

Assessing a Patient with a Chest Drainage Unit

Keep the insertion site dressing dry. Palpate around the insertion site for subcutaneous emphysema. If subcutaneous emphysema is found, take down the dressing and look for drainage eyelets.

The connection between the drainage unit and the indwelling chest tube should be taped, leaving a "window" to visualize the connection site.

Keep the drainage unit below the level of the chest. The chest tubing should be coiled on the bed and then fall in a straight line to the drainage unit.

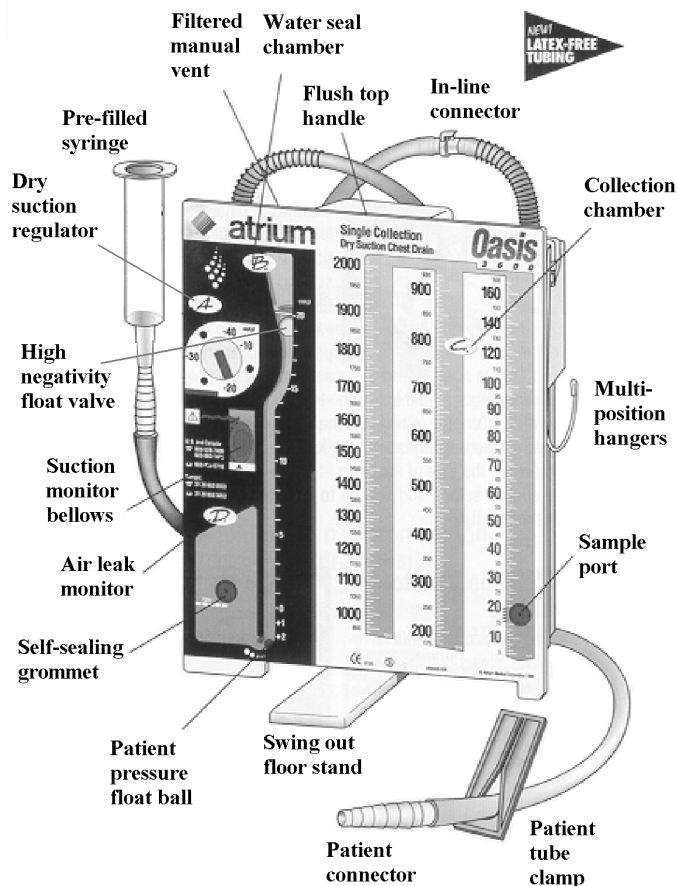
The water seal should be filled to the 2 cm. mark. Adjust the water level by adding sterile water or remove it by wiping the grommet with betadine and using a 20 gauge (or smaller) needle to aspirate the excess. The water level in the water seal chamber should move with the patient's breathing. This is called tidaling. If there is no tidaling, it could mean that:

- The tubing has a kink.
- The tubing is clamped.
- The patient is lying on the tubing.
- There is a dependent, fluid filled loop in the tubing.
- Lung tissue or adhesions are blocking the catheter eyelets.
- The lung has re-expanded.

Check the dry suction regulator to ensure that it is set at the prescribed level. When the regulator is set at -10 cm. H₂O the suction monitor bellows will just be visible in the window. For settings -20 cm. H₂O or higher, the monitor bellows must be expanded to the ▲ mark or beyond. Adjust the suction source as needed to move the bellows.

When to clamp a chest tube

Clamp chest tubes when: locating an air leak, simulating chest tube removal, replacing a drain, connecting or disconnecting an in-line autotransfusion bag.



A clamp is used to prevent air from entering the patient's chest. If it remains in place too long, it can also prevent gas and fluids from draining out. Clamping a chest tube may cause or prevent a tension pneumothorax. A tension pneumothorax is a collection of air or gas in the pleural space that causes the lung to collapse.