



# Shore

Dry Suction/Water Seal  
Chest Drain

**A User's Guide to  
Managing Chest Drainage**

## Introduction

This booklet is intended to provide an easy reference guide for understanding chest drainage and the Shore dry suction water seal chest drain. This guide is for educational use only and should not replace any medical or nursing practices or hospital policies.

A chest drainage device is used to help normalize vacuum pressures by removing air and fluid in a closed, one-way system. Chest drainage is also necessary after open heart surgery or chest trauma when there is collecting blood in the mediastinal cavity that could lead to tamponade or cardiac distress.

If you have questions or would like to receive additional information about our products, please contact us at:

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# Dry Suction Water Seal Chest Drains: How They Work

## The Operating System

A water seal drainage system has a one-piece, 3-chamber design consisting of fluid collection, a water seal (a one-way valve), and suction control. The water seal's one-way design allows air to evacuate without it being able to return to the patient.

Incorporating dry suction technology to a water seal unit offers a simple, convenient way to keep a required amount of vacuum in a patient's chest, plus the added benefits of easy setup, quiet operation, and the ability to control suction with the sliding of a dial.

## Fluid collection

Fluids drain from the patient directly into a large collection chamber via a 6-foot patient tube.

## Water seal

Our advanced water seal technology enables air leak assessment, strengthened system integrity, and knock-over protection. It is easy to monitor changes in intrathoracic pressure with the graduated water seal and patient pressure float ball. The automatic high negative pressure relief and filtered manual vent protect patients from accumulating high negative pressure.

## Adjustable Dry Suction Control

Suction enhances the rate of air and fluid removal from the patient. Dry suction control technology helps maintain safe, effective vacuum levels by continuously balancing the forces of suction and atmosphere. The automatic control valve (ACV) monitors and adjusts to changes in patient air leaks and fluctuations in suction source vacuum to deliver accurate, reliable suction. This pressure can be set between  $-5$  cmH<sub>2</sub>O to  $-40$  cmH<sub>2</sub>O by using the sliding dry suction control dial. If you see the orange circle appear in the suction monitor window expand, you know that suction is operating properly.



## Suction Monitor Indicator

The Orange Suction Indicator is highly visible in the suction monitor window; its presence confirms vacuum operation.

## High Negativity Float Valve

Our float valve with controlled release action allows thoracic patients to bring in as much intrathoracic pressure as needed during respiration. For extended periods of extreme negative pressure (as with chest tube stripping), the controlled release will automatically relieve high negative pressure to a lower level.

## System Disconnection

In-line locking patient tube connectors are provided for disconnection after use.

