What is Transthoracic Needle Biopsy?

Transthoracic needle biopsy is used to get tissue samples from the lung. CT scan is used to help the doctor direct the needle to the precise place. The doctor inserts a needle through the chest wall into the lung and removes tissue samples for examination.

Why do I need a Transthoracic Needle Biopsy?

A needle lung biopsy is performed when there is an abnormal area in the lung or on the chest wall. The test is usually performed to diagnose abnormalities that are seen on a chest X-ray or CT scan. Most often, the abnormality is not accessible by other diagnostic tests, such as bronchoscopy.

Who will perform the test and where will it be done?

A radiologist performs the test. The test will be done at the Thunder Bay Regional Health Science Centre as an out-patient. If there are no problems, you will return home a few hours after the test.

How do I prepare for the test?

→ Stop smoking for 12 to 24 hours before the exam, or stop as directed by your doctor.
→ Arrange for someone to drive you home after the test as you may be given a mild sedative.
→ Read and sign a consent form.
→ Empty your bladder before changing into your hospital gown.
→ It is important to remain as still as possible for the biopsy, and do not cough.

Is there anything my doctor should know before the test?

Tell your doctor about:
→ Medications you use, including inhalers, blood thinners, and over-the-counter items such as pain medication (i.e. Aspirin, Tylenol, Advil), vitamins and herbs.
→ Any allergies to latex, tape or any medications.
→ Any lung problems you have had.
→ Whether you are pregnant.
Will the test be painful?
You will have a local injection of anesthetic, which will sting for a moment. You will feel pressure and a brief, sharp pain when the needle touches the lung.

What will happen during the test?

→ The procedure usually takes 30 to 60 minutes.
→ A CT scan of your lungs will be used to locate the precise spot of the biopsy. You will be lying down during the exam.
→ Your skin will be scrubbed and a local anesthetic will be given.
→ A small (about 1/8-inch / 3mm) incision may be made in the skin. The biopsy needle is then inserted into the abnormal tissue, tumor, or lung tissue. A small sample is removed with the needle and sent to the laboratory.
→ Pressure will be placed over the site. Once bleeding has stopped, a bandage will be applied.
→ A chest X-ray will be done immediately after the biopsy and possibly two and four hours later to make sure your lungs are okay.

When will I know the results of the test?
The doctor will discuss the test results at your next visit. Laboratory results usually take seven (7) days.

Are there any side-effects or risks to the test?
The risks include a collapsed lung, air between the lung and chest wall, bleeding, and infection. If you develop a collapsed lung, you may be admitted to hospital and have a chest tube inserted.

Seek IMMEDIATE medical attention if:
→ Shortness of breath
→ A temperature above 101°F/38.5°C for more than 24 hours.
→ If you have chest pain or severe shortness of breath, proceed to the nearest Emergency Department.