Thoracentesis is a procedure used to remove fluid that has built up between the lung and inside of the chest wall. Any fluid accumulation in this space is abnormal and may be a sign of an underlying disease process. Removal of the fluid can help in diagnosing the underlying cause and also can help in alleviating symptoms that may be caused by the fluid building up (shortness of breath, pain, low oxygen). There are many reasons for fluid to build up around the lungs with the most common being heart failure, kidney failure, liver failure, inflammation, cancer and infection.

Typically at the time of thoracentesis, the patient sits upright on the side of a hospital bed either in a hospital room or a procedure suite. An ultrasound is used to locate the best place on the patient's back to access the fluid for drainage. After this, the skin is cleaned and numbed with local numbing medicine. A needle is used to insert a small catheter between two ribs into the fluid and then the fluid is drained from the chest and sent for analysis in the lab. The catheter is removed and a bandage placed over the site. The patient can sometimes experience coughing or an ache in the chest or shoulder as the fluid is being removed. This is not unexpected and is not a sign that anything is wrong. Thoracentesis is usually performed very safely, but some complications can include bleeding or collapsed lung. Typically a patient can resume usual activities after the procedure has completed and will have little pain or long term effect from the procedure.