

Histotripsy for Liver Cancer – Patient and Public FAQ

Last updated: October 2025

Cambridge University Hospitals NHS Foundation Trust (CUH)

Overview

Histotripsy is a new, non-invasive treatment for some types of liver cancer. It uses focused ultrasound waves from outside the body to create tiny bubbles within the tumour. When these bubbles collapse, they break down cancer cells without cutting the skin, using radiation, or heating the tissue.

This means no scars and potentially fewer side effects compared with surgery or traditional ablation treatments.

Who can have histotripsy?

Histotripsy can be used for:

- **Primary liver cancers**, such as hepatocellular carcinoma (HCC) and cholangiocarcinoma (CCA)
- **Secondary (metastatic) liver cancers** that have spread from other organs (for example, colon, breast, or kidney)

The treatment has MHRA approval under a *special Unmet Clinical Need Authorisation (UCNA)*. NICE guidance is not yet available.

Is histotripsy available at CUH?

Histotripsy is currently being offered at Cambridge University Hospitals NHS Foundation Trust (CUH) under MHRA authorisation and hospital-specific eligibility criteria.

The treatment is not yet commissioned by NHS England (NHSE), so places are limited.

How do I know if I am suitable?

Your case will be discussed by a multidisciplinary team (MDT) of specialists, including:

- Interventional radiologists
- Liver surgeons
- Oncologists
- Hepatologists
- Radiologists

The team will consider your:

- Overall health and liver function
- Tumour size, number, and location
- Previous and possible future treatments
- Risks and potential benefits

Eligibility criteria

You may be considered for histotripsy if you:

- Are 18 years or older and expected to live more than 3 months
- Have a confirmed liver tumour (by scan or biopsy)
- Can safely have a general anaesthetic
- Have limited liver disease, ideally up to three tumours, each 3 cm or smaller. Beyond this will require further review.
- Have adequate blood, liver, and kidney function
- Have tumours that can be clearly seen on ultrasound

Histotripsy may **not** be suitable if you have:

- Tumours not visible on ultrasound
- Advanced liver disease (severe cirrhosis, bleeding, or ascites)
- Pregnancy or are breastfeeding
- Other active cancers or serious medical conditions
- Recent major surgery or trauma (within the last 2 weeks)

What happens before treatment?

Before treatment, you will have:

- Blood tests (to check liver, kidney, and blood clotting function)
- CT or MRI scans (to plan your treatment)
- Other checks, such as for pacemakers or blood-thinning medication

You may be given antibiotics or bowel preparation, depending on your needs.

How is the treatment performed?

- Histotripsy is needle-free and non-invasive
- The Histotripsy Edison System delivers focused ultrasound energy to the tumour
- Treatment is guided in real time by ultrasound imaging
- You will be under general anaesthetic throughout

Most people return to normal activity much faster than after open surgery.

How long does it take?

- The active treatment usually takes around 30 minutes
- Additional time is needed for setup and anaesthesia

You may go home the same day or stay overnight for observation.

What follow-up will I need?

After treatment, you will have:

- Clinic appointments to review your recovery and any side effects
- Blood tests to monitor liver, kidney, and blood counts
- Imaging scans at:
 - Day 0–3 after treatment
 - 4 weeks
 - 3 months
 - Every 6 months afterwards

These help your team see how well the tumour has responded.

Are there any risks or side effects?

Histotripsy is generally safe, but possible side effects include:

- Temporary pain or discomfort in the treated area
- Mild bleeding or bruising (rare)
- Effects on nearby structures if the tumour is close to major vessels or bile ducts

Your MDT and anaesthesia team will review your individual risk before treatment.

How successful is histotripsy?

Histotripsy is a new technology, and research is ongoing. The outcome depends on several factors, such as:

- The type, size, and number of tumours
- The stage of your cancer
- Your overall health

Success cannot be guaranteed, but histotripsy offers a promising new option for selected patients.

Can histotripsy be combined with other treatments?

Yes. It may be used:

- As a stand-alone treatment
 - In combination with surgery or ablation for larger or multiple tumours
 - As a bridge to liver transplantation while waiting for a donor
 - Alongside other therapies as advised by your MDT
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How can I be referred?

- If you live in Cambridgeshire or the East of England, your consultant can refer you through existing specialist liver cancer pathways.
- If you live outside the region, your consultant can discuss your case with your local MDT and, if suitable, refer you to:
Dr T.C. See / Interventional Radiology team, CUH

If your case meets the criteria, it will be reviewed by the **CUH MDT** for final assessment.

Can I refer myself or a family member?

No. Self-referrals are not accepted.

Your local clinical team must make the referral to ensure:


- Your full medical history and test results are reviewed
 - You continue to receive coordinated care with your local team
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Is there a waiting list?

Yes. There is currently a waiting list due to high interest and limited capacity.

Contact us

For further information or enquiries about histotripsy at CUH:

 **Email:** cuh.histotripsyenquiries@nhs.net

 **Enquiries list:** SHD-HISTOTRIPSY-ENQUIRIES

 **Cambridge University Hospitals NHS Foundation Trust**

Disclaimer

Histotripsy is a developing treatment. Availability and eligibility may change as further research and national guidance become available. Please discuss your individual situation with your healthcare team.