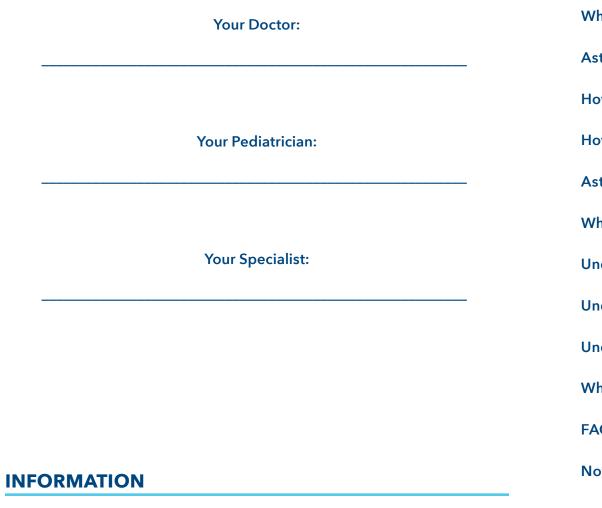
# Asthma Education Handbook



# **YOUR TEAM**



# Our Lady of the Lake

Press 2 for RN advice Press 4 to schedule a clinic visit

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# Our Lady of the Lake Children's Hospital

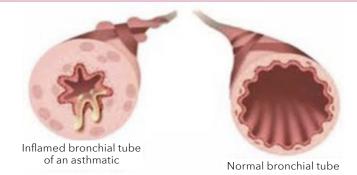
8300 Constantin Blvd. Baton Rouge, Louisiana 70809

## **TABLE OF CONTENTS**

<b>What is Asthma?</b>
Asthma Medicines
How to Use Inhalers with a Spacer and Mask
How to Use Inhalers with a Mouthpiece
Asthma Triggers 8
What is an Asthma Action Plan? 10
Understanding Your Cannister Medicine
Understanding Your Nebulizer Medicine
<b>Understanding Your Asthma Control Test</b> 16
What is a Peak Flow Meter? 18
<b>FAQs</b>
Notes

# WHAT IS ASTHMA?

Asthma is inflammation (swelling) in the lung airways. Even when your child is not having an attack and looks well, the swelling is present. Asthma often runs in families, especially those with eczema or allergies.



SWOLLEN ASTHMA AIRWAY

NORMAL AIRWAY

Asthma causes THREE things that make it hard to breathe:

- **1.** Swelling inside the airways
- 2. Tightening of the muscles surrounding the airway
- **3.** Increase in mucus

#### What are Asthma Symptoms?

- Coughing (often worse at night)
- Fast breathing/chest tightness
- Noisy breathing (wheezing)
- Chest caving in (retractions)

#### Other early warning signs

- Scratchy, itchy throat
- Tummy hurts, throwing up
- Runny nose, sneezing
- Red, watery eyes, dark circles under eyes
- Feels tired, quiet, lays around
- Change in behavior can't sleep, decreased appetite

# **ASTHMA MEDICINES**

## What types of medicine are used to treat asthma?

Asthma can be well controlled with the right medicines. Asthma medicines are safe and work well when taken correctly. The medicines are not addictive and your child will not become dependent on them. Please bring your medicines and spacers to doctor visits to review and make sure you're using them correctly.

#### There are two main asthma medications:

- 1. Rescue medicine or quick-relief medicine
- **2.** Controller medicine

# What RESCUE or QUICK RELIEF Inhaler do you use?

Albuterol is a drug that relaxes the muscles around the breathing airway. It opens the airway within minutes. It rescues your child, but does not help the swelling in the bronchial tube. This medicine is your "quick relief medicine." Always have Albuterol available.

Using quick relief medicine more than two times in a week may be a sign your child's asthma is not controlled. Please contact your doctor to discuss.

Some children also need quick-relief medication to "pretreat" before exercise or active play. This should allow exercise or active play without any asthma symptoms.

Circle the medicine you use to quickly relieve your asthma symptoms.

#### SHORT-ACTING BETA<sub>2</sub>-AGONIST BRONCHODILATORS

Relax tight muscles in airways and offer quick relief of symptoms such as coughing, wheezing and shortness of breath for 3-6 hours.

123 = DOSE INDICATOR () = GENERIC AVAILABLE DISEASE STAT



# What CONTROLLER medicine do you use?

Controller medicine controls swelling of the airways. Swelling is the silent part of asthma which can be dangerous and cause death. This medicine has to be taken consistently **every day** to work.

