Flutter

**Patient Education | Airway Clearance**
Airway clearance techniques (ACTs) are treatments that help people with cystic fibrosis (CF) stay healthy and breathe easier. ACTs loosen thick, sticky lung mucus so it can be cleared by coughing or huffing. Clearing the airways reduces lung infections and improves lung function.

**Oscillating Positive Expiratory Pressure**
Oscillating positive expiratory pressure (PEP) is an ACT where the person blows all the way out many times through a device. Types of oscillating PEP devices include Flutter and Acapella. Breathing with these devices vibrates the large and small airways. This vibration thins, dislodges and moves mucus. After blowing through the device many times, the person coughs or huffs. The cycle is then repeated. To huff, take a big breath through your nose, open your mouth and blow quickly in a short burst. This helps move the mucus up the airway before coughing.

**Flutter Instruction**

**Stage 1: Loosen and Mobilize Mucus**
1. Slowly inhale beyond a normal breath, but do not fill your lungs completely.
2. Hold your breath for two to three seconds.
3. Place the Flutter in your mouth, adjust tilt and keep your cheeks stiff.
4. Exhale through the Flutter at a reasonably fast (but not too forceful) speed.
5. Exhale beyond a normal breath, but do not empty your lungs completely.
6. Attempt to suppress your cough.
7. Repeat steps 1 through 6 for **five to 10 breaths**.

**Stage 2: Mucus Elimination**
8. Slowly inhale, filling your lungs completely.
9. Hold your breath for two to three seconds.
10. Place the Flutter in your mouth, adjust tilt and keep your cheeks stiff.
11. Exhale forcefully through the Flutter as completely as possible.
12. Repeat steps 8 through 11 for **one to two breaths**.
Special Points of Interest

- You adjust the position of the Flutter to where you feel the most vibrations in your chest.
- The Flutter should be cleaned by rinsing it out in soapy water after each use then disinfecting it according to the instructions given for the nebulizer (do not microwave the silver ball).
- If you lose or break part of the Flutter, you have to buy a whole new device. They do not make replacement parts, so be careful.