

# Using your inhaler devices

## This chapter will help you to understand:

- How inhaler devices work.
- How to correctly use each inhaler.
- When the inhalation devices are empty.
- How to clean and care for the inhaler devices.

## Using inhaler devices is an important skill

Using an inhaler is a skill. It is easier if someone shows you the best way to use your new inhaler and helps you to practice to get the technique right. Also, the way you use your device may change over time and you might not be getting the full dose of medicine. Your inhaler type may have been changed or extra medicines added that can complicate your treatment. The more device types you are using, the greater the chance you have of using them incorrectly. If you are using more than two device types, talk to your doctor about reducing the number of device types. This can often be done without changing the type of medicine.

Your doctor, nurse, pharmacist or pulmonary rehabilitation team can help you with your inhaler device technique.

All inhaled medicines must be breathed deeply into the lungs where they do their work in the airways.

It is best to be sitting upright or standing when you use your inhalers.

Take your puffers with you when you see your doctor, nurse or pharmacist and ask them to check your technique.

Store in a dry place below 30 degrees Celsius, away from direct heat or sunlight.

## The inhalation devices covered in this chapter include:

1. Puffer (or metered dose inhaler) and spacer
2. Puffer – includes Rapihaler™
3. Breezhaler®
4. Handihaler®
5. Genuair®
6. Turbuhaler®
7. Ellipta®
8. Accuhaler®
9. Respimat®
10. Autohaler®
11. Nebuliser®

## Puffer (or metered dose inhalers)

A puffer is also known as a metered dose inhaler, or an aerosol.

### How to use the Puffer (or metered dose inhaler)

1. Remove cap.
2. Hold inhaler upright and shake well.
3. Breathe out gently away from mouthpiece.
4. Put mouthpiece between teeth and seal with lips.
5. Start to breathe in slowly through your mouth and press canister down firmly once to fire the puffer.
6. Continue to breathe in slowly and deeply. Hold breath for up to 10 seconds.
7. While holding breath, remove inhaler from mouth.
8. Breathe out gently away from the device.
9. For next dose, wait 1 minute and repeat steps 2-8.
10. Replace cap.



### Important things to know and do

- Puffers store medicine under pressure in the canister. When fired, a mist sprays out very quickly. You must fire it just after you start to breathe in for it to work well.
- Even with perfect timing, only some of the medicine gets breathed into the lungs. Most (up to 80%) stays in your mouth and throat. The medicine has a better chance of getting into your lungs if a spacer is used.
- To prime a new puffer shake it well and spray into the air. Repeat.
- Some puffers show the number of doses left. For others, hold the canister on its side and move it gently end to end. The weight and the amount of fluid sloshing inside gives a general idea (nearly full, half empty, nearly empty). When no fluid is felt, the puffer is empty, even if some spray still comes out.
- Clean the blue puffer weekly by removing the canister (do not wash the metal canister) and rinsing the case under warm running water. Shake off excess water and dry well. With other puffers just wipe clean with a dry tissue.
- When putting the puffer back together, ensure that the metal canister fits securely into the plastic case.
- Check the expiry date before use.



*Cleaning the metered dose inhaler case*

### Haleraid®

Haleraids are handles that fit over some puffers and make them easier to fire. This may be an option if you have difficulty using the puffer due to weak or painful hands.

You can buy a Haleraid® from independent living centres or pharmacies, and they come in two sizes.



*Haleraid®*

## Puffer and spacer

Puffers (also known as a metered dose inhaler or an aerosol) may be used with a spacer, which is a small or large volume holding chamber.



*Using a spacer with your puffer can increase the amount of medicine that reaches your lungs*

### How to use the puffer with spacer

1. Remove cap.
  2. Hold inhaler upright and shake well.
  3. Put puffer in end of spacer.
  4. Put mouthpiece between teeth and seal with lips.
  5. Hold spacer level and breathe out gently through it.
  6. Press canister down firmly once to fire the puffer.
  7. Breathe in slowly and deeply. Hold breath for up to 10 seconds.
  8. While holding breath, remove spacer from mouth.
  9. Breathe out gently away from the device.
  10. For next dose, wait 1 minute and repeat steps 2-8.
  11. Remove puffer from spacer and replace cap.
- If unable to breathe deeply, breathe in and out 4 times.

