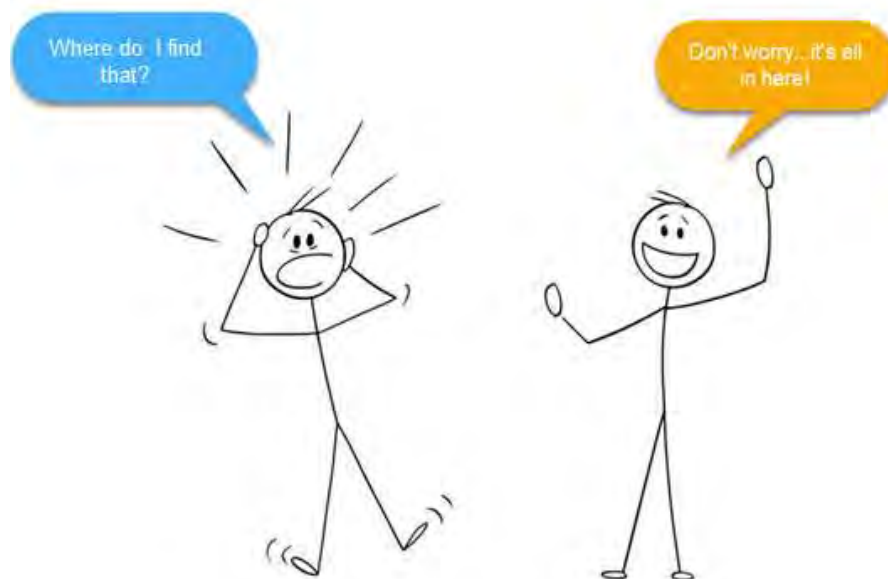


# PEDIATRIC ASTHMA: TALK THE SAME TALK

## Useful Links and Tools



Updated November 2024

## TALK THE SAME TALK

### USEFUL LINKS AND TOOLS

#### Table of Contents

- Any content appearing in [blue](#) links directly to a website.
- To link quickly to a specific tool below, click on the item or use the bookmark links to the left of this page view.
- Looking for a specific topic? On your keyboard, press the “**Ctrl**” and “**f**” keys at the same time and a “Find/Search” box will appear.

DOCUMENT TITLE				SOURCE/AUTHOR
Action Plans:	Alberta Action Plan	Little Asthma Action Plan		<a href="#">Community Pediatric Asthma Service</a>
Anaphylaxis:				
Emergency Plan				<a href="#">Food Allergy Canada</a>
How to use an EpiPen				<a href="#">EpiPen Canada</a>
How to use Allerject				<a href="#">Allerject Canada</a>
How to use Emerade				<a href="#">Emerade Canada</a>
Awesome Asthma Resources...One Click Away!				<a href="#">Community Pediatric Asthma Service</a>
<a href="#">Breathing Well</a> (and much, much more)				<a href="#">Belly Breathing</a>
				<a href="#">Cough Control</a> , <a href="#">Vocalizing Ease</a>
				<a href="#">Chronic Throat Clearing</a>
				<a href="#">Dysfunctional Breathing</a> (DB)
				<a href="#">Exercise Induced Laryngeal Obstruction</a> (EILO)
				<a href="#">Inducible Laryngeal Obstruction</a> (ILO)
				<a href="#">Paradoxical Vocal Fold Motion</a> (PVFM)
				<a href="#">Vocal Cord Dysfunction</a> (VCD)
<a href="#">Canadian Thoracic Society</a>				<a href="#">2021 Guideline Update</a>
Device Sheets:	MDI	MDI with Mask	Diskus	<a href="#">Community Pediatric Asthma Service</a>
	Turbuhaler	Twisthaler	Ellipta	
	Nasal spray			
Does my child have asthma?				<a href="#">Community Pediatric Asthma Service</a>
Inhaled Corticosteroids in Asthma				<a href="#">Community Pediatric Asthma Service</a>
Nijmegen Questionnaire				<a href="#">Bradcliff Breathing Method</a>
Pediatric Respiratory Medication Guide				<a href="#">Community Pediatric Asthma Service</a>
Triggering Factors				<a href="#">Dr. Louis-Philippe Boulet, Hospital Laval</a>
Why Should I Give My Child Asthma Medicine?				<a href="#">Community Pediatric Asthma Service</a>
When and Where to Get Help				<a href="#">Community Pediatric Asthma Service</a>

# ASTHMA Action Plan

My Name: \_\_\_\_\_ Date: \_\_\_\_\_

What Matters To Me: \_\_\_\_\_

Circle My Triggers



smoke



colds



animals



pollens



mold



dust



strong smells



weather changes



strong emotions



other \_\_\_\_\_

Circle My Usual Symptoms: Cough / Wheeze / Short of Breath / Tight Chest / Other \_\_\_\_\_

## Is my asthma well controlled?



**Yes**

No symptoms, regular activities








**No**

Cough, wheeze, short of breath, tight chest, colds, allergies



**Not at all**

Very short of breath, trouble speaking, blue/grey lips/fingernails

1. Daytime symptoms 	None	3 or more times a week	Continuous & getting worse
2. Nighttime symptoms 	None	1 or more times a week	Continuous & getting worse
3. Reliever use (other than if prescribed for exercise) 	None	3 or more times a week	Relief for less than 3 to 4 hours
4. Physical activity or exercise 	Normal	Limited	Very limited
5. Can go to school or work 	Yes	Maybe	No

What to do:	STAY CONTROLLED & AVOID MY TRIGGERS	TAKE ACTION See a doctor if no improvement in ____ days	GET HELP
<b>Controller:</b> Use EVERY DAY to control asthma and prevent flare-ups. 1. _____ (name / colour / strength) 2. _____ (name / colour / strength) 3. _____ (name / colour / strength) 4. _____ (name / colour / strength)	1. Take _____ <input type="checkbox"/> AM <input type="checkbox"/> PM ( amount ) 2. Take _____ <input type="checkbox"/> AM <input type="checkbox"/> PM ( amount ) 3. Take _____ <input type="checkbox"/> AM <input type="checkbox"/> PM ( amount ) 4. Take _____ <input type="checkbox"/> AM <input type="checkbox"/> PM ( amount )	Continue this dose for _____ 1. Take _____ <input type="checkbox"/> AM <input type="checkbox"/> PM ( amount ) 2. Take _____ <input type="checkbox"/> AM <input type="checkbox"/> PM ( amount ) 3. Take _____ <input type="checkbox"/> AM <input type="checkbox"/> PM ( amount ) 4. Take _____ <input type="checkbox"/> AM <input type="checkbox"/> PM ( amount )	<b>EMERGENCY (911)</b>  Notes:
<b>Reliever:</b> Quickly and temporarily helps asthma symptoms. _____ (name / colour / strength)	Take reliever before exercise? <input type="checkbox"/> Yes  Take _____ as needed (# of puffs)	Continue this dose for _____ Take _____ as needed (# of puffs)	<b>Take 5 to 10 puffs of my reliever medicine every 10 to 20 minutes while I get help.</b>

Patients can view this Asthma Action Plan at: [www.myhealth.alberta.ca](http://www.myhealth.alberta.ca)

Clinicians can download a fillable version of this Asthma Action Plan at: [www.ucalgary.ca/icancontrolasthma](http://www.ucalgary.ca/icancontrolasthma)

Completed with: \_\_\_\_\_

I share and complete this plan with my healthcare team.



# Steps to Control My Asthma

## Avoid My Triggers

I avoid my triggers as an important step to control my asthma. I may need less medicine when I avoid my triggers and keep control of my asthma.



## Take My Medicines

I take my medicines as directed by my doctor. This helps me lead an active life and have healthy lungs. My asthma medicines are safe and effective for controlling asthma.



## Check My Technique

I bring my asthma medicines to every medical appointment to make sure I am using them correctly. I ask my healthcare team to review my technique, to make sure my lungs get the medicine they need to stay healthy. If I use a metered-dose inhaler (MDI), I should add-on a spacer to help the medicine get properly into my lungs.



## Follow My Action Plan

I use my Asthma Action Plan to take ACTION early - this is the best way to get my asthma well controlled. I review my Asthma Action Plan with my healthcare team (doctor, asthma educator, pharmacist, nurse) **every 6 months**.



## Asthma Control

My asthma is **not well controlled** if I answer 'Yes' to **any 1** of these questions (at any point in time):

1. Do I cough, wheeze, or have a tight chest because of my asthma?  Yes  No
2. Does coughing, wheezing, or chest tightness wake me at night?  Yes  No
3. Do I stop exercising because of my asthma?  Yes  No
4. Do I miss work or school because of my asthma?  Yes  No
5. Do I use my reliever medicine 3 or more times a week?  Yes  No

## My Healthcare Team Contacts:

## My Questions and Things to Remember:

## Asthma Resources:

Alberta's Information and Tools  
[www.ucalgary.ca/icancontrolasthma](http://www.ucalgary.ca/icancontrolasthma)

Alberta's Information and Tools in Other Languages  
[www.ucalgary.ca/icancontrolasthma/languages](http://www.ucalgary.ca/icancontrolasthma/languages)

Asthma Society of Canada  
[www.asthma.ca](http://www.asthma.ca)

The Lung Association of Canada  
[www.lung.ca](http://www.lung.ca)

This Asthma Action Plan was developed by Alberta's health care professionals in collaboration with COPD & Asthma Network of Alberta, Alberta Asthma Centre, Alberta Strategy To Help Manage Asthma & COPD, Family Physician Airways Group of Canada, Alberta Health Services' Respiratory Health Strategic Clinical Network™ and The Lung Association of Alberta & NWT™. 'Steps to Control' are adapted from Alberta's Community Pediatric Asthma Service.

