

Asthma

— TAKE CONTROL —

Learn More
Breathe Better!



Open
Airways

Helping Bermuda Breathe

www.openairways.com

Introduction

Did you know? In Bermuda approximately 9,000 people have asthma, including 1 in 5 children.

We hope that after reading this booklet you will understand the basics of asthma, feel reassured about your condition and know where to go for additional help.

If you have any further questions about asthma after reading this booklet, visit Open Airways on line at www.openairways.com, see your doctor and make an appointment with a specialized asthma nurse. (see p 17)

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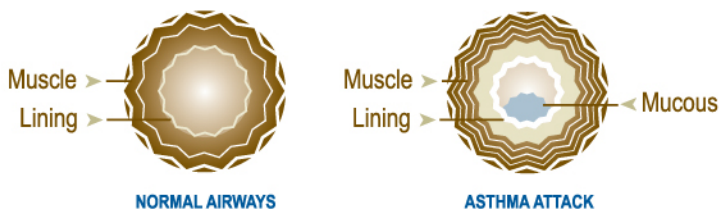
What is Asthma?

Asthma is a condition that affects the airways - the small tubes that carry air in and out of the lungs.

If you have asthma your airways are extra **sensitive**. When you come into contact with something you are allergic to, or something that irritates your airways (a trigger), your airways will become narrower, making it harder to breathe.

The muscles around the airways tighten. The lining becomes inflamed and swollen. Sticky mucous is often produced.

ILLUSTRATION SHOWING NORMAL AIRWAYS AND AIRWAYS DURING AN ASTHMA ATTACK



In an **asthma attack**, the airway lining starts to swell, the muscles tighten and mucous is secreted.

What are the symptoms of asthma?

- Coughing
- Wheezing
- Shortness of breath
- Tightness in the chest

Not everyone will get all of these symptoms. Asthma varies from day to day, person to person and may come and go throughout your life.

**REMEMBER... ASTHMA IS TREATABLE.
NO ONE NEEDS TO SUFFER WITH ASTHMA.**

What is Allergic Rhinitis?

Allergic Rhinitis, sinus allergies or ‘asthma of the nose’, as it is sometimes called, is very common and left untreated makes you feel tired, exhausted and sometimes it is difficult to concentrate.

Allergic Rhinitis should be treated every day during the season when you have symptoms and year round if necessary.

Treatment options

Antihistamines

Claritin is safe and effective and lasts 24 hours.

It is available without a prescription and does not make you feel drowsy. Claritin D also has a decongestant and may help until you get your rhinitis well controlled.

Zyrtec – On prescription in Bermuda is safe and effective and lasts 24 hours. It is not supposed to make you feel drowsy however, some people do complain of drowsiness while taking it.

Phenergan, Benadryl and Piriton are all non prescription antihistamines. Will make you drowsy so should only be taken at night.

Other treatment options

Singulair once a day prescription treatment.

Unfortunately not effective for everyone.

Nasal sprays (on prescription) to **prevent Rhinitis**

Avamys, Flixonase, Nasocort and Rhinocort are available in Bermuda. A safe topical steroid **must be used every day during the season when you have symptoms.**

MANY PEOPLE WITH ALLERGIC RHINITIS DEVELOP ASTHMA AT SOME TIME DURING THEIR LIFE.



Why did I get asthma?

Asthma can start at any age. Some people get symptoms during childhood, which then disappear. Others develop 'late-onset' asthma in adulthood, without ever having had symptoms as a child.

It is difficult to say for sure what causes asthma.

What we do know is that:

- you are more likely to develop asthma if you have a family history of asthma, eczema or allergies.
- many aspects of modern lifestyles – such as changes in housing and diet and a more hygienic environment – may have contributed to the rise in asthma over the last few decades.
- smoking during pregnancy increases the chance of a child developing asthma symptoms.



Is your asthma well controlled?

- YES** **NO** Do you have asthma symptoms more than twice a week? (cough, wheeze, tight chest)
- YES** **NO** Do you use your 'reliever' (blue inhaler) more than twice a week?
- YES** **NO** Do you ever wake at night with asthma?
- YES** **NO** Do you ever have to restrict activities due to asthma?

If the answer is YES to any of these questions, get asthma education – See your doctor • Talk to your pharmacist or call Asthma nurses listed on page 17.

Take control of your asthma

GET AN ACTION PLAN – TAKE YOUR CONTROLLER – AVOID YOUR TRIGGERS – LEAD A FULL, ACTIVE, UNRESTRICTED LIFE:

- No coughing, wheezing, tight chest or shortness of breath.
- No waking at night.
- No time off school or work.
- No more visits to the Emergency Room.
- No admissions to hospital.
- Huge savings in healthcare.



