

Patient information factsheet

Having a microwave ablation of the lung

We've written this factsheet as a guide to having a microwave ablation of the lung. It explains what microwave ablation is and what the benefits and risks are of having the procedure. We hope it will answer some of the questions you may have. If you have any further questions or concerns, please speak to a member of your healthcare team.

What is a microwave ablation of the lung?

Microwave ablation is a non-surgical procedure which uses targeted heat to treat lung tumours (cancer) rather than removing them through surgery.

Microwave ablation works by inserting special needles through your skin and into the tumour, using image guidance equipment (CT imaging), and then heating and destroying the abnormal tissue with microwave energy. The treated area gradually shrinks and forms scar tissue.

When is microwave ablation used?

Microwave ablation can be used to treat both primary tumours (tumours that started in the lung) and secondary tumours (tumours that have spread to your lung from elsewhere in your body).

Typically it is used to treat:

- people with early-stage lung cancer
- people who can't have surgery or don't want surgery

It can be used as a standalone treatment, or in combination with surgery, radiotherapy, or chemotherapy.

Why do I need microwave ablation?

Your doctor has recommended that you have microwave ablation because you have a tumour that is suitable for this treatment.

Preparing for the procedure

We will send you a letter in the post explaining how to prepare for your procedure. Please follow the instructions in your letter carefully.

This procedure uses radiation so could be harmful to an unborn baby. If you are a female of child-bearing age, we will ask you to complete a form with the date of your last period and whether there is any possibility that you may be pregnant. If you know or think you might be pregnant, or are currently breastfeeding, you should telephone us for advice as soon as you receive your appointment letter.

During the procedure

You will have the procedure in the radiology department. It will be performed by a doctor called an interventional radiologist. The procedure will take around one to two hours.

Microwave ablation is done under a general anaesthetic (a medicine that sends you to sleep) so you will not be aware of anything during the procedure.

During the procedure, we will use imaging equipment to help guide us to insert needles through your skin and into the tumour. When the needles are in the correct position, we will deliver microwaves from the ablation system directly into the target area of the tumour. The microwaves will heat the area to more than 60°C and this will kill the tissue.

When the ablation is complete, we will remove the needles from your body. We will then place a small dressing on the sites of insertion.

After the procedure

We will monitor you after your procedure to make sure you remain well. You will need to stay overnight in hospital. Your medical team will review you after your procedure and if you are feeling well, you will be able to go home.

You must avoid heavy exercise and heavy lifting activities for one week after your procedure.

Do not drive for at least two days after your procedure.

You may experience some discomfort or tenderness around the site of your treatment. Take pain relief medication on a regular basis if you need to.

What are the benefits of having microwave ablation?

- Microwave ablation does not involve a surgical operation.
- The procedure is safe to be repeated if needed.
- You can usually return to your normal activities a few days after treatment.

What are the risks of having microwave ablation?

Pneumothorax (a collapsed lung)

A collapsed lung happens when air leaks from a puncture (hole) in the surface of your lung. This air then collects in the space around your lung.

The risk of this happening from your procedure is low (1:3, or one person in three) and it is not usually severe. However, if you do experience a collapsed lung, we may need to insert a small tube to drain the air from around your lung so that your lung can then return to its normal size. If this is the case, you may need to stay in hospital for longer so that we can monitor you and provide further treatment if necessary.

Haemoptysis (coughing up blood)

You may cough up a small amount of blood for a short time after your procedure. This is normal. However, if this doesn't improve or gets worse after 24 hours, contact us for advice (our working hours are Monday to Friday, 8am to 5pm).

Outside of these hours, call NHS **111** for advice, or in an emergency call **999** or visit your nearest emergency department.

Radiation

To be able to carry out your procedure, we need to use x-rays (a type of radiation used to see inside your body). Exposure to radiation can slightly increase a person's lifetime cancer risk, but for this procedure, the risk is moderate. Your doctor has decided that the benefit to you from the procedure outweighs the low risk from the radiation.

You will not be exposed to any more x-rays than is absolutely necessary.

Symptoms to watch out for after your procedure

As with any medical procedure, you may experience some side effects or complications after having a microwave ablation of your lung.

Contact your interventional oncology clinical nurse specialist for advice on telephone:

023 8120 1329 (Monday to Friday, 8am to 5pm) if you experience:

- shortness of breath and pain when breathing in
- pain that is not controlled by taking regular painkillers (for example, paracetamol)
- a high temperature (38°C or above) one to two weeks after your treatment

If you experience any of the symptoms above **outside of these hours**, contact the ward where you were cared for or attend your local emergency department.

Results

We will ask you to come in for a follow-up CT scan within a month of having your microwave ablation. If you do not receive an appointment letter inviting you for a CT scan, please contact the interventional radiology secretaries as detailed below. You will not usually be seen by a doctor when you come for your scan or be given any results on that day. Your results will be sent to the doctor who referred you for the procedure. Your doctor will then arrange a follow-up outpatient clinic appointment to discuss your results with you.

Are there any alternatives?

Your doctor will only have requested microwave ablation if they feel that this is the best way to treat your condition. However, there are other types of treatments available, including:

- cryoablation (similar to microwave ablation but instead of using heat to destroy tumours, it uses extreme cold)
- radiotherapy
- chemotherapy
- surgery to remove lung tumours

If microwave ablation is not suitable for you, we will be happy to discuss alternative options with you.

Contact us

If you have any further questions or concerns, please contact us.

Interventional oncology clinical nurse specialist

Telephone: **023 8120 1329** (Monday to Friday, 8am to 5pm)

If we cannot answer your call, please leave a message on the answer phone with your name and hospital number and we will get back to you as soon as possible.

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Interventional radiology secretary

Telephone: **023 8120 8974** (Monday to Friday, 9am to 5pm - voicemail available)

Useful links

Lung ablation is still being evaluated by NICE (National Institute for Health and Care Excellence) for some applications. For more information about this, please read NICE's guidance: www.nice.org.uk/guidance/ipg716

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