

Radioiodine treatment for hyperthyroidism



Who is this leaflet for?

This leaflet is for patients who have hyperthyroidism (an overactive thyroid gland). It explains what radioiodine treatment involves, including any possible risks and aims to answer some commonly asked questions and concerns.

What is hyperthyroidism?

Your thyroid gland is located in your neck, in front of your windpipe. It produces thyroid hormones, which help regulate your metabolism. Hyperthyroidism occurs when your thyroid gland produces too many thyroid hormones. This makes your metabolism run too fast and typical symptoms include a racing heart, shaking muscles, diarrhoea, excessive heat and sweating, weight loss and tiredness.

What is radioiodine treatment?

This involves swallowing a capsule containing radioiodine, which is absorbed from your stomach and collects in your thyroid gland. The radiation gradually destroys thyroid tissue, causing it to shrink and reducing the amount of thyroid hormone produced. This treatment should prevent the thyroid from becoming overactive again.

The capsule you are asked to swallow contains gelatine, which may be animal derived and not vegetarian. If this is an issue for you, please contact us.

Why do I need it?

Your doctor will advise you on the best method of treatment for your hyperthyroidism, based upon your symptoms and the amount of extra thyroid hormones in your blood.

Your doctor has recommended radioiodine treatment as the most appropriate option for you. Without treatment your future health may suffer.

Are there any alternatives?

There are two possible alternatives:

1. Surgery – it may be possible to have an operation to remove some or all of your thyroid gland. This would require a general anaesthetic and a short stay in hospital.

2. Medication – it may be appropriate to continue taking tablets daily to control the over-activity of your thyroid gland.

Every patient is different and you will need to discuss the options with your consultant or endocrine nurse. This includes the option of not having radioiodine treatment for your overactive thyroid gland.

How is the radioiodine given?

The radioiodine is given, preferably as a capsule, which is a similar size to a small paracetamol capsule and is swallowed whole with a drink of water.

Please let us know as soon as possible, before your radioiodine treatment appointment, if you have difficulty swallowing tablets. In certain circumstances, as an alternative we can offer a liquid drink which tastes just like water and is drunk through a straw.

How do I prepare for it?

A diet that is rich in iodine may reduce the effectiveness of this treatment. For 10 days before your radioiodine treatment and for three days after treatment you will need to follow a low iodine diet to reduce the amount of foods that are very rich in iodine. Details of food and food supplements to avoid are listed in the back of this leaflet.

Please let us know if:

- **In the last year** – you have been prescribed Amiodarone (a medicine that helps to control an irregular heart rate) or,
- **In the last six months** – you have had a CT scan, angiogram or kidney X-ray where an injection of iodine contrast was given.

What about my tablets?

If you have been prescribed tablets to control your hyperthyroidism, such as Carbimazole or Propylthiouracil (PTU), you are usually asked to stop taking them for a short time either side of having radioiodine treatment as they are likely to make this treatment less effective.

How long does the radioiodine take to work?

It can take between a few weeks and several months for this treatment to work. Most people with hyperthyroidism are cured by a single dose of radioiodine. If this treatment has not worked within six months, it can be repeated.

Who will I need to see after treatment?

Once you have received the radioiodine you will be asked to make an appointment with the practice nurse at your GP surgery for monthly 'thyroid function' blood tests.

These should be at **monthly intervals for the first six months following this treatment.**

Your endocrine consultant will refer you to the endocrine nurse specialist for your follow up care. She will be responsible for reviewing your thyroid function blood test results and liaising with you and your GP regarding any changes to your thyroid medication.

At around 9 weeks after your radioiodine treatment you will also have an appointment to see the endocrine nurse specialist in her outpatient clinic, or if you prefer arrangements can be made for you to receive a telephone call for this follow up consultation.

How will I know how successful the radioiodine treatment is?

The results of your monthly blood tests will show the effect of radioiodine on your thyroid by measuring the amount of thyroid hormones in your blood.