Little Asthma Action Plan for: \_\_\_\_\_ Date: \_\_\_\_\_

Goal: \_\_\_\_\_



**Controller** (Every day)

# of Puffs	# of Puffs
_____	_____



\_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
**medicine**      **dose**      **colour**

\_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
**medicine**      **dose**      **colour**

**Reliever** (When you need it)

# of Puffs
_____



\_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
**medicine**      **dose**      **colour**

**Controller** (# of days )

# of Puffs	# of Puffs
_____	_____



\_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
**medicine**      **dose**      **colour**

\_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
**medicine**      **dose**      **colour**

**Reliever** (Can use every 4 hours)

# of Puffs
_____



\_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
**medicine**      **dose**      **colour**

See a doctor if you are not better in 2-3 days

**See a Doctor soon if:**

- your asthma symptoms are not getting better, even with more medicine
- you need your reliever medicine more often



**Go to Emergency if:**

- reliever medicine does not last at least 3 hours
- skin at the base of the neck, between ribs or below the breast bone pulls in with breathing
- children have no energy to play or move around
- babies refuse to eat or drink



**Call 911 if:**

- very serious symptoms – breathing very fast, gasping for breath, having difficulty speaking, blue-grey lips or fingernails
- give reliever medicine every few minutes until help arrives
- comfort your child by trying to stay calm until help arrives



Questions or concerns? In Alberta, call **811** for the 24/7 health information and advice line.

# My Asthma Calendar

Month: \_\_\_\_\_ Name: \_\_\_\_\_

Goal: \_\_\_\_\_

Use this calendar to record:



Your asthma symptoms



When you take your medicine(s)

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 1							
Week 2							
Week 3							
Week 4							

Remember to bring all your asthma medicine and devices to every asthma appointment, even if you are not taking them right now.

For more information visit [www.ucalgary.ca/icancontrolasthma](http://www.ucalgary.ca/icancontrolasthma)





# Anaphylaxis Emergency Plan: \_\_\_\_\_ (name)

## This person has a potentially life-threatening allergy (anaphylaxis) to:

(Check the appropriate boxes.)

Food(s): \_\_\_\_\_  
 \_\_\_\_\_

Insect stings  Other: \_\_\_\_\_

**Epinephrine Auto-Injector:** Expiry Date: \_\_\_\_\_ / \_\_\_\_\_

**Dosage:**

EpiPen Jr® 0.15 mg  EpiPen® 0.3 mg  ALLERJECT® 0.15 mg  ALLERJECT® 0.3 mg  
 Emerade™ 0.3 mg  Emerade™ 0.5 mg

**Location of Auto-Injector(s):** \_\_\_\_\_

**Previous anaphylactic reaction:** Person is at greater risk.

**Asthmatic:** Person is at greater risk. If person is having a reaction and has difficulty breathing, give epinephrine auto-injector before asthma medication.

## A person having an anaphylactic reaction might have ANY of these signs and symptoms:

- **Skin system:** hives, swelling (face, lips, tongue), itching, warmth, redness
- **Respiratory system (breathing):** coughing, wheezing, shortness of breath, chest pain or tightness, throat tightness, hoarse voice, nasal congestion or hay fever-like symptoms (runny, itchy nose and watery eyes, sneezing), trouble swallowing
- **Gastrointestinal system (stomach):** nausea, pain or cramps, vomiting, diarrhea
- **Cardiovascular system (heart):** paler than normal skin colour/blue colour, weak pulse, passing out, dizziness or lightheadedness, shock
- **Other:** anxiety, sense of doom (the feeling that something bad is about to happen), headache, uterine cramps, metallic taste

*Early recognition of symptoms and immediate treatment could save a person's life.*

## Act quickly. The first signs of a reaction can be mild, but symptoms can get worse very quickly.

1. **Give epinephrine auto-injector** (e.g. EpiPen®, ALLERJECT®, Emerade™) at the first sign of a known or suspected anaphylactic reaction. (See attached instructions.)
2. **Call 9-1-1** or local emergency medical services. Tell them someone is having a life-threatening allergic reaction.
3. **Give a second dose of epinephrine** as early as 5 minutes after the first dose if there is no improvement in symptoms.
4. **Go to the nearest hospital immediately (ideally by ambulance)**, even if symptoms are mild or have stopped. The reaction could worsen or come back, even after proper treatment. Stay in the hospital for an appropriate period of observation as decided by the emergency department physician (generally about 4-6 hours).
5. **Call emergency contact person (e.g. parent, guardian).**

## Emergency Contact Information

Name	Relationship	Home Phone	Work Phone	Cell Phone

*The undersigned patient, parent, or guardian authorizes any adult to administer epinephrine to the above-named person in the event of an anaphylactic reaction, as described above. This protocol has been recommended by the patient's physician.*

\_\_\_\_\_  
 Patient/Parent/Guardian Signature

\_\_\_\_\_  
 Date

\_\_\_\_\_  
 Physician Signature  On file

\_\_\_\_\_  
 Date



# Blue to the sky. Orange to the thigh.

## How to use EpiPen® and EpiPen Jr® (epinephrine) Auto-Injectors.

Remove the EpiPen® Auto-Injector from the carrier tube and follow these 2 simple steps:



- Grasp with orange tip pointing downward
- Remove blue safety cap by pulling straight up – do not bend or twist



- Place the orange tip against the middle of the outer thigh
- Swing and push the auto-injector firmly into the thigh until it “clicks”
- Hold in place for 3 full seconds



### Built-in needle protection

- After injection, the orange cover automatically extends to ensure the needle is never exposed.



**After using EpiPen®, you must seek immediate medical attention or go to the emergency room. For the next 48 hours, you must stay close to a healthcare facility or be able to call 911.**

For more information visit the consumer site [EpiPen.ca](http://EpiPen.ca).

EpiPen® and EpiPen Jr® (epinephrine) Auto-Injectors are indicated for the emergency treatment of anaphylactic reactions in patients who are determined to be at increased risk for anaphylaxis, including individuals with a history of anaphylactic reactions. Selection of the appropriate dosage strength is determined according to patient body weight.

EpiPen® and EpiPen Jr® Auto-Injectors are designed as emergency supportive therapy only. They are not a replacement for subsequent medical or hospital care. After administration, patients should seek medical attention immediately or go to the emergency room. For the next 48 hours, patients must stay within close proximity to a healthcare facility or where they can call 911. To ensure this product is right for you, always read and follow the label. Please consult the Consumer Information leaflet in your product package for warnings and precautions, side effects, and complete dosing and administration instructions.



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EpiPen®, EpiPen Jr® are registered trademarks of Mylan, Inc. licensed exclusively to its wholly-owned affiliate,  
Mylan Specialty, L.P.; sub-licensee, Pfizer Canada Inc., Kirkland, Quebec H9J 2M5  
D00059264 PP-EPI-CAN-0133-EN



MEMBER OF  
INNOVATIVE MEDICINES CANADA



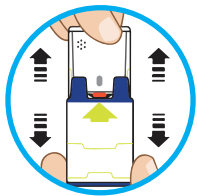
Trusted for over 25 years.



# Listen up! **Allerject**<sup>®</sup> is now available

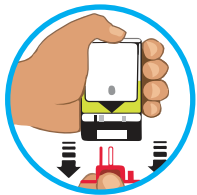
Epinephrine Injection, USP

**ALLERJECT<sup>®</sup> is a portable epinephrine auto-injector with built-in voice assistance, designed to be easy to use in an allergic emergency**



## **STEP 1 | Pull ALLERJECT from the outer case.**

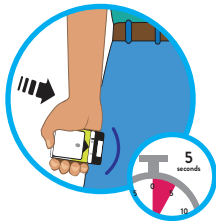
Do not go to step 2 until you're ready to use ALLERJECT. If you're not ready to use it, put it back in the outer case.



## **STEP 2 | Pull off the red safety guard.**

The safety guard is meant to be tight. *Pull firmly to remove.*

To reduce the risk of accidentally injecting yourself, do not touch the black base of the auto-injector (where the needle comes out). If an accidental injection happens, seek immediate medical attention.



## **STEP 3 | Place the black end against the middle of the outer thigh (through clothing if necessary), then press firmly and hold in place for 5 seconds.**

Only inject into the middle of the outer thigh (upper leg). Do not inject into any other location.

