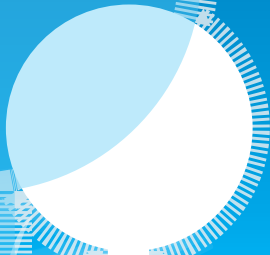


My handbook
for managing
asthma

My Asthma Guide



National Asthma
Council Australia
leading the attack against asthma

What is asthma?

Asthma is a disease of the airways – the breathing tubes that carry air into our lungs. Sometimes it is harder for a person with asthma to breathe in and out, but at other times their breathing is normal.

Asthma is a long-term (chronic) disease. Although there is currently no cure, with the right knowledge and good management, most people with asthma can lead full and active lives.

Symptoms of asthma

The most common symptoms of asthma are:

- wheezing – a continuous, high-pitched sound coming from the chest while breathing
- shortness of breath – a feeling of not being able to get enough air
- a feeling of tightness in the chest
- coughing – alongside other symptoms.

You do not need to have all of these symptoms to be diagnosed with asthma.

Noisy breathing, such as a rattling sound, is common in healthy babies and preschoolers. This is not the same as wheezing and does not mean the child has asthma.



What causes asthma symptoms?

Many people think they have asthma only when they have asthma symptoms. In fact, the airways are sensitive all the time and most people with asthma have permanently irritated (inflamed) airways when not taking regular preventer treatment. From time to time, the airways tighten or become constricted so there is less space to breathe through, leading to asthma symptoms.

Asthma causes three main changes to the airways inside the lungs, and all these can happen together:

- the thin layer of muscle within the wall of an airway can contract to make it tighter and narrower – **reliever** medicines work by relaxing these muscles in the airways
- the inside walls of the airways can become swollen, leaving less space inside – **preventer** medicines work by reducing the inflammation that causes the swelling
- mucus can block the inside of the airways – **preventer** medicines also reduce mucus.

Asthma symptoms can be triggered by different things for different people. Common triggers include colds and flu, allergies, and cigarette smoke.



Who develops asthma?

- Over 2 million Australians have asthma – about 1 in 10 adults and about 1 in 9 or 10 children.
- Asthma and allergies are closely linked. Asthma is more common in families with allergies or asthma, but not everyone with asthma has allergies.
- Adults of any age can develop asthma, even if they did not have asthma as a child.
- Some people have asthma during childhood, but later have very few or no symptoms as adults.
- Many preschool children who wheeze do not have asthma by primary school age.
- Indoor and outdoor pollution (including moulds, gases, chemicals, particles and cigarette smoke) can increase the risk of developing asthma.
- Athletes can develop asthma after very intensive training over several years, especially while breathing air that is polluted, cold or dry.

What is an asthma 'flare-up'?

An asthma flare-up is when asthma symptoms start up or get worse compared to usual. The symptoms won't go away by themselves and need treatment.

These flare-ups can happen quite quickly (e.g. if you are exposed to smoke) but they can also come on gradually over hours or days (e.g. if you get a cold).

The term 'asthma attack' is confusing because it means different things to different people

– from a bout of wheezing after running for the bus through to being admitted to hospital for asthma.

An asthma flare-up can become serious if not treated properly, even in someone whose asthma is usually mild or well controlled. A severe flare-up needs urgent treatment by a doctor or hospital emergency department.

Before you visit your doctor

- Video (or audio -record) the wheezing on your phone, if possible.
- Write down how often the symptoms happen in the day or night, and which symptoms.
- Try to remember whether symptoms change over time (during a day, week or year), and whether anything makes them worse (e.g. exercise, colds and flu, allergies).
- For children, keep a note of whether wheezing only happens over a few days from time to time (e.g. when the child has a cold) or at any time (e.g. coughing and wheezing while playing or laughing). Watch your child's chest when wheezing and tell your doctor if it looks different from breathing when there is no wheezing.



How is asthma diagnosed?



There is no single test for asthma. Doctors make the diagnosis of asthma when a person has breathing symptoms typical of asthma that come and go, and there is also evidence that sometimes air does not flow in and out of their lungs normally.

Airflow can vary in healthy people too (e.g. when someone has a cold their lungs may not work as well as usual). But people with asthma have a much bigger difference than healthy people between how their lungs work at their best and at their worst.