### Important things to know and do

- Spacers hold the medicine fired from a puffer so you can breathe it in slowly and deeply.
- Spacers have a one way valve that stops air being breathed into the spacer while it is in your mouth.
- Using a spacer with a puffer allows more medicine to get deeper into the lungs and less stays in your throat. It is estimated that with a spacer 40% of dose gets deeper into the lungs, while without its only 10% of the dose.

- A spacer can prevent throat irritation by reducing the amount of medicine sitting in your mouth or throat. Again it is estimated that with a spacer 10% stays in your throat, while without its closer to 80%.
- You may not taste the medicine as much or feel it hit the back of your throat as more is getting to your lungs.
- When used correctly, a puffer with spacer is as effective as using a nebuliser. It's also cheaper, easier to clean, quicker, portable and doesn't need electricity.
- Always rinse mouth, gargle and brush teeth after using maintenance medicines to avoid dry mouth or oral thrush.
- A spacer must be cleaned before its first use and regularly from then on. Steps for cleaning a spacer are:
  1. Pull spacer apart where possible
  2. Wash in warm soapy water (detergent) once every 2-4 weeks.
  3. After washing, Allow the spacer to drip dry. DO NOT rinse the spacer DO NOT dry the spacer with a cloth DO NOT put the spacer in a dishwasher.
- Don't store your puffer inside your spacer. This may cause scratching and reduce the effectiveness of the spacer.
- Check spacer for damage and replace if needed.



*Small volume spacer with puffer*



## Breezhaler®

### How to use the Breezhaler®

1. Remove cap. Open inhaler (tilt mouthpiece back).
2. Put new capsule into bottom of chamber.
3. Close mouthpiece until it clicks.
4. Press and release side buttons to pierce capsule.
5. Breathe out gently away from mouthpiece.
6. Put mouthpiece between teeth and seal with lips.
7. Breathe in strongly and deeply (capsule vibrates) and hold breath up to 10 seconds.
8. While holding breath, remove inhaler from mouth.
9. Breathe out gently away from mouthpiece.
10. Repeat steps 5 to 9.
11. Open device, discard capsule and replace cap.



### Important things to know and do

- The capsule contains the medicine as dry powder.
- Pressing the buttons pierces (or puts holes in) the capsule. Releasing the button, leaves the holes open.
- Don't breathe into the device or get it wet as moisture can effect the release of the dry powder.
- The medicine is drawn from the capsule in the device and breathed deeply into your lungs.
- You will hear a rattling sound when you breathe in and may feel and taste the medicine in your mouth.
  - If you don't hear the rattling sound, the capsule is not sitting in the hole correctly. Tap the gently on a table to get the capsule to settle into the hole and inhale again.
  - You may experience a sweet taste as the medicine goes into your lungs.
  - Some people briefly cough soon after inhaling the medicine. If you do, don't worry, as long as the capsule is empty you will have received the full dose.
  - Do not store capsules in the inhaler. Always replace dust cap. Keep capsules dry.
- Only use with Onbrez, Seebri or Ultibro capsules.
- Clean your inhaler once a week.
  - Wipe the mouthpiece inside and outside to remove any powder with a clean, dry, lint-free cloth.
  - Do not take the inhaler apart.

## HandiHaler®

### How to use the HandiHaler™

1. Open cap and mouthpiece.
2. Remove new capsule from pack. Place in chamber.
3. Close mouthpiece until it clicks
4. Press and release green button to pierce capsule.
5. Breathe out gently away from mouthpiece
6. Put mouthpiece between teeth and seal with lips.
7. Breathe in slowly and deeply (capsule will vibrate) and hold breath (up to 10 seconds).
8. While holding breath, remove inhaler from mouth.
9. Breathe out gently away from mouthpiece.
10. Repeat steps 5 to 9.
11. Open mouthpiece, discard capsule and close cap.



