YOUR TEAM

Your Doctor:

__________________________________________________________

Your Pediatrician:

__________________________________________________________

Your Specialist:

__________________________________________________________

INFORMATION

Our Lady of the Lake Children’s
Health Pulmonology:  (225) 765-3456

Our Lady of the Lake Children’s Health
Allergy/Immunology:  (225) 765-6834

Our Lady of the Lake Children’s Hospital
Emergency Room:  (225) 765-8853

Lake After Hours Kids:  (225) 765-KIDS (5437)
ololchildrens.org

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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.

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 BETA2-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.

<table>
<thead>
<tr>
<th>Brand Name</th>
<th>Dose Indicator</th>
<th>Generic Available</th>
<th>Disease States</th>
</tr>
</thead>
<tbody>
<tr>
<td>ProAir® HFA</td>
<td>ProAir® HFA</td>
<td>ProAir® HFA</td>
<td>A = ASTHMA</td>
</tr>
<tr>
<td>ProAir® RespIClick® HFA</td>
<td>ProAir® RespIClick® HFA</td>
<td>ProAir® RespIClick® HFA</td>
<td>A = ASTHMA, B = COPD</td>
</tr>
<tr>
<td>Proventil® HFA</td>
<td>Proventil® HFA</td>
<td>Proventil® HFA</td>
<td>A = ASTHMA, B = COPD</td>
</tr>
<tr>
<td>Ventolin® HFA</td>
<td>Ventolin® HFA</td>
<td>Ventolin® HFA</td>
<td>A = ASTHMA, B = COPD</td>
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<tr>
<td>Xopenex® HFA</td>
<td>Xopenex® HFA</td>
<td>Xopenex® HFA</td>
<td>A = ASTHMA, B = COPD</td>
</tr>
</tbody>
</table>
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.

Have your child take it when they wake up and before they go to sleep, even when they are not sick. 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.

**INHALED CORTICOSTEROIDS**

Reduce and prevent swelling of airway tissue; they do not relieve sudden symptoms of coughing, wheezing or shortness of breath.
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.

Using Your Inhaler Medicine

Using a spacer with facemask

1. Take off inhaler cap and make sure opening is clean. Shake inhaler 5 seconds.

2. Put inhaler into open end of spacer.

3. Put mask over the nose AND mouth. Press against the face gently so no air or medicine escapes.

4. Spray one puff of medicine and hold the mask in place.

5. Breathe in and out 6 times.

Best to use inhalers with a spacer.
More medicine will get into the lungs and less on your tongue and throat.

Use more than 1 puff of medicine? Wait at least 30 seconds between puffs.

Spray inhaler with a tube type spacer or holding chamber

Using Your Inhaler Medicine

Step 1
Take off cap and Make sure opening is clean. Shake inhaler 5 seconds.

Step 5
Start to take a slow deep breath. If you hear a whistle, breathe slower, but keep taking a deep breath. Do not breathe through your nose.

Step 2
Put inhaler into spacer.

Step 6
Take the spacer out of your mouth and hold your breath. Count to 10 slowly.

Step 3
Breathe out all the air in your lungs.

Step 7
Breathe out slowly, like cooling soup on a spoon.

Step 4
Put spacer in your mouth and close lips tightly around the mouthpiece.

Spray one puff of medicine into the spacer.

Best to use inhalers with a spacer.
More medicine will get into the lungs and less on your tongue and throat.

Use more than 1 puff of medicine? Wait at least 30 seconds between puffs.
**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 ololrmc.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 fabric-covered furniture
  - If possible, remove carpet
  - Use a Hepa Filter system in major rooms
  - 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.

- **Irritants**
  - 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.
**RED ZONE**

You have any of these:
- Medicine is not helping
- Breathing is hard and fast
- Nose opens wide
- Can’t walk or talk well
- Ribs show

**MEDICAL ALERT!**

**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

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**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.

**CHECKLIST**

- Do you have 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?

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**MEDICATION**

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

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| Dry Powder   |                                        |                                            |

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UNDERSTANDING YOUR NEBULIZER MEDICINE

Using Your Nebulizer Medicine

Getting Ready

1. Put the nebulizer compressor (machine) on a hard surface and plug machine into outlet.

5. Put mouthpiece onto nebulizer with valve facing down (outlet away from eyes).

2. Unscrew top of nebulizer.

6. Press the tubing firmly to the bottom of the nebulizer.

3. Put a dose of medicine in the nebulizer cup.

7. Attach opposite end of tubing to machine's outlet port.

4. Put top of nebulizer back on and turn until tight.

Using the Nebulizer

Step 8

8. Turn compressor (machine) on.

At The End:

Step 11

11. Use a mask if you cannot breathe through your mouth. Blowing medicine in the face is not a good way to get medicine into the lungs.

