

# Having radiofrequency ablation to treat thyroid nodules

Department of Radiology

Information for Patients

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## Introduction

If you are an outpatient please read your appointment letter carefully to check which hospital your appointment is at.

This leaflet tells you about your examination. Please read it carefully as it contains important information and instructions.

## What is radiofrequency ablation?

Radiofrequency ablation (RFA) uses electricity from radio waves to heat and kill cells. The electricity runs through a special needle called a needle electrode. The tip of the needle electrode can be put through your skin, into a lump in your body to heat and kill the cells in the lump.

## Why do I need RFA of my thyroid?

The thyroid gland is at the base of your neck. Scans have shown that you have 1 or more benign (non cancerous) lumps (nodules) in your thyroid gland. These might be making your thyroid gland bigger than it should be. This might be causing symptoms such as feeling uncomfortable when swallowing, difficulty swallowing or difficulty breathing.

The aim of this treatment is to reduce the size of the lump in the thyroid and shrink the gland.

RFA treatment will kill the cells in the nodules and make the nodules smaller. This will make your thyroid gland smaller. This can help ease the symptoms from the swollen thyroid.

**Health information and support is available at [www.nhs.uk](http://www.nhs.uk)  
or call 111 for non-emergency medical advice**

Visit [www.leicestershospitals.nhs.uk](http://www.leicestershospitals.nhs.uk) for maps and information about visiting Leicester's Hospitals  
To give feedback about this information sheet, contact [InformationForPatients@uhl-tr.nhs.uk](mailto:InformationForPatients@uhl-tr.nhs.uk)

## What are the benefits of having RFA treatment of thyroid nodules?

- You do not need to be put to sleep (general anaesthetic) for the treatment.
- The risks are less than having open surgery to cut the thyroid or nodules out.
- The treatment targets the thyroid nodules, leaving the normal thyroid tissue undamaged. Keeping the normal thyroid means you do not need to take daily thyroid hormone replacement tablets.
- It avoids a surgical scar.
- It is performed as a day case so you don't have to stay in the hospital overnight.
- You will recover sooner after the treatment than compared to open surgery.

## Are there any risks and complications?

As with any procedure or operation, complications are possible. We have included the most common risks and complications in this leaflet, although they are different for each person. Your risks will be discussed with you before you sign the consent form.

### Problems that may happen straight away

- Bleeding from the needle insertion site.
- Burning of the skin where the needle went in. This normally needs no treatment.
- Hoarse voice. This normally gets better within a few hours of the procedure.

### Problems that may happen later

- Infection - there is a small risk (less than 1 person in 100) of infection after this treatment. If you get any worsening swelling, pain or redness you may have an infection. If this happens you should contact your GP or call the NHS helpline on 111.

### Problems that are less common, but serious

- Change in your voice - there is a small risk (less than 1 person in 100) of permanent injury to the nerve to the voice box. This could cause your voice to be different and not be the same as it was before. This could be a permanent change.
- Injury to your food pipe (oesophagus) or breathing pipe (trachea). This is uncommon (less than 1 person in 1000). If this happens you will be admitted to hospital (stay overnight) so you can be monitored. Doctors will decide if the injury needs any treatment.

## Are there any alternatives?

Your doctor will talk to you about the best course of treatment for you. If the thyroid nodules are not causing you a lot of problems, you can decide not to have treatment.

## How do I get ready for the treatment?

We will invite you to come for a pre-assessment check before your treatment.

At this pre-assessment we will

- ask you about your medical history.
- do any medical tests needed to make sure you are well enough for the treatment. This may include an ultrasound scan.

Please bring written details of your medicines with you to this pre-assessment.

We will give you written information that tells you about eating and drinking before your procedure and what to bring with you.

We will also tell you when you should arrive.

Please be aware that you will need a responsible adult to take you home after the treatment.

We will tell you if you need to stop taking any of your medicines before your treatment.

When you come into the hospital for the treatment itself, please bring all of your medicines with you.

## How long will it take?

The ablation treatment takes up to 1 hour.

After the treatment you will rest in a recovery area for 1 to 2 hours so we can check you are OK.

## Asking for your permission (consent)

The doctor who referred you should have talked to you about the reasons for this procedure and any other options.

You have been referred to a doctor who specialises in imaging and X-ray treatments (a radiologist) for this procedure. They will confirm that you understand

- why the procedure is being done,
- its potential risks,
- what the chances of success are.

You will sign a consent form to confirm this. **You should feel that you have had enough explanation before you sign the consent form.**

If after talking to the hospital doctor or Radiologist you do not want to have the procedure then you can decide against it at any time.

