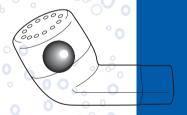
## The FLUTTER ())())))

For Single Patient Use

## Instructions for Use



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#### **Mucus Clearance Device**

## Patient Instruction Booklet

For use in the removal of excessive secretions from the lungsfor patients with cystic fibrosis, bronchitis, and bronchiectasis.

#### **Contraindications**

The **FLUTTER** is contraindicated for patients known to have pneumothorax or overt right-sided heart failure.



**FLUTTER** should **Not** be used by patients with the following conditions:-

pneumothorax severe tuberculosis right-sided heart failure haemoptysis (coughing-up blood)

Consult your Doctor or healthcare professional if you are unsure if the above conditions affect you.

## Making the most of your therapy with

### **FLUTTER** - Mucus Clearance Device

This handbook will assist you in using your **FLUTTER** at home.

It will help you understand what the **FLUTTER** is, how it works, how to use it, and how to keep it working like new.

If you have already been taught to use the **FLUTTER** by your health care professional, follow their instructions, as they will have already identified the best way for you to use it.

If you have any questions about the **FLUTTER** or these instructions, contact your health care professional, or **Clement Clarke International** (contact details are at the end of this booklet).

## Why is mucus clearance important?

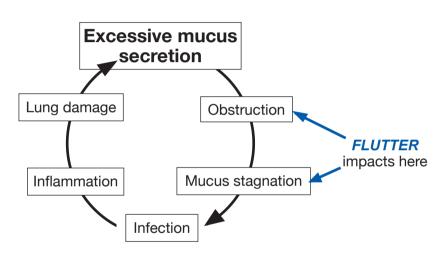
In many long-standing lung conditions there is a build-up of sticky secretions in the airways. If left in the airways, these secretions (also known as 'mucus' or 'sputum') can limit the normal movement of air, making breathing difficult.

Mucus that stays in the lungs also provides an ideal environment for bacteria and microbes to multiply and thrive - frequent chest infections result, which may lead to long-term damage to the lungs.

The **FLUTTER** has been designed to enable you to clear your chest of these excessive secretions, through a simple routine that takes only a few minutes each day.

By clearing excessive mucus out of the lungs and airways, breathing becomes much easier, and the risk of lung infections is greatly reduced.

Figure 1



### What is the FLUTTER?

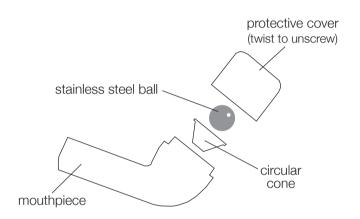
The **FLUTTER** is a medical device used to help loosen, mobilise, and eliminate mucus from your airways.

It consists of the following components:-

a mouthpiece (stem)
a protective cover
a high-density stainless steel ball
and a circular cone

(see Figure 2).

Figure 2



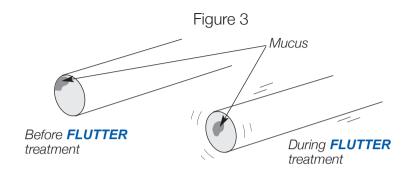
## How does the FLUTTER work?

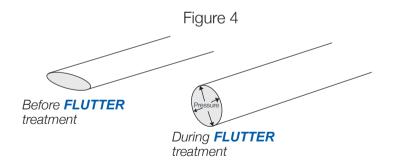
When you exhale (breathe out) through the *FLUTTER*, your breath will cause the steel ball to rise up and down under the protective cover.

Each time you breathe out through the device, the following happens:-

- 1. Vibrations loosen the mucus sticking to the airways. (see Figure 3)
- 2. A slight increase in pressure helps to keep your airways open. (see *Figure 4*)

The vibrations act to 'shake loose' the mucus that has been clinging on to the walls of the airways (much like shaking apples from a tree). By keeping even the smallest airways open, the loosened mucus can then start to move. Doing this whilst breathing out means the secretions start to move out of the lungs.





During each *FLUTTER* session, the mucus in the small airways moves into the larger ones. (see Figure 5)

Here, mucus can stick together, making 'globules' that travel easily in the larger airways.

After several breaths through the device, you will find it easy to cough up 'sputum' that has been collected.

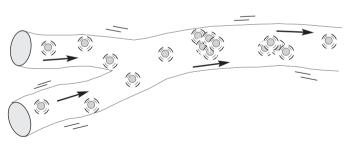


Figure 5

#### How do I use the *FLUTTER*?

Proper use of your **FLUTTER** is important for successful therapy. Although there are different **FLUTTER** techniques, the one presented in this handbook is used most often.