Step 9

9. Look at mouthpiece to see if there is a steady mist.

12. After medicine is gone, turn compressor off.

Step 10


Step 13

13. Clean nebulizer parts with hot soapy water, or vinegar and hot water.

Tips:

Do not wash tubing. Change when it looks wet or dirty. Change filter on machine when it turns gray or looks dirty. Rinse mouth after using inhaled steroid in nebulizer.
### Understanding Your Asthma Control Test

#### Childhood Asthma Control Test for children 4 to 11 years.

**How to take the Childhood Asthma Control Test:**

1. **Step 1**: Let your child respond to the first four questions (1 to 4). If your child needs help reading or understanding the question, you may help, but let your child select the response. Complete the remaining three questions (5 to 7) on your own and without letting your child’s response influence your answers. There are no right or wrong answers.

2. **Step 2**: Write the number of each answer in the score box provided.

3. **Step 3**: Add up each score box for the total.

4. **Step 4**: Take the test to the doctor to talk about your child’s total score.

#### Have your child complete these questions.

1. **How is your asthma today?**

   - **Very bad**
   - **Bad**
   - **Good**
   - **Very good**

2. **How much of a problem is your asthma when you run, exercise or play sports?**

   - **It's a big problem, I can't do what I want to do.**
   - **It's a problem and I don't like it.**
   - **It's a little problem but it's okay.**
   - **It's not a problem.**

3. **Do you cough because of your asthma?**

   - **Yes, all of the time.**
   - **Yes, most of the time.**
   - **Yes, some of the time.**
   - **No, none of the time.**

4. **Do you wake up during the night because of your asthma?**

   - **Yes, all of the time.**
   - **Yes, most of the time.**
   - **Yes, some of the time.**
   - **No, none of the time.**

5. **During the last 4 weeks, how many days did your child have any daytime asthma symptoms?**

   - **Not at all**
   - **1-3 days**
   - **4-10 days**
   - **11-18 days**
   - **19-24 days**
   - **Everyday**

6. **During the last 4 weeks, how many days did your child wake up during the night because of asthma?**

   - **Not at all**
   - **1-3 days**
   - **4-10 days**
   - **11-18 days**
   - **19-24 days**
   - **Everyday**

7. **During the last 4 weeks, how many times per day did your child wake up during the night because of asthma?**

   - **Not at all**
   - **1 or 2 times per day**
   - **3 to 6 times per day**
   - **7 or more times per day**
   - **Everyday**

**SCORE**

<table>
<thead>
<tr>
<th>Item</th>
<th>Score</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How is your asthma today?</td>
<td>19 or less</td>
<td></td>
</tr>
<tr>
<td>2. How much of a problem is your asthma when you run, exercise or play sports?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Do you cough because of your asthma?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Do you wake up during the night because of your asthma?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. During the last 4 weeks, how many days did your child have any daytime asthma symptoms?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. During the last 4 weeks, how many days did your child wake up during the night because of asthma?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**TOTAL**

If your child’s score is 19 or less, your child’s symptoms may not be as well controlled as they could be. Please contact your child’s healthcare provider if this is the case.

### Patient Score:

**Asthma Control Test™ is:**

- A test for people with asthma 12 years and older—it provides a numerical score to help assess asthma control.
- Recognized by the National Institutes of Health (NIH) in its 2007 asthma guidelines:
- Clinically validated against specialist assessment with a peak flow meter.

**PATIENTS:**

1. Write the number of each answer in the score box provided.
2. Add up the score boxes to get the TOTAL.
3. Discuss your results with your healthcare provider.

**SCORE**

<table>
<thead>
<tr>
<th>Item</th>
<th>Score</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How much of the time did your asthma keep you from getting as much done at work, school or at home?</td>
<td></td>
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</tr>
<tr>
<td>2. During the past 4 weeks, how often have you had shortness of breath?</td>
<td></td>
<td></td>
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<tr>
<td>3. During the past 4 weeks, how often did your asthma symptoms (wheezing, coughing, shortness of breath, chest tightness or pain) wake you up at night or earlier than usual in the morning?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. During the past 4 weeks, how often have you used your rescue inhaler or nebulizer medication (such as albuterol)?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. How would you rate your asthma control during the past 4 weeks?</td>
<td></td>
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</tbody>
</table>

If your score is 19 or less, your asthma may not be as well controlled as it could be. No matter what your score, share the results with your healthcare provider.

**NOTE:** If your score is 15 or less, this may be an indication that your asthma is very poorly controlled. Please contact your healthcare provider right away if this is the case.

### Healthcare Provider:

**Include the Asthma Control Test™ score in your patient’s chart to track asthma control.**

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**References:**

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. It cannot diagnose asthma, but it can be used to monitor asthma at home. It is important to blow into the peak flow meter with great effort even when not feeling well.

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 _______.

<table>
<thead>
<tr>
<th>DATE</th>
<th></th>
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<tbody>
<tr>
<td>A.M.</td>
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<tr>
<td>P.M.</td>
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</tbody>
</table>

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 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.