Take your controller routinely as prescribed. It may be prescribed once or twice per day. Talk to your provider if you are not certain how often to take your controller. The medicine does NOT work if your child misses a dose.

Tell your doctor if your child still uses quick relief or rescue medicine while taking controller medication regularly.

Controller medicine **should not be** used for symptoms of an asthma attack.

Circle your controller medicine.



#### **COMBINATION MEDICATIONS**

Contains both inhaled corticosteroid and long-acting beta<sub>2</sub>-agonist (LABA).

#### 123 = DOSE INDICATOR () = GENERIC AVAILABLE DISEASE STATES: () = ASTHMA () = COPD

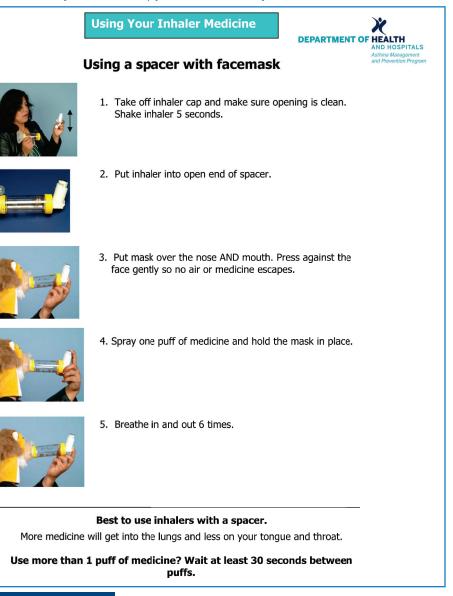




# HOW TO USE INHALERS WITH A SPACER AND MASK

## Important Tips for Children Under 9 Years Old

- Always use a spacer device with a face mask.
- Always sit or stand.
- Clean weekly in warm soapy water and air dry.



## HOW TO USE INHALERS WITH A MOUTHPIECE

## Important Tips for Children 9 Years and Older

- Always use a spacer device.
- Always sit or stand.
- Clean weekly with warm soapy water and air dry.
- Another type of inhaler is the breath actuated metered dose inhaler (MDI), in which the medication is driven into your lungs during inhalation instead of via a propellant as with other MDIs. Using this type of inhaler eliminates the need for hand-breath coordination during inhalation. The medicine is also readily available for use, with no shaking or priming needed.



# **ASTHMA TRIGGERS**

An asthma trigger is something that makes your asthma flare up. Work with your doctor to learn your child's triggers.

#### Use this checklist to check boxes next to what could trigger your child.

- Tobacco Smoke
  - Do not allow smoking in the home or car
  - Call 1-800-QUIT-NOW for confidential support, coaches, patches and gum. Our Lady of the Lake also offers programs to help you quit. Visit oloIrmc.com to learn more.
- Dust Mites
  - Dust mites are tiny bugs you cannot see that live in the carpet, bedding mattresses and stuffed animals
  - Use dust-proof mattress and pillow covers with zippers
  - Wash sheets and blankets once a week in hot water
  - Use containers with lids to store books and toys
  - Do not keep stuffed animals on the child's bed and wash them weekly
  - Dust regularly with a damp cloth and vacuum carpet and fabriccovered furniture
  - If possible, remove carpet
  - Use a Hepa Filter system in major rooms
  - Vacuum with a vacuum cleaner using a Hepa Filter
- Pet Dander
  - Pet dander is the flakes of skin that come from animals with fur and feathers.
  - When possible, keep pets with fur and feathers out of the home.
  - Keep pets out of child's bedroom and sleeping areas.
  - Keep pets off of fabric-covered furniture.
  - Wipe fur off of furniture.
  - Use a Hepa Filter system in major rooms.
  - Wash pets weekly.

- Cockroaches
  - Dried droppings from a cockroach can trigger asthma.
  - Store open food in closed containers (do not leave food out).
  - Empty the trash every day or keep in a closed container.
  - Clean all food crumbs and spills right away.
  - Avoid sprays by using roach baits and traps. If spraying is necessary, do not spray when the child is home.
- Mold
  - Dry areas that are damp (especially in basements and attics)
  - Fix leaky faucets, pipes or other sources of water.
  - Clean mold with bleach.
  - If possible, use dehumidifier.
- Strong Odors
  - Try to keep children away from strong odors and sprays such as perfume, cleaning products, bleach, incense, hair spray and paint.
- Exercise
  - Your child should be able to be active without symptoms.
  - See your child's doctor if they have asthma symptoms with exercise, play or when working hard.
- Respiratory Infections Colds and the flu
  - Wash hands often.
  - Get a flu shot every year.
  - Cough medication is NOT recommended.
- Outdoor Triggers Air Pollution
  - Exhaust from cars, buses or other automobiles.
- Emotions Laughing and crying
  - Take slow, deep breaths in and out through your nose.
  - Use quick relief medicine if needed.