### Important things to know and do

- The capsule contains the medicine as a dry powder.
- There is only a small amount of powder in each capsule - about the size of a match head
- When loaded inside the inhaler the capsule (containing the medicine) is pierced, allowing the medicine to be inhaled.
- Pressing the green button pierces (or puts holes) the capsule. Releasing the button, leaves the holes open.
- Don't breathe into the device or get it wet. Breathing into the device adds moisture and this can effect the release of the dry powder
- The medicine is drawn out of the capsule and breathed deeply into your lungs.
- You will hear a rattling sound when you breathe in and may feel or taste the medicine in your mouth.
- Always replace dust cap. Keep capsules dry.
- Only use Spiriva capsules in the HandiHaler.
- Clean HandiHaler once a month just after using it:
  - Open the dust cap and mouthpiece.
  - Open the base by lifting the green button up.
  - Rinse the whole HandiHaler with warm water.
  - Dry well. Leave open to air dry for 24 hours. Ensure that it is completely dry before the next dose.
  - Replace inhaler yearly.

## Genuair®



### How to use the Genuair®

1. Remove cap. Check dose counter.
2. Keep Genuair horizontal with button facing up.
3. Press button down and release it to load dose. The window will show green when dose is loaded.
4. Breathe out gently away from mouthpiece.
5. Put mouthpiece between teeth and seal with lips.
6. Breathe in strongly and deeply. Keep breathing in for the full breath even after you have heard the click to be sure you get the full dose. Hold breath for up to 10 seconds.
7. While holding breath, remove inhaler from mouth. Breathe out slowly away from the device.
8. Check window is red (dose was taken). If still green, repeat steps 4-6 with a deeper and slightly faster breath in. Recheck window.
9. Replace cap.

### Important things to know and do

- Genuair contains the medicine as a dry powder.
- It loads by gravity so keep it horizontal to load.
- Only 1 puff / dose can be loaded at a time.
- When you breathe in strongly and deeply, a valve opens (“click”) and the powder is drawn from the inhaler and deeply into your lungs.
- The indicator shows red if the dose has been taken.
- If it is green after you have breathed in, try again with deeper and slightly faster breath in. If still not working, discuss with your doctor, pharmacist or nurse as soon as possible to find a solution.
- The inhaler counts down the number of doses left in units of 10. When it is empty, the button locks and cannot be pressed down.
- Wipe mouthpiece with a tissue to clean. Keep dry.
- Don't breathe into the device or get it wet as the moisture can effect the release of the dry powder.

## Turbuhaler®

### How to use the Turbuhaler®

1. Unscrew and remove cap. Check dose counter.
2. Hold inhaler upright and twist the base around and back (a click is heard) to load a dose.
3. Hold device by base so air vent is not blocked.
4. Breathe out gently away from mouthpiece.
5. Put mouthpiece between teeth and seal lips.
6. Breathe in strongly and deeply. Hold breath up to 10 seconds.
7. While holding breath, remove inhaler from mouth.
8. Breathe out gently away from mouthpiece.
9. For extra dose: repeat steps 2 to 8.
10. Replace cap.



### Important things to know and do

- Device contains dry powder. Don't get inhaler wet or breathe into it. Always replace cap.
- Turbuhaler loads by gravity so hold it upright to load.
- Only 1 puff / dose can be loaded at a time.
- The medicine is drawn out of the inhaler and breathed deeply into your lungs. You may not feel or taste anything.
- Keep fingers clear of air vents as you breathe in dose.
- The Turbuhaler counts the doses left. A red line appears in top of window (20 doses left) and moves to the bottom of the window when empty. The Symbicort (device with red base) shows the number of doses left.
- The sound you hear if you shake the device (even when empty) is a drying agent and not medicine.
- Always rinse mouth, gargle and brush teeth after using maintenance medicines to avoid dry mouth or thrush.
- Wipe mouthpiece with a dry tissue to clean.