If you're administering ALLERJECT to a young child, hold the leg firmly in place while administering the injection.

ALLERJECT makes a distinct "click and hiss" sound when you press it against your leg. This is normal and means that ALLERJECT is working correctly.



## **STEP 4 | Seek immediate medical or hospital care.**

Replace the outer case and take your used ALLERJECT with you to your doctor or pharmacist for proper disposal and replacement.

## ALLERJECT is available in 2 doses



**ALLERJECT 0.15 mg**  
For children 15 kg to 30 kg

**ALLERJECT 0.3 mg**  
For anyone 30 kg or more

Talk to your doctor or pharmacist to discuss treatment options for anaphylaxis and whether ALLERJECT is right for you. Always read and follow the patient information leaflet that comes with your ALLERJECT device for warnings and precautions, side effects, and complete dosing and administration information.

[Learn more at Allerject.ca](http://Allerject.ca)

### Safety information

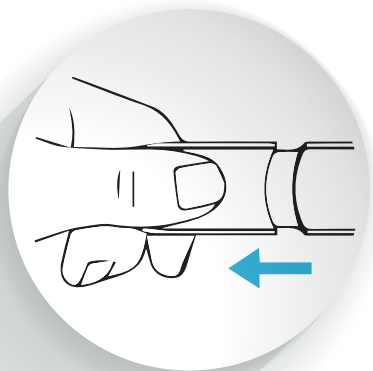
ALLERJECT is for the emergency treatment of serious allergic reactions (anaphylaxis) and is intended for people who are at risk and for people with a history of serious allergic reactions (anaphylaxis).

ALLERJECT should be used immediately to treat yourself or your child when experiencing a severe allergic reaction. This is emergency treatment. It does not replace seeing a doctor or going to the hospital. After injection, seek immediate medical attention. Even if you have sought medical help, you must stay within close proximity to a hospital or where you can easily call 911 for the next 48 hours.

**NOW AVAILABLE**

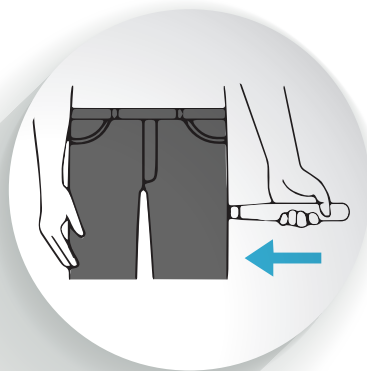
# How to use Emerade™

To view our instructional video go to [emerade.ca](http://emerade.ca)



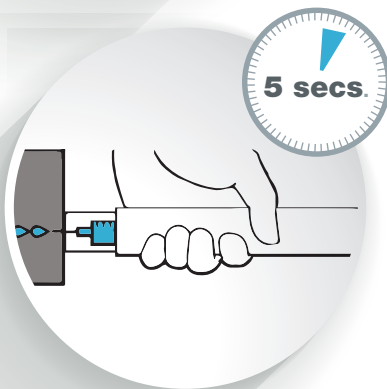
## STEP 1

Remove needle shield.



## STEP 2

Press tip against outer thigh until a "click" can be heard.



## STEP 3

Hold for 5 seconds.

**Call 911  
right away**

## STEP 4

Ask for an ambulance. Say "a sudden and severe allergic reaction".



Get Weighed.  
Get **Emerade™**

**Indications and clinical use:** Emerade™ is indicated for the emergency treatment of serious allergic reactions (anaphylaxis) in people who are determined to be at increased risk for anaphylaxis, including people with a history of serious allergic reactions (anaphylaxis). Emerade™ should be used right away when you or your child is having a severe allergic reaction. This is emergency treatment. Using it does not replace seeing a doctor or going to the hospital. You must get medical help right away after you or your child has used it. To ensure Emerade™ is right for you, speak to your healthcare professional and always read and follow the information leaflet in your product package.

For complete dosing and instructions for use, please refer to the Patient Medication information in the Emerade™ Product monograph.



## Community Pediatric Asthma Service

# Awesome Asthma Information...One Click Away!



[Our Asthma Website](#)



[Does My Child have Asthma?](#)



[Understanding Asthma  
\(Presentation\)](#)



[Asthma Info in 14  
Languages](#)



[Food Allergy Canada](#)



[Asthma and Anaphylaxis](#)



[Breathing Well](#)



[Understanding Childhood  
Asthma \(Video\)](#)



*This material is designed for information purposes only. It should not be used in place of medical advice, instruction and/or treatment. If you have specific questions, please consult your doctor or appropriate health care professional.*














## CHOOSING THE CORRECT DEVICE

PATIENT NAME:

### Masks and Mouthpieces

		<i>Name</i>	<i>Color</i>	<i>Age</i>
<input type="checkbox"/>		Small Mask, Neonate	Orange	Newborn to 1 year
<input type="checkbox"/>		Medium Mask, Pediatric	Yellow	1 year to 4 years
<input type="checkbox"/>		Small Mask, Adult	Purple	Physically, and cognitively challenged child/adult
<input type="checkbox"/>		Large Mask, Adult	Blue	Physically, and cognitively challenged child/adult
<input type="checkbox"/>		Mouthpiece, Adult	Green/Blue	4 years and older <ul style="list-style-type: none"> <li><b>*Recommended device for 4 years and older</b></li> </ul>

### Devices

<input type="checkbox"/>		Breezhaler <ul style="list-style-type: none"> <li>Medication name: Ateectura</li> <li>Combination medication</li> </ul>		12 years and older
<input type="checkbox"/>		Ellipta <ul style="list-style-type: none"> <li>Medication name: Arnuity</li> <li>Controller medication</li> </ul>		12 years and older
<input type="checkbox"/>		Turbuhaler <ul style="list-style-type: none"> <li>Medication names: <ul style="list-style-type: none"> <li>Symbicort: Combination medication</li> <li>Bricanyl: Reliever medication</li> <li>Pulmicort: Controller medication</li> </ul> </li> </ul>		6 years and older
<input type="checkbox"/>		Inhub <ul style="list-style-type: none"> <li>Medication name - Wixela,</li> <li>Combination medication</li> </ul>		12 years and older

COMMUNITY PEDIATRIC ASTHMA SERVICE



# METERED DOSE INHALER (MDI)

## INHALER / "PUFFER" WITH SPACER & MOUTHPIECE (4+ YEARS)



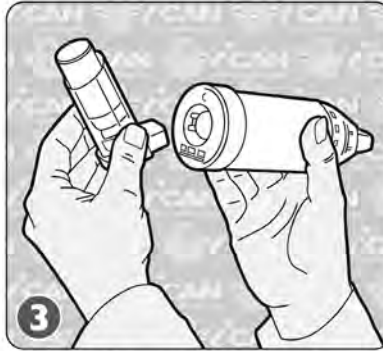
1

OPEN



2

SHAKE



3

INSERT, BREATHE OUT



4

PRESS DOWN



5

SLOW DEEP BREATH IN & HOLD



6

REMINDER



7

DRINK OR BRUSH TEETH

## IMPORTANT INFORMATION

### Note:

Using an inhaler without a spacer is **NOT** recommended.

- \* Place mouthpiece between your teeth and close your lips (like sucking a straw).
- \* If you are not able to hold your breath, take 6 normal breaths.

### Spacers:

Replace spacer if valves are missing or broken.

**Whistle:** The whistle sound is a warning to SLOW your breathing.

**Cleaning:** Soak in warm soapy water. Let it dry.

### Empty?:

Shake it. If it feels light or you do not feel liquid moving, it is empty and needs to be replaced. Some devices have counters. "0" means it is empty.

### Expired?:

Pull the metal canister out of the plastic sleeve to check the expiry date on the canister.

### Reminder:

Replace cap on plastic sleeve to store MDI.

Ask your pharmacy how to safely throw away medicines and asthma devices.

This material is designed for information purposes only. It should not be used in place of medical advice, instruction and/or treatment. If you have specific questions, please consult your doctor or appropriate healthcare professional.

Developed by the Community Pediatric Asthma Service, Calgary and area.

For more information on asthma medications and device demos, visit our website at:  
[www.ucalgary.ca/icancontrolasthma](http://www.ucalgary.ca/icancontrolasthma)



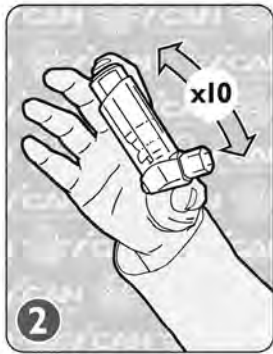


# METERED DOSE INHALER (MDI)

## INHALER / "PUFFER" WITH SPACER & MASK (UP TO 4 YEARS)



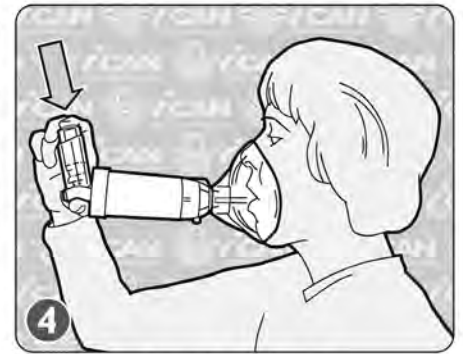
OPEN



SHAKE



INSERT



PRESS DOWN



BREATHE IN & OUT



REMINDER



DRINK OR BRUSH TEETH

## IMPORTANT INFORMATION

**Note:** Using an inhaler without a spacer is **NOT** recommended  
Spacer with mask is recommended to improve medication delivery to the lungs

**Mask size:** Masks come in **infant, child** and **adult** sizes.  
Switch to spacer without mask at 4+ years of age unless physically or developmentally not able to.  
The mask should **NOT** cover the eyes. Make sure the mask covers the mouth and nose snugly.

