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## You and your inhaler

*This booklet can help you learn how to use your inhaler correctly. You can reduce the risk of side effects and get the most from your medicine.*

*You will also find information on how to clean your inhaler, store your inhaler and know when your inhaler is empty.*

*The more you learn about your asthma and how to control it, the better you will manage your condition.*

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### ☼ Why are inhalers useful?

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Your inhaler helps you breathe asthma medicine straight into your lungs.

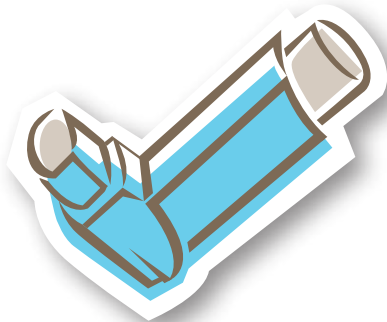
Asthma medicine taken as pills and syrups takes a long time to get to your lungs and some gets lost on the journey.

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### ☼ Checking your technique

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Get your doctor, nurse or asthma educator to check your inhaler technique regularly, even if you have been using your inhaler for some time.





# Asthma Medicines

*There are four main groups of asthma medicines:*

1

Preventers



(brown/red/orange/yellow inhalers) reduce the swelling and narrowing inside the airways. They are used every day in asthma. Preventers are either inhaled corticosteroids (ICS) or non-steroidal

2

Relievers



(usually blue inhalers) relax the muscle in the airway when it is tight

3

Symptom controllers



(pale blue/green inhalers) keep the muscle relaxed and work for 12 hours. They are used twice daily

4

Combinations



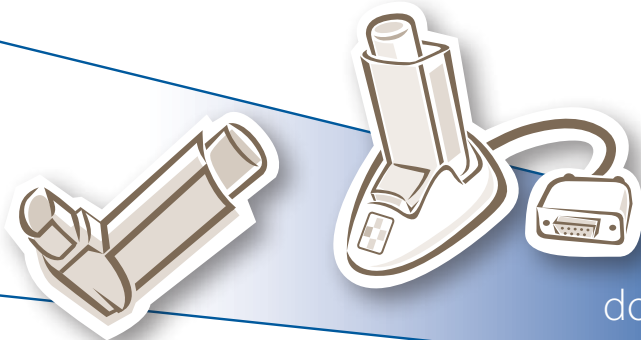
(red/purple inhalers) contain both preventer and symptom controller medicines

*There are different strengths of medicine for each group.*

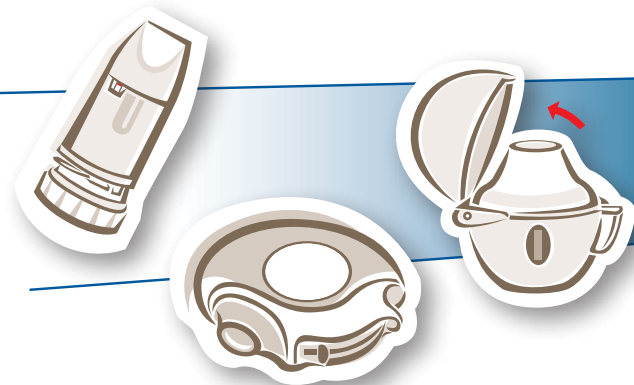


## DIFFERENT KINDS OF ASTHMA INHALERS

You can choose between a metered dose inhaler (MDI), a breath activated aerosol inhaler and a dry powder inhaler. Talk to your doctor, nurse or asthma educator about the device that is best for you.



Metered  
dose inhalers

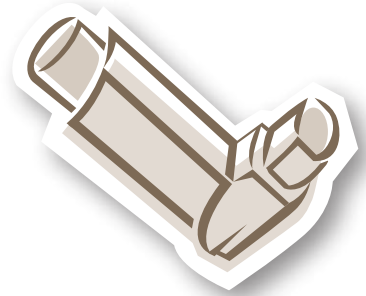


Dry powder  
inhalers







## Metered dose inhalers (MDI)

*MDI inhalers are sometimes called aerosol inhalers. When the inhaler is pressed, a measured dose of medicine is released through the mouthpiece.*