How well the lungs work (lung function) is tested using a spirometer machine. You blow into a tube as forcefully as you can for a few seconds. The spirometer measures the amount of air pushed through the tube, as well as lung capacity and other measurements. Most children over 6 years old can do this asthma test, but is not used for preschool children or adults with certain medical conditions.

If you or your child may have asthma, your doctor will:

- ask about the symptoms
- ask about general health, including whether you (or other family members) have allergies like eczema or hay fever
- do a physical examination (e.g. listen to the chest, check inside the nose)
- consider other possible causes of the symptoms
- arrange a spirometry test (for adults and children aged 6 years and over).

If you or your child has a cold or flu, spirometry should be repeated later when you are well.

Sometimes it is not possible to be sure whether a young child has asthma or not, until they are old enough to do the spirometry test. Wheezing and coughing are very common in little children, even if they do not have asthma. Doctors often try out an asthma medicine for a few weeks (e.g. ask you to give it just when your child has symptoms) and arrange a check-up to see how it worked.

Before making the diagnosis, your doctor may order other tests or refer you or your child to a specialist.

If you have been diagnosed with asthma in the past and you visit a new doctor, the diagnosis may need to be rechecked. This may involve changing or reducing medication for a few weeks and doing the spirometry test again.

How is asthma managed?



Medicines are essential to manage asthma well.

Good asthma care also involves treatment for other health conditions that can affect asthma. A healthy lifestyle helps people with asthma stay in control of their symptoms and feel well.

Everyone with asthma should have their own written asthma action plan to follow that includes instructions for when they are well and whenever symptoms worsen. Most adults and adolescents can monitor and manage their own asthma between visits to the doctor using their action plan. Parents of younger children can also learn how to manage their child's asthma.

The main aims of asthma treatment are to:

- keep symptoms under control
- prevent flare-ups or 'attacks'
- keep lungs as healthy as possible
- stop asthma from interfering with school or work
- help you or your child enjoy a full and active life.

Medicines should be prescribed at the lowest strength that works for you or your child – there's no extra benefit in taking medicines that are stronger than you need.

Tell your doctor what you hope to gain from the asthma treatment, and if you have any particular goals (e.g. for your child to be able to do school sport without symptoms) or concerns (e.g. risks of side-effects).

Teenagers with asthma

When health professionals talk about asthma diagnosis and management, 'child' normally means someone aged up to 12 years.

For younger adolescents, the advice for diagnosing and managing asthma in children will usually apply. By the time teenagers are around 14-16 years, the advice for diagnosing and managing asthma in adults will usually apply.

Asthma medicines

The two main types of asthma medicines are relievers and preventers. These are usually in inhalers or puffers. There is also a preventer which is a tablet, used by some people. Some other medicines (e.g. prednisone tablets) are only used for severe asthma flare-ups. There are many different medicines and brands for asthma in Australia.

Relievers for adults and children



Everyone who has asthma needs a reliever (e.g. a ‘puffer’) to use when they have asthma symptoms.

In Australia, most relievers are available from pharmacies without a prescription. Relievers should only be used when you or your child has symptoms (or if your doctor tells you to take it before exercise) and should not be over-used.

In preschool children, wheezing may not be asthma. Wheezing does not need to be treated if your child is still happy and active while wheezing and does not seem to be having any problem breathing. If it is hard for your child to breathe while wheezing (i.e. if you can see the muscles of your child’s chest and neck working harder to suck in air with each breath), you must seek medical help immediately.





What is good asthma control?

Doctors assess recent asthma control by asking about symptoms during the previous 4 weeks.

Adults and adolescents:

- activities are not limited at all by asthma
- no asthma symptoms during the night or on waking up
- daytime symptoms on no more than 2 days per week
- need to take the reliever on no more than 2 days per week (not counting reliever taken before exercise)
- any symptoms go away quickly after using the reliever puffer.

Children:

- fully active and can run, play and laugh without asthma symptoms
- no asthma symptoms during the night (including coughing during sleep) or on waking up
- daytime symptoms on no more than 2 days per week
- need to take the reliever on no more than 2 days per week (not counting reliever taken before exercise)
- any symptoms go away quickly after using the reliever puffer.