# The Shore Dry Suction Water Seal Unit

## Design

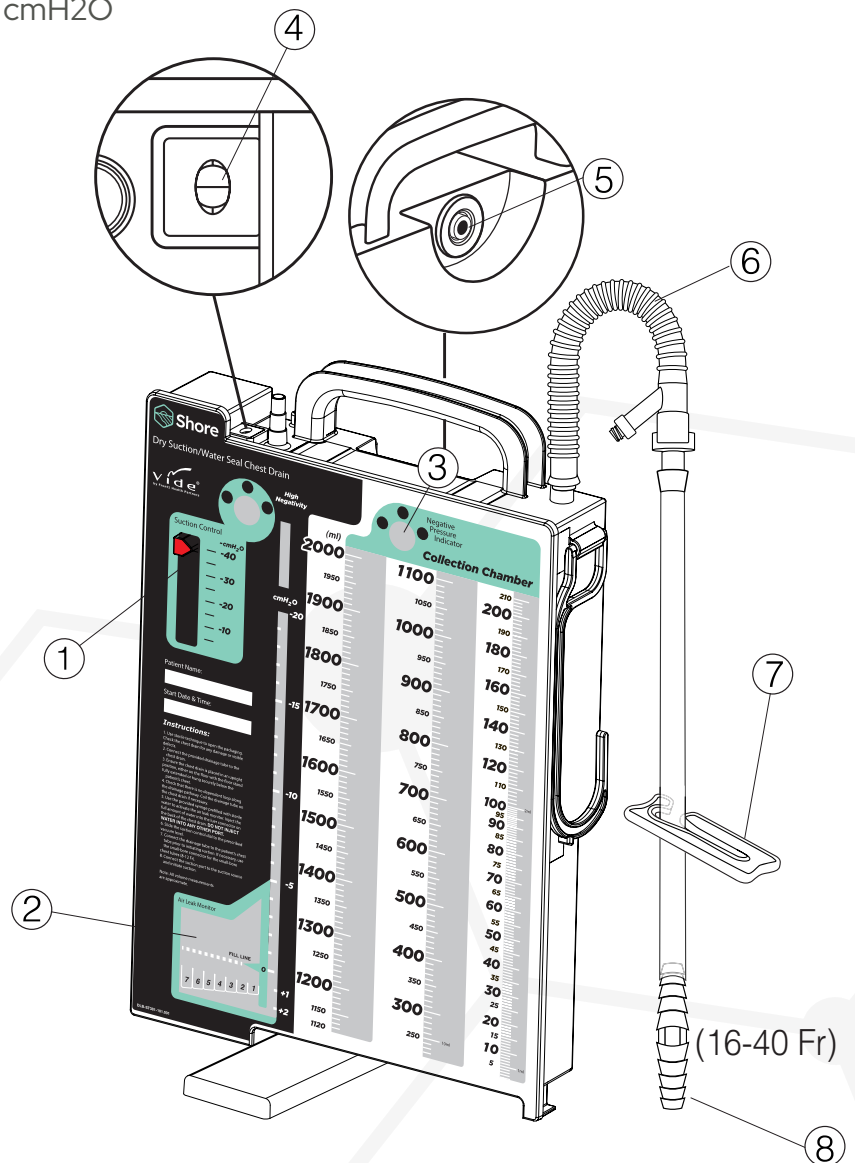
Our selection of dry suction chest drains are designed to provide the best in patient care with added upgrades clinicians will appreciate.

- ◆ Set up is easy, quick and convenient with syringes prefilled with water
- ◆ Knock-over performance for safety and security
- ◆ Control dial adjustable to suction settings from  $-5$  cmH<sub>2</sub>O to  $-40$  cmH<sub>2</sub>O

- ◆ Dry suction control regulator adapts to patient air leaks and changes in hospital wall suction
- ◆ Suction monitor indicator makes suction operation easy to confirm
- ◆ Large, legible collection chamber numbers and graduations make it easy to assess patient drainage
- ◆ Automatic high negative pressure relief with controlled release float valve
- ◆ Controllable vacuum pressures when connected to suction with manual vent
- ◆ Enhanced visibility for air leak detection and patient pressure assessment with blue tinted water seal

### PRODUCT FEATURES

1. Suction Control
2. Air Leak Monitor
3. Negative Pressure Indicator
4. Automatic Positive Pressure Relief Valve
5. Manual High Negativity Relief Valve
6. Patient Tube
7. Clamp
8. Conical Patient Tube Connector (16-40 Fr)



# Shore Dry Suction Water Seal

## Product Features

We offer a variety of dry suction chest drain models for hospital-wide standardization, including dual collection and pediatric. Our systems are cost-efficient, high quality units with a familiar look and operation you will be comfortable with, and upgrades you will appreciate.

