

# Microwave ablation for treating liver metastases

Information for the public

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## What has NICE said?

Microwave ablation for treating liver metastases is safe enough and works well enough for use in the NHS.

NICE encourages further research into microwave ablation for treating liver metastases, to work out who will benefit most from this procedure.

## What does this mean for me?

Your health professional should fully explain what is involved in having this procedure, and discuss the possible benefits and risks with you. You should also be told how to find more information about the procedure. All of this should happen before you decide whether you want to have this procedure or not. Your health professional may ask you if details of your procedure can be collected.

## Your healthcare team

A healthcare team experienced in managing liver cancer should decide which patients should be offered this procedure.

## The condition

Metastatic liver cancer is cancer that starts in one part of the body (for example, in the bowel, lung or eye) and spreads to the liver. Treatment depends on the type of cancer, where and how widespread the cancer is, and how well the liver is working. Treatments may include surgery to cut away the cancerous parts of the liver, using heat to kill the cancer, procedures that block the cancer's blood supply, chemotherapy or radiotherapy.

NICE has looked at using [microwave ablation](#) as another treatment option.

[NHS Choices](#) may be a good place to find out more.

## The procedure

The aim of microwave ablation is to destroy the cancer cells using heat, and to do as little damage as possible to nearby normal tissue. The procedure is done using local or general anaesthetic. It is done through a small hole in the skin or by open surgery. A probe is inserted into the tumour, using imaging to guide it, and microwave energy is passed through the probe to heat and destroy the cancer cells. This can be repeated if there is more than 1 tumour, or for large tumours.

## Benefits and risks

When NICE looked at the evidence, it decided that there was enough evidence to know how well this procedure works and how safe it is. The 12 studies that NICE looked at involved a total of 4,003 patients.

Generally, they showed that microwave ablation is as good as another commonly used technique (radiofrequency ablation) at destroying a tumour. In both techniques, the tumour may not be completely destroyed or may come back.

The studies showed that the risks of the procedure included:

- bleeding in the abdomen or liver, with 1 patient needing a blood transfusion
- an abscess in the space left after the tumour was destroyed, needing treatment by draining through a tube and antibiotics
- a fistula (an open channel between the liver and the surface of the skin) needing treatment with antibiotics
- a blood clot in a vein to the liver, blocking the blood supply and causing damage to the liver
- air in the chest cavity (pneumothorax) needing a tube inserted into the chest to remove the air
- skin burns
- blood in the chest cavity (haemothorax) needing draining through a tube.

NICE was also told about the possible risk of damage to the diaphragm (a muscle in the chest that helps with breathing) during the procedure.

If you want to know more about the studies, see the [guidance](#). Ask your health professional to explain anything you don't understand.

## Questions to ask your health professional

- What does the procedure involve?
- What are the benefits I might get?
- How good are my chances of getting those benefits? Could having the procedure make me feel worse?
- Are there alternative procedures?
- What are the risks of the procedure?
- Are the risks minor or serious? How likely are they to happen?
- What care will I need after the procedure?

- What happens if something goes wrong?
- What may happen if I don't have the procedure?

## About this information

NICE [interventional procedures guidance](#) advises the NHS on the safety of a procedure and how well it works.

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## Accreditation