# WHAT IS AN ASTHMA ACTION PLAN?

The doctor should give you a written plan to take care of your child with asthma. It tells you how to take your asthma medicines and what actions to take when symptoms flare-up. Everyone with asthma should have an asthma action plan. This plan is separated into three sections. *This is the most important paper given to you.* 



#### GREEN ZONE

The first section is the green zone. The green zone means your child is having no symptoms. If your child needs a controller medication for swelling it would be located in the green section. This medication must be taken every day consistently to work. It is very slow acting.

#### YELLOW ZONE

The next section is called the yellow zone. The yellow zone means your child is having symptoms. The rescue or quick relief medication to loosen the tight bands will be located in the yellow section.

#### **RED ZONE**

The last section is called the red zone. The red zone means your child is having severe symptoms. If your child needs the rescue medication sooner than four hours they need to see a doctor.

The school nurse, coach, and other caregivers will need a copy in order to know what to do for your child if an attack happens at school. The nurse will also need the proper papers signed to give your child their medication at school. The nurse will need your child's rescue medication.



#### **GREEN ZONE**

#### You have all of these:

- Breathing is goodNo cough or wheeze
- Can work/playSleeps all night

### **DOING WELL**

**Other Instructions:** 

Take these long-term control medicines each day If you have exercise induced asthma use the pre-exercise medication 15 min before exercise.



## YELLOW ZONE

You have any of these:

CoughWheeze

- Tight chest
- Coughing at night

## **ASTHMA IS GETTING WORSE**

#### **Other Instructions:**

**FIRST:** Take RESCUE INHALER Albuterol (Proair, Ventolin, Proventil) or Levalbuterol (Xopenex) 4 puffs every 20 minutes until symptoms resolve (MAXIMUM of 3 treatments)

#### SECOND:

- **A.** If your symptoms (and peak flows) return to Green Zone 20 minutes after the last albuterol treatment:
  - **1.** Take the Albuterol (Proventil,Ventolin) inhaler 4 puffs every 4 hours for 1 or 2 days
  - 2. Call your doctor if not better after 1-2 days
- **B.** If your symptoms (and peak flows) do NOT return to Green Zone 20 minutes after the last Albuterol treatment
  - 3. Take RESCUE INHALER 4 puffs one more time AND call your doctor NOW!
  - **4.** Follow RED ZONE instructions if unable to reach doctor after 20 minutes

continued on next page



#### **RED ZONE**

#### You have any of these:

- Medicine is not helping
- Breathing is hard and fast
- Nose opens wide
  - MEDICAL ALERT!

• Can't walk or talk well

• Ribs show

#### **Other Instructions:**

#### FIRST:

Take RESCUE INHALER Albuterol (Proair, Ventolin, Proventil) or Levalbuterol (Xopenex) 6 puffs *NOW!* 

#### SECOND:

Call 911 or go to the closest ER NOW!

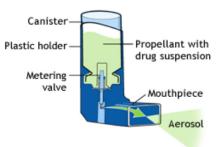
Take RESCUE INHALER 6 puffs every 20 minutes until paramedics/ER arrival

## CHECKLIST

Do v	'ou ł	nave	an	asthma	action	plan	at home?

- Do you have a rescue inhaler at home?
- Do you have an asthma action plan at school/daycare?
- Do you have a rescue inhaler at school/daycare?