### Medicines available in New Zealand

#### Preventers

Beclazone   
Flixotide   
Tilade   
Vicrom 



#### Relievers

Atrovent   
Respigen   
Salamol   
Ventolin 

#### Symptom Controllers

Serevent 

#### Combination

Seretide   
Vannair 

#### ADVANTAGES



- Preventer, reliever, symptom controller and combination medications are all available in MDIs
- A spacer can improve performance
- A haleraid device is available for people who have difficulty pressing the inhaler

#### DISADVANTAGES



- Some people find it difficult to press the inhaler and breathe in at exactly the right time
- It may be hard to tell when the inhaler is empty
- Needs weekly cleaning to prevent blocking



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## ◉◉ Recommended age

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Children over ten years may be able to use an MDI. However, babies and young children can use MDIs with a spacer or a spacer and a mask.

Everybody that uses an MDI preventer medication should use a spacer to receive maximum benefit from their medicine.

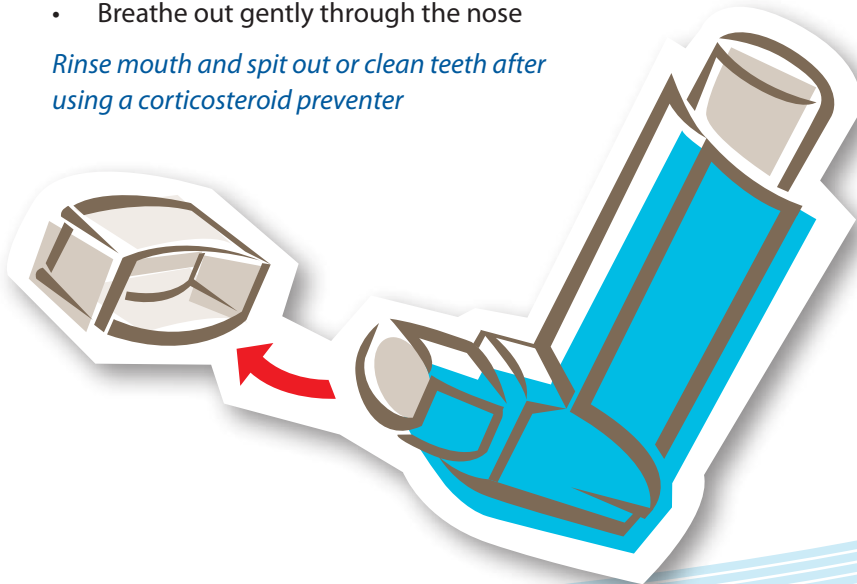
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## ◉◉ Using your inhaler

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- Take off the cap and hold the inhaler upright
- Shake the inhaler to mix the medication with the propellant
- Sit upright, tilt head back slightly (as if you are sniffing – ‘sniff position’) and breathe out gently
- Hold the device upright, insert the mouthpiece into the mouth ensuring that the lips firmly seal the mouthpiece
- At the beginning of a slow, deep breath, breathe in through the inhaler, activate the aerosol once
- Breathe in fully, remove the MDI from the mouth and hold breath for ten seconds or as long as is comfortable
- Breathe out gently through the nose

*Rinse mouth and spit out or clean teeth after using a corticosteroid preventer*



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## ☼ Cleaning your inhaler

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Clean your inhaler **weekly** to ensure it doesn't block (twice weekly if you use Tilade or Vicrom.)

