



**WE SUPPORT CHILDREN WITH CANCER AND THEIR FAMILIES**

**The possible side effects of Radiotherapy, Reviewed: Prof Sidney Davis, Principal Specialist - William Buckland Radiotherapy Center**

Radiotherapy is an effective treatment for many cancers, but it can cause unwanted side effects. Fortunately, most go away in time and there are ways to reduce discomfort. Other, less common, side effects may be permanent.

Side effects vary greatly. Most are specific to the area of your body being treated but vary in intensity from person to person. Two people on the same treatment may react quite differently, while some people will have no side effects. Reactions can also vary from one period of radiotherapy to the next.

The type and severity of side effects relate to the area of the body being treated and whether treatment's being given to cure the cancer or to relieve symptoms. (Side effects are usually more severe with curative treatment.) Before your treatments begin, talk to your radiation oncologist about the possible side effects from your particular treatment. These will be discussed with you when you're asked to consent to treatment.

During your course of treatment, tell your radiation oncologist, radiation therapist or nurse of any side effects you notice. These can usually be controlled with the right care and medicine. If you have severe side effects, the doctor may change the treatment or prescribe a break in your treatments. However, if your treatment is aiming to cure your cancer, usually the doctor won't pause the treatment to allow the side effects to settle down. This is because it could make the treatment less effective.

Don't use any medicines, home remedies or creams without your doctor's approval. Always ask your radiation oncologist first.

Most side effects are short-term but some can be long-term or permanent. It's not possible to predict who will get a long-term side effect of treatment. Your doctor will explain the risks and the benefits.

The most common side effects are fatigue and loss of appetite. Not everyone will have these effects. Some people also have skin problems or other side effects.



**Fatigue**

During radiotherapy, your body uses a lot of energy dealing with the effects of radiation on normal cells. Some people are able to carry on as usual. However, many people find that they can't do as much and feel tired during and after treatment. Some people find attending the radiotherapy away from home very tiring. Your weariness may build up slowly during the course of treatment and go away gradually after your treatments are finished.

While you're having your course of radiotherapy, help your body by not overdoing things. Try to get more sleep at night. If you are feeling okay, do the things you normally would - there's no need to avoid activity if you feel up to it. If you're tired, don't feel that you must do everything as normal. Ask family or friends to help with shopping, childcare, housework and driving.

If you have a job, you may feel well enough to continue to work if your appointments can be organized to suit. You may, however, need to take a few weeks off work during or after your radiotherapy, or work fewer hours. Maybe you could do some of your work at home.



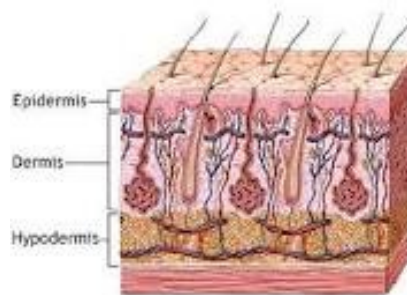
### **Loss of appetite**

Try to eat a healthy, balanced diet. It helps you remain as well as possible and get the most from your treatment.

Some people lose interest in food during a course of radiotherapy. This can depend on where on the body the radiotherapy is targeted. There may be days when you cannot eat much. Try to catch up on days when you do feel like eating.

You may find you can drink a lot, even if you don't feel like eating solid foods. If so, try enriching your drinks with powdered milk, yoghurt, honey or weight gain supplements.

The hospital dietitian will be able to help. If your treatment is likely to cause problems with swallowing, nausea, vomiting or diarrhea, a dietitian will see you. If you have radiotherapy in the head and neck area, chewing or swallowing might be difficult or painful.



### **Skin problems**

Sometimes radiotherapy causes your skin to become dry and itchy in the treatment area. The skin may become bright red or even peel. If this occurs, you'll be given special dressings. Some of the radiation passes through your body and out the other side, so that the skin in that part of your body may also be affected, though probably less severely. You should keep all treated areas out of the sun during treatment.

After treatment, you may be left with a sunburnt look in the treated area, such as redness or tanning. This fades with time. Your skin may also become more sensitive to the sun. After treatment, be sure to protect skin that has had radiotherapy.

### **Tips for personal care during radiotherapy**

- Wear soft clothing. Since dye marks (if used) may rub off on your clothes, it is best to wear loose, soft, older garments that feel comfortable and that you can throw out if they get stained.
- Protect the treatment area from the sun. Stay out of the sun, and before going outdoors always cover your treated skin with light, close-weave clothing. Ask your doctor about using a sunscreen (SPF 30+).
- Tell your doctor about changes in your skin, such as cracks or blisters, very moist skin, rashes, infections or peeling.
- Don't rub, scrub or scratch treated skin or any sensitive spots. Don't try to scrub off the dye outlines after your

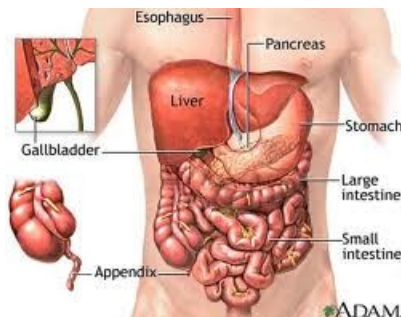
treatment - let them wear off gradually.