There are three possible effects of radioiodine treatment on your thyroid gland:

1. Thyroid function returns to normal without any further treatment.
2. The thyroid gland becomes underactive.
3. In a small number of cases the thyroid gland may continue to be overactive. It may take up to 6 months for the full effect of the radioiodine to become clear. At 6 months if it is certain that the first treatment has failed your endocrine nurse specialist and endocrinologist will discuss with you the option of a further radioiodine treatment.

Are there any risks or complications?

Most people notice no short term side effects.

The main side effect is that your thyroid gland may become underactive. This is known as hypothyroidism and may happen at any time from a few months to many years after radioiodine.

The thyroid gland may become a little tender after treatment. This will remedy after a few days and can be eased by taking a mild painkiller like paracetamol.

Thyroid eye disease (which can develop in Graves' disease) may become worse following radioiodine treatment. Your endocrine consultant will discuss this with you before your treatment and may suggest that you take a short course of anti-inflammatory drugs to help prevent this.

Smoking can also increase the risk of thyroid eye disease after radioiodine treatment for hyperthyroidism.

What is the treatment for an underactive thyroid gland?

If your thyroid becomes underactive your GP or endocrine nurse specialist will prescribe levothyroxine tablets. The tablets are very safe and contain a manmade version of natural thyroxine to replace the thyroid hormone that your body is unable to produce.

As it may take a few months for your thyroid function to stabilise, you will need to continue with monthly blood tests until the correct levothyroxine dose is established.

If your thyroid becomes permanently underactive you will need to take lifelong thyroid hormone replacement. You will not have to pay prescription charges for these levothyroxine tablets – you will need to complete an NHS prescription exemption form.

Is radioiodine treatment dangerous?

No, its safety record is excellent. Radioiodine treatment has been used widely since it was introduced in the early 1940s.

Where else in the body does radioiodine go?

Most of the radioiodine goes to the thyroid gland within a few hours. The rest will pass out of your body, mainly in your urine, during the first few days following treatment.

Can I have radioiodine treatment if I am pregnant or breast feeding?

No. You must inform us if you are pregnant or suspect that you may be pregnant, or if you are breast feeding or have recently stopped breast feeding.

Pregnant women or women who are breast feeding **cannot** have radioiodine treatment as it can harm unborn babies and babies who are being breast fed.

As a precaution, women up to the age of 55 years will be asked about the possibility of being pregnant and a routine urine pregnancy test performed. If there is any doubt your radioiodine treatment will need to be rebooked.

If you are breastfeeding you will need to stop for at least eight weeks before your radioiodine treatment, and not start again afterwards. You will be able to safely breastfeed babies from future pregnancies.

Following your treatment you are advised not to become pregnant for six months. If you miss a menstrual period or have a concern that you might become pregnant during the six months following your radioiodine treatment, please contact the endocrine nurse specialist, endocrinologist or your GP without delay.

Are there any risks in having children afterwards?

No effects on the unborn babies of women who have been treated with radioiodine more than six months before they got pregnant, or on the health of those children, have been shown in over sixty years of experience in using radioiodine treatment. This treatment does not affect a woman's fertility.

Can I father children after radioiodine treatment?

You are advised not to father a child for six months after radioiodine treatment. This treatment does not affect a man's fertility.

Will there be any danger to other people?

Following your radioiodine treatment your body will contain some radioactivity, which will decrease every day.

You can drive yourself home. If someone else is driving you home, you should sit on the back seat, as far away from them as possible.

You will be able to continue shopping, most types of cooking and doing other day to day activities as normal. However, you will need to follow some simple precautions so that other people may receive only an insignificant radiation dose from you.

The length of time that you will need to follow these precautions will depend on the amount of radioiodine you have been given and the age of the person you come into contact with. This is for up to 16 days with people over 5 years of age and, up to 27 days with children younger than three years of age and pregnant women.

