your cancer support team to help you.

Dental care before radiotherapy

Before you start radiotherapy treatment your mouth needs to be as healthy as possible and you will be given an appointment to see a dentist and dental nurse as part of your radiotherapy care plan. The dental team may also arrange to see you again about eight weeks after you finish your radiotherapy treatment.

These appointments will be at Clatterbridge Cancer Centre and will involve:

- Assessment of the mouth and removal of any unhealthy teeth if necessary
- Giving you information and products to help improve the condition of your teeth, e.g. high strength fluoride toothpaste

- Explaining the importance of good mouth care routines to reduce the risk of developing problems in your mouth such as infections or tooth decay.

Good mouth care as a lifelong habit is especially important because radiotherapy to the mouth area involves a risk of long term changes to your mouth, teeth and jaws. The risk is related to:

- How much of your mouth is treated. This varies depending upon the main site of the disease
- If any of the salivary glands are treated
- The total radiation dose given

These risks need to be balanced against your current health needs. **Your oncology doctor will explain in detail how these various factors relate to you and your treatment.**

Support during treatment

During treatment, Clatterbridge Cancer Centre staff are available to help and advise you. These staff include radiographers, doctors, specialist nurses, a dietitian, a nutritional nurse and a speech and language therapist.

We also have a range of other leaflets which may help you and these can be accessed on the Clatterbridge Cancer Centre website. In addition, Macmillan Cancer Support offers telephone and online support and information leaflets about living with cancer and the effects of treatment.



Changes related to radiotherapy

Radiotherapy can affect the salivary glands, making them produce less saliva and leading to a dry mouth. The amount of dryness you will experience depends on any previous surgery, how much of your mouth is treated and the dose the salivary glands receive. When the mouth is treated every weekday over 2-3 weeks or more, damage to the salivary glands is more likely to happen and may be a permanent effect.

A dry mouth increases the chance of tooth decay. Saliva is very important in protecting teeth from decay as it continually washes the mouth to remove food particles. When you have a dry mouth, even small amounts of sugary foods and drinks can cause **very severe tooth decay which** may be difficult to treat. Even if you have only a few teeth, it is important to have a good mouth care routine to help keep your teeth and your mouth, in good condition.

Help to keep your mouth moist by increasing your fluid intake (water is best) and rinsing your mouth frequently with water (every two - four hours as necessary). You may also be given products to help keep the mouth moist (saliva substitutes).

Radiotherapy is also likely to make your mouth sore and may cause mouth ulcers. This soreness usually only lasts while you are having treatment and for a few weeks afterwards.

How to look after your teeth during radiotherapy

- Clean your teeth two to three times daily with the high fluoride toothpaste provided and a soft, small headed brush (use a baby toothbrush if your mouth is sore). Spit out the toothpaste after brushing and do not rinse your mouth afterwards. Do not eat or drink for 30 minutes after brushing. Make sure that one of the occasions that you brush is just before bedtime. If you have dentures, use a different brush to clean them
- Try to avoid brushing immediately after eating or using 'build up' drinks such as ENSURE. Instead, rinse your mouth very well afterwards with water to remove all traces of the ENSURE or food which may be stuck to your teeth. Leave 30 minutes before brushing

If your mouth becomes sore, you may need to stop using your toothbrush for a short while. In this case, ensure you rinse your mouth well and frequently with water. Whenever you rinse your mouth, ensure that the water is swished around your mouth and between your teeth.

If you are prescribed a mouthwash, leave 30 minutes between using it and tooth brushing.

If you use dentures, stop wearing them if any soreness develops.



Care of dentures (and prosthesis, if used)

Use liquid soap or a denture cleaning cream and a brush for cleansing.

Soak your dentures using denture cleaning tablets as this removes bacteria and plaque. Follow manufacturer's instructions for use.

After cleansing, **leave your dentures out overnight** in a glass of water, which will give your mouth a rest and reduce the chances of you getting a fungal infection (thrush).

How can I look after my teeth immediately after radiotherapy?

Your mouth is likely to be sore for a number of weeks after finishing radiotherapy. You should continue with regular mouth care routines during this time, if possible. Even if only mouth rinsing is possible, it is still beneficial. **Once your mouth has recovered** you should continue to look after your teeth by considering the following:

- **Watch what you eat**

Radiotherapy can alter your taste sensation and you may find that you prefer a more sugary diet. However, you should try and avoid sugary foods and drinks as much as possible, especially in-between meals or before bedtime. If you do have sugary foods or drinks, do so with a meal and wait 30 minutes

before cleaning your teeth. Sugary foods include sweets, biscuits, cakes, and fizzy drinks such as cola and lemonade. Use a sweetener rather than sugar in drinks and foods.

