



Information for
patients and
carers

**Radioiodine Treatment for
Benign Thyroid Disease
555MBq**

Introduction

Your doctor has recommended that you have radioiodine therapy for the treatment of your overactive thyroid gland. Sometimes referred to as radioactive iodine (RAI), it is a highly effective treatment that can successfully treat an overactive thyroid. This leaflet contains information about this treatment and the precautions that 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/chest feeding
- If you express breast milk for any children

If your age is between 10 to 55 years and you are 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/chest feeding, you must stop completely before having the treatment.

Preparation for the treatment

The iodine is radioactive and you will have some radioactivity in your body for up to 3 months after the treatment. The treatment is for your benefit but 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, which we will help you reduce to a minimum.

The advice we give you is to reduce radiation to other people, especially your own family. Further advice for your family is detailed below.

Medication:

Antithyroid drugs (Carbimazole (Neomercazole®) or 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 in the clinic about any tablets that you are taking.

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

Thyroid Eye Disease:

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

Before you book your treatment make your doctor aware 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 usually they will not be allowed into the room when you have your examination. Please note that we have limited seating and do not have child care facilities, therefore small children should not attend 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 that of having a medical x-ray picture taken. If other people, in particular your family, come into prolonged close contact with you, they may also be exposed to a very small dose of radiation. We will help you to take steps to reduce this to a very small dose.

We must stress to everyone that you should not plan to start a family until at least 6 months after you have had the treatment.

How is the treatment given?

Having the treatment is very easy. You will be given a small capsule to swallow. It's about the size of a paracetamol capsule and contains the radioiodine. We will provide a cup of water to wash it down. If you have any questions at this time the staff will be happy to answer them.

Your treatment

Your symptoms are caused by your thyroid gland. Normally your thyroid uses iodine to make hormones that are used to regulate certain body functions. Your thyroid gland is overactive and too much of these hormones are being produced. After you have ingested the radioiodine, it will concentrate in your thyroid gland. The radiation given off by the radioactive atoms will reduce the activity of the thyroid and aims to improve your symptoms. Your doctor will discuss with you the reasons for this form of treatment.

How long will the radioiodine stay in my body?

Within a few hours, most of the radioiodine will be absorbed by your thyroid gland. Smaller amounts will be taken up by other tissues. The radioiodine will gradually disappear from your body, mainly in the urine but trace amounts will remain in saliva and faeces. Also, because of the radioactive decay process, the amount will be reduced each day.

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:** This does not last long, and over the counter pain relievers can help relieve the discomfort.
- **Dry mouth or scratchy throat**
- **Swollen salivary glands:** This can last for a few weeks. It is caused by iodine absorbed by the salivary glands, though stimulating saliva flow the day after treatment (by sucking a lemon drop, for instance) is an effective remedy.
- **Dry eyes:** If you normally wear contact lenses it may be better to wear glasses instead for a few days after treatment.

After the scan

After your scan you must continue to follow the advice about limiting radiation exposure to other people. You are free to go home or go 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 for the rest of the day.

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 family member, this should be a journey no longer than one hour. Please do not sit next to any children or anybody who is pregnant.

How to reduce the radiation dose to other people?

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

If you work in close contact with colleagues, work with young children or pregnant people then you may need to take up to 2 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 as normal following the treatment.

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 that cannot be washed, 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 in a separate bed from your partner. **Please see the "Information for partners" on pages 10 and 11 of this information booklet**

From Day 1 to 25

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

Advice about contact with children

If you care for young children, the amount of time you normally spend close to them depends on their age. For this reason, the periods of restriction below depend on the children'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

- You may continue with your normal daily routine and return to work if your occupation requires you to be in close contact with children

Further information

The treatment is not normally associated with upsets of the stomach or bowel. However, if you are unwell, perhaps due to a stomach upset, and you are sick or incontinent within the first 4 days after treatment, please ring the department for advice on how to dispose of the body fluids.

If you follow the instructions given in this booklet the radiation dose to other people (excluding your close partner) should be less than half of the average annual background radiation, which everyone is subject to in everyday life. Your partner will receive a very small dose similar to that received annually by some hospital workers and we know this is associated with a very small risk of long term harm.

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 after 4 weeks of the date of 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 scan. 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 and this can be used when travelling.

