


Information for patients and carers

Radioiodine Treatment For Benign Thyroid Disease 555MBq

A decorative graphic at the bottom of the page consisting of three overlapping, wavy horizontal bands in shades of blue, ranging from a light sky blue to a dark navy blue.

Introduction

You have been referred for radioiodine therapy to treat your overactive thyroid gland. Sometimes referred to as radioactive iodine, it is a highly effective therapy that can successfully treat an overactive thyroid. This leaflet contains information about the treatment and the precautions you need to take before, during and after treatment.

What is Radioiodine treatment?

Radioiodine treatment is a type of radiotherapy. It is used to destroy some of the cells in the thyroid gland, reducing the amount of hormones it can produce.

Please inform us before you attend:

- If you are, or think you may be pregnant
- If you are breast/chestfeeding
- If you express breast milk for any children

If you are between 10 and 55 years of age and capable of childbearing, you will be asked these questions when you attend for your appointment. If appropriate, you may be asked to take a pregnancy test before you are given the treatment.

If you are pregnant, or even if you think you may be, the treatment must be delayed.

If you are breast/chestfeeding, you must stop completely before having the treatment.

Preparation for the treatment

The iodine used in this treatment is radioactive. You will have some radioactivity in your body for up to 3 months after the treatment. We would like you to observe some precautions for a few weeks, as detailed below, until the amount of radioactivity in your body has reduced.

After your treatment, anybody who comes into close contact with you will receive a small radiation dose.

The advice we give you is to reduce the radiation dose to other people, especially your own family/people you live with. Further advice for your family or people you live with is detailed below.

Medication

Antithyroid drugs (Carbimazole (Neomercazole®), Propylthiouracil) or thyroid hormone tablets (Thyroxine), interfere with the radioiodine treatment. You will usually be asked to stop taking these before coming for treatment. Please inform the doctor who referred you for radioiodine treatment about all medications you are taking, before you attend for your appointment with us.

If you are currently taking vitamin supplements which contain iodine, please stop taking them prior to and during your treatment.

Thyroid Eye Disease

If you have existing thyroid eye disease (which can occur in Graves' disease), it can sometimes be aggravated by radioactive iodine treatment (especially in smokers).

Before your treatment is booked, please inform the doctor who referred you of any eye symptoms that you have, as these might be thyroid related. Your doctor will advise ways to minimise the risk of worsening eye disease, such as a course of treatment with steroid tablets, early treatment with levothyroxine and stopping smoking.

Can you bring a relative or friend with you?

A relative or friend can accompany you to the hospital but they will not usually be allowed into the room when you have your treatment. Please note, you should not bring anyone under the age of 18 or anyone who is pregnant to your appointment.

Are there any risks?

This treatment has been given to thousands of patients and has been in use since the 1940s. We know that it is both safe and effective. The rest of your body, apart from your thyroid, will receive a small radiation dose (which is similar to the dose you would receive from a medical Xray). If other people (especially people you live with), come into prolonged close contact with you, they may also be exposed to a very small dose of radiation. We will advise you on what to do to keep this as low as possible.

We must stress to all radioiodine treatment patients that you should not become pregnant or father a child until at least 6 months after you have had the treatment.

How is the treatment given?

Having the treatment is very easy. After a consultation with the radiographer, you will be given a small (paracetamol sized) capsule to swallow which contains the radioiodine. We will provide a cup of water to wash it down.

How your treatment works

Iodine is a natural element and can be found in certain foods. When you eat iodine containing foods, almost all the iodine goes to your thyroid gland where it is used to make thyroid hormone. Your thyroid gland is overactive meaning too high a level of hormone is being produced.

After you have ingested the radioiodine capsule (radioactive iodine), it will concentrate in your thyroid gland. The radiation given off by the radioactive atoms in the capsule will reduce the activity of your thyroid gland with the aim of improving your symptoms. Your doctor should discuss with you why radioiodine treatment is considered appropriate for your condition.

How long will the radioiodine stay in my body?

