

# PARENT'S GUIDE TO ASTHMA



# INHALED CORTICOSTEROIDS

## HOW THEY CAN HELP

### UNDERSTANDING YOUR CHILD'S ASTHMA MEDICINE

When your child's doctor prescribes a medicine, like most parents, you want to know all about it, what's in it? How does it work?

Take a few minutes and learn more about an important type of medicine, known as inhaled corticosteroids, used to treat asthma.<sup>1</sup>

### WHAT ARE INHALED CORTICOSTEROIDS?

Inhaled corticosteroids are man-made versions of hormones normally produced in the human body.<sup>1</sup> They help reduce inflammation (swelling) in airways of the lungs<sup>1,2</sup>, and are considered the most effective solution for asthma, a condition associated with inflammation.<sup>3,4</sup> They are also called «preventer inhalers» because they help **prevent** your child's asthma symptoms.<sup>1</sup>

#### INHALED CORTICOSTEROIDS GO RIGHT INTO LUNGS TO PREVENT ASTHMA SYMPTOMS:<sup>1,3</sup>

Reduce  
inflammation  
in airways<sup>2</sup>

Reduce mucus  
production<sup>2</sup>

Make airways  
less irritable<sup>3</sup>

Reduce reactivity  
to asthma  
triggers<sup>3</sup>

The inhaled corticosteroids used to treat asthma have been studied over the years in large groups of adults and children as young as 2 years old and have been found to be safe when taken as directed by your doctor.<sup>3</sup>

#### REFERENCES:

1. National Health Services. Steroid inhalers. Available at: <http://www.nhs.uk/Conditions/steroid-inhalers/Pages/Introduction.aspx>. Last accessed: October 19th 2017.
2. National Jewish Health. Inhaled and Oral Corticosteroids. Available at: <https://www.nationaljewish.org/NJH/media/pdf/pdf-Inhaled-and-Oral-Steroids.pdf>. Last accessed: October 19th 2017.
3. National Heart, Lung and Blood Institute. So you have asthma. Available at: [https://www.nhlbi.nih.gov/files/docs/public/lung/have\\_asthma.pdf](https://www.nhlbi.nih.gov/files/docs/public/lung/have_asthma.pdf). Last accessed: October 19th 2017.
4. National Heart, Lung and Blood Institute. Inhaled Corticosteroids: Keep Airways Open. Available at: <https://www.nhlbi.nih.gov/health-pro/resources/lung/naci/discover/corticosteroids.htm>. Last accessed: October 19th 2017.

