

## **Minnesota Vest Protocol**

### **What is the Minnesota Vest Protocol?**

A protocol is a system or a way of doing something. The Minnesota Vest Protocol is a treatment that uses a group of 6 different settings for the vest machine. Each setting runs for 4 minutes. After each 4 minutes, your child will pause to huff cough. Then you will change the setting. Most often children are between 4 and 5 years old when starting this protocol. The protocol takes about 30 minutes.

### **What is a vest machine?**

A vest machine is used to loosen mucus from the airways by vibrating the chest. The machine connects with a hose to a vest. The vest is worn over the chest. The machine makes air pulses that vibrate the chest. Most often it is used by Cystic Fibrosis (CF) patients.

The Minnesota Vest Protocol can be used with the Hill-Rom Vest machine. The vest must be the kind that inflates both on the front and on the back. If you have the Hill-Rom model 105 it can be programmed to run this protocol. You can call Hill-Rom customer support to find out how to program your machine. The phone number is on the machine.

### **How is the Minnesota Vest Protocol used?**

1. Look at the chart below. Start with a frequency setting of 8 on the vest machine. Set the pressure to 10. If your child is not comfortable with a pressure of 10, you will need to find the Starting Pressure setting. Follow the directions on the next page.
2. Use each setting for 4 minutes.
3. At the end of each 4 minute cycle, press Pause on the vest machine. If your child's chest vest does not deflate during the Pause, disconnect one of the hoses to deflate.
4. Your child should do 2 to 3 huff coughs during the pause and at the end of the treatment. After coughing, your child should try to spit out the mucus.
5. If your child takes nebulizer treatments, it is ok to take albuterol, hypertonic saline, and Pulmozyme during the vest treatment. To save time, start the nebulizer at the start of the vest treatment.

<b>Frequency Setting</b>	<b>Pressure Setting</b>	<b>Huff Cough</b>
<b>8</b>	<b>10**</b>	huff cough during pause
<b>9</b>	<b>10**</b>	huff cough during pause
<b>10</b>	<b>10**</b>	huff cough during pause
**If the pressure of 10 is uncomfortable, use the Starting Pressure setting		

Frequency Setting	Pressure Setting	Huff Cough
18	6	huff cough during pause
19	6	huff cough during pause
20	6	huff cough during pause

### Find your starting pressure:

1. Set the Frequency to 8 Hz and the Pressure to 6.
2. Press the ON button on the vest machine.
3. After a minute or two, increase the Pressure to 7.
4. After a minute or two, increase the Pressure to 8.

Slowly increase the pressure one number at a time until your child does not feel comfortable. At this point, decrease the pressure by 1. This is the Starting Pressure. This starting pressure should feel comfortable. The highest pressure setting on the machine is 10.

**ALERT:** Call your child's doctor, nurse, or clinic if you have any questions or concerns or if your child has special health care needs that were not covered by this information.

**This teaching sheet is meant to help you care for your child. It does not take the place of medical care. Talk with your healthcare provider for diagnosis, treatment, and follow-up.**