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### ☼ To clean your inhaler

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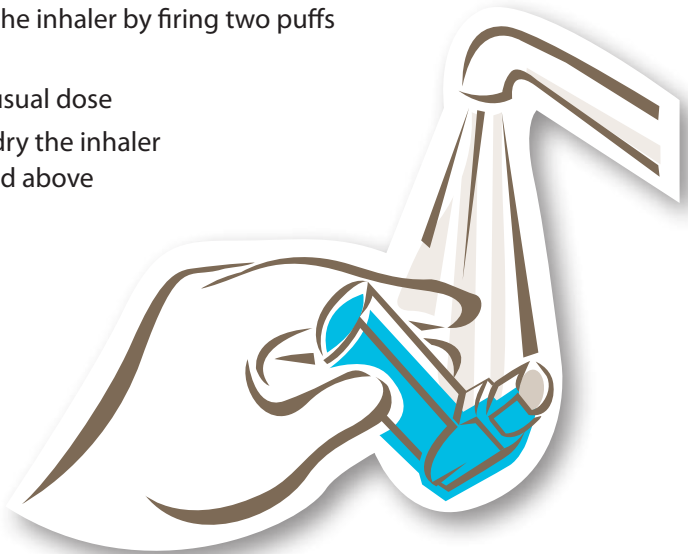
- **REMOVE** the plastic mouthpiece cap
- **REMOVE** the metal canister (don't put it in water)
- **RINSE** the mouthpiece and cap under warm water for at least 30 seconds
- **SHAKE** off any excess water and leave the mouthpiece and cap to dry overnight.
- Put the metal canister back in, and replace the cap

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### ☼ If you need to use your inhaler before it is dry

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- Shake off any excess water from the plastic casing and put the metal canister back in
- Test spray the inhaler by firing two puffs into the air
- Take your usual dose
- Wash and dry the inhaler as described above





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## ☉☉ If your inhaler is blocked and you need it immediately

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- Rinse the plastic casing as described above
- Shake off any excess water from the plastic casing and put the metal canister back in
- Test spray the inhaler by firing two puffs into the air
- Take your usual dose
- Wash and dry the inhaler as described above

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## ☉☉ Storing your inhaler

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- Always keep the cap on your inhaler when it is not in use
- Store spare inhalers in cool places (not in car glove boxes)
- Carry a spare clean plastic casing in case the one you are using becomes blocked

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## ☉☉ Time for a new inhaler

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- Shake the device and listen. The contents can be felt and heard moving around inside the canister

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## ☉☉ Common mistakes

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- Breathing in too fast
- Breathing out so hard you cough
- Pressing the puffer too early before you have started to breathe in.  
(If you see a mist of medication from your mouth, then you are making this mistake)
- Tilting your head down. It should be tilting back slightly
- Activating inhaler twice during a single inhalation
- Giving the inhaler a 'test puff' into the air and wasting the medication
- Breathing in through the nose instead of the mouth





## Spacers

*A spacer makes your MDI inhaler easy to use and more effective for people of all ages. Use your spacer with preventer, reliever, symptom controller and combination medications.*

Spacers are clear plastic tubes with a mouthpiece or mask on one end and a hole for your inhaler at the other. A valve in the spacer mouthpiece opens as you breathe in and closes as you breathe out.

Small or large volume spacers can be obtained for free from your doctor for people of all ages who use an MDI for their medication.

### ADVANTAGES



- Many adults and children are unable to use their MDI inhaler effectively. The spacer reduces the need for perfect technique. Small and large volume spacers can be obtained for free from your doctor
- 50% more medicine enters the lungs when a spacer is used
- Less medicine gets left in the mouth and throat. This reduces the side effects of hoarseness or thrush in your mouth from preventer medicine
- A spacer can help when you are short of breath and an inhaler by itself is difficult to use
- A spacer is smaller, more convenient and cheaper than a nebuliser. Studies on adults and children show spacers work just as well as nebulisers in acute asthma
- Spacers with masks can help very young children inhale their medicine



### DISADVANTAGES

- Large volume spacers are bulky and inconvenient to carry



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## Available types

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There are several brands of large and small spacers. Babies and small children should use a small volume spacer and mask. Older children and adults can use either size.

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## Using your spacer

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- Shake the inhaler well (holding it upright)
- Fit the inhaler into the opening at the end of the spacer
- Seal lips firmly round the mouthpiece, (or place the mask so it seals around the nose and mouth.)
- Press the inhaler once only
- Take 1–6 slow breaths in and out through your mouth. Do not remove the spacer from your mouth between breaths.
- Remove spacer from your mouth
- Repeat these steps for further doses