Reducing dose to partners

If you follow the information and restrictions listed in this booklet, the radiation exposure of all your family will be below the national limits for members of the public. It is permissible for an adult family member (except for a pregnant people) to look after you before the time periods shown above have passed, for example if you are unwell or disabled.

If sleeping separately is difficult, then it may be that you choose to share a bed before the suggested times have passed. Your partner might then receive a higher radiation exposure from doing these things and we must be sure that they are aware of the small risk involved. **If your partner or other family member is in this position, please ask them to read the section below labelled “Information for partners” as it contains some more information for them.** When you attend on the day, you will be asked whether you have given this information to the appropriate people.

RADIOIODINE INFORMATION FOR YOUR PARTNER

Radioiodine treatment

Your partner is due to attend the hospital for radioiodine treatment for his/her 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 he/she 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 exposures to as low a level as possible. We have sent your partner a booklet containing guidance with simple precautions; these are ways to reduce any unnecessary close contact with other people. Please read these listed precautions.

Do I have to follow the precautions?

In some cases we understand that there may be difficulties in following the restrictions, for example, where it is necessary to have regular close contact every day to help look after an unwell or disabled partner. It may be difficult sleeping separately or you may not wish to sleep separately for the period of time 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?

To give you an idea of the likely radiation exposure figures, there is a general radiation background that we all receive, 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

What should I do if I cannot follow the precautions, or choose not to?

You should always try to follow the restrictions as much as possible and, 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 your partner. 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:

**The Department of Nuclear Medicine,
Royal Preston Hospital
Sharoe Green Lane
Fulwood,
Preston
PR2 9HT
Tel: (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
Tel: 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

All our patient information leaflets are available on our website for patients to access and download:

www.lancsteachinghospitals.nhs.uk/patient-information-leaflets

Lancashire Teaching Hospitals NHS Foundation Trust is not responsible for the content of external internet sites.

Lancashire Teaching Hospitals is a smoke-free site.

Lancashire Teaching Hospitals is a smoke-free site. Smoking is not permitted anywhere on any of our premises, either inside or outside the buildings. Our staff will ask you about your smoking status when you come to hospital and will offer you support and advice about stopping smoking including Nicotine Replacement Therapy to help manage your symptoms of withdrawal.

If you want to stop smoking you can also contact the Quit Squad Freephone 0800 328 6297.

Please ask if you would like help in understanding this information. This information can be made available in large print and in other languages.

Gujarati:

આ માહિતીને સમજવામાં સહાયતા જોઈતી હોય તો કૃપા કરીને પૂછો. આ માહિતી મોટા છપાણા માં અને અન્ય ભાષામાં ઉપલબ્ધ કરી શકાય છે.

Romanian:

Vă rugăm să întrebați dacă aveți nevoie de ajutor pentru înțelegerea acestor informații. Aceste informații pot fi puse la dispoziție în format mare și în alte limbi."

Polish:

Poinformuj nas, jeśli potrzebna jest ci pomoc w zrozumieniu tych informacji. Informacje te można również udostępnić dużym drukiem oraz w innych językach

Punjabi:

ਜੇ ਤੁਸੀਂ ਇਹ ਜਾਣਕਾਰੀ ਸਮਝਣ ਵੱਲੋਂ ਮਦਦ ਲੈਣੀ ਚਾਹੋਗੇ ਤਾਂ ਕਰਿਪਾ ਕਰਕੇ ਇਸ ਬਾਰੇ ਪੁੱਛੋ। ਇਹ ਜਾਣਕਾਰੀ ਵੱਡੇ ਪ੍ਰਿੰਟ ਅਤੇ ਹੋਰਨਾਂ ਭਾਸ਼ਾਵਾਂ ਵੱਲੋਂ ਮੁਹੱਈਆ ਕੀਤੀ ਜਾ ਸਕਦੀ ਹੈ।

Urdu:

پوچھئے۔ یہ معلومات دوسری ضرورت ہے تو برائے مہربانی سمجھنے کے لیے مدد کی اگر آپ کو یہ معلومات بھی دستیاب ہو سکتی ہے زبانوں اور بڑی چھپائی میں

Arabic:

بأحرف مطبوعة المعلومات هذه توفير يمكن. نطلب أن يُرجى المعلومات هذه فهم في مساعدة توريد كنت إذا أخرى وبلغات كـبيرة

Department: Nuclear Medicine/Radiology

Division: Diagnostics and Clinical Support

Production date: November 2021

Review date: November 2024

JR44 v1