PRODUCT FEATURE	HOW IT HELPS	HOW IT WORKS
Compact and lightweight design	Reduced packaging and size make storing, handling and transporting easy	Less waste helps the hospital save costs and become more environmentally responsible
Adjustable Dry Suction Control	Provides accurate, reliable suction control by automatically adjusting to fluctuations in patient air leaks and/or hospital wall suction	Set the regulator dial to any suction pressure between -5 cmH <sub>2</sub> O -40 cmH <sub>2</sub> O
Suction Monitor Indicator	Makes it easy to confirm suction operation	Highly visible Orange Indicator appears in suction monitor window when suction is in use
Prefilled Syringe with Sterile Water	Set up is quick and easy	Use the prepackaged syringe to fill the water seal, saving time, cost savings, and set up errors in measurement
Blue tinted water seal	Air leak detection and easy-to-monitor patient pressure	Water seal becomes blue when it is filled
Graduated air leak monitor	Quick exposure and observation of patient air leaks	Bubbling labeled 1 (low) to 7 (high) for easy monitoring air leak trends
High negativity float valve	Protects thoracic patients during deep inspiration breathing and gravity drainage	Enables patients to bring in as much intrathoracic pressure as needed to breath while still keeping the water seal's integrity
Filtered manual vent	Effective and easy-to-use	Offers manual control of vent when lowering water seal column height
High negative pressure protection	Automatic high vacuum vent with the advanced float valve	Valve design offers a controlled release during episodes of prolonged high negative pressure

PRODUCT FEATURE	HOW IT HELPS	HOW IT WORKS
Positive pressure protection	Automatically protects patients from accumulating positive pressure	Tamper resistant valve eliminates risk of tension pneumothorax should accidental occlusion of the suction line occur
In-line connector	Smooth, low-profile design with a locking mechanism	Facilitates disconnecting the system for quick drain replacement or disposal
Graduations in collection chamber	Easy to read volume figures	Large window provides quick and accurate volume assessment
Knock-over protection	Ensures patient safety with specially-designed water seal	Water seal remains shut during transport and accidental knock-over, even when connected to suction
Ergonomic handle	Smooth design for carrying and hand-off	Facilitates easy patient ambulation and transport
Attached floor stand	Allows drain to be stabilized during set up or placed on floor	Swings out for maximum stability, closes for safe transport
Needle-less access sampling port	Straightforward in-line fluid removal without a needle	Attaches to any luer-lock syringe

# Setting Up the Shore Chest Drain

## A. Review Set Up Requirements

Prefilled syringe with 45 ml of water required. Be sure to check your hospital's protocol for water type to be used.

## B. Open Package

Front1 chest drains are wrapped in CSR wrap. Remove sterile outer pouch and follow hospital-approved sterile technique for opening.

## C. Prepare the Unit

Swing open floor stand. If you are using a model with an in-line connector, move the patient tube clamp closer to the chest drain (next to the in-line connector).

## D. Follow 4-Step Set Up:

### Step 1: Fill water seal to 2 cm line

Add 45 ml of sterile water or sterile saline into the suction port until fluid reaches 2 cm fill line. Remove and discard bottle. Once the water seal is filled, the water will turn tinted blue.

### Step 2: Connect the unit to the patient

Remove patient tube connector cap and insert stepped connector into patient catheter(s). Remove or cut off connector for "Y" connector insertion. Nylon bands may be used around catheter and patient tube connections to provide extra security and ensure an air-tight connection.

**Note: Do NOT initiate suction until the chest drain is properly connected to the patient.**

### Step 3: Connect chest drain to suction

The suction source should provide a minimum vacuum pressure of -80 mmHg at 38 liters of air flow per minute for efficiency at a suction control setting of -20 cmH<sub>2</sub>O. The suction source vacuum should be greater than -80 mmHg when multiple chest drains are connected to a single suction source.

### Step 4: Turn on suction

To initiate suction, increase suction source vacuum to -80 mmHg or higher. Use the regulator control dial to adjust suction setting between -5 cmH<sub>2</sub>O and -40 cmH<sub>2</sub>O. Dial down to lower the suction setting, dial up to increase it.

Watch the suction monitor orange indicator circle.



## Helpful Tips During System Operation

### Adjusting Suction Pressure

Move the dry suction control dial to change suction pressure. Slide down to reduce suction pressure and slide up to increase it.