# CONTROLLER AND RESCUE

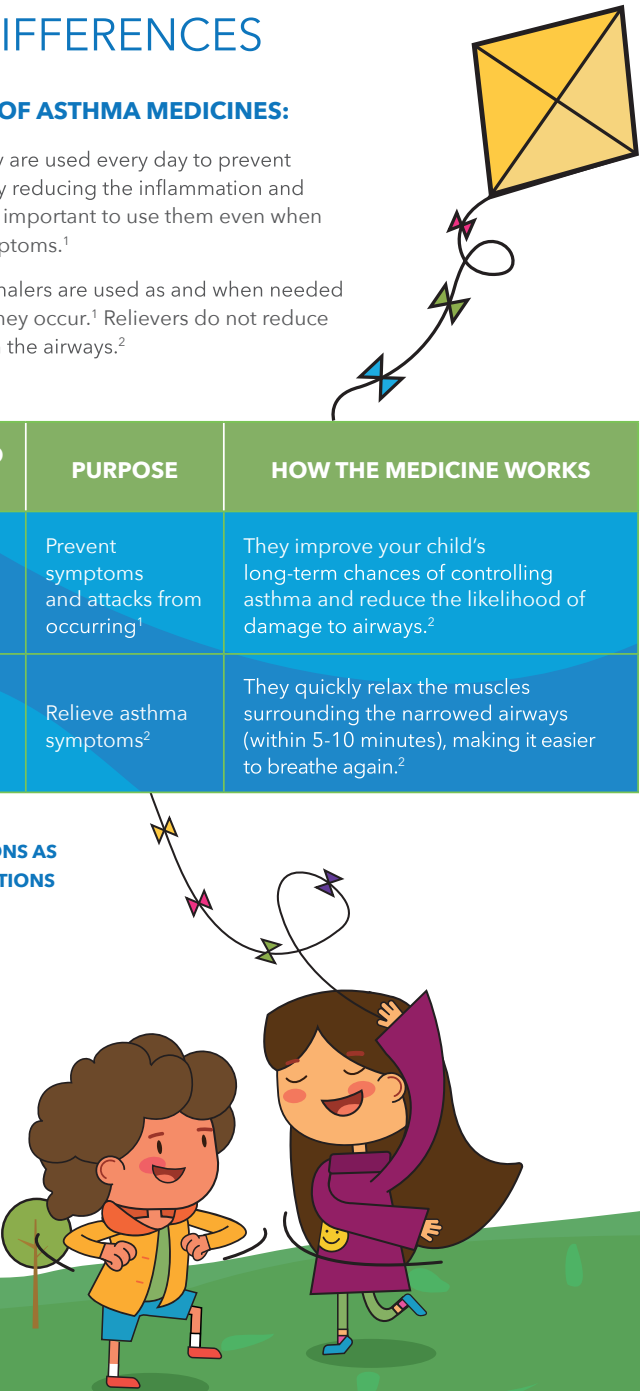
## KNOW THE DIFFERENCES

### THERE ARE TWO KINDS OF ASTHMA MEDICINES:

- Preventers (Controller): They are used every day to prevent symptoms from occurring by reducing the inflammation and sensitivity of the airways. It's important to use them even when your child doesn't have symptoms.<sup>1</sup>
- Relievers (Rescue): These inhalers are used as and when needed to relieve symptoms when they occur.<sup>1</sup> Relievers do not reduce the inflammation/swelling in the airways.<sup>2</sup>

KINDS OF TREATMENT	WHEN TO USE	PURPOSE	HOW THE MEDICINE WORKS
Preventer (Controller)	Every day, even when there are no symptoms <sup>1</sup>	Prevent symptoms and attacks from occurring <sup>1</sup>	They improve your child's long-term chances of controlling asthma and reduce the likelihood of damage to airways. <sup>2</sup>
Reliever (Rescue)	When symptoms occur <sup>1</sup>	Relieve asthma symptoms <sup>2</sup>	They quickly relax the muscles surrounding the narrowed airways (within 5-10 minutes), making it easier to breathe again. <sup>2</sup>

**ALWAYS USE YOUR MEDICATIONS AS PER YOUR DOCTOR'S INSTRUCTIONS**



# PARENT'S GUIDE TO NEBULIZING

## WHAT'S A NEBULIZER?

A Nebulizer is a machine that changes liquid medicine into a fine mist. The mist can then be breathed in through a facemask or mouthpiece.<sup>1</sup>

## FOLLOW THESE TIPS TO MAKE THE NEBULIZATION A PLEASANT EXPERIENCE FOR YOU AND YOUR CHILD:<sup>2</sup>

- Make it part of your daily routine. Use the nebulizer at the same time (or times) each day, so your child knows to expect it.
- Give treatment time a special name, like "breathe better time".
- Try to make it fun – read stories, sing songs, or pull out special toys just during nebulizer time.
- Watch a show together.
- Let your child decorate the nebulizer machine with stickers.
- Try having your child sit in a highchair. If that doesn't work, your little one might opt for sitting on your lap.
- For a restless baby, try using the nebulizer when he/she is sleeping.  
If your child is afraid of the mask, you can talk about how it's a "pilot" vor a "space mask".
- You might even show a movie about pilots or astronauts and use some of the lingo like "start your engines" before you turn the nebulizer on. You can also buy masks shaped like dragons and other animals.
- If your child is old enough, have him or her help you put the mask on, hold the tubing, and turn the machine on.
- Praise your child for a job well done!

**You can also let your child utilize The NEB Adventures App, which should keep him/her engaged throughout the nebulization period.**

**ALWAYS USE YOUR MEDICATIONS AS PER YOUR DOCTOR'S INSTRUCTIONS**

## REFERENCES:

1. Asthma UK. Getting emergency treatment through a nebulizer. Available at: <https://asthma.org.uk/advice/inhalers-medicines-treatments/treatments-a-and-e/nebulisers/>. Last accessed: October 19th 2017
2. Kid's Health. How can I help my child cooperate while using the nebuliser. Available at: <https://kidshealth.org/en/parents/cooperate-nebulizer.html>. Last accessed: October 17th 2017

# CAREGIVER NEBULIZING TIPS

## HOW TO USE A NEBULIZER?<sup>1</sup>

- Read the instructions and wash hands prior to assembling the nebulizer and preparing treatment.
- Make sure the machine is on a flat surface.
- Put the medicine into the cup. Connect the tubing to the machine and turn it on. A mist should come out.
- Put the mouthpiece in the mouth or put the mask on. The mask should fit snugly over the nose and mouth.
- The child should breathe in and out slowly and deeply, holding each breath for 1 or 2 seconds until medicine is gone from the cup (about 5-10 minutes).
- Turn the machine off and disconnect the tubing.
- If child is old enough, have him or her rinse mouth with water, or allow to drink water.
- Clean and then store the machine in a plastic bag.



# CARING FOR YOUR CHILD'S JET NEBULIZER

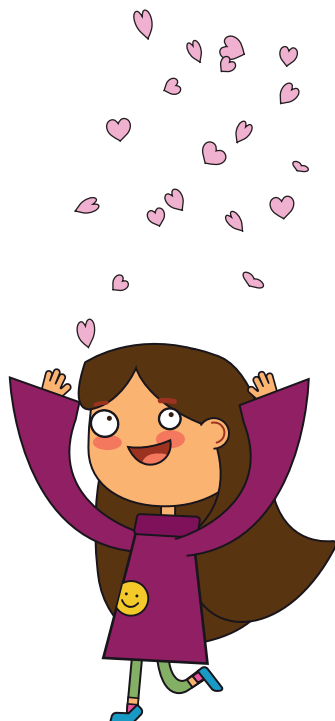
## NEBULIZERS NEED TO BE PROPERLY CARED FOR TO ENSURE THAT THEY WORK CORRECTLY:<sup>1</sup>

- Shake the excess moisture out of the tubing after every use. Running the machine for a few minutes while connected only to the tubing can remove excess moisture from the tubing.
- Follow the cleaning instructions that are included with the nebulizer. In most cases you will be advised to simply clean the parts well with soap and water and leave to air dry. A vinegar rinse may be recommended for nebulizers every 3 days.