If you use 'build-up' type drinks such as ENSURE, don't brush your teeth immediately afterwards, leave 30 minutes before brushing. If brushing is not possible, rinse your mouth very well afterwards with water to remove all traces of the ENSURE which may be stuck to your teeth.

- **Get enough fluoride into your teeth**

Continue to use high strength fluoride toothpaste. When it runs out, ask your dentist for a new prescription.

- **See your dentist regularly**

In addition to your follow-up appointments with your oncology doctors, it is extremely important that you see your dentist regularly. This will help to ensure that any problems are spotted early whilst they can be easily treated and will help to prevent more serious conditions developing. If you do not have a dentist, we will help you to find a dentist near where you live. We recommend that you have a dental check-up every three - four months for the first year after your radiotherapy treatment. We will send your dentist a summary of the dental care you have received at Clatterbridge Cancer Centre. If you have any concerns about your mouth, you should ask your dentist for an urgent appointment.



- **Dentures**

After radiotherapy, some people find their dentures don't fit as well and they need a new set making. It is important that your dentures that do fit well to avoid trauma to the gums.

About Osteoradionecrosis (bone death)

This is a rare condition that can develop at any time following surgery, radiotherapy and/or chemotherapy. It can happen following trauma to the bones of the jaw and/or the soft tissues nearby. Trauma could be the removal of the teeth for either decay or infection, accidental injury to the area and/or poorly fitting dentures. Good mouth care routines, together with seeing your dentist regularly, helps to reduce the risk of developing this condition. However, the use of alcohol and tobacco increases the risk, particularly if used in excess.

Osteoradionecrosis can occur following radiotherapy because the radiotherapy can affect the blood vessels that supply the jaw bones (especially the lower jaw). The area of jaw at the back of the mouth is more at risk than the front. Osteoradionecrosis means that following trauma; the jaw bone might be slow to heal or does not heal properly. For this reason, if at any time in the future you need teeth removed, your dentist must refer you to your local Oral and Maxillofacial Surgery unit.

If osteoradionecrosis does occur and the tissues do not heal properly, treatment may involve the use of hyperbaric oxygen

therapy (breathing pure oxygen at a pressure higher than normal) or removing the affected non-healing area and (very rarely) using bone from your leg or hip area to rebuild the jaw

We will give you an 'alert card' for your use to show your dentist/health care staff in the event that you have any facial trauma or injury, or need a tooth extracting. Please ensure your relatives/carers know about the alert card.

Important information for smokers

We recommend you give up smoking and help is available at The Clatterbridge Cancer Centre; ask staff for information. Alternatively, visit the website www.nhs.uk/smokefree or call into the Macmillan information centre in the foyer for more information.

Contact details

Dental service at Clatterbridge Cancer Centre - Wirral

Tel: 0151 556 5728

(Staff will contact the dental service on your behalf)

www.clatterbridgecc.nhs.uk

Macmillan Cancer Support

Tel: 0808 808 0000

www.macmillan.org.uk



Cancer Research UK

Tel: 0808 800 4040

www.cancerresearchuk.org

Changing Faces

Changing Faces supports people who have any condition or injury that affects their appearance.

Tel/fax: 0300 012 0275

www.changingfaces.co.uk

British Dental Health Foundation

Tel: 01788 546 365

www.dentalhealth.org.uk

Aintree University Hospital - Head and Neck Cancer Unit

Tel: 0151 525 5980

www.headandneckcancer.co.uk

Finding an NHS Dentist

www.nhs.uk/Service-Search/Dentists/LocationSearch/3

How we produce our information

All of our leaflets are produced by staff at The Clatterbridge Cancer Centre and this information is not sponsored or influenced in any way. Every effort is made to ensure that the information included in this leaflet is accurate and complete and we hope that it will add to any professional advice you have had. All our leaflets are evidence based where appropriate and they are regularly reviewed and updated. If you are concerned about your health in any way, you should consult your healthcare team.

We rely on a number of sources to gather evidence for our information. All of our information is in line with accepted national or international guidelines where possible. Where no guidelines exist, we rely on other reliable sources such as systematic reviews, published clinical trials data or a consensus review of experts. We also use medical textbooks, journals and government publications.

References for this leaflet can be obtained by telephoning 0151 556 5570.

If you need this leaflet in large print, Braille, audio or different language, please call 0151 556 5570.

If you have a comment, concern, compliment or complaint, please call 0151 556 5203.

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