## Ellipta®



### How to use the Ellipta®

1. Check dose counter.
2. Slide the cover down until you hear a click (do not shake the inhaler).
3. Breathe out gently away from the mouthpiece.
4. Put mouthpiece between teeth and seal with lips. Do not block the air vent with your fingers.
5. Breathe in strongly and deeply. Hold breath for up to 10 seconds.
6. While holding breath, remove inhaler from mouth.
7. Breathe out gently, away from the inhaler.
8. Close cover.

### Important things to know and do

- Ellipta contains medicine as a dry powder. Don't breathe into device or get it wet. Always close cover after use.
- Only 1 puff / dose can be loaded at a time.
- The medicine is breathed directly from the inhaler and deeply into your lungs.
- Keep fingers clear of air vents when taking dose.
- The inhaler shows the number of doses left in device.
- Wipe mouthpiece with a tissue to clean if needed.

## Accuhaler™

### How to use the Accuhaler™

1. Check dose counter.
2. Hold in one hand. Put other thumb in grip and open cover until it clicks.
3. Holding horizontally, load dose by sliding lever until it clicks.
4. Breathe out gently, away from mouthpiece
5. Put mouthpiece between teeth and seal with lips, keep inhaler horizontal.
6. Breath in strongly and deeply. Hold breath for up to 10 seconds.
7. While holding breath remove inhaler from mouth
8. Breathe out gently, away from the inhaler.
9. Close cover to click shut.



### Important things to know and do

- Device contains dry powder. Don't get inhaler wet or breathe into it. Always replace cap.
- Only 1 puff / dose can be loaded at a time.
- The medicine is breathed directly from the Accuhaler and deeply into your lungs.
- The inhaler shows the doses remaining (near thumb grip). It is empty when the dose counter on the top indicates zero. The last five doses will appear in red.
- Always rinse mouth, gargle and brush teeth after using maintenance medicines to avoid dry mouth or thrush.
- Wipe mouthpiece with a dry tissue to clean if needed.

### Inhaler device videos

The Lung Foundation Australia has developed videos to demonstrate how to use each inhaler. To view head to the website, [www.lungfoundation.com.au/patient-support/copd/inhaler-technique-fact-sheets/](http://www.lungfoundation.com.au/patient-support/copd/inhaler-technique-fact-sheets/)



## Respimat®

### How to use the Respimat®

1. Hold device upright with the cap closed.
2. Turn clear base in direction of arrow until it clicks. (half-a-turn)
3. Open cap fully.
4. Breathe out gently away from mouthpiece.
5. Put inhaler between teeth and seal with lips.
6. As you start to breathe in slowly through your mouth, press grey button to release a dose.
7. Continue to breathe in slowly and deeply. Hold breath for up to 10 seconds.
8. Gentle breathe out away from device.
9. For second puff, repeat steps 1 to 9.



### Important things to know and do

- Turning the base loads the next dose.
- When fired, a soft mist is released to be breathed deeply into the lungs.
- Red arrow points to number of doses left. Respimat device will lock when empty.
- Each new Respimat must be prepared before it is first used.
  - a) Keep cap closed. Press in grey safety catch (where clear and grey sections join). Pull off clear base.
  - b) Insert narrow end of metal cartridge. Gentle push down on bench or table until in place (1 cm sticks out).
  - c) Push clear base (with slot lined up) back onto inhaler.
  - d) Turn base in direction of arrow until it clicks. Open cap Point at ground and press grey button. Close cap.
  - e) Repeat step (d) until mist is seen when pressing button.
  - f) Then repeat three more times. Device is now primed.



Putting the cartridge in the Respimat®

## Autohaler™

### How to use the Autohaler™

1. Remove cap. Hold inhaler upright and shake well.
2. Push lever up to load dose.
3. Breathe out gently away from mouthpiece.
4. Put inhaler between teeth and seal with lips.
5. Breathe in slowly and deeply and hold breath up to 10 seconds.
6. While holding breath, remove inhaler from mouth.
7. Breathe out gently away from mouthpiece.
8. Push lever down.
9. If an extra dose is needed, repeat steps 2 to 10
10. Replace cap.



