

# Asthma

## What is asthma?

Asthma is a lung condition that results in swelling and irritation of the airways and causes wheezing, coughing, and shortness of breath. The airways are the tubes that carry air in and out of your lungs. If you have asthma, the airways in your lungs are always a little swollen, even when you do not have any symptoms. Your airways are always more sensitive than normal and may react strongly to triggers that irritate them, like dust, pollen, and colds. The reaction causes them to become more swollen and make more mucus. Also, the tiny muscles in the walls of the airways tighten, which cause the airway openings to become smaller. This makes it harder for air to move in and out. Asthma may be mild, moderate, or severe. Symptoms may occur throughout the year, at specific times of year, or only very rarely.

## What can I expect in the hospital?

You may need to stay in the hospital because:

- You are having a lot of trouble breathing
- Your oxygen level is very low
- You have other medical conditions which are making your asthma symptoms worse

Several things may be done while you are in the hospital to monitor, test, and treat your condition. They include:

### **Monitoring:**

- You will be checked often by the hospital staff.
- Your blood oxygen level will be monitored by a sensor that is attached to your finger or earlobe.
- Your heart rate, blood pressure, and temperature will be checked regularly.

### **Testing:**

Testing may include:

- **Spirometry:** A breathing test that measures how well you breathe in and out. You may be tested before and after taking medicine to see how your symptoms respond to medicine.
- **X-rays:** Pictures of the inside of the chest and lungs to check for infections or other abnormalities
- **A blood test called an arterial blood gas (ABG) test** to measure the levels of oxygen and carbon dioxide in your blood
- **Sputum culture:** A test in which fluid made in the lungs is tested to check for cancer cells or infections
- **Bronchoscopy:** A test in which a slim, flexible, lighted tube called a bronchoscope is passed through your mouth and down into your lung to see

abnormal areas. Sometimes one or more pieces of tissue are removed to help make a diagnosis. This is called a biopsy.

### **Treatment:**

Your healthcare provider will determine what treatments you need based on how you feel and how quickly you get better with the treatments given.

- You may get oxygen through a small tube placed under your nose or through a mask placed over your face. In very severe cases, you may need a breathing tube put down your throat to help you breathe.
- You will have a small tube (IV catheter) inserted into a vein in your hand or arm. This will allow for medicine to be given directly into your blood and to give you fluids, if needed.
- Your provider may prescribe medicine to:
  - Relax your airways and prevent asthma attacks
  - Stop asthma symptoms
  - Reduce swelling in the airways
  - Reduce acid in the stomach

### **What can I do to help?**

- Tell your healthcare team if you have new or worsening:
  - Trouble breathing
  - Wheezing (a high-pitched whistling sound when you breathe in or out)
  - Chest tightness
  - Cough
- Ask questions about any medicine or treatment or information that you do not understand.