Preventers for adults and adolescents

Most adults with asthma need to take a low dose of an 'inhaled corticosteroid' preventer medicine every day, as well as taking their reliever when they have symptoms.

An inhaled corticosteroid medicine is usually prescribed for an adult who:

- has had asthma symptoms twice or more in the past month, or
- is sometimes woken by asthma symptoms, or
- has had a flare-up severe enough to need an urgent visit to their GP or hospital emergency department within the previous 12 months.

Inhaled corticosteroids include several different medicines and brands. This type of preventer medicine reduces inflammation in the airways and reduces a person's risk of a severe asthma flare-up. Most adults can achieve good control of asthma symptoms with a low dose.

Preventers sometimes include a second medicine as well as the inhaled corticosteroid. These are called 'combination' therapies.

If you have been prescribed a preventer, you should take it every day even when you have no symptoms and also during colds and asthma flare-ups.

Keep taking it unless your doctor decides it is safe to stop. You should not change the treatment without talking to your doctor, unless your asthma action plan tells you what to do.

Preventers for children

Some children with asthma need to take regular preventer treatment every day, as well as taking their reliever when they have symptoms.

Children aged 6 years and over may need regular preventer treatment if they need to take their reliever more than twice a week. Also, if they have flare-ups more often than every six weeks. The best type of medicine depends on their symptoms and age. If your child has been prescribed a preventer, you should make sure they take it every day (even during colds and asthma flare-ups) and keep taking it unless your doctor decides it is safe to stop.

Most preschool children do not need preventer treatment. Your child may need preventer treatment if wheezing occurs often and it is hard work to breathe when wheezing (e.g. your child's chest sucks in while breathing in), if wheezing is severe enough to interrupt eating, play, exercise or sleep, or if your child has been hospitalised because of breathing problems.

Parents should not change their child's treatment without talking to their doctor.

Side-effects

All medicines including complementary therapies have possible side-effects. Most asthma medicines have been taken over many years by a large number of children and adults around the world, so there is reliable information about possible side-effects. Ask your doctor or pharmacist about possible side-effects and what you can do to avoid them.

The most common side-effects of inhaled corticosteroid medicines are hoarseness of the voice and fungal throat infections. The risk can be reduced by taking the medicine using a spacer (a specially designed plastic container that attaches to the puffer), and by rinsing the mouth with water after using the puffer.

The risk of more serious side-effects with low doses of inhaled corticosteroids is very small. Taking high doses over months or years carries a higher risk of side-effects, but most adults and children do not need high doses and this sort of treatment is not usually recommended.



Taking medicines correctly

Most asthma medicines are inhaled through the mouth using a handheld device called an inhaler or puffer. Different types of devices are available. The best choice for an individual depends on the medicines they need and on the person's age, how well their lungs are working, and which devices they find easiest to use properly.

Using the right devices and technique

All adults and children need careful training from a doctor, nurse, asthma educator or pharmacist to use inhaled medicines correctly. Proper use of inhalers helps medicines work properly and can reduce the risk of side-effects. The instructions are different for each type of inhaler device.

Some medicines can be taken directly from the inhaler device, and others should be taken through a spacer (a specially designed container that attaches to a puffer and has its own mouthpiece to breathe through). Using a spacer helps increase the amount of the medicine that reaches the small airways in the lungs, compared with using a puffer on its own.

Most children aged 4 years and over can use a small spacer with a puffer. Babies and young children may need special face mask that attaches to the spacer to inhale asthma medicines.

Face masks must fit tightly around the child's mouth and nose to make sure none of the medicine leaks out.

Spacers and face masks are available from pharmacies. Your pharmacist can help you choose which type would best suit you or your child and then show you how to use it.

People who take preventers that contain inhaled corticosteroids should rinse their mouth with water and spit after each dose, if possible.

Using spacers

Fire one puff of the medicine into the spacer, breathe in slowly and deeply, then hold your breath for about 10 seconds or as long as comfortable. Young children should breathe in and out normally for 4 breaths, before the next puff is fired into the spacer.

New plastic spacers must be washed in liquid dishwashing detergent and air-dried without rinsing (not dried with paper or a tea towel) before they are used for the first time. Otherwise they will not work properly because electrostatic charge ('static') will make the medicine mist stick to the walls instead of being breathed in.