If the Radiologist feels that your condition has changed they will talk to you about whether the procedure is still needed. They may then ask you to return to your referring doctor for review.

If you feel during the procedure that you do not want it to continue, we will explain the implications of not doing so to help you fully decide.

## **What happens during the ablation treatment?**

- The procedure will usually take place in the X-ray department.
- When you arrive we may ask you to take off some of your clothes and put on a hospital gown.
- You will lie on a couch flat on your back. You will be attached to a blood pressure monitoring machine and have a small monitoring device (peg) attached to your finger. This is to check your heart rate (pulse).
- Everything will be kept clean (sterile). We will clean your skin with antiseptic. This will feel cold. You will have some of your body covered with sterile sheets.
- The doctor will use an ultrasound scanner to find the best place for the treatment.
- The skin and deeper tissues over your thyroid will be numbed with local anaesthetic. When the local anaesthetic is injected it will sting to start with, but this soon wears off. The skin and deeper tissues should then feel numb. If you start to feel pain during the procedure, tell the member of staff who will be with you so that you can be given more pain relief medication.
- The needle electrode will go through your skin into the thyroid. The doctor will use ultrasound pictures to make sure the needle goes into the thyroid nodule to be treated.
- The ablation treatment will then start. The tip of needle electrode will heat and destroy the tissue in the nodule. It may be moved slightly into different parts of the nodule for the ablation treatment.
- At the end of the treatment, the needle will be taken out. The doctor and nurses will check for any bleeding. You will have a dressing put on your skin where the needle went in.

## **How does it feel?**

The procedure itself should not be painful but moving the needle may feel uncomfortable. You may hear some buzzing or popping noises during the ablation treatment. During the procedure you will be looked after by a member of the team. If it does become uncomfortable you can be given more pain relief medication.

## **What happens after the treatment?**

- After your treatment you will rest in a recovery area for 1 to 2 hours so nurses can check you are OK. You should tell them if you have any pain and discomfort. They may be able to give you some more pain relief.
- Before you leave the recovery area we will check that you do not feel sick, that you can eat and drink, and that you do not have a lot of pain.
- By the next day most people need pain relief no stronger than paracetamol.
- We will give you written instructions to follow for when you leave the hospital, and the contact numbers of the team in case of emergency.

## What happens when I go home?

Normally, you will be able to go home a few hours after your procedure. Before you go home we will talk to you about your follow-up clinic appointment.

You should expect to be off work for 2 to 3 days after treatment.

You will have an appointment to come back to the clinic 4 weeks after the procedure for a repeat ultrasound scan and to check that you have made a good recovery.

## Important information and things to look out for at home:

Before you go home you will be given an aftercare sheet to explain your care after the treatment. This will include the telephone number of a hospital doctor who specialises in ear, nose and throat who you will be able to call during the following week if you get any of the things listed below.

- Difficulty swallowing or shortness of breath
- Pain that is not controlled by regular simple pain relief, for example, paracetamol
- Fever, skin redness or increasing pain

If you get any of the things above after you get home then you must call the telephone number that you will be given to speak to a specialist doctor.

**After 1 week: If you get any problems please see your GP or call the NHS helpline on 111 or go to the nearest accident and emergency (A&E) department.**

## How successful is RFA treatment of thyroid nodules?

There are no studies available which directly compare results from RFA treatment done through the skin (percutaneously) to open surgery to treat benign thyroid nodules.

Evidence from many published studies looking at RFA treatment has shown it to be safe and work well to shrink nodules.

The amount of this evidence means that RFA is now approved by the National Institute for Health and Care Excellence (NICE) in the treatment of benign thyroid nodules.

## Where can I get more information?

You can find more information on the internet.

The National Institute for Clinical Excellence (NICE) has published an article titled Ultrasound-guided percutaneous radiofrequency ablation of benign thyroid nodules. You can find this article at [www.nice.org.uk/guidance/IPG562/ifp/chapter/What-has-NICE-said](http://www.nice.org.uk/guidance/IPG562/ifp/chapter/What-has-NICE-said)

## What if I need to talk to someone?

If you have any questions or concerns, or cannot make your appointment, please call the Radiology Department on **0116 258 8765 (option 7)** - Monday to Friday, 9am to 5pm, excluding bank holidays.



اگر آپ کو یہ معلومات کسی اور زبان میں درکار ہیں، تو براہ کرم مندرجہ ذیل نمبر پر ٹیلی فون کریں۔  
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જો તમને અન્ય ભાષામાં આ માહિતી જોઈતી હોય, તો નીચે આપેલ નંબર પર કૃપા કરી ટેલિફોન કરો

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