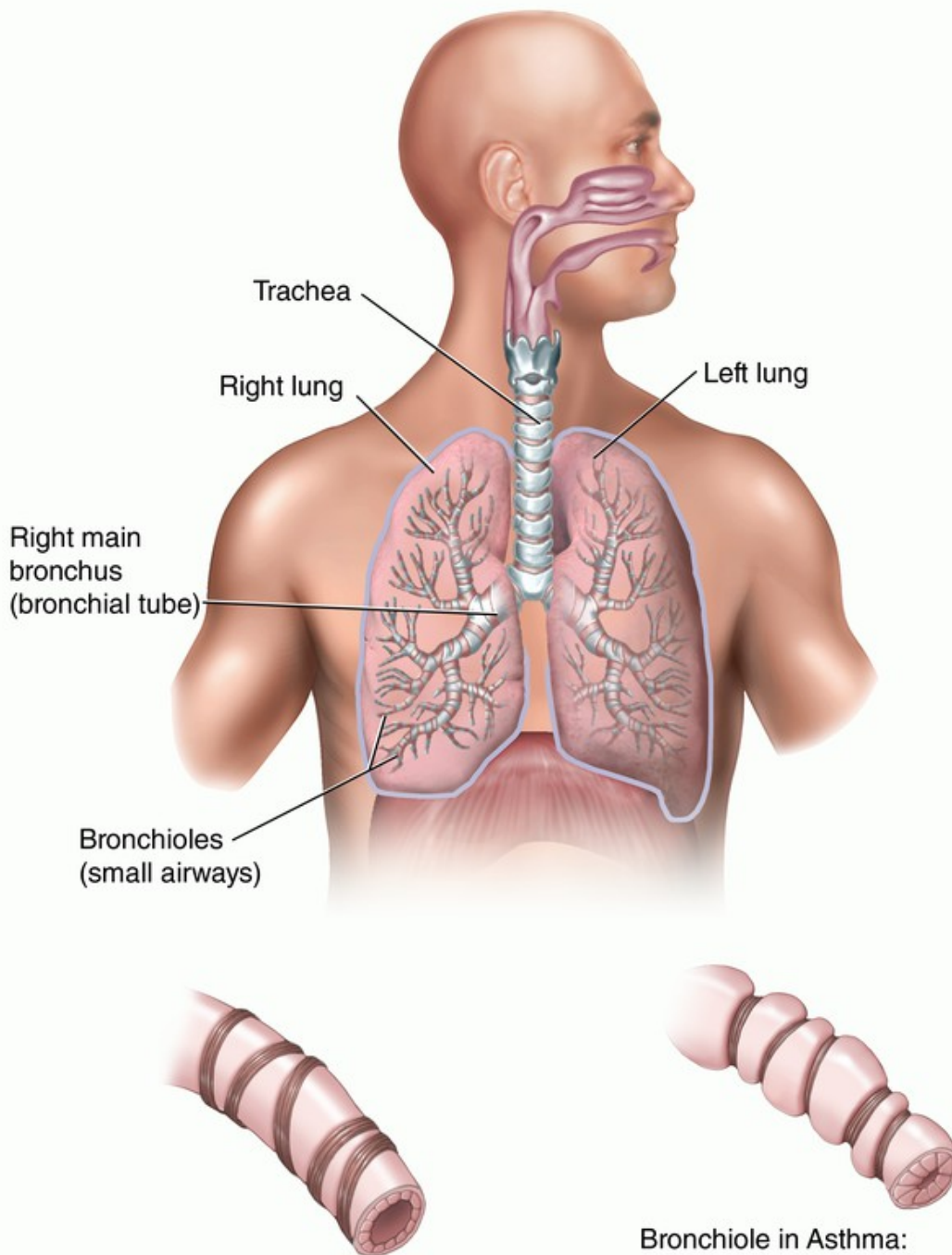
### **How long will I be in the hospital?**

How long you stay in the hospital depends on many factors. The average amount of time to stay in the hospital to treat asthma is 3 to 4 days. Your provider will make sure that you are breathing easily, your oxygen levels and other medical conditions are stable, and that you will be able to care for yourself when you go home.

Developed by RelayHealth.

*This content is reviewed periodically and is subject to change as new health information becomes available. The information is intended to inform and educate and is not a replacement for medical evaluation, advice, diagnosis or treatment by a healthcare professional.*

# Asthma



**Normal Bronchiole:**  
Muscles around the bronchiole have normal amount of tone.

**Bronchiole in Asthma:**  
Tightened muscles around the bronchiole and swelling of the bronchiole lining cause the airway to narrow during an asthma attack.