For the time advised:

- limit your contact with children, especially children under 3 years of age. If you have your own young children or have a job where you have contact with young children, it is important to talk to the specialist as soon as possible
- stay more than an arm's length from other people
- sleep alone
- avoid going to venues such as cinemas, restaurants or places of worship, where you may be in close contact with other people
- follow restrictions in travel using public transport.

Your specialist will advise you about these precautions at least a week before having your radioiodine treatment.

You will be given a letter that lists the dates when your precautions end. Please keep this letter with you, at all times, until the very last date is reached.

Are there any other precautions?

The radioiodine that isn't taken up by your thyroid gland will leave your body over the first 48 hours, mainly in your urine. A much smaller amount will also be present in your saliva, sweat and faeces.

For the first 48 hours:

- drink plenty of fluids and empty your bladder often
- after going to the toilet you should flush it twice
- wash your hands regularly using soap and running water – always wash your hands well after going to the toilet
- men should urinate (wee) sitting down on the toilet to avoid getting radioiodine on the edge of the toilet
- wipe up any splashes of urine with tissue and flush away
- make sure that no one else uses your toothbrush, facecloth or towels
- avoid sexual contact
- avoid kissing
- do not prepare food for others that requires prolonged handling with your bare hands
- wash all your crockery and cutlery thoroughly.

Should I take time off from work?

You may need to take some time off work. This will depend on whether you come into contact with pregnant women, young children or work with food.

What about my pets?

You may continue to have usual contact with pets.

Will I set off alarms at ports and airports?

As these alarms are very sensitive it is possible that they may detect the tiny amount of radiation coming from your body up to four months following this treatment. If you are planning to travel abroad we can give you a letter, which explains that you have had this treatment.

Contact us

After reading this leaflet if you do have any other questions please contact:

Endocrine Nurse Specialist
Cornwall Diabetes and Endocrine Centre
Royal Cornwall Hospital
Truro
TR1 3LJ

Tel: 01872 254561 / 07823326070

Email: endocrinology.cns@nhs.net

Joy Williams - Radiographer - Ext 2330

Rachel Rhodes - Specialist Radionuclide Therapy Lead - Ext 2346

Nuclear Medicine Department - 01872 252330

Further Information

More information about radioiodine treatment and thyroid disease is available from:

British Thyroid Foundation
2nd Floor, 3 Devonshire Place
Harrogate
HG1 4AA

Telephone: 01423 709707 or 709448

Email: info@btf-thyroid.org

Website: www.btf-thyroid

Twitter: [@britishthyroid](https://twitter.com/britishthyroid)

You Tube: youtube.com/BTFThyroid/

Facebook-closed group: facebook.com/BritishThyroidFoundation

TEDct-Thyroid Eye Disease Charitable Trust
PO BOX 1928
Bristol
BS37 0AX

National Helpline Telephone: 0844 800 8133

Email: ted@tedct.co.uk

Website: www.tedct.co.uk/

Low iodine diet information

Some studies have shown that reducing iodine intake may improve the effectiveness of this treatment. Therefore for 10 days before your radioiodine treatment and for three days afterwards we recommend that you do not eat the following (as these are rich in iodine):

- all sea food eg fish, shell fish and sea weed
- food made from edible sea weed eg lava bread
- artificially coloured red food stuffs eg glacé and maraschino cherries and take away food
- imported processed food
- vitamin supplements that contain iodine
- cod liver and other fish oils.

Please reduce your dairy intake. There is no need to omit dairy from your diet completely. Having milk in tea and coffee and butter on bread is an acceptable level of ingestion.

This diet is based upon food stuffs in the United Kingdom.

Please do not feel anxious about the diet. It is not necessary to limit yourself other than what has been listed. Radioactive iodine treatment was used successfully in the UK for many years before the diet was introduced.

If you would like this leaflet in large print, braille, audio version or in another language, please contact the General Office on 01872 252690