Asthma triggers

An asthma trigger is anything that irritates your **sensitive** airways and may cause asthma symptoms. It is impossible to avoid all your triggers, avoiding as many as possible will help you control your asthma.

Common triggers include:

- Viral infections (colds or flu)
Pre-school children may get 10 colds a year each lasting 2 weeks!
- Allergens such as pollen, grasses, animal dander, house dust mites, molds and cockroaches.
- Smoke
- Irritants – household sprays & chemicals, plug in air fresheners, perfume, paint & varnishes.
- Air pollution – particularly diesel fumes
- Exercise
- Emotion
- The weather

Avoid asthma triggers



➤ **Do not** use household sprays or aerosols – clean without chemicals using microfiber cloths, a steam cleaner or damp mop and a vacuum with a HEPA filter.

➤ **Do not** use plug-in air fresheners or sprays.

➤ **Do** open windows every day.

➤ **Do** have houseplants (*without pollen*) to freshen the air.

➤ **Do not** bring Easter lilies into your home.

➤ **Do not** walk along busy roads, walk in the parks, on the trails and beaches.

➤ **Do not** allow smoking in your home.

➤ **Do not** encourage your child to have too many stuffed toys, place in freezer weekly for 6 hours to kill the dust mites.

➤ **Do not** have carpets in your home; wood or tile floors are much better.

➤ **Do not** have pets in the bedroom.

➤ If your home is very damp with visible mold or you have a pet, buy a good quality air-purifier but not an ionizer, which may make your asthma worse!

➤ **Do** buy a new pillow every year.

➤ Wash bed linen weekly in hot water.

➤ Allow your bed to air before making it. Turn your mattress every month.

➤ **Do not** use perfume; use soap, shower gel or body lotion.

➤ Eat a healthy diet and exercise regularly.

➤ Swimming is really good for your airways.

➤ Playing a wind instrument such as a trumpet is also very good for the airways.

➤ **Do** deep breathing exercises – join a Yoga class.





Controllers/Preventers

- Flixotide, Beclomethasone (Becotide and Qvar)
- *usually orange or brown inhalers.*

Controller inhalers stop your airways from being so **sensitive**, they may take 7 to 10 days to be effective.

The protective effect builds up over several weeks,

IT IS IMPORTANT THAT YOU TAKE YOUR CONTROLLER EVERY DAY TO KEEP YOUR ASTHMA AWAY!

Controller inhalers usually contain low dose corticosteroids (a copy of the steroids naturally produced by the body).

These steroids are very safe, not addictive and are completely different from the anabolic steroids associated with athletes.

Side effects – controllers bring a small risk of a hoarse voice and thrush in the mouth. This can be prevented by using a spacer device, brushing your teeth, rinsing your mouth and having a drink of water after use.

Controller tablets (anti leukotrienes)

Singulair – Once a day therapy now available from 6 months in sprinkles, which may be added to applesauce or chewable tablets from 2 years. These are not steroids and may also help your allergies! *Unfortunately they do not help everyone.*

Combination medications combine the controller and long acting reliever inhalers and are easy to use. They must be taken every day to keep your asthma away!

Symbicort available in a red & white turbuhaler. Doses can be stepped up or down according to symptoms as directed by your doctor. Also available in a red inhaler – **Vannair**

Seretide (Advair in the US) – Available in a purple inhaler and a diskus. *Never exceed the recommended dose.*

Dulera – available in a blue inhaler. **NOT to be used as a quick reliever.** *Never exceed the recommended dose.*

Asthma treatments are safe and effective. There are two main kinds of asthma treatments: – **CONTROLLERS & RELIEVERS**

Relievers/Rescue – Ventolin and Airomir – *usually blue inhalers.*

Quick reliever inhalers are taken to relieve asthma symptoms (cough, wheeze & tight chest). They quickly relax the muscles surrounding the narrowed airways (within 5 –10 minutes), making it easier to breathe again.

If you need your *reliever inhaler* more than twice a week, talk to your doctor – you may need a controller inhaler. This is because *reliever inhalers* do not reduce the swelling in your airways.

Side effects – relievers have few side effects. High doses can slightly increase your heartbeat or give you a mild tremor. These effects are harmless and generally wear off after a short period of time.

Steroids (Prednisone tablets or Orapred liquid for young children). A short course of oral steroids is given for an acute asthma episode to help gain control of asthma symptoms.

Complementary Therapies may be taken alongside existing medicines, not as an alternative to your prescribed treatment.