More Info!

Visit nationalasthma.org.au for videos and instructions on how to use inhalers, puffers and spacers.



Adjusting treatment

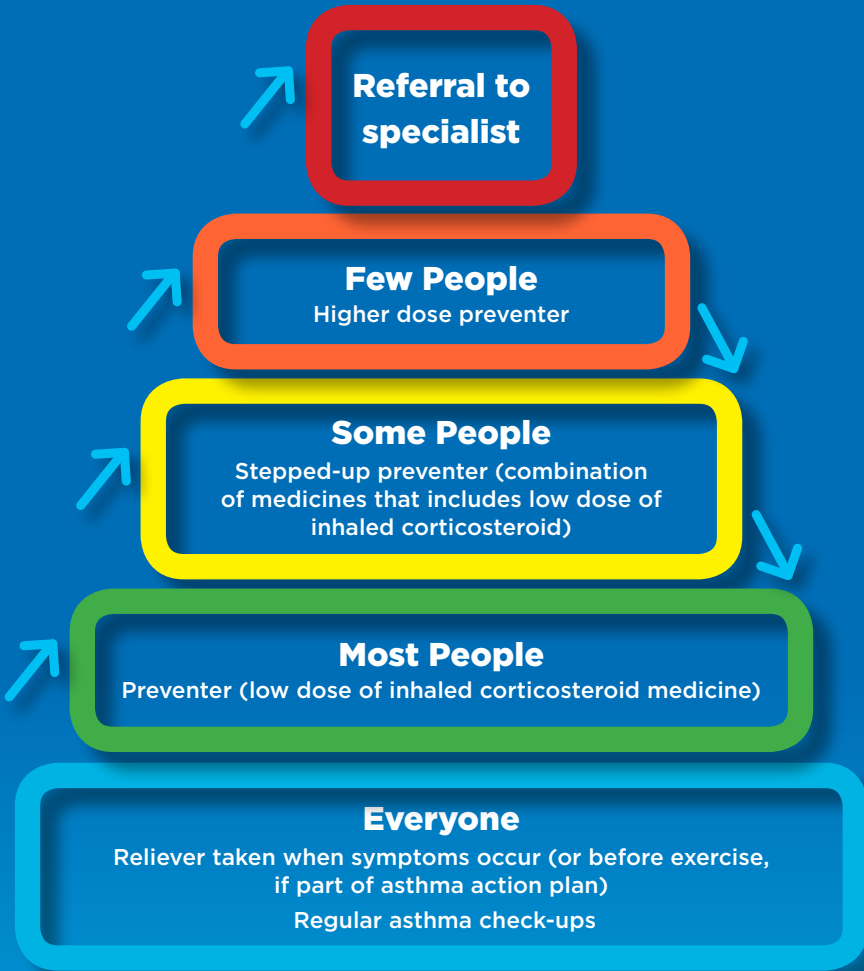
Each person's asthma medicines may be adjusted up and down if necessary to achieve the best possible control of symptoms and avoid flare-ups. The aim is to use the lowest doses that control symptoms. This means that you or your child needs regular check-ups to assess asthma - not just a visit to the doctor during asthma symptoms.

Adults should plan an asthma check-up every 6 or 12 months (even if your asthma symptoms are well controlled). You also need a check-up soon after a flare-up, and about 1-3 months after beginning preventer treatment or adjusting the dose. Pregnant women with asthma should ask their doctor to check their asthma every 4-6 weeks.

Children with asthma that is well controlled need an asthma check-up every 3-6 months. Your child also needs a check-up soon after a flare-up, and about 4 weeks after changing treatment or adjusting the dose.

At each visit, your doctor will ask about symptoms during the previous month. If your asthma symptoms are causing problems, your doctor may increase your treatment. This could be an increase in the number of doses each day, a change to a stronger dose, or adding a second medicine (another inhaler or tablets).

