

Brachytherapy – iodine treatment



What is radioactive iodine ablation therapy?

This form of treatment consists of swallowing a capsule of radioactive iodine (sometimes called I-131). The iodine is taken up by the thyroid gland. The dose of radiation is then concentrated in the thyroid cells and destroys them.

Is radioactive iodine therapy safe?

Yes, radioactive iodine has been used to treat thyroid cancer for over 50 years and is extremely safe. The treatment is to destroy any thyroid cells that may have escaped surgical removal. There is a small increased risk of developing other cancers, but this is very small in comparison to the benefit that the treatment offers.

Are there any side effects from the therapy?

Your doctor will explain the possible side effects with you before treatment, but most patients do not have side effects from radioactive iodine treatment. The most likely side effect is nausea - drugs can be given to relieve this problem.

What if I am pregnant or breast feeding?

It is very important that you do not have radioactive iodine therapy if you are pregnant, or think that you may be. Please let the hospital staff know if you are unsure, before you have the treatment. If you are breast feeding, you must stop this before the treatment.

Can I try for a family after treatment?

Yes, but it is important not to become pregnant (or get your partner pregnant) for at least four months after treatment. In the long term, your fertility will not be affected.

What medication/tablets should I take before treatment?

There are two routes of treatment preparation which your consultant will discuss and advise you on prior to the treatment. These are:

1. Stopping medication

If you are taking T3 (Liothyronine) tablets, these will need to be stopped two weeks before treatment. If you are taking T4 (Levo-thyroxine) tablets, you will need to stop taking these four weeks before treatment and swap to T3 tablets for 2 weeks. These will then need to be stopped two weeks before treatment. You will be informed of the exact dates to change medication when the treatment appointment is made. It is normal to feel weak and tired when not taking your tablets, but this will disappear once you start taking them again after treatment.

2. Thyrogen injections

As part of the preparation treatment you are to receive two Thyrogen injections. These are given as outpatient appointments on the two days prior to your treatment with iodine. Appointments for these will be sent to separately to the appointment for your iodine therapy. Please follow all instructions given and attend for both of these appointments or your therapy cannot go ahead.

What should I eat before my treatment?

An iodine rich diet may reduce the effectiveness of the treatment. Therefore, from two weeks before treatment we recommend the following:

- DO EAT fresh meat, vegetables, fresh fruit, pasta and rice as these are low in iodine.
- DO NOT EAT foods artificially coloured pink eg. canned and glace cherries, canned strawberries, spam, salami as these contain E127 which is rich in iodine (check the label if in doubt). Food coloured by spices is allowed.
- DO NOT TAKE cough medicine, iodised table salt or sea salt as these contain iodine.
- CUT DOWN ON dairy produce eg. eggs, cheese, milk and milk products, as they all contain some iodine.
- AVOID fish, kelp and all seafood.
- AVOID vitamin supplements which contain iodine.

On the day of admission you may have a light breakfast, but you must not eat anything after 8am. You should drink normally.

Do I have to come into hospital for radioactive iodine treatment?

After swallowing the capsule, you become radioactive. Once in the body the radioactivity initially reduces naturally by half about every one to two days. You will need to stay in hospital for a minimum of two days, depending on how quickly the radioactivity leaves your body.

Where will I be staying whilst in hospital?

Waddington unit at Lincoln County Hospital has a special side room used exclusively by patients receiving your type of treatment. It comprises a bedroom and your own ensuite bathroom with shower. Besides a bed the main room also contains an arm

chair, a refrigerator, and a kettle with coffee and tea making facilities. It has a window looking out onto a courtyard.

You will also have your own TV (pre-payment card not required) and Radio/CD player.

Patients are encouraged to bring a mobile phone for incoming and outgoing calls.

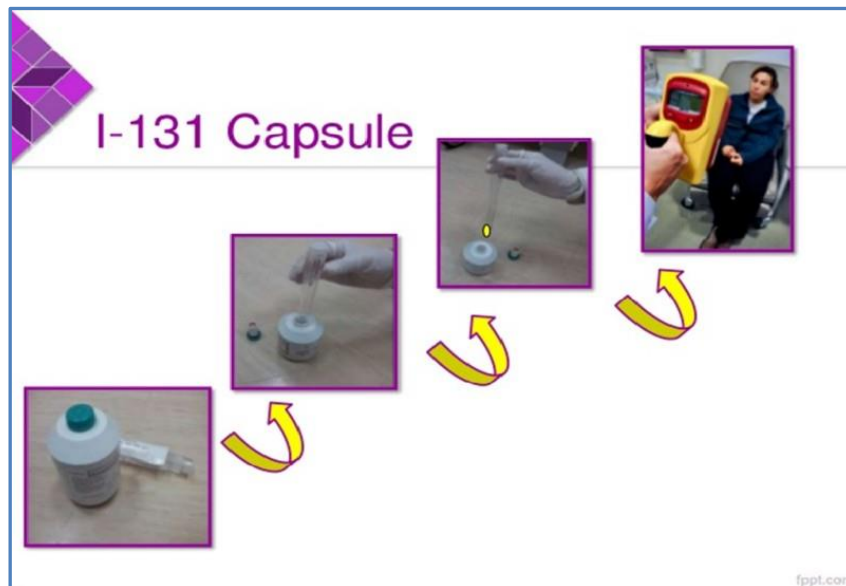
Relatives can call **01522 572255** or **01522 572257** and ask to be put through to **Room 8** to speak to you.

