

What is Iodine treatment?

Your doctor or surgeon has referred you to receive Radioactive Iodine (I-131) to treat hyperthyroidism, which is caused by an over-active thyroid gland.

The thyroid gland is one of the body's regulators, controlling and regulating the metabolism (the process of converting food and oxygen into energy) and sometimes, the thyroid is over-active.

Radioactive iodine has been used for over 70 years to treat hyperthyroidism (thyroid overactivity)/goitre. Since iodine is a natural substance your thyroid uses to make thyroid hormones, Radioactive Iodine (I-131) is collected by your thyroid gland in the same way as non-radioactive iodine. Since the thyroid gland is the only area of the body that uses iodine, I-131 does not travel to any other areas of the body, and the I-131 that is not taken up by thyroid cells is eliminated from your body, primarily in urine. It is therefore a safe and effective way to treat your thyroid condition.

The radioactive iodine is taken up by the thyroid gland and the radiation from radioactive iodine destroys part or all of the thyroid gland over 10 to 12 weeks. The I-131 therapy will be given by a nuclear medicine technologist and the treatment overseen by a nuclear medicine physician (our specialist doctor) in consultation with your referring doctor.

How long will the procedure take?



You will need a consultation appointment with a Nuclear Medicine Physician prior to making any arrangements for treatment. This will take approximately 30 mins.

The I-131 therapy itself takes approximately 15 to 30 minutes.

Is there any special preparation required?

Before you attend the Nuclear Medicine department for your consultation and I-131 therapy, your doctor will organise a blood test to check your thyroid levels. Please bring any relevant blood tests results or previous thyroid scans with you to the consultation appointment.

Please list or bring all of your prescribed medications, including those medications that you buy over the counter, including herbal remedies and supplements. The Nuclear Medicine Physician will discuss all the preparation and precautions for the treatment with you. It is essential that you inform the Nuclear Medicine Physician if you have any allergies, take thyroid medication, have difficulty swallowing capsules or are pregnant or breastfeeding. An appointment for I-131 therapy will be made for you by the nuclear medicine staff after your consultation with the Nuclear Medicine Physician.

You must not have radioactive iodine (I-131) if you are breastfeeding, pregnant or if there is any chance you might be pregnant because the radioactive iodine can affect the unborn baby. If you are of childbearing age and still menstruating (that is you still have monthly periods), you may be required to have a urine test or another blood test to make sure you are not pregnant. Pregnancy tests, if required, must be done on the same day as the I-131 therapy. You may be given a pathology slip at the time of consultation.

If you are currently taking thyroid medication you will be required to stop taking this for a period of time before you have the I-131 therapy. The Nuclear Medicine Physician will tell you when to stop taking the medication and it is vital that you do stop taking it when our specialist doctor tells you to.

A recent nuclear medicine thyroid scan is required prior to this I-131 therapy. This scan will check that your thyroid is capable of taking up enough radioactive iodine (I-131) for the therapy to be effective.

What do I need to do on the day of the therapy?

On the day of the I-131 therapy you will be asked to fast (not eat or drink) for 2 hours before being given the Radioactive Iodine (I-131) capsule.

On the day of your I-131 therapy appointment, please ensure you bring:

- Your referral form (if you have it)
- Medicare and healthcare cards (e.g. DVA card or concession card)
- List of all medications

What happens during the procedure?

Once all the required blood tests have been taken and the results obtained, the Nuclear Medicine Technologist or Nuclear Medicine Physician will explain to you the important precautions you need to take for a specified period of time (may be up to 12 days) after you have had the I-131 therapy. This includes contact with other people, including your family, to minimise their exposure to radiation.

If there is anything you are not sure about you should take the opportunity to ask any questions and raise any concerns you may have.

Once you have fasted (gone without food or fluids) for 2 hours, the Nuclear Medicine Technologist will give you the I-131 capsule to swallow with water.

Are there any after effects from the treatment?

Generally, if you are undergoing the therapy for an overactive thyroid gland you will not experience any side effects from the treatment as the dose is quite low.

You may experience a slight sore throat in the days following treatment, sucking a lozenge can help with this. Feeling sick or nauseous is less common.

The effect of the treatment is not instant. It will take weeks to months before the full effect of the treatment is known.

What happens after the procedure?

You will need to fast for a further 2 hours after having the I-131 therapy.

If you are an out-patient, you will be able to go home after having the I-131 therapy. You can drive yourself home if you are otherwise medically fit to do so.

If you are a hospital in-patient, you will be required to stay in your room for the duration of the I-131 treatment so that other hospital patients, staff and visitors will not be unnecessarily exposed to the radiation.

Depending on the size of your dose of I-131, you may be required to alter your living and work arrangements for a period of time after taking the capsule (may be up to 12 days) so that you have minimal contact with other people. This is because your thyroid gland will contain concentrated levels of radioactivity from the capsule and other people who are near you can be exposed to this radiation.

Our staff will provide you with clear written instructions on ways to look after yourself following the injection. This includes information such as recommendations to protect those around you from radiation and arranging a follow-up appointment with your referring doctor to arrange a re-evaluation of your hyperthyroidism, and when to recommence thyroid medication.

What are the benefits?

I-131 therapy should make your thyroid start to function normally. As the thyroid controls the body's metabolism, this gives most patients a better quality of life.

Are there any risks?

In referring you for this I-131 therapy, your doctor is of the opinion that the benefits of this I-131 therapy for you are greater than the risks.

I-131 therapy is a radioactive medication. It produces a higher radiation dose than many diagnostic imaging scans or tests. But it should be noted that this is a relatively common procedure and the radiation dose varies from patient to patient depending on their condition.

Common risks and complications may include the thyroid becoming under-active, requiring you to take thyroid medication for the rest of your life. Or the thyroid may not be treated fully, sometimes requiring a second dose of Radioactive Iodine (I-131). The therapy may not be possible due to medical or technical reasons.

Before the I-131 therapy, the nuclear medicine technologist will discuss the I-131 therapy with you in detail, including any risks specific to you. You will be provided with the opportunity to ask questions.

When do I get the results?

The Nuclear Medicine Physician will send a report outlining the I-131 therapy to your referring doctor and your regular GP. It is important that you make a follow-up appointment with your referring doctor within 6 weeks after the I-131 therapy so that they can monitor your thyroid function. Due to the likelihood of an underactive thyroid, regular blood tests and follow-up with your doctor are essential so that medical treatment can be started if necessary.

I still have questions; who can I ask?

Medical information can be complex, and you may receive information that you do not fully understand. It is important for you to consider the risks and outcomes of the Radioactive Iodine (I-131) therapy as well as your personal needs before making a decision to undergo the I-131 therapy.

If you have read this online information and are still unsure if this is the correct procedure for you; before making a booking, you should discuss your questions or concerns with your referring doctor in the first instance. Your regular GP and/or your family may also be a useful resource. Your referring doctor can answer questions about the risks and benefits of not having the procedure and other options for treatment.

If you have questions before your appointment about what is involved on the day, our staff would be happy to assist. Please contact the imaging centre where you have made your appointment.