Children’s Services

Thoracotomy – in children

What is a thoracotomy?
A thoracotomy is an operation to open the chest to explore, inspect and operate on a chest organ [lungs/ heart/ trachea (windpipe)/ oesophagus (food pipe) etc].

Why is my child going to have a thoracotomy?
There is an area or organ inside your child’s chest which is either diseased or malformed and needs removal or surgical correction.

Admission to hospital
Most children will be reviewed 7-14 days prior to admission in our ‘pre-operative assessment clinic.’ The purpose of the clinic is to ensure:
- You and your child are fully informed.
- Your child’s hospital stay is as straightforward and seamless as possible.

You will be asked to bring your child to one of our children’s wards, usually on the morning of surgery. You will be seen by nursing staff, your doctors and anaesthetist. Some blood tests will also need to be taken if these were not taken at the pre-operative assessment clinic. You will be able to stay with your child overnight if you wish and you will be able to be present while your child goes to sleep for their operation.

The operation
- Thoracotomy surgery can be carried out as an ‘open’ or ‘thoracoscopic’ operation. Your surgeon will discuss which procedure is planned for your child.
- An ‘open’ operation involves making an incision (‘cut’) along your child’s side and back so that the chest organs can be clearly seen. In some cases part of a rib needs to be removed, but the rib will grow back over the following few weeks.
- In some cases it is possible for the surgery to take place ‘thoracoscopically’ (keyhole surgery). This involves three or more small (approximately 1cm each) openings being made in the chest. Through these holes, special tools (‘instruments’) are used to perform the operation. This is all visualised on a TV screen by a miniature camera which is inserted through one of the key holes.
The actual operation which takes place is the same as the traditional ‘open’ procedure, it is only the way in which we get to the organ which is different.

- Whether a thoracotomy is carried out as an open or thorascopic procedure, many children will have one or two chest drains inserted at the end of the operation. (See below).

**What is a chest drain?**

A chest drain is a tube which is inserted between the ribs into the chest (pleural) cavity (see diagram below). It does not go into the lung itself. The chest drain is used to drain fluid or air from inside the chest cavity and prevent a collection of fluid building up.

![Diagram of chest drain](image.png)

The end of the drainage tube is placed into a collecting bottle with the tip submerged in water. The water acts as a valve, stopping air from re-entering the space where the drain is sitting. Sometimes suction will be used to encourage drainage.

An x-ray will be taken of your child’s chest to check the state of the lung and the drain’s position. To prevent the drain from falling out a stitch and dressing will be used to hold the tube to the skin.

Removal of the chest drain usually takes place two to five days after the operation. Chest drains are usually removed on the ward by your nurses or doctor.
After the operation

- You will be able to be with your child as soon as possible after the operation.
- Children are often transferred to the children’s high dependency unit for close observation after surgery. Most children will then be transferred back to the ward within 24 hours.
- Children are often able to start eating and drinking again on the day of the surgery. Until this time your child will have a ‘drip’ to provide their fluids and prevent dehydration.
- Your child will require pain killers after the operation and your doctors and nurses will discuss this with you. Pain killers can be given through a special drip, as suppositories and/or as medicine.
- Your nurses will monitor your child and their chest drain. Whilst your child has a chest drain in it is very important that he/she does not mobilise without the nurse first being told. This is to prevent complications developing.

What are the risks of surgery?

Risks related to thoracotomy surgery are rare. Risks include:

- Bleeding
- Infection
- Pneumothorax (i.e. an air leak from the lung into the chest)
- Lymph leakage (very rare)
- Nerve damage (very rare)

These risks will be discussed with you by your surgeon.

Looking after your child at home

Stitches
The stitches used in the wound itself are dissolvable. Some stitches used to hold chest drains in place are removed at the same time as the chest drain but others (called ‘purse string stitches’) need to be removed seven days after the chest drain is removed. Your nurse will tell you which type of stitch your child has and where you need to go to have a purse string stitch removed (for example, at GP surgery/ward).

Pain
Your child may have some discomfort and should be given the pain killers supplied regularly.

Bathing
Your child can have showers but baths are not permitted for five days.
**Patient Information**

**Thoracotomy**

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**PE/exercise**

Your child should be kept off PE/exercise for two to three weeks, depending on their comfort level.

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**Follow up arrangements:**

Your child will be reviewed in the outpatient clinic. This may be between two and six months after the operation depending on the reason for the surgery having been undertaken. The doctors/nurses will let you know when your child is due to return for the check up and the actual appointment will be sent to you in the post.

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**Chaperoning:**

During your child’s hospital visits he will need to be examined to help diagnose and to plan care. Examination, which may take place before, during and after treatment, is performed by trained members of staff and will always be explained to you beforehand. A chaperone is a separate member of staff who is present during the examination. The role of the chaperone is to provide practical assistance with the examination and to provide support to the child, family member/carer and to the person examining.

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**Contact Details:**

If you have any questions please call:

Your nurse specialist ............ 01223 586973

The ward ................................
We are now a smoke-free site: smoking will not be allowed anywhere on the hospital site. For advice and support in quitting, contact your GP or the free NHS stop smoking helpline on 0800 169 0 169.

Other formats:

If you would like this information in another language, large print or audio please ask the department where you are being treated, to contact the patient information team: patient.information@addenbrookes.nhs.uk.

Please note: We do not currently hold many leaflets in other languages; written translation requests are funded and agreed by the department who has authored the leaflet.

Document history

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