Allergy Testing

Your doctor can order an Allergy blood test after the age of 3 years and skin prick testing is available at The Allergy Clinic of Bermuda. Allergy testing may help you to make decisions about avoiding your triggers such as removing carpets, keeping pets out of the bedroom or avoiding certain foods. However, remember you will never be able to avoid all your triggers! **See your doctor at least once a year to make sure you have the very best treatments.**

The Goal is Control!

Asthma in the Under 5's

Asthma symptoms (cough, wheeze and a tight chest) are difficult to treat in children under 5 years. Their airways are tiny and giving inhalers is difficult.

Almost half of all young children under 5 will cough and wheeze at some time, usually when they have a cold or viral infection and many will be prescribed inhalers.

Which children are more likely to be diagnosed with asthma?

Children with a family history of:

- Asthma or allergies
- Eczema
- Food allergies

Premature babies are more likely to cough and wheeze with viral infections in the first few years, but will only continue with asthma symptoms after the age of 5 if they have – a family history of asthma or allergies, eczema or food allergies.

Children exposed to cigarette smoke, even before they are born, are more likely to cough and wheeze and be admitted to hospital with breathing difficulties in the first 5 years.

Triggers – the most common trigger in children under the age of 5 is colds & viral infections. Children in daycare or nursery may get 10 colds a year, therefore those children with asthma symptoms must be treated.

(See page 7 for trigger avoidance).

Medications – Step 1:

Quick reliever inhaler - **Ventolin or Airomir (usually blue).**

- 2 puffs given for cough or wheeze as prescribed.

NEVER LEAVE HOME WITHOUT IT!



Step 2: If symptoms persist a *controller* medication may be prescribed. Either – **Singular** (once daily from 6 months given as sprinkles in applesauce & chewable tablets from the age of 2 years). **OR**, a *controller* inhaler **Flixotide** (orange) or **Beclomethasone (Becotide) usually brown** – (given every morning and evening even when your child is well). ***This takes 7 to 10 days to be effective.***

Steroids – a short course of Orapred may be prescribed for acute asthma episodes.

Spacers – help the medicine get in the airways.
(See page 12 & 13 for further information).

As soon as children can learn to use the Able spacer with a mouthpiece the better. Medications then reach the small airways and asthma will become easier to control. ***See an asthma nurse to learn how to use spacers effectively.***

What else can I do to help?

Encourage a good diet with plenty of fruits and vegetables.
Have plenty of physical activity to help the lungs develop.

How do I take my treatment?



Inhalers

Inhalers are not easy to use; coordinating your breathing to ensure that the medication reaches your small airways is tricky. We recommend that everyone, regardless of their age use a spacer device when using an inhaler.



Aerochamber with mask

These are only used for babies and toddlers until the age of 3 or 4 years. Studies demonstrate that only 3% of the medication reaches the small airways so good technique is of utmost importance if medications are to be effective. As soon as your toddler can master the Able spacer with a mouthpiece the better.

- Remove the cap from the inhaler and shake.
- Insert the inhaler in the end of the spacer.
- Put the mask on the face covering the nose and mouth ensuring there is a good seal.
- Press the inhaler once at the beginning of a slow inhalation to release one puff of medication, now count while your child takes 5 breaths in and out keeping a good seal with the mouthpiece on the face.
- Repeat for *second* puff.
- Smile, do not look anxious, encourage your baby or toddler. Clap at the end and praise.
- Wash face and have a drink after using the preventer inhaler.

To clean, wash in warm soapy water once a month, do not rinse or towel dry. Drip dry. Store in a zip lock bag as mold grows on the mask in Bermuda.



Able spacer

Most people from the age of 3 years to 100 years can use an Able spacer. They are easy to use, easy to clean and you can store your inhaler inside. They do not grow molds even in Bermuda!

- Remove cap and shake inhaler, place in the end of the Able spacer.
- Stand up (if possible), relax shoulders and chin up.
- Place mouthpiece well into your mouth, seal lips around.
- Breathe out into the mouthpiece.
- Put one (1) puff into the spacer.
- Take four (4) slow deep breaths in and out, keeping the mouthpiece in your mouth.
- Repeat for second puff.

After using a controller inhaler, rinse your mouth, brush your teeth and have a drink.

To clean once a month, open spacer and wash in warm soapy water, do not rinse or towel dry. Leave to drip dry.

Practice using the Able spacer without an inhaler. Remove the mouthpiece and stand in front of a mirror to see if the valves open effectively.



Turbuhaler

- Unscrew and lift off cover.
- Hold turbuhaler upright and twist anticlockwise and then clockwise until you hear a click.
- Breathe out gently but not into the turbuhaler.
- Put the turbuhaler mouthpiece between your lips and teeth and hold horizontally and breathe in as deeply as possible.
- There may be no taste and no sensation.
- Remove the turbuhaler from your mouth and hold your breath for 10 seconds.
- Repeat if second dose is needed.