**NOTE: If you are lowering the suction pressure, use of the manual high negativity vent after regulator adjustment will reduce excess vacuum down to the lower prescribed level (only use with suction on).**

### Recording Drainage Volume

The collection chamber has a writing surface with easy-to-read fluid level graduation to record drainage volume. Please refer to individual products for specific graduation.

### Unit Placement

For best drainage, place the chest drain below the patient's chest in an upright position. Prevent accidental knock-over by swinging the floorstand open for secure placement on floor, or use the hangers to attach the unit to the bed.

### Water Seal Operation

For proper operation, make sure the water seal is filled and kept at the 2 cm level. Regularly check this when using the unit for extended periods. If necessary, add more water (to the 2 cm line) with syringe via the grommet located on the back.

### Changes in Patient Pressure

Carefully observe the small patient pressure float ball in the graduated water seal column for changes in patient pressure. When connected to suction, patient pressure should equal the suction control setting plus the float ball level. For gravity drainage, patient pressure will equal the float ball level only.

### High Negativity Float Valve

The high negativity float valve has a controlled release action to help a thoracic patient draw as much intrathoracic pressure as necessary during a respiratory cycle. During extended episodes of extreme negative pressure, the controlled release system will automatically relieve excess vacuum to a lower pressure level.

### Patient Air Leaks

If air bubbles are moving from right to left in the air leak monitor, the patient has an air leak. Continuous bubbling in the water seal air leak monitor will confirm this.

- Intermittent bubbling with float ball oscillation means there is an intermittent air leak.
- The absence of bubbling with minimal float ball oscillation at the bottom of the water seal means there is no air leak present.

### Reading the Graduated Air Leak Monitor

Air leak bubbling can range from 1 (low) to 7 (high). Monitoring your patient air leak trends by observing the movement of air bubbles.

### Sampling Patient Drainage

**Please follow all approved hospital infection control standards when sampling patient drainage.** Some models include a needle-less luer-lock port on the patient tube connector for easy sampling. Be sure to use an alcohol swab to clean the port prior to syringe attachment (no needle). Fluid samples can also be taken directly from the patient tube by creating a temporary dependent loop and inserting a 20 gauge needle at an oblique angle. Again, use an alcohol swab to clean the the patient tube prior to inserting syringe at a shallow angle. **Do not puncture patient tube with an 18 gauge or larger needle.**

### **Manual High Negativity Vent (NOT for use when there is no suction)**

When connected to suction, you can manually lower the height of the water seal column or patient pressure. Simply depress the filtered manual vent until the float valve releases and the water column lowers to the desired level. *Do not lower water seal column when suction is not operating or when patient is on gravity drainage.*

### **Positive Pressure Protection**

The pressure release valve will open to release accumulated positive pressure. Do not block the positive pressure relief valve.

### **Swing Out Floor Stand**

For system set up and unit placement on the floor, swing out the floor stand. Close the floor stand during patient transport or when unit is hung on bed.

### **Chest Drain Hangers**

Use hangers during transport or when hanging unit from bed. Ensure no dependent loops are below drain when hanging.

### **In-line patient tube connector**

Use the locking in-line patient tube connector for safe system replacement and disconnection after use. It must be securely connected at all times during operation and patient connection. Never separate in-line connector before clamping off patient tube clamp.

### **Patient Tube Clamp**

The patient tube clamp must remain open during system operation. We recommend moving it next to the in-line connector (closer to chest drain) for convenient setup and easy monitoring. The patient tube clamp should not be closed when the system is connected to the patient. Tube clamp must be closed prior to in-line connector separation.

**CAUTION: Keep clamp open at all times when system is connected to patient.**

### **Dependent Loop Clamp**

Utilize the dependent loop clamp to help secure patient tubing to be above chest drain and help eliminate the chance of dependent loops descending to the floor. The ideal situation is patient tube alignment completely vertical from the patient bed directly into chest drain.

