Thoracoscopy

What is thoracoscopy?

Thoracoscopy is a procedure a doctor uses to look at the space inside the chest (outside of the lungs). This is done with a **thoracoscope**, a thin, flexible tube with a light and a small video camera on the end. The tube is put in through a small cut made near the lower end of the shoulder blade between the ribs. Thoracoscopy is sometimes done as part of a VATS procedure, which is short for video assisted thoracic surgery.

Why do you need thoracoscopy?

There are a few reasons you might need a thoracoscopy:

To find out why you are having lung problems

This test is used to look for the causes of problems in the lungs (such as trouble breathing or coughing up blood).

You have a suspicious area in your chest that needs to be checked

Thoracoscopy can be used to look at an abnormal area seen on an imaging test (such as a chest x-ray[1] or CT scan[2]). It also can be used to take biopsy samples[3] of lymph nodes, abnormal lung tissue, the chest wall, or the lining of the lung (pleura). It is commonly used for people with mesothelioma[4] and lung cancer[5].

To treat small lung cancers

Thoracoscopy can sometimes be used to treat small lung cancers by removing just the part of the lung that contains the tumor (wedge resection) or the lobe of a lung

(lobectomy) if the tumor is larger. In certain cases it may also be used to treat cancers of the esophagus[6] or thymus gland[7].

You have fluid around your lungs

Thoracoscopy can be done to remove excess fluid that is around the lung and causing trouble breathing. This fluid can also be sent to the lab and checked for cancer or infection. If fluid around the lungs is removed, but builds up again, medicine can be put into the chest cavity with a thoracoscope to keep the fluid from coming back (pleurodesis).

What's it like to have a thoracoscopy?

This is what typically happens before, during, and after a thoracoscopy. But your experience might be a little different, depending on why you're having the test, where you're having the test done, and your overall health. **Be sure to talk to your health care provider before having this test so you understand what to expect and ask questions if you're not sure about something.**

Before the test

Be sure your health care provider knows about any medicines you are taking, including vitamins, herbs, and supplements, as well as if you have allergies to any medicines.

You may be asked to stop taking blood-thinning medicines (including aspirin) for several days before the test. You might also be asked not to eat or drink anything for at least several hours before the procedure. Your doctor or nurse will give you specific instructions. Be sure to follow them, and to ask questions if you don't understand something.

Getting the test

Thoracoscopy may be an outpatient (you don't need to stay overnight in a hospital) or inpatient (you need to stay in the hospital overnight or a few days) procedure depending on what is being done. If done as an outpatient you may only need local (not general) anesthesia and mild sedation (medicines to make you groggy but not in a deep sleep). The outpatient procedure is similar to what is described below for the inpatient (VATS) procedure typically done in the operating room.

For this test, you will be given drugs through an intravenous (IV) line to put you in a

deep sleep (under general anesthesia). A tube will be put into your throat and hooked up to a breathing machine while the procedure is being done. A small cut is made in the back just below the tip of the shoulder blade between two ribs where the thoracoscope is inserted. Another small cut is made just below the underarm on the same side so the instrument with the cutting tool can be put in. Often, some of the air in the lung on that side may be released so it's easier to see any abnormal areas. Then, any abnormal areas are removed or biopsied with the cutting tool and checked in the lab.

If fluid needs to be removed, a third cut is made in the lower chest wall and a flexible catheter (called a chest tube) is put in so fluid can drain out over a few days. The thoracoscope and cutting tool will then be removed and the cuts closed. Once the procedure is complete, you will be gently woken up and taken off the breathing machine.

The procedure can take between 30 and 90 minutes, but possibly longer, depending on what's being done.

After the test

After the procedure, you will be watched closely to make sure you don't have any problems. As the anesthesia wears off you may be groggy or confused for a few hours. Your mouth and throat will probably be numb for a few hours. You won't be allowed to eat or drink until the numbness wears off. Once the numbness is gone, you may have a sore throat, cough, or hoarseness for the next day or so. You may have pain or numbness in the sites where the cuts were made.

If you had the procedure as an outpatient, you will most likely be able to go home after a few hours, but you will probably need a ride home because of the medicines or anesthesia you received. Many centers will not discharge people to go home in a cab or a ridesharing service, so you might need someone to help you get home. If transportation might be a problem, talk with your health care provider about the policy at your hospital or surgery center for using one of these services. There may be other resources available for getting home, depending on the situation.

Your doctor or nurse should give you specific instructions on what you can and can't do in the hours after the test.

If you had the procedure done under general anesthesia, you will most likely stay in the hospital a few days. If a chest tube was put in to draw off fluid, it may be removed in a few days after the draining has stopped.

If biopsies were done as part of the procedure, the results will typically be ready within a

few days, although some tests on the biopsy samples might take longer. You will need to follow up with your doctor after the procedure to get your results.

Possible complications of thoracoscopy

Thoracoscopy risks include:

- Bleeding
- Pneumonia (infection in the lung)
- Needing to have a thoracotomy, where the chest cavity is opened with a larger cut, because the procedure could not be done with the smaller cut used by thoracoscopy
- Collapse of part of a lung (pneumothorax)
- Infection of the incisions (cuts)

Your doctor will order a chest x-ray after the thoracoscopy to check for pneumothorax (or other lung problems). Some problems might go away on their own, but if they're causing symptoms (such as trouble breathing) they might need to be treated.

Ask for specific instructions on when you might need to call the doctor's office (for problems such as chest pain, trouble breathing, coughing up blood, or a fever that doesn't go away). Be sure you understand when you should call.

Hyperlinks

1. www.cancer.org/treatment/understanding-your-diagnosis/tests/x-rays-and-other-radiographic-tests.html
2. www.cancer.org/treatment/understanding-your-diagnosis/tests/ct-scan-for-cancer.html
3. www.cancer.org/treatment/understanding-your-diagnosis/tests/testing-biopsy-and-cytology-specimens-for-cancer.html
4. www.cancer.org/cancer/malignant-mesothelioma.html
5. www.cancer.org/cancer/lung-cancer.html
6. www.cancer.org/cancer/esophagus-cancer.html
7. www.cancer.org/cancer/thymus-cancer.html

References

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Shesski FD. Medical thoracoscopy (pleuroscopy): Equipment, procedure, and complications. UpToDate website. https://www.uptodate.com/contents/medical-thoracoscopy-pleuroscopy-equipment-procedure-and-complications. Updated February 15, 2018. Accessed October 29, 2018.

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