How asthma medicines are adjusted in adults

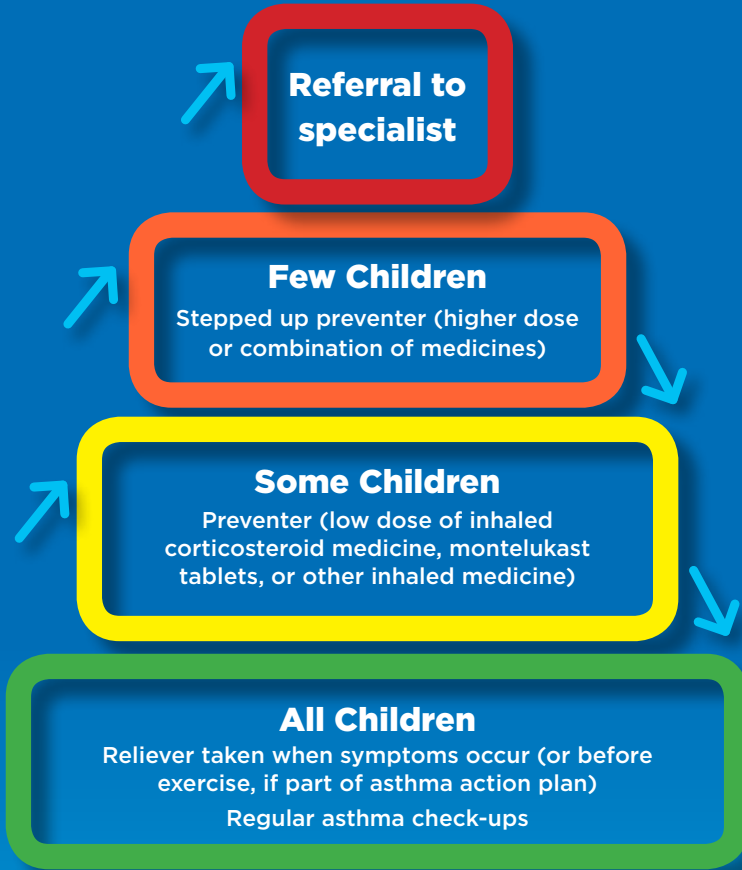


Most adults with asthma need to take a low dose of regular preventer treatment every day. Your doctor may adjust your treatment up and down if necessary at each check-up. Other medicines may be added. High doses are sometimes needed for a few weeks or months, but people who need high doses for longer may need to see a specialist.

Before increasing your dose or changing the medicine, your doctor will check that you are taking the medicine correctly and make sure your symptoms are not caused by any other condition.



How asthma medicines are adjusted in children



Most children with asthma do not need regular preventer treatment. If a child does need preventer treatment each day, only low doses are usually needed. The child's doctor may adjust treatment up and down if necessary at each check-up. Other medicines may be added. High doses are sometimes needed for a few weeks, but children who need high doses for longer should see a specialist.

Before increasing the dose or changing the medicine, the doctor will check that the child is taking the medicine correctly and make sure symptoms are not caused by any other condition.

Your doctor should also check that you are using your inhaler correctly.

If your asthma has been very well controlled for at least 3 months, your doctor may suggest that you try decreasing your treatment. Your doctor will work out the safest way to do this with you. It's usually best not to try reducing treatment when you are about to go on holidays or travel, during a cold or flu, or if you are pregnant.

A spirometry test is usually also needed for adults and children old enough to do the test. Your doctor or nurse may do the test, or arrange for it to be done at a testing centre.

Adults should stop if they become dizzy during the test, and should not do the test if they have another health condition that could cause harm (e.g. heart attack or angina, aneurysm, recent surgery, fractured ribs or other serious conditions).

Your doctor may ask you how often you or your child really take the prescribed asthma medicines. Do not be offended – most people miss doses sometimes. It is very important for your doctor to know what someone is actually taking before they work out whether it is the right medicine and the right dose.

Asthma action plans

Every adult and child with asthma should have their own, personalised, written asthma action plan prepared with their doctor that includes:

- a list of the person's usual asthma medicines, including doses
- instructions on what to do when asthma is getting worse (including when to take extra doses or extra medicines, and when to contact a doctor or go to the emergency department)
- what to do in an asthma emergency
- name of the person preparing the plan
- the date.

Written asthma action plans should be checked and updated at least once a year for adults and once every 6 months for children. Bring your action plan or your child's action plan to every visit to your doctor.

More Info!

See Asthma action plan templates designed for adults and children, and the Asthma Buddy action plan smartphone app.