### **Gravity Drainage**

Place the drain below the patient's chest in an upright position for gravity drainage. Disconnect the suction source vacuum line from the stepped suction line port.

### **Disconnecting the System**

For models equipped with an in-line connector, close the patient tube slide clamp before disconnecting the chest drain patient tube from the patient. Clamp off all indwelling thoracic catheters prior to disconnecting the chest drain patient tube from the patient's catheter(s).

### **Troubleshooting**

The Shore dry suction chest drain needs higher levels of vacuum pressure and air flow to operate properly at each suction control setting.

- ◆ The suction source should be greater than -80 mmHg when multiple chest drains are connected to a single suction source.

If the orange circle indicator isn't visible, the suction source may not be providing the minimum vacuum pressure or air flow required for the suction control regulator. Additionally, certain conditions can reduce air flow from the suction source, including a restrictive clamp, connector or kink in the suction line tubing, a leak in a connection or wall canister, or too much length in the suction tubing.

To troubleshoot, first check that all connections are air-tight and that the suction tubing and connections don't have cracks, leaks, kinks or occlusions. You may need to bypass an ineffective wall canister by

connecting the chest drain to a different suction source on the wall regulator. When multiple chest drains are “Y” connected to a single suction source, if possible, reconnect the drains to different suction sources. If everything checks out, replace the chest drain.

## Quick Troubleshooting List

Regularly check the patient, tube connectors, and drainage system. Doing so can help you quickly identify common issues that are easily corrected, including:

- ◆ Clot inside the chest tube in the patient
- ◆ Clot inside the patient tube
- ◆ Dependent loop in patient tube with fluid
- ◆ Kink in patient tube caused by the bed rail or patient position
- ◆ Partial dislodgement of catheter from patient
- ◆ Partial disconnection of patient tube from chest tube connector
- ◆ Overfilled water seal (above 2 cm line)
- ◆ In-line connectors not properly secured
- ◆ Patient tube clamp may be closed
- ◆ Floor stand not fully opened
- ◆ Chest drain not upright
- ◆ Chest drain not positioned properly below patient’s chest
- ◆ Suction monitor orange window not seen could be because the suction source is below the minimum operating range or there is a poor suction connection or suction tube issue

Refer to our more extensive Nursing Reference & Troubleshooting Section for more information.

## Customer Service

If you have questions or would like to receive additional information about our products, please contact us at:

866.277.0124  
info@front1hp.com  
www.front1hp.com

# Nursing References & Troubleshooting

Use this chart to properly identify issues, take action and solve problems.

AREA	ASSESSMENT	ACTION REQUIRED
Respiratory Status	Is your patient having trouble breathing or has there been a change in the baseline respiratory assessment?	Pneumothorax is a risk in pleural chest drainage, often caused by obstructed tubing. Notify the doctor immediately and assess the tubing's condition. Once rectified, continue to watch for recurrent pneumothorax and pleural effusion.
Cardiac Status (Mediastinal Tubes)	Are you witnessing signs of cardiac tamponade?	Cardiac Tamponade takes place when abnormal amounts of fluid accumulate in the pericardial sac compressing the heart and leading to a decrease in cardiac output and shock. The assessment will show a dramatic drop in blood pressure that can be fatal. Notify the physician immediately.
Chest Tube Insertion Site	Is dressing in excellent condition as per hospital standards?	If not, mark any drainage on dressing and be sure to tell a doctor if there is a significant amount. Change the dressing when and where appropriate.
	Are you hearing crepitus during palpitation?	If this is a new symptom, contact the doctor. Mark the location of the crepitus and watch for an increase in symptoms.
	Has the thoracic catheter been removed from the chest?	Check for a pleural air leak. If there is none, apply an occlusive dressing and notify the doctor.  If a pleural air leak is present, press a dressing with your hand, but be sure to allow pleural air to escape by removing the dressing periodically—or respiratory distress. Contact the doctor immediately and make preparations to replace the chest tube.
Patient Drainage Tubes	Are all chest tube connections securely taped or banded?	If not, secure any loose connections and tape and look for a new or exacerbated air leak. If one is present, contact the doctor.  If the drainage tube is contaminated when disconnected, submerge it 2 – 4 cm (1 to 2 inches) below the surface of a 250ml bottle of sterile water or saline to create a water seal, release air, and prevent the re-entry of more air. Do this until a new unit is connected.  If you don't have access to water and there is bubbling in the water seal/air leak meter of a pleural tube, or you notice extensive drainage from mediastinal tubes, leave the chest tube open. A minimal amount of air is not as dangerous as tension pneumothorax or cardiac tamponade.
	Is the tube unobstructed and kink-free?	Confirm that the chest tube is open and move it around as necessary to avoid twisting of the thoracic catheter or patient tube.