Within a few hours, most of the radioiodine will be absorbed by your thyroid gland. A much smaller amount will be taken up by other body tissues. The radioiodine will gradually leave your body, initially in your urine. A very small amount of radioiodine will leave your body in your saliva and sweat. The amount of radioiodine in your body will reduce each day and will eventually disappear after several weeks.

If you sometimes leak urine, please tell your referring doctor before you come for your treatment; You will need advice on what to do after your treatment.

Side effects

We do not expect any serious side effects from the treatment. Some patients have reported experiencing some minor side effects, these include:

- Metallic taste in the mouth
- Neck tenderness and swelling: Over the counter pain relievers can help relieve the discomfort
- Swollen salivary glands: Caused by iodine absorbed by the salivary glands. Stimulating saliva flow the day after treatment (by sucking a lemon drop, for instance) is an effective remedy
- Dry mouth or scratchy throat
- Dry eyes: If you normally wear contact lenses it may be better to wear glasses instead for a few days after treatment

After your treatment

After your radioiodine treatment you must follow the advice about limiting radiation exposure to other people. You are free to go home or back to work, but you must adhere to the restrictions below. Please avoid spending a long time in close contact with young children or those who may be pregnant.

How may I travel home?

You may travel home by public transport or in a private car or taxi. If you are travelling alone using public transport, we advise that this travel is for no longer than two hours. If you are travelling with a member of your household, we advise that the journey time is no longer than one hour. Please do not sit next to children or anybody who is pregnant. If you are travelling by car, sit as far away from the other passengers as possible.

How to reduce the radiation dose to other people

If you work in close contact with colleagues, and/or young children or pregnant people then you may need to take up to 4 weeks off work. You will be told about this when we contact you to arrange an appointment. This will be assessed on an individual basis using the radiation risk assessment that your doctor will fill in with you at the clinic. Otherwise, you may return to work following the treatment, providing you follow the advice below about keeping distance between yourself and others.

You will reduce the radiation dose to other people and members of your household if you follow these instructions.

From Day 1 to Day 4

- Do not share crockery (plates, bowls, cups etc.), cutlery (knives, forks, spoons etc.) or toothbrushes with others. Rinse your crockery and cutlery after use and then wash with other peoples as you would normally
- Avoid sexual contact and open-mouth kissing
- Avoid food preparation that involves a lot of handling of food, like making pastry. Alternately, wear thin plastic gloves during food preparation
- Flush the toilet twice after use, and pay extra care with hand washing afterwards
- Make sure that no one else uses your towels and face cloths

From Day 1 to Day 14

- Try to stay more than an arm's length away from other people and limit the time you spend close to them
- Sleep alone. Please see the "Information for partners" on pages 9-10 of this information booklet

It is permissible for an adult family member (except for pregnant individuals) to provide care for you within this period, for example if you are unwell or disabled.

From Day 1 to 25

- Limit your contact with pregnant people to as short a time as possible

[Advice about contact with children](#)

Generally, when caring for children, the younger the child, the more time you spend in close contact with them. For this reason, the restriction period depends on the child's age:

If the child is more than 5 years old, avoid long periods (more than a few minutes) of close contact (less than an arm's length) from Day 1 to Day 14.

If the child is 3 to 5 years old, avoid close contact from Day 1 to Day 20.

If the child is less than 3 years old, avoid close contact from Day 1 to Day 25.

After Day 25

All restrictions end. You may return to your normal routine and return to work if your occupation requires you to be in close contact with children

If you follow the instructions given in this booklet, the radiation dose to other people will be below the national limits for members of the public.

Further information

The treatment is not normally associated with upsets of the stomach or bowel.

If you are unwell (for example due to a stomach virus) within the first 4 days after treatment, please try to ensure that any vomit or diarrhoea goes directly into the toilet and flush immediately. If any spillages of bodily fluids occur, please telephone the Nuclear Medicine Department for advice on how to dispose of the body fluids.

Following this treatment most thyroid glands will become underactive over a period of years. This will require monitoring in the future by your referring physician or family doctor, who will give you further advice.