What you need to know about asthma care

- Everyone with asthma needs their own reliever puffer with them at all times. Young children's parents, carers and teachers need to know when and how to give the medicine.
- If symptoms do not improve, tell your doctor.
- Taking reliever medicine often means asthma is not well controlled, and the person may be at risk of serious flare-ups. People who need to take their reliever more than twice a week for asthma symptoms need a check-up.
- Children and adults need training to use inhalers correctly. Ask your doctor, nurse or pharmacist to check that you are taking the medicine properly. When you visit your doctor for asthma rechecks, tell your doctor if you are having any problems using an inhaler or if you are not sure your technique is correct.
- Ask your doctor about possible side-effects of all your medicines. If you have any concerns, tell your doctor or pharmacist and ask for more information.
- If you take regular preventer medicine, never change the dose without talking to your doctor first (unless your written asthma action plan tells you when and how to alter your treatment).



Living well with asthma

Asthma and allergies

Asthma and allergies are closely linked. Most people with asthma have allergic asthma.

Allergy testing is not essential to diagnose suspected asthma, but your doctor may suggest it. Testing can help identify whether you need to think about managing your allergies as part of managing your asthma. It may also be useful in working out whether a young child with wheeze will have asthma when they get older.

As well as following the normal steps for good asthma care, managing allergic asthma involves:

- treating hay fever, if you have it
- knowing which allergic triggers affect your asthma (e.g. dust mites, pets, pollen, moulds)
- avoiding the relevant allergic triggers, where practical and potentially effective.

Asthma and pregnancy

It is especially important to manage your asthma carefully during pregnancy, because you are breathing for two. Keep taking your asthma medicines as usual, and talk to your doctor as early as possible about your asthma care during pregnancy.

What else you can do to manage asthma

Tell your child's day care, preschool, school or sporting club that your child has asthma, and give them a copy of the written asthma action plan.

Tell your doctor if allergies are bothering you or your child and make sure you get effective treatment.

Live smoke-free. Don't smoke, and avoid other people's cigarette smoke (even outdoors). Smoking and asthma is a dangerous combination for adults and children.

Eat well. Aim for plenty of fruit and vegetables every day, eat fish often, and limit foods high in saturated fat (e.g. fast foods).

Being overweight may make asthma harder to manage. Losing even a small amount of weight could really improve asthma.

Keep flu shots up to date.

Look after your mental health. Tell to your doctor if you have been feeling down, anxious, or aren't enjoying those things you normally do enjoy. Your mental health can affect your asthma, and asthma may affect your mental health.



Asthma and exercise

Asthma symptoms after physical activity are common but can be prevented. The symptoms are usually worst 5 to 10 minutes after stopping exercise, not during the exercise. If exercise causes asthma symptoms, tell your doctor so you can get effective treatment.

Don't let your asthma stop you or your child being physically active.

If you can, get involved in structured exercise training. People with asthma who participate in this sort of training feel better. Swimming is popular for children with asthma, but doing other regular sports or activities is just as good.



Tips for getting active with asthma

- Do a proper warm-up before exercising.
- Get as fit as possible – the fitter you are, the more you can exercise before asthma symptoms start.
- Avoid exercising where there are high levels of pollens, dust, fumes or pollution.
- Exercise in a place that is warm and humid – avoid cold, dry air if possible.
- Try to breathe through your nose (not your mouth) when you exercise – this makes the air warm and moist when it reaches your lungs.

Asthma emergencies

When asthma symptoms are not relieved straight away by taking reliever medicine, or symptoms come back within a short time, the person needs immediate help.

It is an emergency if an adult or child has any of these danger signs:

- severe breathing problems
- symptoms get worse very quickly
- reliever has little or no effect
- difficulty saying sentences
- blue lips
- drowsiness.

Call an ambulance (dial 000) and start asthma first aid.

Questions to ask your health professional

Make sure you can answer all these questions about your asthma or your child's asthma. If you're not sure, ask your doctor, nurse or pharmacist.

- Is the asthma action plan up to date?
- When should each asthma medicine be used (and how much)?
- Am I (or is my child) using the inhaler the correct way to get the most benefit from the medicine?
- What are the possible side-effects of the medicines?
- How should I keep track of asthma symptoms?
- What more can I do to avoid asthma symptoms or flare-ups?
- What should I do if asthma symptoms get worse?
- Are prescriptions up to date for any medicines I may need?
- What should I do in an asthma emergency?
- When is the next asthma check-up?
- What information should I give day care/preschool/school/other organisations about my child's asthma?