If you have been taught a specific technique already, then continue to use it, as it will have been chosen as the best method for you.

If you are new to using the **FLUTTER**, please read through the remainder of the booklet thoroughly, so that you understand fully how to get the best from your **FLUTTER**.

In both cases, regularly check that your technique is correct - either with your health care professional, or by re-reading these instructions from time to time.

## FLUTTER

## **Technique - Preparation**

1. You may want to have a glass of water and a box of tissues within reach

Now, think about how you are going to breathe, and what the **FLUTTER** is going to do. Picture your airways vibrating...... and the mucus being loosened...... then propelled along with your exhaled air...... to progressively larger airways...... so you can cough it out.

2. Begin by being relaxed.

Sit with your back straight and head tilted slightly upward so your throat and windpipe are wide open.

This allows exhaled air to flow smoothly from your lungs out through the **FLUTTER**.

You may prefer an alternate position, with elbows placed on a table at a height that won't allow you to 'slouch'.

Experiment to find out which is best for you.

(see Figure 6).

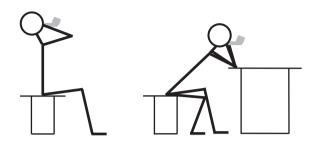


Figure 6

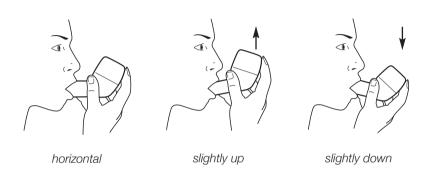


Figure 7

If you must perform **FLUTTER** therapy while in bed, sit as upright as possible in a position that will not restrict your smooth breathing effort.

- Keep the cheeks of your face as stiff as possible, since the vibrations produced by the *FLUTTER* are wasted when you allow your cheeks to move a lot.
  - Look into a mirror or hold your cheeks flat with your other hand to help learn the technique.
  - Eventually you will learn what to look out for, and your cheeks will not vibrate as much.
- 4. The angle at which you hold the *FLUTTER* is critical. Start by holding it level with the stem horizontal to the floor (see *Figure 7*).
  - This places the cone at a slight tilt and insures that the ball not only bounces (flutters), but also rolls during exhalation.
  - Then experiment by tilting the *FLUTTER* upward and downward (see *Figure 8*). You might get a greater fluttering sensation in your chest with the stem in a 'tilt' position than you do with the stem in line with the floor.

Figure 8



For best results, use the angle that gives you the strongest fluttering sensation. The fluttering may not occur immediately, so don't become discouraged. Several sessions may be required to learn how to 'tune' the **FLUTTER** for your specific needs.

# Technique - Stage 1 Mucus loosening and Mucus motion

- 1. Slowly inhale (breathe in) beyond a normal breath, but do not fill your lungs completely.
- Place the **FLUTTER** in your mouth with your lips closed around the stem.
- 3. Position the **FLUTTER** at the proper angle.
- 4. After holding your breath for 2 to 3 seconds, begin to breathe out through the *FLUTTER* at a reasonably fast but not too forceful speed. Exhaling too fast and too forcefully at this point should be avoided.

Concentrate on feeling the vibration in your airways, since the best results are obtained when there is maximum fluttering in your chest. Continue to exhale through the *FLUTTER* to a level slightly further than you would exhale during normal breathing without the *FLUTTER*. For the moment, any urge to cough should be suppressed.

Repeat the breathing technique described overleaf for 5 to 10 breaths to loosen and move as much mucus as possible from your airways. The mucus will move further up the airways with each *FLUTTER* exhalation.

During these loosening and motion breaths, it is important to inhale slowly, hold your breath for 2 to 3 seconds, and as you exhale suppress your urge to cough.

Now you are ready for **Stage 2** - Mucus removal with cough.

## Technique - Stage 2 Mucus removal with cough

To accomplish mucus removal, perform 1 or 2 additional breaths through the *FLUTTER*. This time breathe in slowly and as fully as comfortably possible. Really fill your lungs with air. Again hold your breath for 2 to 3 seconds and then exhale forcefully through the *FLUTTER* as completely as you comfortably can.

This forceful exhalation moves mucus up to a level in your lungs that triggers a cough.

If mucus is not easily coughed out following 1 or 2 mucus removal breaths, attempt a 'huff' manoeuvre (like trying to 'huff' a bread crumb out of your throat).