What happens on admission?

On the ward, you will be welcomed and registered. One of the nursing staff will take your blood pressure, pulse and temperature as a routine procedure along with blood samples. A physicist from the medical physics department will visit you to explain the procedure for giving the treatment. Your doctor will need to see you to check that you have stopped your medication as requested and to explain the treatment and possible side effects. You will have the opportunity to ask questions before signing a form giving consent for the treatment.

Who gives the treatment?

A physicist from the medical physics department will administer the capsule. The capsule is small, about the size of a standard paracetamol capsule. You will be asked to swallow the capsule with a cold drink, followed by a hot drink to help dissolve the capsule in your stomach.



What happens next?

For the first two hours after taking the capsule you should refrain from eating to allow the iodine to be absorbed. After this time you should eat normally, (you can now disregard the low-iodine diet), drink as much as possible and empty your bladder frequently. This will help to flush the excess radioactive iodine out of your system.

Are there any restrictions?

Yes, to protect others from unnecessary exposure to the radioactivity, you must stay in the room on your own.

Contact with others will be restricted so staff will spend only short periods of time with you. Do not expect them to stay and chat for long periods of time – but do not hesitate to contact them if you need anything.

What clothing should I bring?

You are free to wear your normal day clothes or nightwear whilst in the suite. There is no requirement to wear old clothes so they can be discarded afterwards, and we would prefer it if you took all clothing home.

What happens at mealtimes?

When your meals are brought to you, you should try to stay on the opposite side of the room. When you have finished your meal, you should dispose of any unwanted food in the bin provided, and wash up crockery and cutlery in the sink in your room.

Can I have visitors?

Visitors are discouraged but close family or friends can visit for up to half an hour per day per person, and must report to the nurse in charge on arrival. Children under 14 and pregnant women are not allowed to visit.

What self-washing/hygiene should I do?

All your bodily fluids (urine, sweat, saliva, tears) are radioactive after treatment. You should take extra care not to splash when passing urine (male patients are requested to sit when urinating) and double flush the toilet after use. Large amounts of water should be used when brushing your teeth, and since your sweat is also radioactive, we advise you take a shower daily. Otherwise, general good hygiene such as regular hand washing is sufficient.

Can I bring anything with me to help pass the time?

Yes, you can bring books, magazines, and a personal mp3/DVD player with you. These items may need to be monitored for contamination before they can be removed from your room. It may sometimes be necessary for us to keep some of your belongings if they are contaminated so you should bear this in mind when deciding what to bring with you. You will be able to collect any belongings when they are no longer contaminated, which is usually after a few weeks.

When can I go home?

The medical physics staff will visit you daily to monitor how much radioactivity is left in your body. You will be allowed home when the measurements show that the radioactivity has fallen below a certain level. This varies from person to person, but is usually between four and five days, rarely longer.

Are there any restrictions on how I travel home?

You must not travel with children or pregnant women. You may walk or drive home alone, or be a passenger in a private car provided you sit in the back diagonally from the driver and there are no other passengers traveling with you. Your luggage should travel in the boot, since it will be slightly contaminated.

Will I still have any restrictions when I go home?

Yes, there will still be some restrictions that are necessary to protect others. Young children and pregnant women are at much higher risk, while adults over 60 years of age are at much lower risk than the average adult. Restrictions will not normally last more than three weeks after discharge. Before you are discharged from hospital the medical physics staff will issue you with a yellow 'Radionuclide Instruction Card' which will indicate when restrictions can be lifted.

For a short period (typically one week after discharge) you will be advised to:

- Avoid all close contact with children and pregnant women
- Avoid close, prolonged personal contact with others where possible (any close contact such as hugging or sex should be limited to half an hour a day)
- Stay off work unless you work alone
- Avoid journeys on public transport
- Avoid going to places of entertainment
- Sleep alone
- Not share cutlery and crockery, towels, facecloths and clothes (after washing these items they are completely safe)
- Sit when urinating and double flush the toilet after use

For a longer period (typically two to three weeks after discharge) you will be advised to:

- Avoid close, prolonged personal contact with children and pregnant women
- Stay off work if you work with children, pregnant women or radiosensitive equipment

Will the treatment affect my pets?

The effect on pets is not known but you may choose to avoid prolonged close contact for a period following treatment.

Will I have to come back to the hospital?

A follow-up appointment will be sent to you to see your doctor as an outpatient.

Will I need radioactive iodine therapy again?

The treatment may need to be repeated until all the remaining thyroid tissue has been destroyed.

Other sources of information

There are several websites that can be a useful source of information. Please be aware that many sites are American and so some dietary information, treatment regimens and medications can be slightly different from those in the UK. Sites that have been shown to be useful are:

www.british-thyroid-association.org

www.cancerbackup.org.uk/Cancertype/Thyroid

www.thyca.org

What should I do if I have any other questions?

If you have any further questions about your treatment, please do not hesitate to contact a member of the medical physics staff on:

Tel: **01522 572282**