A mediastinoscopy is a surgical procedure performed to examine the mediastinum. The mediastinum is the space behind the sternum (breastbone) in the middle of the chest that separates the two lungs. It contains:

- lymph nodes – a part of the immune system
- heart and its large vessels
- trachea (windpipe)
- esophagus (tube leading to the stomach)
- thymus gland

Why It Is Needed
The main reason for a mediastinoscopy is to examine the organs and structures, and to obtain tissue samples and biopsy lymph nodes. Because these lymph nodes receive lymphatic drainage from the lungs, a biopsy of them helps identify diseases that may be present in the mediastinum and the lungs. Diseases that may be detected include:

- Infection
- Inflammation
  - Sarcoidosis, a condition that causes areas of inflammation in the tissue around organs often in the lungs, liver, and spleen.
- Cancer
  - Cancer of the lungs, bronchi, and/or structures in the mediastinum.
  - Lymphoma, a type of cancer in the lymphatic system, which includes Hodgkin disease.
  - Thymoma, a tumor of the thymus gland, which is located behind the breastbone and is a part of the immune system.

The biopsies are also very helpful in the staging of lung and mediastinal cancer. Determining the “stage” or the extent to which cancer has spread is important in planning the proper treatments. While PET scan (positron emission tomography) is becoming more useful in staging cancer, mediastinoscopy remains an important tool when tissue biopsy is needed.

Other X-rays, scans, or procedures using scopes may be needed. Pulmonary function testing and oximetry to test oxygen blood levels may also be done. Handouts are available on these procedures.
Before the Procedure

- The doctor will explain the procedure and offer you the chance to ask any questions.
- You will be asked to sign a consent form that gives your permission to do the procedure. Read the form carefully and ask questions if something is not clear.
- You will be asked about your past illnesses and surgeries, and any current medical conditions and medications. Be sure to tell your doctor:
  - If you are pregnant or think that you may be pregnant.
  - About all of your medications (prescription and over-the-counter) and herbal supplements that you are taking.
  - If you are taking any anticoagulant (blood-thinning) medication, aspirin, or other medications that affect blood clotting. You may be told to stop these medications before the procedure.
  - If you have bleeding disorders or you have had them in the past.
  - If you are sensitive to or are allergic to any medications, latex, iodine, tape, or anesthetic agents (local and general).
- Your doctor may do a complete exam to ensure you are in good health before you have the procedure. You may also need blood tests or other tests.
- You will not be able to eat or drink for 8 hours before the procedure – usually nothing after midnight.
- Your doctor may have you do other things to prepare based on your medical condition.
- You may receive a sedative before the procedure to help you relax.

During the Procedure
The surgeon will use a mediastinoscope, which is a lighted, long, thin, flexible tube to see the organs and structures of the mediastinum. The scope can also transmit images onto a TV-like monitor.

The procedure is performed in an operating room under general anesthesia. The surgeon makes a small incision in the neck above the top of the sternum or on the chest to the side of the sternum. The surgeon then inserts the mediastinoscope, and examines the structures and organs. Biopsies may be taken.
After the Procedure

Right Afterward:

- After surgery, you will be taken to the recovery room for observation.
- Your recovery process will vary because each patient responds to anesthesia differently.
- The area of your incision will be checked for bleeding. Your doctor may order a chest X-ray to check for bleeding or air in the space between the lungs and the chest wall. This space is called the pleural space.
- Once your blood pressure, pulse, and breathing are stable and you are alert, you will be taken to your hospital room or discharged from the hospital.

As You Recover:

- It is important to keep the incision area clean and dry. Leave the bandage on for 3 days. After 3 days you can remove the bandage.
- You will have white adhesive strips over your incision. Keep these dry. They will fall off in about a week. If they are still on after 1 week then you may remove them.
- You may resume your normal diet unless your doctor advises you otherwise.
- Take a pain reliever for soreness as recommended by your doctor. Aspirin or certain other pain medications may increase the chance of bleeding. Be sure to take only recommended medication.
- Your doctor may recommend using throat lozenges for a sore throat.
- Contact your doctor to report any of the following:
  - Fever or chills
  - Redness, swelling, bleeding or other drainage from the incision site
  - Increased pain around the incision site
  - Any changes in voice
- **Call 911 if you have trouble breathing**

Your doctor may give you other instructions depending on your needs.