### Important things to know and do

- Autohaler stores medicine under pressure in canister. Once loaded, breathing in fires the device.
- The inhaler is primed before use by lifting the pressure lever (the grey lever), which expels the medicine into a staging chamber.
- Keep fingers clear of air vents when taking dose.
- You will hear a “click and a “whoosh” sound as you breathe in deeply for 5 seconds.
- You will feel the medicine hit your throat and taste it.
- Autohaler cannot be used with a spacer.
- The inhaler is empty when you do not hear any medicine being delivered. To test if it is empty, lift the lever, slide the lever on the bottom of the inhaler across; if the inhaler does not fire, it is empty.
- Always rinse mouth, gargle and brush teeth after using maintenance medicine to avoid oral thrush.
- Airomir®, delivered via Autohaler™, should be washed weekly. After removing the canister, and placing it aside to keep dry, wash the mouthpiece and cap under warm running water for 30 seconds. Allow to air dry.
- QVAR® delivered via Autohaler™ should NOT be washed. Dry wipe at least weekly; do NOT wash the inhaler or get it wet.

## Nebuliser

Very few people with COPD or asthma ever need to use a nebuliser at home. This is because a puffer with spacer or some of the other inhaler devices are equally effective in getting the medicine deeply into your lungs.

### How does the nebuliser work?

In some specific cases, nebulised medicine may be prescribed.

In a nebuliser, pressurised air is pumped through liquid in the nebuliser bowl to form a fine mist that is inhaled through a face mask or mouthpiece. The pump is usually driven by electricity; some pumps may be driven by a battery or 12 volt car batteries.



*Nebuliser Machine*

### How to use the nebuliser

1. Screw top off nebuliser bowl and stand it up.
2. Twist top off nebule. Squeeze into nebuliser bowl.
3. Keep bowl upright and screw on the top.
4. Attach hose to base of nebuliser bowl and mask or mouthpiece to the top.
5. Place mouthpiece between teeth or mask on face ensuring a close fit.
6. Turn nebuliser pump on. Breathe normally by mouth during the treatment.
7. Once its starts to splutter (usually after 5 to 8 minutes), tap the bowl a few times. After another minute the dose is complete.
8. Switch the machine off when finished.
9. Clean nebuliser bowl and store dry.

Correct cleaning of your nebuliser will reduce the risk of chest infections.

### Important things to know and do

- Each dose should nebulise in less than 8-10 minutes. If it takes longer, mists poorly or the mask and your face feel wet when nebulising, try using a new bowl. If still doing it, have the pump serviced.
- Pumps that are old or not serviced, and old nebuliser bowls are not able to make this very fine mist and do not get the medicine to your lungs effectively.
- After each use - Rinse bowl and mouthpiece / mask. Ensure that the nebuliser parts are completely dry before storage.
- Clean the nebuliser bowl and mouthpiece and facemask weekly by soaking in half vinegar and water for 1 hour. Rinse and allow to air dry.
- Don't wash the hose. Replace it if discoloured or mouldy.
- Replace your nebuliser tubing, bowl and face mask or mouthpiece every three months.
- Nebuliser bowls have a limited life span. Check the manufacturer's manual for the expected life span of your bowl. Inspect the nebuliser bowl and tubing for cracks, and replace.
- The filter on the nebuliser pump needs to be replaced regularly (see the manufacturer's manual for how often).
- If nebulising Atrovent™ or Pulmicort™, the use of a mouthpiece is preferable. If you do not use a mouth piece, the use of eye protection is advisable.
- Ensure you rinse your mouth and face afterwards.

Nebuliser bowls have a limited life span. Check manufacturer's manual for expected life span.



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<http://www.cope.lungfoundation.com.au/>