AREA	ASSESSMENT	ACTION REQUIRED
	Does the tube have any dependent loops?	<p>Move the tubing as necessary to remove dependent loops; if fluid enters the hanging loops, it can cause resistance to flow out of the chest.</p> <p>Utilize pre-attached dependent loop clip to secure it to the bed to avoid dependent loops. Make sure you keep enough tubing free so the patient can move comfortably but ensuring no dependent loops are present touching the floor and rising back up to the drain.</p>
	Is the tube open?	<p>The tube's clamp should be open unless:</p> <ul style="list-style-type: none"> <li>a) the unit is being changed. In this case, be sure to briefly clamp it.</li> <li>b) the physician specially instructed otherwise.</li> </ul> <p>During transport or ambulation, the chest tube should not be clamped, unless a doctor specifically instructs to do so. <b>Patients with an air leak who have their chest tubes clamped are at greater risk for pneumothorax.</b></p> <p>Be certain the open clamp is facing away from the patient. This will help prevent an accidental closure.</p>
Collection Chamber	When observing drainage in the collection chamber, is there blood, pus, or a straw-colored discharge?	<p><b>Be sure to mark your findings. Contact the doctor if the drainage changes greatly.</b></p>
	What is the rate of drainage?	<p>Make sure the unit and tubing is always below the patient's chest to allow for gravity drainage and to avoid the backflow of fluid.</p> <p>Write down the drainage level, as well as the date and time of measurement.</p> <p>Sudden hemorrhaging post-surgery in a cardiac patient is often caused by a ruptured suture line or blown graft. The patient might lose 1,000 to 1,500ml of blood in only minutes. <b>Immediately contact the doctor and prepare to return to the operating room.</b></p>

AREA	ASSESSMENT	ACTION REQUIRED
	<p>Has the unit suddenly stopped draining?</p>	<p>If you notice that drainage has suddenly (not slowly) stopped in a patient with mediastinal tubes, this may be due to clotted blood blocking the tube. Because this can cause life-threatening cardiac tamponade, action is required. Gently milk the tube to keep it open and free any clots.</p> <ul style="list-style-type: none"> <li>◆ Should the patient’s condition rapidly deteriorate, begin the emergency protocol of milking and stripping the tube.</li> <li>◆ Should the patient remain stable, keep the unit low, allowing gravity to help drainage. You can do this by raising the bed, lowering the unit, or even rotating the patient to their affected side.</li> </ul> <p>Always check for bending or kinking in the tube and confirm that it is not clamped.</p> <p>Drainage that slows over a series of shifts is often normal. Carefully monitor the patient for changes.</p>
	<p>What if the collection chamber columns are only partially full?</p>	<p>If drainage is near the top or if the unit has tipped over, this fluid may have caused surface tension that pulled drainage into the next column.</p> <p>In a water seal unit, replace the entire drain if excess fluid spills into the water seal chamber during a knock-over. If water seal is not compromised:</p> <ul style="list-style-type: none"> <li>◆ Look carefully and contact the doctor if there are new or increased air leaks.</li> <li>◆ Mark the drainage level in each column and calculate the total amount of drainage.</li> <li>◆ If water from a wet suction control unit enters the collection chamber, note this amount and then subtract from the total drainage. Be sure to refill the suction control chamber to the appropriate level.</li> </ul>
	<p>What if the collection chamber is full?</p>	<p>Follow our specific instructions to swap out the drainage unit.</p>
<p>Water Seal Chamber or One-Way Valve (in Dry Seal Units)</p>	<p>Is the water level measuring where it should be at 2cm?</p>	<p>If not, insert a syringe and 18 gauge (or smaller) needle into the self-sealing diaphragm to adjust to the appropriate level.</p>

