

Selecting Pressure Settings

When selecting pressure settings, the key is to create repetitive airflows to mobilize secretions while keeping the pressure at a level that is comfortable for the patient.

The SmartVest[®] Airway Clearance System allows the user to adjust the “hug” of the SmartVest[®] by means of the pressure control knob. This feature allows the patient to adjust the pressure for his or her level of comfort and also helps younger patients with getting accustomed to the feel of High Frequency Chest Wall Oscillation (HFCWO).

The patient should **set the pressure** to the level **recommended by his or her physician**. If the physician has not recommended a specific pressure setting, the medical literature reports that the pressure should be set at the highest pressure tolerated by the patient to create a firm, but comfortable, hug for the patient.

NOTE: Pressure settings for the SmartVest Wrap[®] need to be lower to create a firm, but not too firm, hug. Most physicians recommend setting the pressure between 25 and 35 when using the SmartVest Wrap[®], allowing patient comfort to be your guide.

When initiating SmartVest[®] treatment, a combination of features will aid in the transition to HFCWO. First, the SmartVest[®] will fill with a “Soft Start[®]”, gradually increasing pressure as the bladder fills over a few seconds. Second, the Pressure Adjustment Control can be dialed down to reduce pressure for the first few minutes or the first few treatments, if necessary. Once the patient is familiar with the feel of HFCWO, the pressure can be increased until the breath sounds break up or the patient’s voice sounds “chattery”. Have the patient hum while the SmartVest[®] is pulsing and listen for the “unh, unh, unh” sound that indicates the SmartVest[®] is creating repetitive airflows in the airways and mobilizing the secretions. Younger children often like to sing when using the SmartVest[®] to hear the “funny sounds”. This is very useful in the first few minutes of training.

The lowest pressure is achieved by turning the pressure adjustment control dial to the 10 setting. The highest pressure is achieved by turning the knob toward the 100 setting. Turning the Pressure Adjustment Control to the 50 mark yields a mid-range pressure. *Please note that these values do not refer to any specific units of measure.*

Most younger, preadolescent patients feel comfortable with the pressure set in the 30 - 40 range. Larger and/or older patients may prefer and benefit from higher pressures. Some patients find higher pressures appropriate at lower frequencies and lower pressures comfortable at the higher frequencies. **The key is to keep the pressure at a level that is comfortable for the patient and creates repetitive airflows to mobilize secretions.**