**Spacers:** Replace spacer if valves are missing or broken.  
**Cleaning:** Soak in warm soapy water. Let it dry.

**Empty?:** Shake it. If it feels light or you do not feel liquid moving, it is empty and needs to be replaced. Some devices have counters. "0" means it is empty.

**Expired?:** Pull the metal canister out of the plastic sleeve to check the expiry date on the canister.

**Reminder:** Replace cap on plastic sleeve to store MDI.  
Ask your pharmacy how to safely throw away medicines and asthma devices

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Developed by the Community Pediatric Asthma Service, Calgary and area.

For more information on asthma medications and device demos, visit our website at:  
[www.ucalgary.ca/icancontrolasthma](http://www.ucalgary.ca/icancontrolasthma)



# DRY POWDER INHALER

## DISKUS (6+ YEARS)



1  
CLOSED



2  
PUSH OPEN



3  
SLIDE & CLICK



4  
BREATHE OUT



5  
DEEP BREATH IN & HOLD



6  
RINSE & SPIT



7  
PUSH TO CLOSE

## IMPORTANT INFORMATION

**Note:** Place mouthpiece between your teeth and close your lips (like sucking a straw).

**Empty?:** The window has numbers that count down the dose – “0” means it is empty.

**Expired?:** Check the expiry date on the back of the device.

**Reminders:** Keep the Diskus dry.

Do not breathe into the device.

Close after use.

**Cleaning:** Wipe mouthpiece with a dry tissue or cloth.

Ask your pharmacy how to safely throw away medicines and asthma devices

This material is designed for information purposes only. It should not be used in place of medical advice, instruction and/or treatment. If you have specific questions, please consult your doctor or appropriate healthcare professional.

Developed by the Community Pediatric Asthma Service, Calgary and area.

**For more information on asthma medications and device demos, visit our website at:**  
**[www.ucalgary.ca/icancontrolasthma](http://www.ucalgary.ca/icancontrolasthma)**



# DRY POWDER INHALER

## ELLIPTA



1 SLIDE OPEN AND HEAR "CLICK"



2 BREATHE OUT



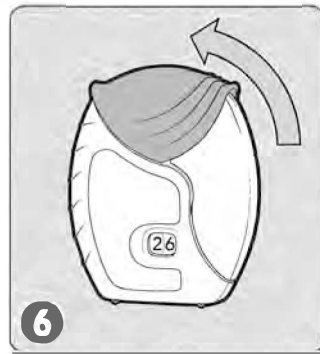
3 DO NOT BLOCK AIR VENTS



4 DEEP BREATH IN AND HOLD



5 BREATHE OUT



6 CLOSE INHALER



7 RINSE, GARGLE AND SPIT

## IMPORTANT INFORMATION

**Note:** Place mouthpiece between your teeth and close your lips (like sucking a straw).

**Empty?:** The window has numbers that count down the dose – "0" means it is empty.

**Expired?:** Check the expiry date on the back of the device.

**Reminders:** Keep the device dry.  
Do not breathe into the device.  
Take once daily – same time every day.  
Do not block air vents with your fingers.

**Cleaning:** Wipe mouthpiece with a dry tissue or cloth.

Ask your pharmacy how to safely throw away medicines and asthma devices

This material is designed for information purposes only. It should not be used in place of medical advice, instruction and/or treatment. If you have specific questions, please consult your doctor or appropriate healthcare professional.

Illustrations developed by the Community Pediatric Asthma Service, [www.ucalgary.ca/icancontrolasthma](http://www.ucalgary.ca/icancontrolasthma)

For more information on inhaled medications and device demos, visit our website at:  
[www.ucalgary.ca/asthma](http://www.ucalgary.ca/asthma)



Supporting current  
Respiratory Guidelines



Calgary COPD &  
Asthma Program

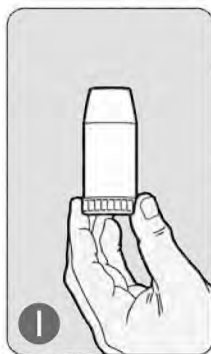


Updated 2022



# DRY POWDER INHALER

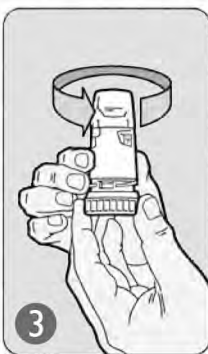
## TURBUHALER (6+ YEARS)



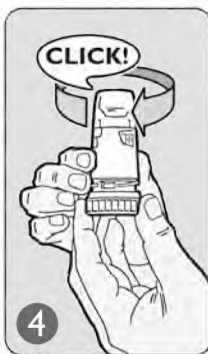
1  
CLOSED



2  
TWIST OPEN



3  
TURN

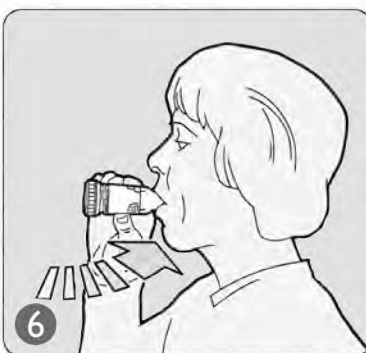


4  
TURN BACK



5

BREATHE OUT



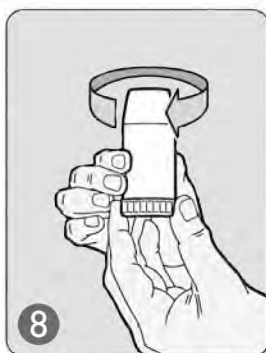
6

DEEP BREATH IN & HOLD



7

RINSE & SPIT



8

TWIST TO CLOSE

## IMPORTANT INFORMATION

**Note:** Place mouthpiece between your teeth and close your lips (**like sucking a straw**).

**Empty?:** The window on the device starts to show red when there are 20 doses left.  
When the window is completely red, it is empty.  
The window on some devices also shows a "0" when it is empty.

**Expired?:** Remove the cap to check the expiry date on the device.

**Reminders:** Keep the Turbuhaler dry.  
Do not breathe into the device.  
Replace the cap after use.

**Cleaning:** Wipe mouthpiece with a dry tissue or cloth.  
Ask your pharmacy how to safely throw away medicines and asthma devices

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Developed by the Community Pediatric Asthma Service, Calgary and area.

**For more information on asthma medications and device demos, visit our website at:  
[www.ucalgary.ca/icancontrolasthma](http://www.ucalgary.ca/icancontrolasthma)**



# DRY POWDER INHALER

## TWISTHALER (6+ YEARS)



1  
CLOSED



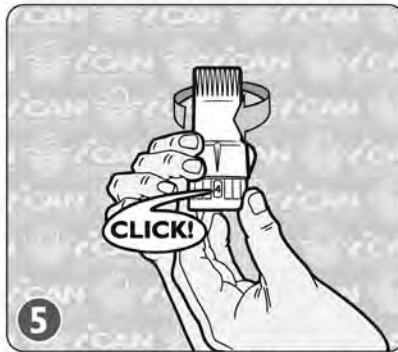
2  
TWIST CAP OFF



3  
BREATHE OUT



4  
DEEP BREATH IN & HOLD



5  
TWIST CAP ON TO CLOSE



6  
RINSE & SPIT

## IMPORTANT INFORMATION

**Note:** Place mouthpiece between your teeth and close your lips (like sucking a straw).

**Empty?:** The window has numbers that count down the dose every time you open the cap. When it is empty, it locks and you will not be able to twist off the cap.

**Expired?:** The expiry date is on the cap.

**Reminders:** Twist cap on until you hear a click.

Do not breathe into the device.

Keep the Twisthaler dry.

**Cleaning:** Wipe mouthpiece with a dry tissue or cloth.

Ask your pharmacy how to safely throw away medications and asthma devices

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# NASAL SPRAY

## ALL AGES



1 BLOW YOUR NOSE



2 SHAKE & REMOVE CAP



\* 3 PRESS DOWN AS YOU BREATHE IN, DON'T SNIFF



4 REMINDER



5 REPLACE CAP

## IMPORTANT INFORMATION

**Expired?:** Check the expiry date on the label.

**Reminders:** \* Step 3:

- Place the tip of the nasal spray in your nostril.
- **Aim the tip toward your ear on the same side.**
- Block the other nostril with your finger.
- Don't sniff or blow your nose for a few minutes after you spray so the mist has a chance to be absorbed. Hold a tissue under your nose.