AREA	ASSESSMENT	ACTION REQUIRED
	Can you see the negative pressure indicator ( <b>Orange Circle</b> )?	<p>You may see a negative pressure in the collection chamber with patient respiration during gravity drainage. You should always be able to view this negative pressure indicator (<b>Orange Circle</b>) when the intrapleural pressure is negative throughout the patient's respiratory cycle. Be sure the pressure indicator is showing a negative pressure continuously during suction drainage.</p> <p><i>Caution: if you do NOT see a negative pressure indicator (<b>Orange Circle</b>):</i></p> <ol style="list-style-type: none"> <li>1) Look for any leaks in the connectors</li> <li>2) Confirm that all connections are secure and after doing so, if the Orange Circle still does not appear, replace the unit. Note: the negative pressure indicator does not confirm that the drainage tube is open, so routinely check for patency.</li> </ol>
Air Leak Meter	Do you see air bubbling?	<p>If yes, an air leak is present. First, find its source:</p> <ul style="list-style-type: none"> <li>● Confirm all connections are tight and secure.</li> <li>● Test for leaks.* <ul style="list-style-type: none"> <li>○ If the air leak is in the tubing, you should replace the unit.</li> <li>○ If the air leak is at the insertion site, remove the chest tube dressing and confirm that the catheter eyelets have not pulled out beyond the chest wall. If you do not see or hear any obvious leaks at this site, the leak is coming from the lung. Replace the dressing.</li> </ul> </li> <li>● Review the patient's history and determine if an air leak could be expected.</li> </ul>
	Is there constant or occasional bubbling?	<p>If the bubbling appears to be connected with the patient's breathing (for example, when they exhale spontaneously), the leak is probably coming from the lung. Contact the doctor if there are any new unexpected, or worsened air leaks, that cannot be fixed by the steps mentioned above.</p> <p>Take note of how great the patient's air leak is by using the air leak meter. The higher it is noted in the numbered column where the bubbling is, the larger the air leak. i.e. If bubbling is seen in the air leak meter's first two columns only, be sure to note "Air Leak 1 to 2"</p>