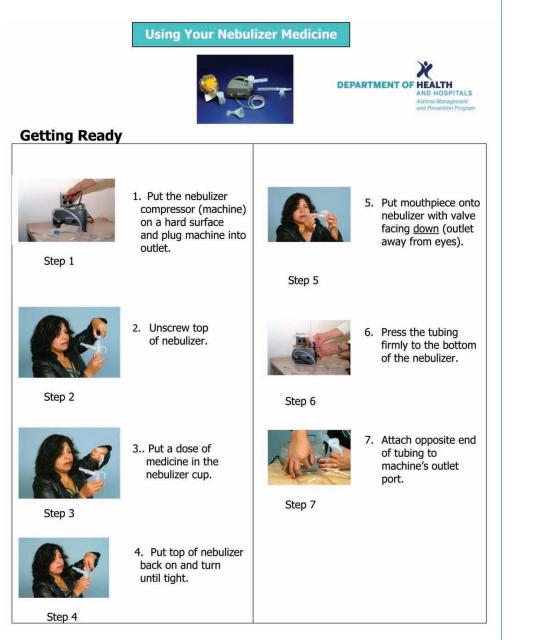
# UNDERSTANDING YOUR CANNISTER MEDICINE

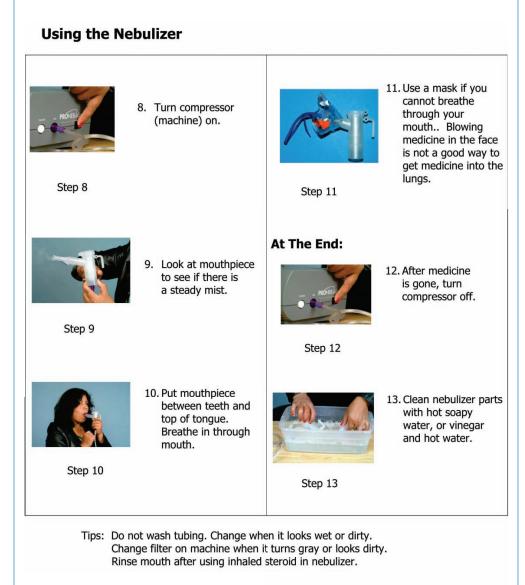


- 1. Inside the medication canister is filler (or Propellant), the medication is floating at the top of this filler. *SHAKE the canister five seconds before each spray.*
- 2. When used for the first time: Spray \_\_\_\_\_ times in the air. See chart below for number of times to spray your inhaler. REPEAT IF NOT USED FOR two weeks
- **3.** Always use a spacer.
- 4. Keep the spacer clean. Wash weekly in warm soapy water and air dry.

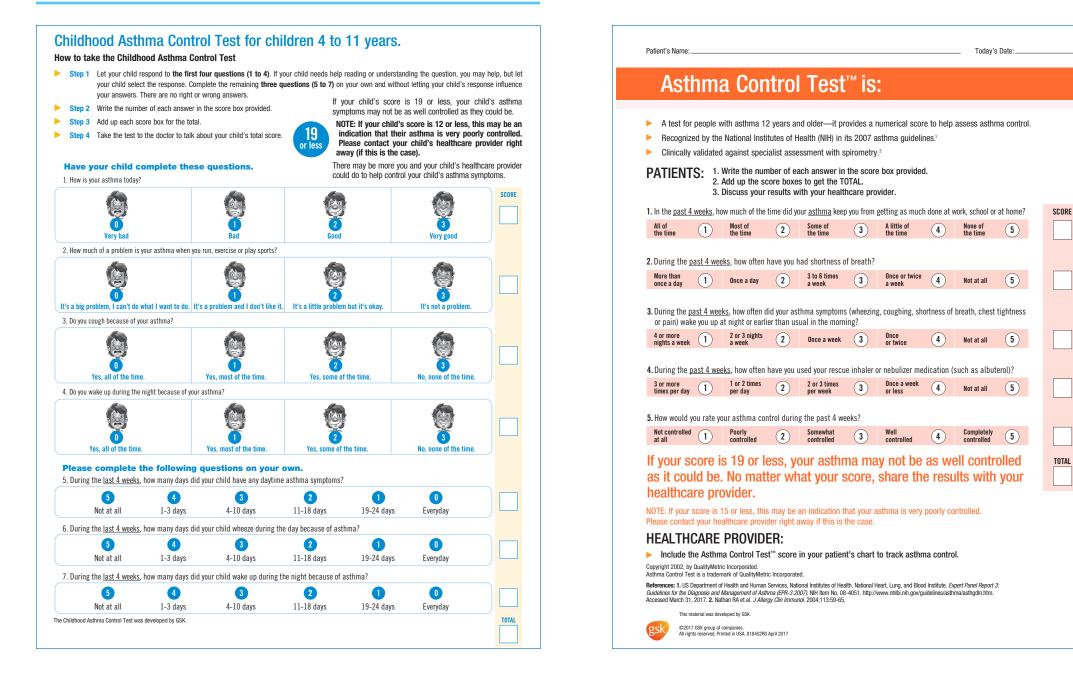
MEDICATION	FIRST TIME TO GIVE MEDICINE	REPRIME		
VENTOLIN	4 Sprays	If not used for 2 weeks		
PROAIR	3 Sprays	If not used for 2 weeks		
PROVENTIL	4 Sprays	If not used for 2 weeks		
XOPENEX	4 Sprays	After not using for 3 days		
FLOVENT	4 Sprays	1 Spray after dropping or 7 days of not using it		
DULERA	4 Sprays	If not used for 5 days		
ADVAIR	4 Sprays	2 Sprays after dropping or 4 weeks of not using		
QVAR	2 Sprays	After 10 days of not using		
SYMBICORT	2 Sprays	After dropping or 7 days of non use		
ROUND DISC Dry Powder	Do fast inhale and hold breath for 10 seconds	RINSE OUT YOUR MOUTH AFTER. Never blow into the dry powder.		