**Reminder:** This spray works best if taken daily for at least several weeks. Use as prescribed.

Store at room temperature, away from direct light.

**Cleaning:** Refer to directions that came with your nasal spray.

Ask your pharmacy how to safely throw away medicines and asthma devices

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Developed by the Community Pediatric Asthma Service and the COPD & Asthma Network of Alberta.

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**[www.ucalgary.ca/icancontrolasthma](http://www.ucalgary.ca/icancontrolasthma)**







# Does My Child Have Asthma?

“Does my child have asthma?” is a common question families ask. Asthma can make it hard to breathe and can cause coughing, wheezing, shortness of breath or tightness in your chest. These things we see and feel are called symptoms. Asthma symptoms can come and go, making it hard to know if a child has asthma.

It may take weeks, months or even years to confirm asthma, but there are ways to help us know if it is more likely or less likely that a child has asthma. The information you share with health professionals helps us understand if it is asthma. These are the 5 important things to think about:

## 1. SYMPTOMS

## 2. TRIGGERS

## 3. MEDICAL HISTORY

## 4. RESPONSE TO MEDICINE

## 5. BREATHING TESTS (when a child is about 6 years old)

The information below includes ideas to help you learn what to look for and what to write down to share with your doctor or asthma educator.

Visit our website at [www.ucalgary.ca/icancontrolasthma](http://www.ucalgary.ca/icancontrolasthma) for more information and other resources.

## 1. SYMPTOMS

Common asthma symptoms include:

- **Cough** – Cough may come and go. It can be worse during the middle of the night. Some children cough so hard they struggle to breathe or throw up
- **Wheeze** – This is a whistling sound you hear when your child takes a breath in or out. Visit our website to hear wheezing (see “Videos” tab → “A Little Asthma Story”)
- **Tight Chest** – Some children say asthma feels like being squeezed or having something heavy sitting on your chest. This can be hard for children to describe
- **Shortness of Breath** – Children often say they cannot get a full breath in. They may need to stop playing to catch their breath or they can’t keep up with their friends when running or playing

## 2. TRIGGERS

Triggers can cause **asthma symptoms** or may make the symptoms you already have worse. Triggers are different for everyone. Some common asthma triggers include:

- **Colds/Flu** – the most common trigger
- **Allergies** – animals, pollen, mold, dust
- **Emotions/Stress**
- **Environment** – strong smells, weather changes
- **Exercise/Play**

### 3. HISTORY

It is important to share your child's medical history with a healthcare professional:

- **Patient History** – Children who have asthma symptoms or hospital visits for breathing trouble are more likely to have asthma. Children who have allergies or eczema are also **more likely** to have asthma
- **Family History** – Children who come from families with asthma or allergic conditions (such as eczema, hay fever and even food allergies) are **more likely** to have asthma

### 4. RESPONSE TO MEDICINE

If your child has a pattern of symptoms that look like asthma, they may be given a trial of asthma medicine. Asthma medicine must be taken properly to work. Visit our website to watch videos on how to take your asthma medicines (Click “Devices” tab).

There are two different types of asthma medicine:

#### Relievers

- These puffers are blue and give temporary relief of asthma symptoms
- They should work quickly and relieve symptom for 3 or 4 hours
- Be sure to tell your child's doctor if this medicine is NOT helping

#### Controllers or Preventers

- These medicines are usually orange, red or brown. They control asthma and help prevent symptoms
- These medicines must be used every day for them to work and it often takes 2 weeks or more to have the best effect
- If your child was given a puffer at the hospital, it is important that you see your family doctor before stopping this medicine

### 5. BREATHING TESTS

- When children are about 6 years old, they can do a simple breathing test called spirometry. Spirometry is only one part of the overall picture we build to decide if a child has asthma
- Since asthma symptoms come and go, the breathing test only tells us about the lungs on the day the test is done. This means a normal breathing test **does not** rule out asthma

### OTHER THINGS TO THINK ABOUT

- Asthma can be diagnosed at any age. Watch for asthma symptoms and see if taking asthma medicine relieves those symptoms
- Children who regularly have asthma symptoms are treated with puffers to lessen the impact of colds. Research shows that half of these children will not have asthma by the time they reach school age
- Finally, don't be confused by words like **reactive airway disease**, **wheezy bronchitis**, **happy wheezer** and **bronchospasm**. These are just words some people use to describe asthma symptoms



*If your child does have asthma, the good news is that asthma can be well controlled and should not prevent children from doing **anything they want to do!***



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Inhaled corticosteroids, sometimes referred to as inhaled steroids, are the best medication to manage asthma. Inhaled corticosteroids are strong anti-inflammatory (anti-swelling) medications. People with asthma have swelling in the airways of their lungs, causing the airways to become more sensitive to asthma triggers such as allergens, dry air, smoke and viruses. Inhaled steroids reduce swelling, which improves symptoms, lung function and airway hyper-reactivity ('twitchiness'). A recent Canadian study (1) has shown that regular use of inhaled corticosteroids lowers the risk of death from asthma. The following are examples of inhaled corticosteroids commonly used:

- ✚ **Inhaled Corticosteroids:** Alvesco (ciclesonide), Arnuity (fluticasone furoate), Asmanex (mometasone), Flovent (fluticasone), Pulmicort (budesonide), Qvar (beclomethasone)
- ✚ **Combination Inhaled Corticosteroid/long-acting beta agonists:** Advair (fluticasone and salmeterol), Breo (fluticasone and vilanterol), (Symbicort (budesonide and formoterol), Zenhale (mometasone and formoterol)

## HOW SHOULD I USE MY INHALED CORTICOSTEROID MEDICATION?

Good asthma management includes proper use of medications. The main purpose of inhaled corticosteroids is to reduce or prevent airway swelling and asthma flare-ups, and these medications are known as *preventers* for this reason. They should be used on a regular, daily basis as instructed by your physician, even if you are feeling well. **To get the maximum benefit, inhaled corticosteroids should be used as directed by your doctor, and with good inhaler technique.** The anti-swelling action happens gradually over days or weeks, when the medication is used regularly. Inhaled corticosteroids do not work for **quick** relief of asthma symptoms like cough, wheeze, chest tightness or shortness of breath, and instead a *reliever or bronchodilator medication* should be used.

## WHAT ARE THE SIDE EFFECTS OF INHALED CORTICOSTEROIDS?

Inhaled corticosteroids have been the best treatment for asthma for more than 30 years. They are among the safest and most effective means to treat asthma. Although few side effects occur at standard doses (one to two puffs twice a day for most inhalers), some people may experience minor side effects such as hoarseness of the voice, and thrush (a yeast infection of the mouth and throat). Rinsing your mouth, or brushing your teeth after taking your medication, and using a spacer device with the aerosol puffer will decrease the chance of side effects. Children who have asthma can use inhaled corticosteroids safely over the long term. A recent review of many studies has shown that rarely children may grow up to half a centimeter less during their first year of treatment, but that this effect on height is smaller over time, and is minor compared to the benefits of well controlled asthma<sup>2</sup>. In rare instances inhaled corticosteroids at high doses have caused low cortisol levels ("adrenal insufficiency"), which can cause symptoms of fatigue, nausea and vomiting, and requires medical attention if suspected<sup>3</sup>.

## WHAT ABOUT ATHLETES WHO ARE BANNED FOR USING STEROIDS?

Inhaled corticosteroids are not related to anabolic steroids that are used by some athletes to enhance their performance. The regular use of inhaled corticosteroids does not increase muscle mass or cause any of the other side effects associated with anabolic steroids. None of the inhaled corticosteroids commonly used to treat asthma are banned by the International Olympic Committee, and they can be safely used in all forms of competitive sport.

## WOULDN'T IT BE EASIER TO TAKE CORTICOSTEROID TABLETS?

Some patients with more severe asthma may need treatment with oral corticosteroid tablets (Prednisone, Dexamethasone), but most people can manage their asthma very well with inhaled corticosteroids. Inhaled corticosteroids have a great advantage over prednisone tablets because the medication is inhaled directly into the lungs, with less absorption by the rest of the body. This helps to lower the chance of any potential side effects, making inhaled corticosteroids among the safest and most effective way to manage asthma.

## CONCLUSION

Inhaled corticosteroids used with proper inhaler technique are very effective for treating asthma. They are safe and should be considered the first choice in asthma management for most cases of asthma.

## REFERENCES

1. Suissa S, Ernst P, Benayoun S, Baltzan M, Cai B. Low-dose inhaled corticosteroids and the prevention of death from asthma. *N Engl J Med* 2000;343:332-6.
2. Pruteanu AI, Chauhan BF, Zhang L, Prietsch SO, and Ducharme FM. Inhaled corticosteroids in children with persistent asthma: dose-response effects of growth. *Cochrane Database Syst Rev.* 2014 Jul 17;7.
3. Lapi F, Kezouh A, Suissa S, and Ernst P. The use of inhaled corticosteroids and the risk of adrenal insufficiency. *ERJ* July 1, 2013 vol 42 no 1.