AREA	ASSESSMENT	ACTION REQUIRED
	<p>Even without bubbling, should fluid move up and down with the patient's breathing?</p>	<p>A patient with a pleural chest tube will show normal signs of tidaling. Movement is more obvious when suction is momentarily turned off.</p> <p>If fluid is not moving up and down:</p> <ul style="list-style-type: none"> <li>◆ There may be a block somewhere between the pleural cavity and the water seal</li> <li>◆ The lung may be fully expanded and suction is bringing the lung up against the chest tube holes</li> </ul> <p>The cause may be PEEP, which can hinder fluid movement. Check for blockages in the tubes as stated above. Tidaling can also be dampened in one-way valve (dry seal) units.</p> <p>A patient with a mediastinal tube should not produce bubbling or movement in the water seal/air leak meter. Absence of bubbling is totally normal.</p>
	<p>Have you noted water rising excessively in the small arm of the water seal/air leak monitor?</p>	<p><b>Only if wall suction is on and visible</b>, you can depress the high negativity relief valve until the water returns to its appropriate level.</p> <p><i>Warning: If suction is not working, or if it is operating on gravity drainage, <b>depressing the high negativity valve can result in pneumothorax</b> because of the reduced negative pressure within the collection chamber to zero (atmosphere).</i></p> <p><i>* To troubleshoot if you suspect a persistent air leak in a patient who looks to be recovering: use the included tube clamp to block the drainage tubing momentarily, starting at the dressing site. While watching the water seal/air leak meter, keep moving the clamp down the tubing toward the unit, placing it at 20-30cm (8-12 inch) intervals. <b>Be sure to check the water seal/air leak meter chamber every time you clamp.</b> The bubbling will stop when you clamp the area between the source of the leak and the water seal/air leak meter chamber. Note: if the bubbling stops when you first apply the clamp, the air leak must be at the chest tube insertion site or the lung. This helps you diagnose if a kink or cut in the tube has inadvertently occurred.</i></p>
Wet Suction Control	<p>Is the bubbling continuous?</p>	<p>Gentle, constant bubbling means that the suction is working. A more vigorous bubbling will hasten the fluid's evaporation, causing a lower level of suction. Wet units come with a suction-control stop-cock to help you dial in consistent gentle bubbling.</p>



AREA	ASSESSMENT	ACTION REQUIRED
	What if there is no bubbling?	<ul style="list-style-type: none"> <li>◆ Check that the suction tubing is connected and not blocked.</li> <li>◆ Turn the source suction to a higher level.</li> <li>◆ If the patient has a large pleural air leak, the suction may not be able to handle the large amount of air flowing out. This occurs only in patients on mechanical ventilation, and will cause vigorous bubbling in the water seal chamber.</li> </ul>
	What if the chamber is underfilled or overfilled?	<p>Temporarily stop suction so that you can observe the fluid level in the suction control chamber.</p> <ul style="list-style-type: none"> <li>◆ If it is underfilled, add fluid through the top suction control chamber.</li> <li>◆ If it is overfilled, remove fluid from the self-sealing grommet in the chamber. Stop when you have reached the desired level.</li> </ul> <p>After correcting the amount of fluid, resume the unit's suction.</p>
Dry Suction Control	Is the dial correctly set to the prescribed suction?	Turn the dial to the correct suction setting. <b>The adult setting is most commonly -20cm H<sub>2</sub>O suction.</b>
	Can you see the Orange Circle in the indicator window?	<p>If not, make sure the suction tubing isn't blocked or disconnected.</p> <p>After checking, turn up the suction until the Orange Circle appears.</p>
	What if the water rises in the small arm of the air leak meter when the dry suction setting is lowered?	<p>This is showing a previously higher setting and is perfectly normal because with a water seal chest drain this is a measure of interthoracic pressure. Lowering the suction setting moves the water up to indicate the negative pressure.</p> <p>If there is no air leak present, and if the unit is actively on wall suction with the Orange Circle appearing, depress the high negativity relief valve to remove the excess negativity.</p>
Gravity Drainage	Is the suction tube/port open?	If you are employing gravity drainage, make sure that the short suction tube or port is uncapped, unclamped, and free of all blockages so that air can easily exit. Regarding wet suction Wave drains, the suction control stop-cock should be in the parallel-to-the-tube position (not at a 90 degree angle which closes the suction tube). This will minimize the risk of tension pneumothorax.





## Healthcare Focused. Women Owned.

At Front1, we put healthcare at the forefront. We are uniquely positioned to help physicians, healthcare systems, and manufacturers strengthen their commitment toward diversity spend goals. Our full line of Vide Chest Drains are reliable, efficient, and effective, utilizing the technology you trust, with upgrades and innovations you'll appreciate.

With more than 50 years of combined management experience in the healthcare industry, Front1 is committed to improving the way hospitals, IDNs and GPOs source their products.

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