## UNDERSTANDING YOUR NEBULIZER MEDICINE





# **UNDERSTANDING YOUR ASTHMA CONTROL TEST**



# WHAT IS A PEAK FLOW METER?

A peak flow meter can help tell you if your child has swelling at home. It measures the breath blown out. Peak flow testing is variable so it is not a sensitive measure of obstruction. Peak flow is no longer recommended for the diagnosis of asthma. However, it may have a role in monitoring.

Use your meter every day and write down the best number of three attempts. Peak flow should not be a substitute to using your inhalers.

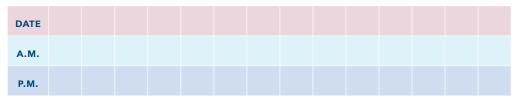
Green zone is 80-100% of best effort, yellow zone is 50-80% of best effort, and red zone is below 50% of the best effort.



## How to use a peak flow meter

- Place indicator at the bottom of the scale.
- Stand up.
- Take a deep breath.
- Place the meter in the mouth and close lips around the mouthpiece.
- Blow out as hard and fast as you can.
- Write the number you get
- Repeat two more times
- Mark the highest of the three numbers you get on your peak flow record.

#### My predicted peak flow is \_\_\_\_\_.



My personal best peak flow is \_\_\_\_\_.

# FAQS

# Can asthma be cured?

Asthma cannot be cured, but it can be controlled.

# What is the goal of asthma treatment?

To decrease airway swelling and narrowing so children have fewer symptoms and flare-ups.

## What is controlled asthma?

- Symptom free most of the time or not using quick relief medicine more than twice in a week
- Able to exercise and play like other children
- Sleeping through the night without coughing
- Not missing school or work due to asthma flare-ups
- Not needing to fill your rescue or quick relief medicine more than twice a year unless needed for exercise.

## How can I help my child have controlled asthma?

- Attend regular doctor visits every three to six months. Asthma is a chronic disease that can change over time, and your doctor may need to increase or decrease your medication.
- Work with your doctor to learn your child's asthma triggers (things that may increase symptoms) and learn how to avoid them.
- Understand how your medications work

## How is asthma diagnosed?

- By a doctor's visit, history and physical exam.
- A spirometry test may be performed. It can help the doctor know more about your child's asthma. It is a simple breathing test than can be done by the age of four or five years old.

## Should I give cough medicine when my child coughs?

Cough medication is NOT recommended. Remember some kids' only symptom of asthma is a cough!

# When do I call the doctor?

- Becomes worse even though you have been giving the asthma medications
- Is sick enough to miss school because of wheezing
- Has a fever of 101 degrees by mouth
- Cannot sleep at night because of wheezing, breathing trouble and coughing
- Has a peak flow meter that
  - Falls into the yellow zone
  - Does not respond to medicine

## When do I go to the emergency room?

- His or her neck, chest or ribs sinking in deeply when breathing
- Trouble breathing, walking or talking
- Fingernails or lips that turn blue
- Cannot speak well because he or she is working so hard to breathe
- Peak flow meter reading that drops after treatment
- Falls into the red zone on the asthma action plan

## Remember the RULE OF 2

- If your child is using rescue medication more than twice in a week
- If your child is waking up at night with a cough or asthma symptoms more than twice in a month
- If your child is using more than two canisters in a year
- If their peak flow drops lower than 20% of their best effort

This may mean their asthma is not being well controlled. Tell your doctor.

## What about the flu shot?

Yes! It is recommended that all children and their families get a flu shot every year. Children with asthma should not get the nasal flu vaccine.

# NOTES



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