## NEVER SHARE TUBING, MOUTHPIECES OR MACHINES.

### DO NOT SOAK THE TUBING!<sup>1</sup>

- Air-dry all nebulizer parts thoroughly before storing.
- Wipe down the nebulizer machine and the outside of the tubing with a damp cloth after every use.
- Check the filter every month and replace it if necessary.
- Store the machine in a plastic bag or container to reduce exposure to dust.



# ASTHMA ACTION PLAN<sup>1</sup>



## GO - USE CONTROLLER ASTHMA MEDICINE AS PRESCRIBED

If your child's breathing is good, then everything is okay.  
He/she can continue playing, laughing and doing other activities.

## CAUTION - ADD QUICK-RELIEF MEDICINE AS PRESCRIBED

If the child starts having more frequent and severe asthma symptoms, then he/she needs to be careful and you need to be aware of activities that can worsen his/her asthma.

## DANGER - GET HELP FROM A DOCTOR

If the child is having extreme difficulty breathing. This is an emergency and it is time to get help immediately.

### HERE ARE SOME COMMON TRIGGERS TO KEEP IN MIND

Allergens <sup>1</sup>	Irritants <sup>1,2</sup>	Other Triggers <sup>2</sup>
<input type="checkbox"/> Trees/Grass/Weed Pollen <input type="checkbox"/> Foods <input type="checkbox"/> Molds <input type="checkbox"/> Animals <input type="checkbox"/> Dust Mites <input type="checkbox"/> Cockroaches	<input type="checkbox"/> Strong Odors/Perfumes <input type="checkbox"/> Cigarette Smoke <input type="checkbox"/> Cooking Fumes <input type="checkbox"/> Wood Smoke <input type="checkbox"/> Household Cleaners <input type="checkbox"/> Strong odors from painting <input type="checkbox"/> Dust, Dirt, Soot and Smoke <input type="checkbox"/> Changes in weather (very hot or very cold) <input type="checkbox"/> Strong emotional expression (including crying or laughing hard) <input type="checkbox"/> Stress	<input type="checkbox"/> Certain medications <input type="checkbox"/> Food additives such as sulfites in food (dried fruit) or beverages (wine) <input type="checkbox"/> Reflux disease causing heartburn <input type="checkbox"/> Certain chemicals <input type="checkbox"/> Infections (viral infections)
<input type="checkbox"/> Additional Triggers		

Created for: .....

Phone: .....

Parent/Guardian: .....

Emergency Contact: .....

Created by: .....

Effective Date of Plan: .....

Phone: .....

Phone: .....

Nebulization ID: .....

#### REFERENCES:

1. California Childcare Health Program. Asthma Information Handbook. Available at: [https://cchp.ucsf.edu/sites/g/files/tkssra181/f/Handbook\\_EN\\_0606.pdf](https://cchp.ucsf.edu/sites/g/files/tkssra181/f/Handbook_EN_0606.pdf). Last accessed: October 19th-2017.
2. Vernula SK, et al. Asthma: Alternative Management Approaches. Asian J Pharm Clin Res. 2011;4(1):1-8

# ASTHMA ACTION PLAN<sup>1</sup>



## GO - USE MEDICINES AS PRESCRIBED EVERYDAY

### SIGNS & SYMPTOMS

- Child is well
- Good breathing
- No asthma symptoms
- No symptoms even during active play

MEDICINE	HOW MUCH TO TAKE	WHEN TO TAKE IT
FOR ASTHMA WITH EXERCISE, TAKE		
Comments:		

Peak flow above .....



## CAUTION - CONTINUE EVERYDAY MEDICINES AND ADD QUICK-RELIEF MEDICINE AS PRESCRIBED

### SIGNS & SYMPTOMS

- Coughing
- Wheezing
- Runny nose or other cold symptoms
- Breathing harder or faster
- Awakening due to coughing
- Playful and happy
- Playing less than usual

MEDICINE	HOW MUCH TO TAKE	WHEN TO TAKE IT
First		
Second		
FOR ASTHMA WITH EXERCISE, TAKE		
Comments:		

Peak flow from ..... to .....



## DANGER - GIVE MEDICINES AS PRESCRIBED AND CALL YOUR DOCTOR RIGHT AWAY

### SIGNS & SYMPTOMS

- Child's wheeze, cough or difficulty breathing continues or worsens, even after giving medicines.
- Child's breathing is so hard that he/she is having trouble walking/talking/ eating/ playing.
- Child is drowsy or less alert than normal.

EMERGENCY MEDICINE	HOW MUCH TO TAKE	WHEN TO TAKE IT
First		
Second		
Comments:		

Peak flow above .....