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# Nijmegen Questionnaire

<b>Name:</b>	<b>DOB:</b>
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<b>Date:</b>	1:	2:	3:
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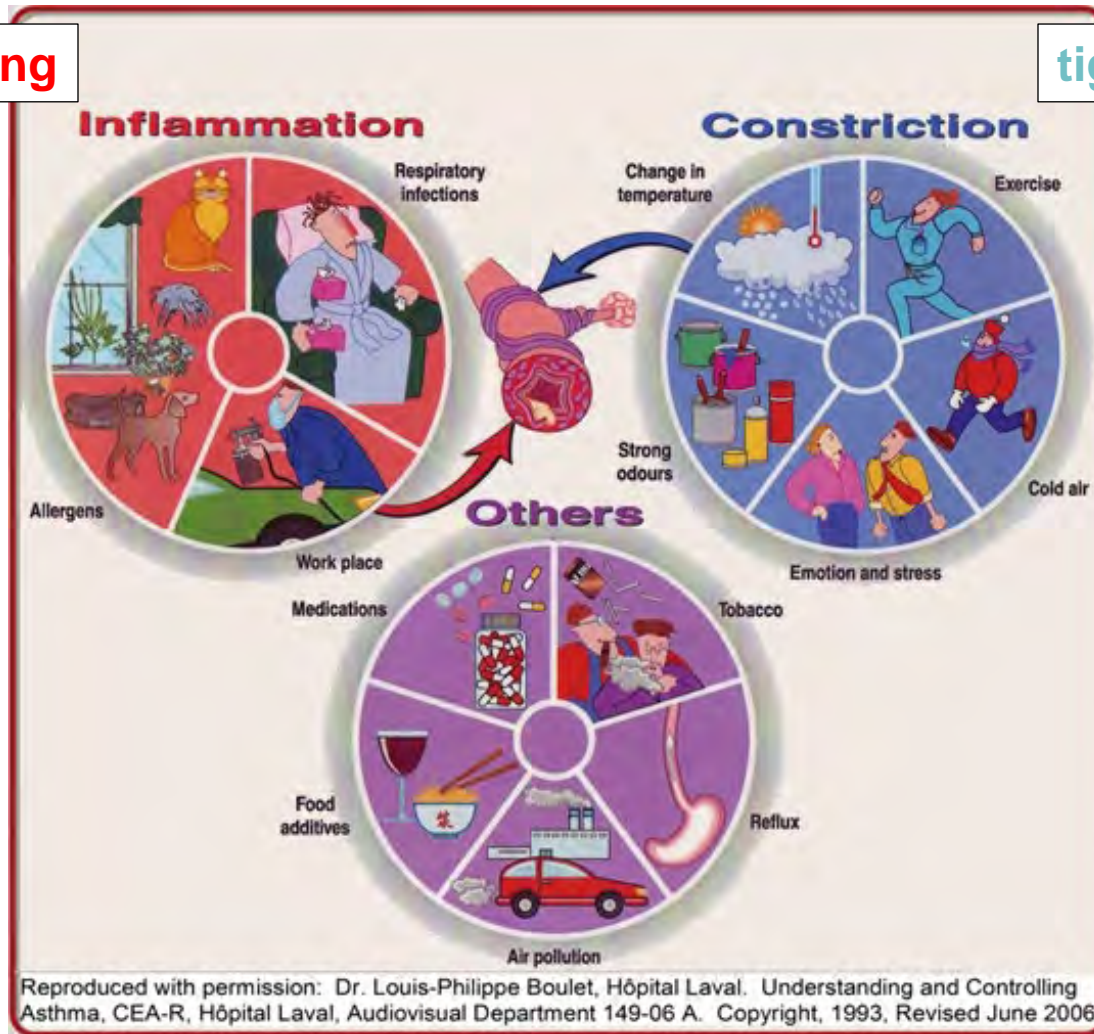
<b>Score /64:</b>	1:	2:	3:
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Frequency	Never			Rare			Sometimes			Often			Very Often		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
<b>Chest pain</b> (sore chest wall)															
<b>Feeling tense</b> (physical tension)															
<b>Blurred vision</b> (fuzzy eyes)															
<b>Dizzy spells</b> (light-headedness)															
<b>Feeling confused</b> (poor concentration/spaced out)															
<b>Faster deeper breathing</b>															
<b>Short of breath</b> (breathlessness)															
<b>Tight feelings in chest</b>															
<b>Bloated feeling in stomach</b> (upset gut)															
<b>Tingling fingers</b>															
<b>Unable to breathe deeply</b> (sighing a lot)															
<b>Stiff fingers or arms</b>															
<b>Tight feelings around mouth</b>															
<b>Cold hands or feet</b>															
<b>Heart racing</b> (palpitations)															
<b>Feelings of anxiety</b> (busy brain)															

# Triggering Factors

swelling

tightening





## PEDIATRIC RESPIRATORY MEDICATION GUIDE

### Inhaled Glucocorticoids:

- Approximately 4% of patients get thrush, less for children
- All inhaled steroids may affect the voice

Name/ Delivery	Dosage Forms	Age Approval	Doses/ Device	Product Monograph	Comments
<b>Aermony RespiClick</b> (Fluticasone propionate)	55 mcg. 113 mcg 232 mcg	Approved 12 years and older	60 doses BID	Starting dose based on asthma severity BID Dosing	<ul style="list-style-type: none"> <li>• Contains lactose monohydrate (milk proteins)</li> <li>• Released in 2018</li> </ul>
<b>Alvesco</b> (Ciclesonide)  <u>MDI/Spray/Puffer</u>	100 mcg 200 mcg	Approved 6 years & older	120 doses OD to BID	6-11 years starting dose: <ul style="list-style-type: none"> <li>• 1-2 puffs daily (100-200 mcg)</li> </ul> 12 years and older starting dose: <ul style="list-style-type: none"> <li>• 400 mcg daily</li> <li>• Dose range 100 – 800 mcg</li> </ul>	<ul style="list-style-type: none"> <li>• Benefits include:                             <ul style="list-style-type: none"> <li>✓ Pro drug</li> <li>✓ Targets the lungs</li> <li>✓ Less bioavailability /systemic side effects</li> <li>✓ Can be given once a day</li> </ul> </li> </ul>
<b>Arnuity</b> (Fluticasone Furoate)  <u>Eliпта Device</u> <u>Dry Powder inhaler</u>	100 mcg 200 mcg	Approved 12 years and older	30 Doses OD	12 years and older starting dose: <ul style="list-style-type: none"> <li>• 100 mcg od</li> </ul> Increase to 200 mcg od if not controlled <b>Max dose 200 mcg od</b>	<ul style="list-style-type: none"> <li>• Released 2016</li> <li>• Carrying agent contains lactose</li> <li>• Medication sealed in foil tray, stable for 6 weeks after opened</li> </ul>
<b>Asmanex</b> Mometasone Furoate <u>Twisthaler</u> <u>Dry powder</u>	100 mcg 200 mcg 400 mcg	Approved 4 years and older	30 doses 100 & 400 mcg 60 doses 200 & 400 mcg OD/BID	4-11 years (Usual starting dose) <ul style="list-style-type: none"> <li>• 1 puff od in the evening (100 mcg)</li> </ul> 12 years and older 200 mcg <ul style="list-style-type: none"> <li>• 1 puff od/bid in the evening</li> </ul> <b>Max dose 800 mcg/day</b>	<ul style="list-style-type: none"> <li>• Needs forceful inspiration for adequate delivery of medication into lungs</li> <li>• Counter on device</li> <li>• Lid locks in place when device is empty</li> </ul>
<b>Flovent</b> (Fluticasone Propionate)  <u>Diskus</u>	100 mcg 250 mcg 500 mcg	Approved for 4 years and older	60 Doses BID	4-16 years starting dose: <ul style="list-style-type: none"> <li>• 100 mcg, 1 puff bid</li> </ul> 17 years and older starting dose: <ul style="list-style-type: none"> <li>• 100– 500 mcg bid</li> </ul> Dose depends on severity and response to previous treatment	<ul style="list-style-type: none"> <li>• Contains lactose</li> <li>• Generally, patients need to be 6 years and older to generate enough inspiratory flow to effectively use the Diskus</li> <li>• Risk of side effects increases with doses &gt; 500 mcg/day</li> </ul>
<b>Flovent</b> (Fluticasone Propionate)  <u>MDI /Spray/Puffer</u>	50 mcg 125 mcg 250 mcg	Approved 12 months and older	120 doses BID	1-4 years: <ul style="list-style-type: none"> <li>• 100 mcg bid (2 puffs 50 mcg bid)</li> </ul> > 4 years: <ul style="list-style-type: none"> <li>• Usual starting dose is 100 mcg bid</li> </ul>	<ul style="list-style-type: none"> <li>• 125 mcg mdi 1 puff bid is often substituted for 50 mcg 2 puffs bid due to ease and pharmacy dispensing cost</li> <li>• Risk of side effects increases with doses &gt; 500 mcg/day</li> </ul>
<b>Pulmicort</b> (Budesonide)  <u>Turbuhaler</u> <u>Dry powder</u>	100 mcg 200 mcg 400 mcg	Approved 6 years and older	200 doses BID	6 years and older <ul style="list-style-type: none"> <li>• Low ≤400 mcg/Med 401-800 mcg/ High &gt; 800 mcg</li> </ul>	<ul style="list-style-type: none"> <li>• Needs forceful inspiration for adequate delivery of medication into lungs</li> <li>• It will not double load a dose</li> <li>• Small amount of powder – patient may not feel they got any medication</li> </ul>
<b>Qvar</b> (Beclomethasone)  <u>MDI/Spray/Puffer</u>	50 mcg 100 mcg	Approved 5 years and older	200 doses BID	4-11 years starting dose: <ul style="list-style-type: none"> <li>• <b>1 puff bid</b></li> <li>• Low ≤ 200 mcg/Med 200-400 mcg/ High &gt; 400 mcg</li> </ul> 12 years and older: <ul style="list-style-type: none"> <li>• <b>Max dose 800 mcg/day</b></li> </ul>	<ul style="list-style-type: none"> <li>• In an alcohol base - some patients sensitive to the taste</li> </ul>