Your results

To assess how effective the treatment has been, you will need to have a blood test. This test should be carried out at least 4 weeks after your treatment. Your GP can provide you with a blood test form. The blood test can be done at any blood clinic where you would normally have blood taken for testing. You do not need to visit the hospital.

Travel abroad

Please inform the radiographer on arrival if you intend to travel abroad within 3 months of your treatment. Radiation monitoring at security in airports or ports may detect some of the radiation you have received during your scan. We will give you a letter that will state what test you have had, this can be used when travelling.

Reducing dose to partners

If sleeping separately is difficult, then it may be that you choose to share a bed before the suggested time has passed. Your partner might then receive a higher radiation exposure and we must be sure that they are aware of the small risk involved.

If you do not intend to sleep separately from your partner, please ask them to read the section below labelled “Information for partners” as it contains some more information for them.

RADIOIODINE INFORMATION FOR YOUR PARTNER

Radioiodine treatment

Your partner is due to attend the hospital for radioiodine treatment for their thyroid condition. This treatment has been used for over fifty years. It is very safe and effective and can be carried out as an outpatient. However, this means that they will be slightly radioactive for a few weeks after this visit and that people at home will receive a small amount of radiation exposure.

What precautions should we take?

We always try to reduce any radiation exposure to as low a level as possible. The rest of this booklet contains guidance for your partner with simple precautions; these are ways to reduce any unnecessary close contact with other people. Please read the precautions listed on the previous pages.

Do I have to follow the precautions?

In some cases, we understand that there may be difficulties in following the restrictions. It may be impractical to sleep separately, or you may not wish to sleep separately for the period suggested. If the restrictions cannot or will not be followed, then you might receive a slightly higher radiation exposure. It is permissible for you to do this, but we need to be sure that you are aware that your radiation exposure may then be a little higher than the national limits for radiation exposure to members of the public.

How much radiation exposure might there be?

We are all exposed to naturally occurring radiation in the environment, which is on average 2.2 radiation units per year. This level can be many times higher in some parts of the UK, depending on local geography. People who work with radiation are allowed to receive up to 20 radiation units per year.

If you were to follow the precautions listed in the booklet, it would keep your extra radiation exposure below 1 radiation unit, which is the national limit for members of the public

If you cannot follow all the precautions, or choose not to, you would probably receive *extra* radiation exposure of between 1 and 5 radiation units

You should always try to follow the restrictions as much as possible. In particular, you should try to reduce the amount of time you spend close to your partner. This is because radiation dose increases the closer you are to the radioactive person. For example, the radiation exposure at one metre is four times higher than the exposure at two metres.

[Where can I get more information?](#)

For further information please contact the Nuclear Medicine Department on 01772 **522381**.

If your doctor prescribes radioiodine treatment you should come to:

Department of Nuclear Medicine
Royal Preston Hospital
Sharoe Green Lane Fulwood
Preston
PR2 9HT
Telephone:(**01772**) **522381**.

If you have an enquiry out of normal working hours or at the weekend after you have received treatment, you may contact:

The Christie Hospital
Telephone:**0161 446 3000** Please ask for the On Call Physicist.

Contact details

If you have a query about your treatment or you have any other questions, worries or doubts, do not hesitate to contact the Nuclear Medicine department on **01772 522381**, prior to your appointment. We are open from Monday to Friday, 8:30am to 4:30pm.

Sources of further information

www.lancsteachinghospitals.nhs.uk

www.nhs.uk

www.patient.co.uk

www.accessable.co.uk

Further information about radiation can be found on the government webpage:

Medical Radiation: uses, measurements and dose safety advice:
<https://www.gov.uk/government/collections/medical-radiation-uses-dose-measurements-and-safety-advice>

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If you want to stop smoking, you can also contact Smokefree Lancashire on Freephone 08081962638

Please ask a member of staff if you would like help in understanding this information.

This information can be made available in large print, audio, Braille and in other languages.

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Division: Diagnostics and Clinical Support

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