First Aid for Asthma

1

Sit the person comfortably upright.

Be calm and reassuring.
Don't leave the person alone.

2

Give 4 puffs of a blue/grey reliever (e.g. Ventolin, Asmol or Airomir)

Use a spacer, if available.
Give 1 puff at a time with 4 breaths after each puff
Use the person's own inhaler if possible.
If not, use first aid kit inhaler or borrow one.

3

Wait 4 minutes.

If the person still cannot breathe normally, **give 4 more puffs.**

4

If the person still cannot breathe normally, **CALL AN AMBULANCE IMMEDIATELY (DIAL 000)**

Say that someone is having an asthma attack.

Keep giving reliever.

Give 4 puffs every 4 minutes until the ambulance arrives.

Children: 4 puffs each time is a safe dose.
Adults: For a severe attack you can give up to 6–8 puffs every 4 minutes

OR

Give 2 separate doses of a Bricanyl or Symbicort inhaler

If a puff is not available, you can use Symbicort (people over 12) or Bricanyl, even if the person does not normally use these.

Wait 4 minutes.

If the person still cannot breathe normally, **give 1 more dose.**

If the person still cannot breathe normally, **CALL AN AMBULANCE IMMEDIATELY (DIAL 000)** Say that someone is having an asthma attack.

Keep giving reliever while waiting for the ambulance:

For Bricanyl, give 1 dose every 4 minutes

For Symbicort, give 1 dose every 4 minutes (up to 3 more doses)

HOW TO USE INHALER

WITH SPACER



- Assemble spacer
- Remove puffer cap and shake well
- Insert puffer upright into spacer
- Place mouthpiece between teeth and seal lips around it
- Press once firmly on puffer to fire one puff into spacer
- Take 4 breaths in and out of spacer
- Slip spacer out of mouth
- Repeat 1 puff at a time until 4 puffs taken – remember to shake the puffer before each puff
- Replace cap

WITHOUT SPACER



- Remove cap and shake well
- Breathe out away from puffer
- Place mouthpiece between teeth and seal lips around it
- Press once firmly on puffer while breathing in slowly and deeply
- Slip puffer out of mouth
- Hold breath for 4 seconds or as long as comfortable
- Breathe out slowly away from puffer
- Repeat 1 puff at a time until 4 puffs taken – remember to shake the puffer before each puff
- Replace cap

BRICANYL OR SYMBICORT



- Unscrew cover and remove
- Hold inhaler upright and twist grip around and then back
- Breathe out away from inhaler
- Place mouthpiece between teeth and seal lips around it
- Breathe in forcefully and deeply
- Slip inhaler out of mouth
- Breathe out slowly away from inhaler
- Repeat to take a second dose – remember to twist the grip both ways to reload before each dose
- Replace cover

Not Sure if it's Asthma?

CALL AMBULANCE IMMEDIATELY (DIAL 000)

If a person stays conscious and their main problem seems to be breathing, follow the asthma first aid steps. Asthma reliever medicine is unlikely to harm them even if they do not have asthma.

Severe Allergic Reactions

CALL AMBULANCE IMMEDIATELY (DIAL 000)

Follow the person's Action Plan for Anaphylaxis if available. If the person has known severe allergies and seems to be having a severe allergic reaction, use their adrenaline autoinjector (e.g. EpiPen, Anapen) before giving asthma reliever medicine.

For more information on asthma visit:
Asthma Foundations – www.asthmaaustralia.org.au
National Asthma Council Australia – www.nationalasthma.org.au

National Asthma Council Australia
Leading the attack against asthma

Further information

- Talk to your doctor, nurse or pharmacist
- Visit the National Asthma Council Australia website at **nationalasthma.org.au**
- Contact your local Asthma Foundation **1800 278 462** or **asthmaustralia.org.au**

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Although all care has been taken, this publication is only a general guide; it is not a substitute for individual medical advice and or treatment. The National Asthma Council Australia expressly disclaims all responsibility (including negligence) for any loss, damage or personal injury resulting from reliance on the information contained.

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