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# My Asthma Action Plan

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




Parent/Guardian: \_\_\_\_\_

Healthcare Provider: \_\_\_\_\_

Phone for healthcare provider: \_\_\_\_\_

Phone for taxi or friend: \_\_\_\_\_ Emergency #911 \_\_\_\_\_

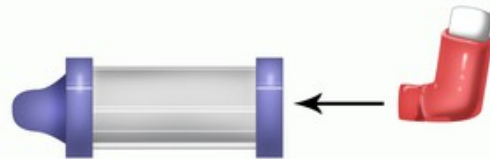
Other instructions: \_\_\_\_\_

<b>I feel GOOD (Green)</b>	<ul style="list-style-type: none"> <li>Breathing is easy.</li> <li>No cough or wheeze.</li> <li>Can work and play</li> </ul> 	<input type="checkbox"/> Use asthma long-term control medicine. <table border="1"> <thead> <tr> <th>Medicine:</th> <th>How taken:</th> <th>How much:</th> <th>When:</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____ times a day</td> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____ times a day</td> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____ times a day</td> </tr> </tbody> </table> <p>Peak Flow Numbers: _____ to _____</p> <p>20 minutes before exercise or sports, take _____ puffs of _____</p>	Medicine:	How taken:	How much:	When:	_____	_____	_____	_____ times a day	_____	_____	_____	_____ times a day	_____	_____	_____	_____ times a day				
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<b>I do NOT feel good (Yellow)</b>	<ul style="list-style-type: none"> <li>Cough</li> <li>Wheeze</li> <li>Hard to breathe</li> <li>Wake up at night.</li> <li>Can do some, but not all activities.</li> </ul> 	<p><b>TAKE</b> _____ puffs of quick-relief medicine. If not back in the <b>Green Zone</b> within 20 to 30 minutes, take _____ more puffs.</p> <table border="1"> <thead> <tr> <th>Medicine:</th> <th>How taken:</th> <th>How much:</th> <th>When:</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>every _____ hours</td> </tr> </tbody> </table> <p><b>KEEP USING</b> long-term control medicine:</p> <table border="1"> <thead> <tr> <th>Medicine:</th> <th>How taken:</th> <th>How much:</th> <th>When:</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____ times a day</td> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____ times a day</td> </tr> </tbody> </table> <p>Peak Flow Numbers: _____ to _____</p> <p>Call healthcare provider if quick-relief medicine does not work OR if these symptoms happen more than twice a week.</p>	Medicine:	How taken:	How much:	When:	_____	_____	_____	every _____ hours	Medicine:	How taken:	How much:	When:	_____	_____	_____	_____ times a day	_____	_____	_____	_____ times a day
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_____	_____	_____	_____ times a day																			
_____	_____	_____	_____ times a day																			
<b>I feel AWFUL (RED)</b>	<ul style="list-style-type: none"> <li>Medicine does not help.</li> <li>Breathing is hard and fast.</li> <li>Can't walk well.</li> <li>Can't talk.</li> <li>Feel very scared</li> </ul> 	<p><b>Get help now!</b> Take these quick-relief medicines until you get emergency care.</p> <table border="1"> <thead> <tr> <th>Medicine:</th> <th>How taken:</th> <th>How much:</th> <th>When:</th> </tr> </thead> <tbody> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> <tr> <td>_____</td> <td>_____</td> <td>_____</td> <td>_____</td> </tr> </tbody> </table> <p>Peak Flow Number: Under _____</p> <p><b>Call 911</b> if can't walk or talk because it is too hard to breathe OR if lethargic OR if skin is sucked in around neck and ribs during breaths OR if lips or fingernails are gray or blue.</p>	Medicine:	How taken:	How much:	When:	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____				
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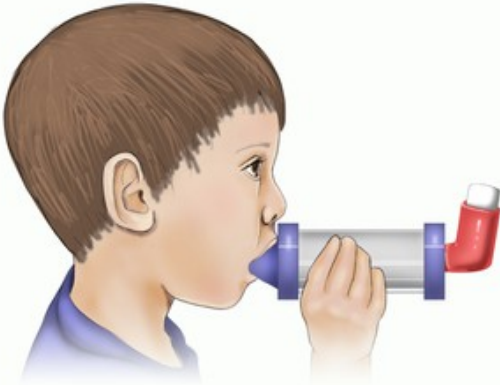
## Metered-Dose Inhaler: How to Use with a Spacer



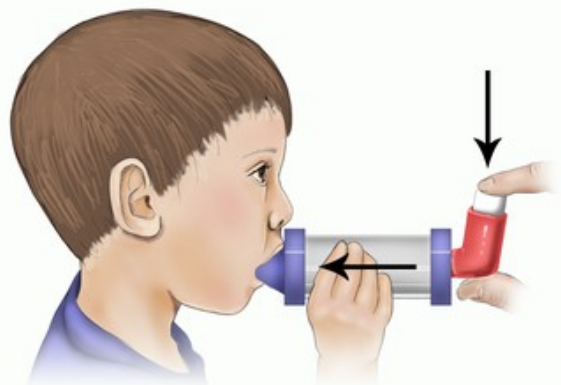
1. Shake the medicine.



2. Insert the mouthpiece of the inhaler into the rubber-sealed end of the spacer.



3. Breathe all of the air out of your lungs. Then put the spacer into your mouth between your teeth. Make a tight seal around the mouthpiece with your lips.



4. Press the metered-dose inhaler down once to release a spray of medicine. The medicine will be trapped in the spacer. Breathe in slowly and deeply.



5. Hold your breath for 5 to 10 seconds and then breathe out slowly. If you cannot hold your breath, another method is to breathe in and out slowly for 3 to 5 breaths.

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# Metered-Dose Inhaler: How to Use



1. Shake the medicine.



Or



2a. Hold the inhaler so that the mouthpiece is 1 and 1/2 to 2 inches (about 2 to 3 finger widths) in front of your open mouth. Breathe out normally. Press the inhaler down once so it releases a spray of medicine into your mouth while you breathe in slowly. Continue to breathe in as slowly and deeply as possible.

2b. If holding the inhaler in front of your mouth is too hard, breathe out all the way and then place the mouthpiece in your mouth and close your lips around it. Press the inhaler down once to release a spray of medicine into your mouth while you breathe in slowly.