After using, rinse your mouth, brush your teeth and have a drink. A red line appears in the window on the side of the turbuhaler when there are 20 doses left. This is the time to make sure you have a replacement. When the whole window is red the turbuhaler is empty.



Store in a cool **dry** place.

Diskus

- Open the diskus by holding in one hand; now push the thumbgrip away until a click is heard.
- Hold the diskus with the mouthpiece towards you (as if you are eating a hamburger!); slide the lever until it clicks. This releases one dose.
- Breathe out away from the diskus then seal lips around mouthpiece and take a deep breath in.
- Remove the diskus from your mouth and hold your breath for 10 seconds.

To close, slide the thumbgrip back towards you as far as it will go until it clicks. After using, rinse your mouth, brush your teeth and have a drink. Store in a cool **dry** place.

The dose counter counts down from 60 to 0.

The last five numbers are in red.



Nebulizers

Many people still believe that nebulizers (a small machine which creates a mist and delivers large doses of medicine through a mask or mouthpiece) are the only solution when asthma gets worse. Studies have shown that taking a reliever through a spacer is at least as effective. Spacers are more convenient, portable and cost effective and can lead to fewer side effects.

Nebulizers should only be used for asthma to give high doses of medications in an emergency medical facility where physicians are available to monitor the acute episode.

Nebulizers are not recommended for the majority of people with asthma at home. Remember an asthma attack means that asthma management has failed.

IN BERMUDA...

**SINCE OPEN AIRWAYS BEGAN ITS ISLAND-WIDE
ASTHMA EDUCATION PROGRAM...**

*Asthma admissions to
hospital have fallen by
a staggering 73%*

THE GOAL IS CONTROL!

What to do in an asthma attack



Sometimes, no matter how careful you are about taking your asthma medicines and avoiding your triggers, you may find that you have an asthma attack often associated with a viral infection or flu.

Remember children under 2 yrs are difficult to treat as airways are very small and medications are difficult to give effectively.

Signs of an asthma attack –

- Coughing incessantly, quick reliever inhaler not helpful.
- Wheezing.
- Short of breath.
- Tight Chest.

Severe attack –

- Distressed.
- Lips and finger tips turning blue.
- Can't speak in sentences.

GO TO EMERGENCY NOW!

What to do in an asthma attack –

- Take your reliever (**usually**) blue [Ventolin/Airomir] inhaler immediately.
- Sit down and loosen tight clothing around the neck.
- If no improvement, take one puff of the (blue) quick reliever inhaler every few minutes or until symptoms improve.
- If symptoms **do not** improve, or if you are in doubt – **call your doctor or go to the Emergency Department immediately.**
- Continue to take reliever (blue) inhaler on the way to hospital. **Combination and Preventer/Controller inhalers will *not* help in an asthma attack.**

Where can I get help?

Go to www.openairways.com

See your doctor every year to review your medications as new treatments are available all the time.

See an asthma nurse to get a personal *Asthma Action Plan*.

Learn how to manage your asthma – take control
– **no one need suffer with asthma.**

**AN HOUR OF YOUR LIFE MAY CHANGE YOUR LIFE,
IT MAY EVEN SAVE IT!**

Who to Call?

- KEMH Asthma Education Centre
– Debbie Barboza: **239-1652**
or e-mail, asthma.centre@bhb.bm
- Open Airways – Liz Boden: **232-0264**
or e-mail, lizboden@openairways.com
- The Department of Health
School Asthma Nurse – Jennifer Wilson: **332-8915**
or e-mail, jdwilson@gov.bm

There are also many asthma educators working in The Department of Health clinics, in the community, in the schools, prisons, doctor's offices, pharmacies as well as all departments of KEMH.

Get a personal
Asthma Action Plan

OPEN AIRWAYS...

is a small registered charity, dedicated to improving the health and well-being of more than 9000 people in Bermuda whose lives are affected by asthma and other long-term breathing difficulties.

Open Airways provides specialist asthma education for health care professionals, and educates the community & individuals to help them take control of their long term condition.

Open Airways provides basic equipment to everyone with asthma and C.O.P.D. and distributes booklets, flyers, leaflets and posters throughout the island.

Donate now – If you would like to support Open Airways go to:
www.openairways.com

Donations may be made on line or cheques mailed to:
P.O. Box HM 1164 Hamilton HM EX

Open Airways is passionate about *Helping Bermuda Breathe.*

Asthma is:
Common, Disabling, Distressing,
Misunderstood, Life-threatening, Treatable!

*Since we began our island-wide asthma education programme,
hospital asthma admissions have been reduced by 73%*

THE GOAL IS CONTROL!

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