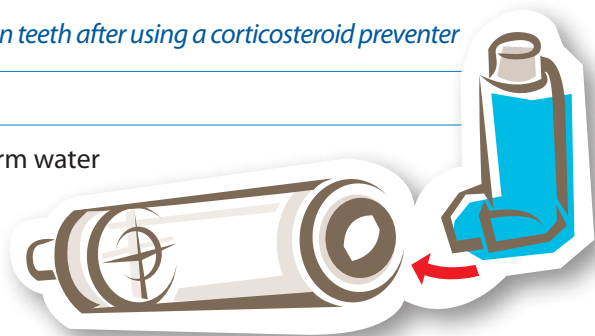
*Rinse mouth and spit out or clean teeth after using a corticosteroid preventer*

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## Cleaning your spacer

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- Wash the spacer with warm water and dishwashing liquid
- Do not rinse
- Drip dry



### Priming

Wash your spacer before you use it for the first time. This is called “priming.” It reduces static electricity inside your spacer so that the medicine does not stick to the sides.

### Regular washing

After priming, wash your spacer once per week (or more often if using Vicrom or Tilade.)

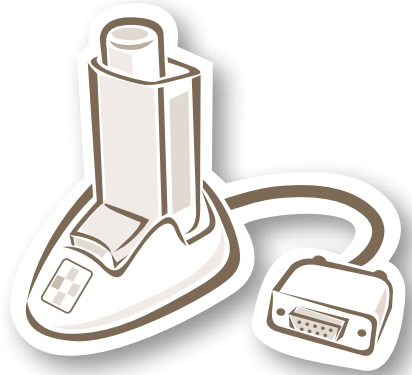




## Smartinhale

*Smartinhales contain a micro-computer to help you to use your inhaler effectively.*

Smartinhales can be used with a 'Personal Asthma Manager' software programme. Together the software and smartinhale allow you to track and control your asthma.



### Available types

Smartinhales are continually being developed for all major medications. Check [www.smartinhale.com](http://www.smartinhale.com) for the latest models.

#### ADVANTAGES

- *Smartinhales used for preventer medications contain a reminder alarm. This helps you to remember to take your preventer should you forget.*
- *Smartinhales also contain a 'fuel gauge'. The fuel gauge shows you how much medication is left in your inhaler so that you can replace your medication before you run out.*
- *'Personal Asthma Manager' software includes an action plan and educational material, and creates a report of your medication usage and peak flow.*

#### DISADVANTAGES

- *Smartinhales are not subsidised. You will need to purchase a Smartinhale and computer programme*
- *You need to have a computer and computer knowledge*



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## Using your inhaler

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Select a smartinhaler that is labeled for use with your medication. The medication from your standard inhaler is placed inside the smartinhaler.

You can print your report to show your doctor, nurse or asthma educator. The report displays your progress and enables you and your health care professional to optimise your asthma management. The educational material helps you to learn more about your asthma and how to control it, and includes the latest asthma news from around the world.

Information from the Smartinhaler is uploaded to the 'Personal Asthma Manager' by connecting the Smartinhaler to the PC using a cable (just like connecting an iPod to a computer).

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## Cleaning your inhaler

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Always keep your cap on your smartinhaler when not in use.

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## Storing your inhaler

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Store your smartinhaler in a cool dry place.

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## Time for a new inhaler

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Smartinhalers contain a fuel gauge to indicate when your medication is getting low.

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## Common mistakes

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Remember to place the medication canister firmly in the smartinhaler when replacing canisters.



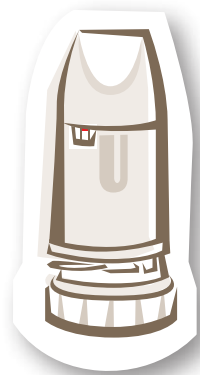
# Dry powder inhalers

Dry powder inhalers are breath activated inhalers. The most common dry powder inhaler used in New Zealand is the Turbuhaler.