Usually, you will need to do 5 to 10 mucus loosening and removal breaths, suppressing a cough, followed by 1 or 2 mucus removal breaths with cough, to clear your airways successfully.

If you find your requirements for this therapy (loosening ,moving and removing mucus) changes, you may need to modify your routine to reach the best therapeutic effect.

Remember, the idea is to comfortably and efficiently remove as much mucus as possible. The *FLUTTER* will help you do this.

## How often and how long should I spend using my *FLUTTER*?

Generally, two sessions a day (morning and late afternoon or evening) are recommended. Sessions ranging from 5 to 15 minutes are common, depending on the condition of your lungs.

You can avoid becoming too tired by having three sessions instead of two. The inability to cough out additional mucus during therapy is often an indication that the session has been successful and can be ended.

If you have been advised to follow a different routine by your health care professional, make sure you follow their instructions - they will have been developed specifically for your condition.

### **Important Tips**

- Breathe out through the FLUTTER making sure no air escapes around the mouthpiece.
- Do not cover the exit holes while holding the FLUTTER.
- Inhale slowly to avoid mucus being sucked back down into the lungs.
- When inhaling, either remove the FLUTTER from your mouth, or inhale through your nose.
- Holding your breath for 2 or 3 seconds following every inhalation is very important. This allows the inhaled air to be distributed more evenly throughout the lungs. People with lung conditions cannot fill their lungs evenly, so holding your breath partially makes up for that.
- Remember, the 'huff' manoeuvre may help you to start a cough.

- First-time FLUTTER users or those with particularly thick mucus may find that repeating stage 1 many times (mucus loosening and mucus motion) is necessary before starting stage 2, (mucus removal). Several attempts may be necessary to help determine the appropriate number of breaths you need to perform at each stage.
- It may be beneficial to have someone assist you when you first start using your FLUTTER. You may forget some key points for proper use - a second person can help you to get it right!
- A second person can also help determine when you achieve the strongest fluttering sensation by placing one hand on your back and the other hand on your chest and actually feeling the vibrations in your lungs as you exhale.

### How do I clean the *FLUTTER*?

Cleaning the **FLUTTER**, as with all respiratory therapy equipment used in the home, is extremely important.

Some people find it necessary to clean the **FLUTTER** after each session to remove moisture and/or mucus from the inside surface.

Unscrew the protective cover, and separate the components. (see Figure 2) Rinse all items with tap water, dry with a clean towel, reassemble, and store in a clean, dry location.

Contact Clement Clarke for multi-patient cleaning instructions.

## For Single Patient Use

A more vigorous cleaning is recommended every two days. Again, disassemble your **FLUTTER** and wash in a solution of mild soap or detergent. **Do not use chlorine, bleach or other chlorine-containing products** (e.g. dishwasher machine detergent). Rinse all components with tap water. Dry with a clean towel, reassemble, and store in a clean, dry location.

## For Multiple Patient Use

Please contact Clement Clarke International for disinfection instructions or refer to:

www.clement-clarke.com for the latest copy to download.

#### **Quick Reference Guide**

## Stage 1 - Mucus Loosening and Mucus Motion

- 1. Gather supplies, relax, assume correct posture and position.
- 2. Slowly inhale beyond a normal breath, but do not fill lungs completely.
- 3. Hold breath for 2 to 3 seconds.
- 4. Place **FLUTTER** in mouth, adjust angle, keep cheeks stiff.
- Exhale through **FLUTTER** at a reasonably fast but not too forceful speed.
- 6. Exhale beyond a normal breath, but do not empty lungs completely.
- 7. Attempt to suppress cough.
- 8. Repeat steps above for 5 to 10 breaths.

### Stage 2 - Mucus Removal

- 9. Slowly inhale, filling lungs completely.
- 10. Hold breath for 2 to 3 seconds.
- 11. Place **FLUTTER** in mouth, adjust angle, keep cheeks stiff.
- 12. Exhale forcefully through **FLUTTER** as completely as possible.
- 13. Repeat steps 9 through 12 once or twice.
- 14. Initiate cough (or 'huff' manoeuvre).

  Return to step 2 and repeat full sequence until lungs are clear or therapy is over.
- 15. Additional sessions may be added if necessary.
- 16. Clean **FLUTTER** and store in clean, dry location.

# FLUTTER ))))) is a class 1 medical device. Manufactured in Switzerland

**FLUTTER** is a registered trademark of VarioRaw SA, a subsidiary of Axcan Scandipharm, Inc. 22 Inverness Center Parkway Birmingham. AL 35242 USA US Patent No 5'018'517

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