- Don't use any soaps, creams, deodorants, medicines, perfumes, cosmetics, talcum powder or other substances on the treatment area without first checking with your doctor.
- Don't put very hot or cold things (hot water bottle, ice pack, etc.) on the treatment area. Bath or shower in lukewarm water - even hot water can injure your sensitive skin. Be very gentle when drying yourself after bathing.
- Don't wear tight-fitting clothes (such as girdles or close-fitting collars) over the treatment area. Don't use a blade razor on the treatment area. If you need to shave, use an electric razor.



### **Hair loss**

If you have hair in the area being treated (scalp, face or body), you may lose some or all of it during radiotherapy. Depending on the dose, it may or may not grow back after the treatments are finished. If it does grow back, it may be different in color or curliness. In general, you will not lose hair outside the treated area. However, when tumors on the face are treated, hair on the back of the head may go due to radiation passing through the head and out the other side.



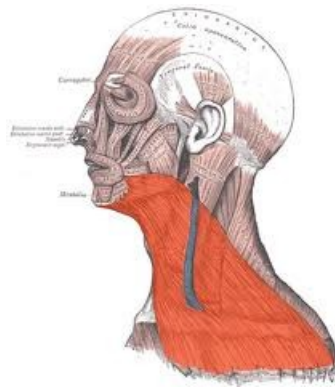
### **Nausea and diarrhea**

If you are having radiotherapy to your stomach or some part of your lower abdomen, you may have to cope with an upset stomach, soreness or diarrhea. Your radiation oncologist can prescribe medicines to relieve these problems. Do not take any home remedies during your radiotherapy treatment unless you first check with your radiation oncologist, or nurse. If you do feel ill, try to keep eating or drinking as well as you can so that your body gets the calories and nutrients it needs.

These problems will fade when your treatment is over. Some people feel queasy for a few hours after external radiotherapy. If you have this problem, you may find you can handle the treatment better with less in your stomach: have a bland snack before treatment such as toast, dry biscuits or apple juice. Discuss this with your doctor: there is effective medicine to prevent nausea.

If it occurs, diarrhea most often begins in the third or fourth week of treatment. Your doctor can give you medicine to help, but you can also help to control diarrhea by eating carefully. You may see a dietitian, or ask your doctor or nurse to suggest food that will not make your diarrhea worse.

After the diarrhea has cleared up, it is important for you to return to a nourishing and balanced diet.



### **Face, mouth, neck and upper chest problems**

Radiotherapy is often used to treat cancers in the mouth, throat, neck and upper chest and can give excellent results. However, radiation side effects may make eating and swallowing difficult.

If you have treatment in this area for several weeks, your mouth or throat may become dry and sore and your voice may become hoarse after two to three weeks of treatment. This will gradually recover after treatment is completed, but may take several weeks or even months to resolve depending on the treatment intensity. You may also have thick phlegm in your throat, or a lump-like feeling that makes it hard to swallow. Your doctor can help you with these problems.

If you have a dry mouth, it may help to suck ice chips and sip cool drinks often. Your nurse or doctor may give you some mouthwash. Avoid tobacco and alcohol (including mouthwashes containing alcohol), as they will dry your mouth even more. Depending on the treatment required, loss of saliva and therefore dry mouth can be permanent. There are various ways to treat this side effect: ask your doctor or nurse for information.

If eating is difficult, ask your doctor for something to relieve the pain. Good pain relief will help you to eat well and feel better. If chewing and swallowing are painful, try to have more liquids or soft meals. If you lose too much weight, you may need extra feeding through a tube that goes into your stomach: your doctor will discuss this with you.

A dietitian will review you regularly during the radiotherapy and may advise a diet supplement. You can buy these at the pharmacy without a prescription and many are available in a range of flavors. You can use them alone or with other foods such as pureed fruit.

Sometimes your sense of taste can change during radiotherapy. If this happens, try different ways of preparing food. Recovery of normal taste can take sometimes take a long time after treatment is completed.



### **Dental problems**

Radiotherapy to your mouth will make your teeth more likely to decay and can make future dental work more hazardous. If you have your own teeth, your doctor will arrange a dental consultation before your radiotherapy begins so that any dental work you need can be done.

Your dentist will explain how to care for your mouth and teeth, to help prevent tooth decay and to deal with problems such as mouth sores. It is very important that you follow this advice. You will need ongoing dental care after treatment is completed.