A

## Turbuhaler

*The turbuhaler is breath activated and has no propellant or carrier added to the medicine. This means you will hardly notice any powder in your mouth.*



### Medicines available in New Zealand

Preventer

Pulmicort



Reliever

Bricanyl



Symptom

Controller

Oxis



Combination

Symbicort



#### ADVANTAGES



- Preventers, relievers, symptom controllers and combinations are all available in the Turbuhaler
- Breath activated
- No propellant or carrier added to the medicine
- No powder taste in your mouth
- Special grip for bottom of device available for people who find device difficult to twist



#### DISADVANTAGES

- The powder cannot be felt or tasted when inhaled
- May clog if exhaled or dribbled into routinely or if stored in an environment of high humidity with the cap unsealed. Do not allow device to get wet
- People with acute asthma or COPD may have trouble breathing in deeply. They may prefer to use an MDI and spacer



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## ◉◉◉ Recommended age of use

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- 5–7 years to adult

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## ◉◉◉ Using your inhaler

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- Unscrew and remove the cap
- Hold the Turbuhaler upright. Turn the grip as far as it will go and then back to the original position – listen for the click. (Repeating will not double the dose)
- Sit upright, and breathe out gently
- Insert the mouthpiece into the mouth holding the inhaler horizontally ensuring that the lips are firmly sealed
- Breathe in steadily and deeply
- Remove the Turbuhaler from the mouth, then breathe out gently through the nose
- Replace the cap securely

*Rinse mouth and spit out or clean teeth after using a corticosteroid preventer*

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## ◉◉◉ Cleaning your inhaler

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Do not allow device to get wet when cleaning.

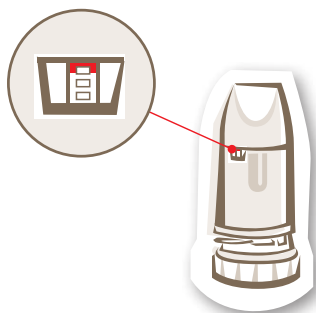
Wipe the mouthpiece with a dry cloth. Do not wash the mouthpiece. Keep the cap on when not in use.

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## ◉◉◉ Time for a new inhaler

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There is a window under the mouthpiece on the outside of the Turbuhaler called the 'Empty Soon Indicator.' When a red mark or a number appears at the top of the window, there are approximately 20 doses left.

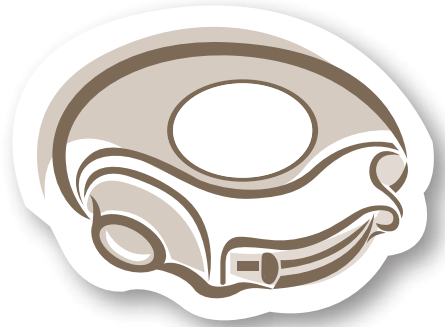


## Common Mistakes

- Not holding the inhaler upright when priming
- Covering the air inlets with lips
- Breathing in through the nose instead of the mouth
- Shaking the inhaler to see how much is left
- Storing inhaler in a damp environment with the cap off


### B Accuhaler

*Accuhaler is a breath activated device. Doses of the medicine are set into a foil strip inside the Accuhaler.*



#### Medicines available in New Zealand

Preventer

Flixotide 

Symptom Controller

Serevent 

Combination

Seretide 

#### ADVANTAGES



- No propellant
- Attached cover protects the mouthpiece
- Individually foiled doses protect medication from moisture
- Dose counter

#### DISADVANTAGES



- Taste of lactose carrier
- Unable to retrieve missed doses
- Bulky size for carrying





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## Recommended age

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- 5–7 years to adult

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## Using your inhaler

---

- Open the device by holding the outer case. Using the thumb grip, slide the cover open as far as it will go
- Face the mouthpiece towards the person using the device
- Push the lever away from the mouthpiece until you hear the ‘click’
- Sit upright, tilting the head back (as if you are sniffing – ‘sniff’ position) and breathe out gently
- Insert the mouthpiece into the mouth ensuring that your lips firmly seal the mouthpiece
- Breathe in fully, remove Accuhaler from the mouth and hold breath for 10 seconds or as long as is comfortable
- Breathe out gently through the nose
- Slide the thumb grip back over the mouthpiece
- Repeat if second dose required

*Rinse mouth and spit out or clean teeth after using a corticosteroid preventer*

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## Cleaning your inhaler

---

- Wipe the mouthpiece with a dry cloth, or clean with a tissue after use

---

## Time for a new inhaler

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- The number of doses remaining is displayed, with the last five numbers in red



## Common mistakes


- Exhaling into device
- Not 'clicking' lever after opening cover
- Breathing in through the nose instead of the mouth

### C HandiHaler

*The HandiHaler delivers the medication Spiriva which is used by people with Chronic Obstructive Pulmonary Disease (COPD).*



### Medicines available in New Zealand

Spiriva 

#### ADVANTAGES

- Able to taste, feel, hear and see that the dose has been delivered
- Can check if complete dose has been delivered.