## Short Acting Beta Agonist (SABA)

Name/ Delivery	Dosage Forms	Age Approval	Doses/ Device	Product Monograph	Comments
<b>Airomir</b> (Salbutamol Sulfate) Generic Form  <u>MDI/Spray/Puffer</u>	100 mcg	Approved for 6 years and older	200 doses		<ul style="list-style-type: none"> <li>Propellant is alcohol based and some children dislike the taste and smell</li> <li>Puffer contents can freeze, making it unusable</li> </ul>
<b>Bricanyl</b> (Terbutaline Sulfate)  <u>Turbuhaler</u>	0.5 mg/dose (500 mcg/puff)	Approved 6 years and older	120 doses	Dose 1-2 puffs q4h prn  <b>Max 6 doses in 24 hours</b>	<ul style="list-style-type: none"> <li>Contents will not freeze.</li> <li>Good choice for patients that participate or work out in the cold</li> <li>Needs good inspiratory flow</li> </ul>
<b>Ventolin Diskus</b> (Salbutamol Sulfate)  <u>Diskus</u>	200 mcg	Approved for 4 years and older	60 doses	1-2 inhalation every 4-6 hours PRN  <b>Max 4 puffs (800 mcg) daily</b>	<ul style="list-style-type: none"> <li>Carrying agent contains lactose.</li> <li>Contents will not freeze.</li> <li>Good choice for patients that participate or work out in the cold</li> <li>Particle size large</li> </ul>
<b>Ventolin HFA</b> (Salbutamol Sulfate)  <u>MDI/spray/puffer</u>	100 mcg	Approved for 4 years and older	200 doses	Starting dose <ul style="list-style-type: none"> <li>1-2 puffs q4hrs PRN</li> </ul> Take 15 minutes prior to exercise as needed	<ul style="list-style-type: none"> <li>Typical recommendations:               <ul style="list-style-type: none"> <li>✓ 2-5 puffs q4h prn</li> <li>✓ If not lasting 3-4 hours or symptoms worsening to seek medical attention</li> </ul> </li> <li>Puffer contents can freeze, making it unusable</li> </ul>

## Anticholinergic Bronchodilators

<b>Atrovent</b> (Ipratropium Bromide)  MDI/Spray/Puffer Nebulized	20 mcg 250 mcg/ml	Approved for 18 years and older	200 doses	Used primarily in the emergency department (As per ACAP) <ul style="list-style-type: none"> <li>4 puffs q 20 minutes first hour in emergency</li> </ul>	<ul style="list-style-type: none"> <li>Used as per the Alberta Childhood Asthma Pathway (ACAP) for Moderate/Severe asthma, <a href="http://www.childhoodpathways.ca/">http://www.childhoodpathways.ca/</a></li> <li>Anticholinergic</li> <li>Has a bad taste/smell</li> <li>Slower onset of bronchodilation than Salbutamol</li> <li>Not first line therapy for bronchodilation</li> <li>Do not send home from Emergency/urgent care department</li> </ul>
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## Leukotriene Receptor Antagonist

<b>Singulair</b> (Montelukast)  Generic Version available Montelukast <u>Pill/sprinkle</u>	4 mg 5 mg 10 mg	2-5 years of age 4 mg 6-14 years of age 5 mg 15 years and older 10 mg		Add on therapy to existing asthma treatment May be used as monotherapy in mild asthma, or for allergic rhinitis	<ul style="list-style-type: none"> <li>Consider if ICS therapy is not an option i.e., parent concerns</li> <li>In some children, generic not as effective as brand name Singulair</li> <li>Rare side effects include headaches, migraines, behavioral changes, depression</li> <li>Not recommended for patients with suicidal ideation</li> </ul>
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## Nasal Steroid Spray

- Excessive nasal mucous secretion or nasal mucosal edema may cause failure of treatment due to lack of interaction with tissue

Name/Delivery	Dosage Forms	Approval	Dose/Device	Dose/Comments
<b>Avamys</b> (Fluticasone furoate)  <u>Nasal spray</u>	27.5 mcg Per actuation	Approved for 2 years and older	120 doses	<ul style="list-style-type: none"> <li>2-11 years: <ul style="list-style-type: none"> <li>✓ 1 spray each nostril od</li> </ul> </li> <li>12 years and older: <ul style="list-style-type: none"> <li>✓ Start at 2 sprays each nostril daily</li> <li>✓ Decrease to 1 spray each nostril daily, if possible</li> <li>✓ Do not sniff or blow nose immediately after a dose</li> </ul> </li> <li>Most effective when saline rinse is used before dose</li> </ul>
<b>Dymista</b> (Azelastine/Fluticasone)  <u>Nasal Spray</u>	137 mcg 50 mcg	Approved 6 years and older	120 doses	<ul style="list-style-type: none"> <li>1 spray each nostril, twice a day</li> <li>Combination antihistamine/inhaled steroids</li> </ul>
<b>Flonase</b> (Fluticasone Propinate)  <u>Nasal spray</u>	50 mcg Per actuation	Approved for 18 years and older	120 doses	<ul style="list-style-type: none"> <li>Week 1: 2 sprays each nostril once a day</li> <li>Week 2: 1 spray each nostril once a day</li> <li>Available on pharmacy shelves without prescription</li> </ul>
<b>Nasacort</b> (Triamcinolone Acetonide)  <u>Nasal spray</u>	55 mcg Per actuation	Approved for 12 years and older  Nasacort AQ – approved for 4-12 years of age	120 doses	<ul style="list-style-type: none"> <li>Treatment for Allergy symptoms that occur throughout the day</li> <li>4-11 years: <ul style="list-style-type: none"> <li>✓ 1 spray each nostril daily</li> </ul> </li> <li>12 years and older <ul style="list-style-type: none"> <li>✓ Week 1: 2 sprays each nostril daily</li> <li>✓ Week 2: 1 spray each nostril daily</li> </ul> </li> </ul>
<b>Nasonex</b> (Mometasone furoate monohydrate)  <u>Nasal spray</u>	50 mcg Per actuation	Approved for 3 years and older	120 doses	3-11 years: <ul style="list-style-type: none"> <li>1 spray each nostril daily</li> </ul> 12 years and older: <ul style="list-style-type: none"> <li>Start at 2 sprays each nostril daily</li> <li>Decrease to 1 spray each nostril daily, if possible</li> </ul>
<b>Omnaris</b> (Ciclesonide)  <u>Nasal spray</u>	50 mcg Per actuation	Approved for 12 years and older	120 doses	<ul style="list-style-type: none"> <li>2 sprays each nostril od</li> <li>Max dose 200 mcg /day</li> <li>Offers less chance of nosebleeds than other nasal sprays</li> </ul>
<b>Rhinocort</b> (Budesonide)  <u>Nasal spray</u>	64 mcg Per actuation	Approved for 6 years and older	120 doses	6-11 years: <ul style="list-style-type: none"> <li>1 spray each nostril daily</li> </ul> 12 years and older: <ul style="list-style-type: none"> <li>Start at 2 sprays each nostril daily</li> <li>Decrease to 1 spray each nostril daily, if possible</li> </ul>

## Combination Medications

- Inhaled corticosteroid (ICS) with Long Acting Beta Agonist (LABA)
- Generally used when ICS alone (Monotherapy) has failed or high doses required to maintain asthma control
- Recommended for 12 years and older