3. Hold your breath for 10 seconds, or as long as is comfortable. Breathe out slowly.

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## How to Use a Nebulizer



1. Put medicine into the medicine cup.



2. Attach the mouthpiece or mask to the medicine cup.



3. Attach the medicine cup to the compressor tubing.



4. Place the mouthpiece in your mouth or place the face mask over your nose and mouth. Breathe through your mouth until all of the medicine is gone.

Ask your healthcare provider or pharmacist if you should wear gloves when you use a nebulizer to give medicine to someone else.

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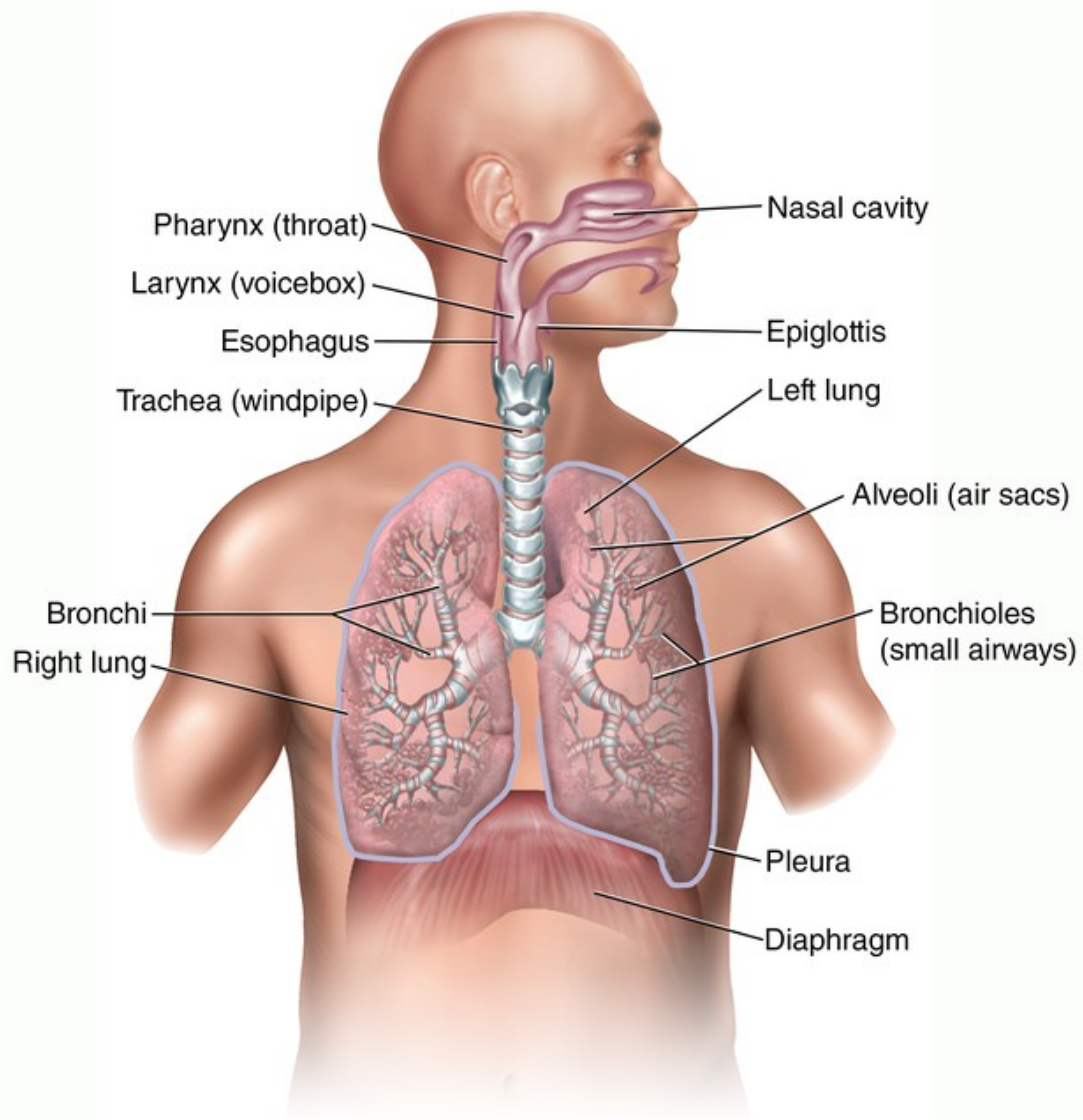
## Peak Flow Record

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# Respiratory System



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