#### DISADVANTAGES

- People with poor eyesight and/or hand coordination may find it difficult to use
- Taste of lactose carrier
- Inconvenience of having to carry separate capsules of medication



---

## Recommended age

---

Not usually used for children as HandiHaler contains medication prescribed for COPD.

---

## Technique

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- Spiriva capsules come in a blister strip. Separate blister strips to create two strips of five capsules
- Peel back the foil from one blister strip to expose one capsule
- Open the HandiHaler protective cover and mouthpiece
- Place the capsule in the centre chamber
- Close the mouthpiece firmly until a click is heard, leaving the protective cover open
- Holding the HandiHaler upright, pierce the capsule by pressing the green button in completely once
- Sit upright, tilt head back (into 'sniff' position) and breathe out gently. Do not breathe into the device. Insert the mouthpiece into the mouth ensuring that the lips are firmly sealed
- Breathe in slowly and deeply. The sound of the capsule vibrating in the chamber will be heard. Remove the HandiHaler from the mouth and hold the breath for 10 seconds or as long as possible. Breathe out gently through the nose.
- Check to see if any powder remains in the capsule. If so repeat the process from 'sit upright'
- Open the mouthpiece. Tip out and dispose of the used capsule. Close the mouthpiece and protective cover to prevent dust/dirt settling on the mouthpiece and being inhaled



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## ☼ Time to get some more Spiriva

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- Count the capsules left in the box
- Handihaler device may need to be replaced after one year. Replacement Handihalers incur a small charge

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## ☼ Cleaning your inhaler

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### *Clean once a month*

- Open the protective cap, mouthpiece and base
- Rinse whole device with warm water and air-dry thoroughly for 24 hours
- Clean outside of mouthpiece with a damp tissue when needed

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## ☼ Common Mistakes

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- Piercing capsule more than once could lead to inhaling capsule particles



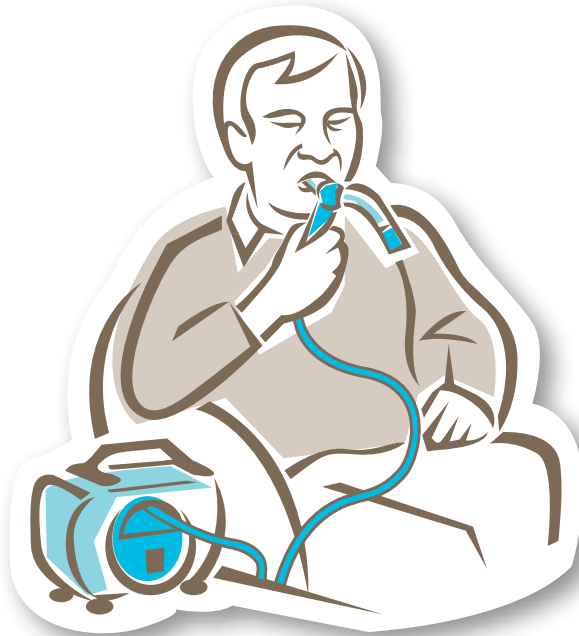


## Nebulisers

Nebulisers are an alternative way to take medicine. They produce a fine mist of the medicine, which is breathed in through a mask or mouth piece. They are either powered by an electrical air pump or oxygen. It should take ten to fifteen minutes to breathe in the dose of medication.

A nebuliser is mainly used for reliever medicine.

With so many improved inhaler devices and spacers there is now less need for nebulisers. Research proves that spacers are just as effective in acute asthma for adults and more effective for children than nebulisers.





## Which inhaler is right for me?

When asthma medicines are used correctly, they are very safe – even for small children and pregnant women. Inhaled asthma medicines are best as they work quickly and require only small amounts of drug.

Inhalers make it easy to get your medication in the right place at the right time. They are an important part of asthma care.