Name/Delivery	Dosage Forms	Age Approval	Doses/Device	Product Monograph	Comments
<b>Advair MDI</b> (Fluticasone Propionate/Salmeterol)  <u>MDI/Spray/Puffer</u>	125/25 mcg 250/25 mcg	Approved for 12 years and older	120 doses BID	Starting dose 1-2 puffs bid	<ul style="list-style-type: none"> <li>• Has a counter on the puffer</li> </ul>
<b>Advair Diskus</b> (Fluticasone Propionate/Salmeterol)  <u>Diskus/Dry Powder</u>	100/50 mcg 250/50 mcg 500/50 mcg	100/50 mcg approved for children 4-11 years Other doses not approved for children	60 doses BID	Dose 1 puff bid	<ul style="list-style-type: none"> <li>• Carrying agent contains lactose</li> <li>• Slowly being replaced with Breo</li> </ul>
<b>Ateectura</b> Mometasone, Indacaterol (furoate) + (acetate)  <u>Breezhaler device</u>	80/150 mcg 160/150 mcg 320/150 mcg	Approved for 12 years and older	3 blister cards of 10	1 capsule per day Q24 hours	<ul style="list-style-type: none"> <li>• For inhalation only</li> <li>• DO NOT swallow capsule</li> <li>• Pierce capsule ONCE only</li> <li>• If powder remains in capsule, repeat inhalation</li> </ul>
<b>Breo</b> (Fluticasone Furoate / Vilanterol (Tridentate))  <u>Ellipta device</u>	100/25 mcg 200/25 mcg	Approved for 18 years and older	14 and 30 dose OD	1 inhalation od	<ul style="list-style-type: none"> <li>• Used off label by respirologists for hard to control asthma</li> </ul>
<b>Enerzair</b> Triple Combination for Asthma Mometasone+Glycopyronium+Indacaterol (furoate)+(bromide)+(acetate)	160/50/150 mcg	Approved for 18 years and older	3 blister cards of 10	1 capsule per day Q24 hours	<ul style="list-style-type: none"> <li>• For inhalation only</li> <li>• DO NOT swallow capsule</li> <li>• Pierce capsule ONCE only</li> <li>• If powder remains in capsule, repeat inhalation</li> </ul>
<b>Symbicort</b> (Budesonide/Formoterol)  <u>Turbuhaler - Dry Powder</u>	100/6 mcg 200/6 mcg	Approved for 12 years and older	120 doses BID	Starting dose: 1-2 puffs bid	<ul style="list-style-type: none"> <li>• Carrying agent contains lactose</li> <li>• Max 8/day (short term)</li> <li>• Can be used as a Controller and Reliever</li> </ul>
<b>Wixela Inhub</b> (Fluticasone Propionate/Salmeterol)	100/50 mcg 250/50 mcg 500/50 mcg	100/50 mcg approved for children 4 to 11 years 12 years and older: 1 BID	60	1 BID	<ul style="list-style-type: none"> <li>• Released 2020</li> <li>• This is the generic Flovent in a new device called the Inhub</li> </ul>
<b>Zenhale MDI</b> (Mometasone Furoate/Formoterol)  <u>Spray/Puffer</u>	50/5 mcg 100/5 mcg 200/5 mcg	Approved 12 years and older	120 doses BID	<b>Max</b> dose 800 mcg Mometasone Furoate/ 20 mcg Formoterol <b>Equates</b> to 2 puffs bid of 200/5 mcg daily and titrate to lowest effective dose to achieve asthma control	<ul style="list-style-type: none"> <li>• Possible higher risk of Adrenal insufficiency</li> <li>• Has a counter on the puffer</li> </ul>



# WHY SHOULD I GIVE MY CHILD ASTHMA MEDICINE?

by Dr. Mary Noseworthy & the Community Pediatric Asthma Service

Parents worry about giving their children medicine

This information explains what asthma medicine is for and what can happen if you do not take it

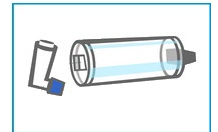
Asthma can make it hard to breathe. Sometimes it might seem like everything is normal, but this can change quickly. The doctor may try asthma medicine when a child has one or more of these breathing problems:

- + coughing that doesn't go away after a cold, especially during the night
- + coughing or getting tired easily when running
- + wheezing – a whistling sound when they breathe
- + finding it hard to take a breath

If your child's asthma is well controlled and they have no breathing problems, do not stop giving them their asthma medicine – this medicine is helping to keep them well. Talk to your doctor before you stop giving asthma medicine.

## WHAT DOES ASTHMA MEDICINE DO?

**Reliever Medicine** (usually a **blue** puffer): Reliever medicine works quickly to make breathing easier, but it only lasts for a few hours **and** does not get rid of swelling. Reliever medicine can cause shaky hands or a faster heart rate, but these things are not harmful and only last for a short time.



**Controller Medicine** (usually a **brown, red or orange** puffer): Controller medicine (inhaled **corticosteroids**) works on calming the lungs and getting rid of swelling so breathing problems get better. Controllers are safe to take every day because they go right into the lungs and are used in small amounts. Take a drink, rinse your mouth or brush your teeth after you take it and you should not have any trouble.

In an emergency, corticosteroids are given at a much higher dose than they usually are – often as a liquid or pill, to quickly improve breathing problems. Because this medicine travels through the whole body and not just the lungs, it may affect a child's mood. Your doctor will talk to you about any concerns they might have about your use of this medicine.

Using your corticosteroid puffers every day and following your [Asthma Action Plan](#) are the best ways we know to prevent breathing problems, emergency visits or hospital stays.

## WHAT IF I DON'T GIVE THE ASTHMA MEDICINE?

If children don't take their asthma medicine, you could notice:

- + Poor sleep because of coughing
- + Missing school because of breathing problems
- + Not being able to keep up with their friends at play or sports
- + Not growing as much as you expect because so much energy is spent trying to breathe
- + More emergency visits or hospital stays because of breathing problems
- + Increased use of oral corticosteroids to treat severe asthma attacks



**If you have any concerns about asthma medicine, talk to your doctor, pharmacist, nurse or certified asthma educator.**

# WHEN AND WHERE TO GET HELP FOR ASTHMA

- Uncontrolled asthma can lead to emergency visits and admission to hospital. See your doctor, asthma educator or pharmacist for more information about how to control your asthma
- Know the emergency numbers in your area. In Alberta, Health Link is a 24-hour telephone advice line staffed by experienced nurses.  
**If you have any urgent questions, dial 811 in Alberta**

	SEE YOUR DOCTOR	GO TO AN EMERGENCY	CALL 911
What You See/Feel	<ul style="list-style-type: none"> <li>• If you are using or giving reliever medicine (blue) more than 2 times/week</li> </ul>	<ul style="list-style-type: none"> <li>• If the skin at the base of your child's neck, between the ribs, or below the breastbone pulls in when your child breathes</li> <li>• If your child has no energy to play or even move around</li> <li>• Your baby will not eat or drink</li> </ul>	<ul style="list-style-type: none"> <li>• If you have or see symptoms that are very serious - breathing very fast, gasping for breath, trouble speaking, blue-grey lips or fingernails, CALL 911</li> </ul>
What To Do	<ul style="list-style-type: none"> <li>• If asthma symptoms are getting worse, take or give preventer/controller medicine at the highest dose recommended by the doctor</li> <li>• If you do not see improvement in 12 – 24 hours, make an appointment to see a doctor as soon as possible</li> </ul>	<ul style="list-style-type: none"> <li>• Give or take reliever medicine (blue). This medicine should make breathing easier within 5 - 10 minutes. Relief should last for 3 - 4 hours</li> <li>• If the dose needs to be repeated before 3 hours, please go to Emergency</li> <li>• You know best. If you are worried, go to Emergency</li> </ul>	<ul style="list-style-type: none"> <li>• Stay calm</li> <li>• CALL 911 and give the reliever medicine (blue) every few minutes until help arrives</li> </ul>
What Usually Happens	<ul style="list-style-type: none"> <li>• Everyone with asthma should have an <b>Asthma Action Plan</b>. Your plan will help you know how to adjust medicine to control asthma</li> <li>• Make an appointment with your doctor or asthma educator to develop an <b>Asthma Action Plan</b></li> <li>• Print a blank copy of an <a href="#">Asthma Action Plan</a> to take to your doctor or health care provider</li> </ul>	<ul style="list-style-type: none"> <li>• It is normal to stay several hours for treatment/observation. You or your child may be admitted to hospital until asthma symptoms are in better control</li> <li>• Along with regular medicine, you may also be prescribed a short course of oral steroids to help get asthma back in control more quickly</li> <li>• Ask for an Emergency Asthma Action Plan</li> <li>• Ask to be referred for asthma education</li> </ul>	<ul style="list-style-type: none"> <li>• Paramedics will treat you</li> <li>• You may go to Emergency for more treatment</li> <li>• It is normal to stay several hours for treatment/observation. You may be admitted to hospital until asthma is in better control</li> </ul>

## OTHER THINGS YOU CAN DO:

1. If possible, remove yourself or your child from any known triggers
2. Sit up. Loosen tight clothing
3. Make an appointment with your family doctor/pediatrician as soon as possible after an asthma emergency visit

*This material is for information purposes only. It should not be used in place of medical advice, instruction, and/or treatment. If you have questions, talk with your doctor or appropriate healthcare professional.*