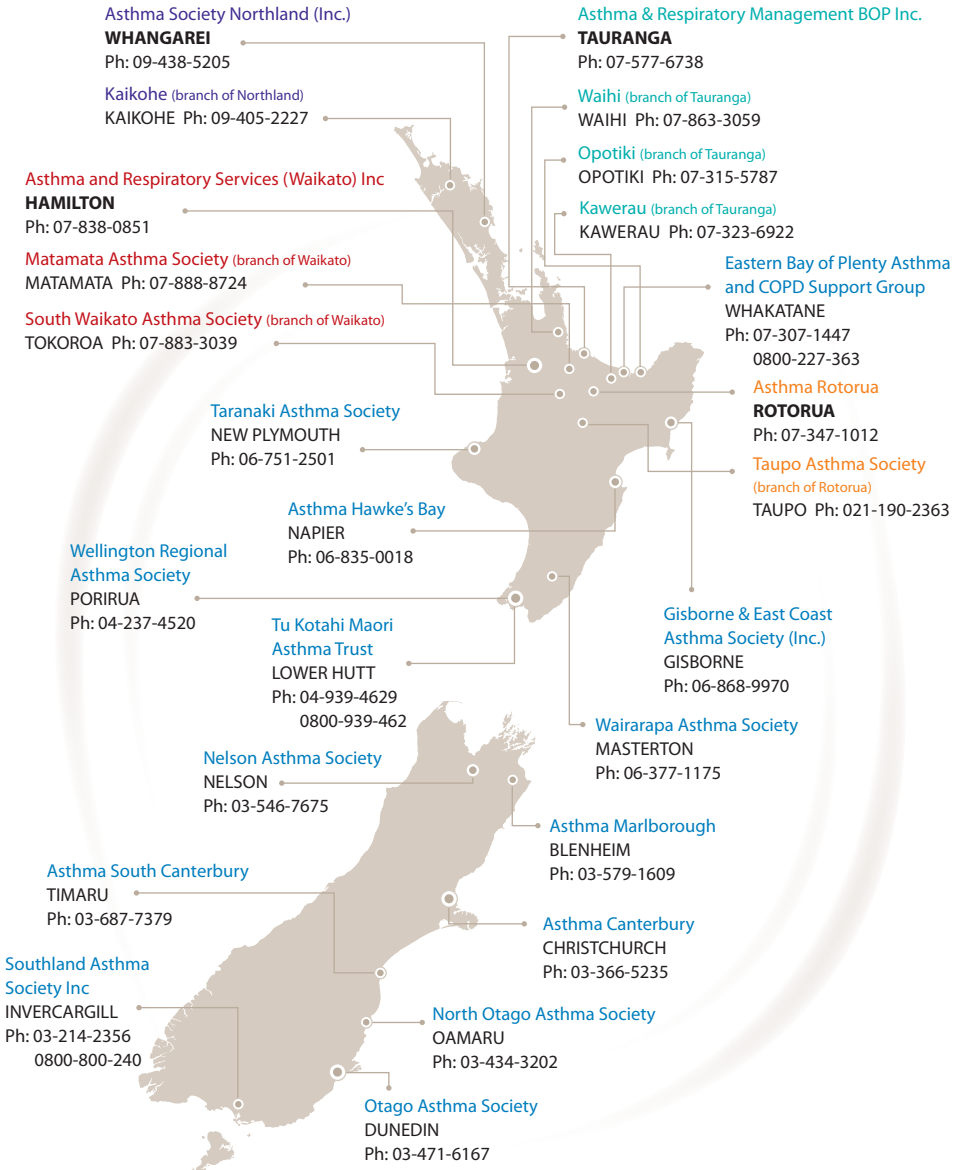
And because inhalers come in many different shapes and sizes, it's easy to find the one that suits you best.

For up-to-date respiratory information check out our website [www.asthmafoundation.org.nz](http://www.asthmafoundation.org.nz) or contact your local Asthma Society.





# Your local affiliated Asthma Societies





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Please call 0900 4 ASTHMA (0900 4 278 462) to make an automatic \$20 donation  
All donations are appreciated

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We advocate to government, fund research for better treatments and educate on best practice.