

## Why use an Inhaler with a Spacer?

Use of a spacer allows your child to receive more of the medication from their metered dose inhaler (MDI). Usually, the amount of medication inhaled is dependent on the technique used to receive it. Using a spacer simplifies the process of using a MDI. Once the MDI is sprayed, the medication is contained within the spacer and it stays there until your child inhales it.

## How do I Use an Inhaler with a Spacer?

Shake the MDI vigorously 5 times.

Insert MDI into the spacer.

Place spacer mouthpiece into mouth and close lips.

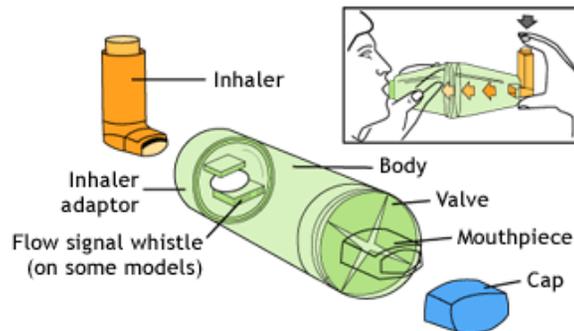
Depress medication into canister, spraying one puff into spacer.

Inhale deeply and slowly through mouth for 3-5 seconds.

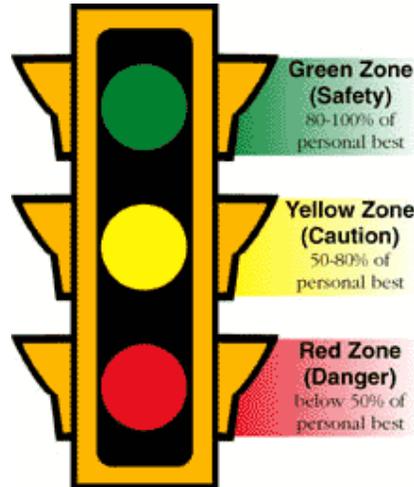
Hold breath for 10 seconds.

Remove MDI and spacer before exhaling.

(Potter, Perry, Stockert, & Hall, 2013)



Inhaler with spacer [Photograph]. (2014). Retrieved October 31, 2014 from: <http://www.asthma.ca/adults/treatment/spacers.php>



Action plan traffic light [Photograph]. (2014). Retrieved October 31, 2014 from: <http://whatasthmais.com/peak-flow-meter-family-teaching-tips-for-an-asthmatic-child-by-editer/>

## References

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# Asthma

An informative guide to assist parents and their children with managing asthma.



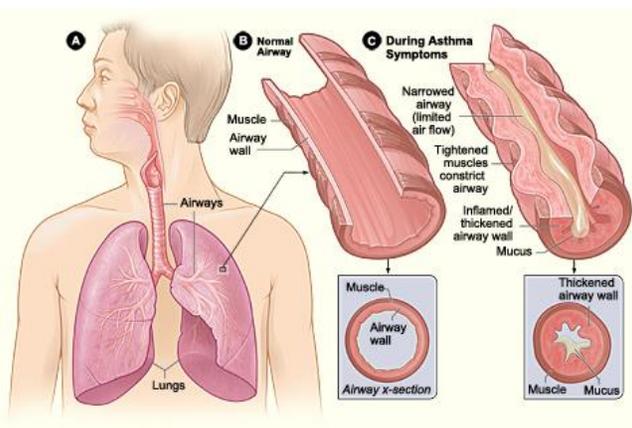
Child with inhaler [Photograph]. (2014). Retrieved October 31, 2014 from: <http://bodysmartinc.com/photoid/how-to-use-an-albuterol-inhaler-with-spacer>

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## What is Asthma?

Asthma is the most prevalent chronic disease in childhood. The condition is an allergic reaction to certain inhaled allergens, irritants, germs, stress, or exercise that creates a complex response characterized by spasms in the lungs and inflammation, swelling in the walls of bronchioles, and secretion of mucus into airways. These factors greatly increase breathing difficulty, especially when exhaling, and produce the symptoms of wheezing, abnormal breathing, and feelings of tightness in the chest.

(Jarvis, 2012)



Asthma airway[Photograph]. (2014). Retrieved October 31, 2014 from: <http://www.nhlbi.nih.gov/health/health-topics/topics/asthma/>

## What are some ways to manage Asthma?

- Peak Flow Meter
- Asthma Action Plan
- Inhaler with Spacer



Peak flow meter [Photograph]. (2014). Retrieved October 31, 2014 from: [http://libandlearn.blogspot.com/2013/01/using-peak-flow-meter-for-asthma\\_18.html](http://libandlearn.blogspot.com/2013/01/using-peak-flow-meter-for-asthma_18.html)

## What is a Peak Flow Meter?

A peak flow meter measures the maximum flow of air that can be forcefully exhaled in 1 second. This is called the peak expiratory flow rate (PEFR). Each child must identify their personal best PEFR to establish a baseline measurement for comparison with future readings. To establish a personal best PEFR, the child must record their PEFR during a 2-3 week period when their asthma is under control. During this time, the child should record their PEFR at least twice a day. Once the child's personal best PEFR has been established, it can be used to help identify the stability of their asthma control.

The results of the peak flow meter are categorized by three different zones: Green, Yellow, or Red.

**Green Zone:** 80-100% of personal best; Asthma is reasonably under control.

**Yellow Zone:** 50-80% of personal best; Asthma is not controlled well.

**Red Zone:** Less than 50% of personal best; this zone signals a medical alert. A short-acting bronchodilator should be administered. Notify your practitioner if the PEFR does not return immediately and stay in the yellow or green zones.

(Hockenberry & Wilson, 2013)

## What is an Asthma Action Plan?

An asthma action plan is something that everyone with asthma should have available. It is a written plan that is created by a patient and their healthcare provider to instruct the patient on what to do if symptoms occur. The asthma action plan is individualized for each patient and helps them to prevent their asthma symptoms from worsening.

The asthma action plan has three zones: green, yellow, and red. These zones correspond with the peak flow meter, the severity of symptoms, and the actions and medications that are required during each zone.

### Green Zone:

Breathing is good.  
No cough or wheeze.  
Sleep through the night.  
Can work and play.  
Give preventative (green) medicine.

### Yellow Zone:

First sign of a cold.  
Exposure to a trigger.  
Cough, or mild wheeze.  
Tight chest.  
Cough at night.  
Continue with preventative medicine and add prescribed rescue (yellow) medicine.

### Red Zone:

Medicine is not helping within 15-20 minutes.  
Breathing is hard and fast.  
Nose opens wide.  
Ribs show.  
Lips are blue.  
Fingernails are blue.  
Trouble walking or talking.  
Continue with rescue (yellow) medicine, call 911 and your provider.

Maryland Department of Health and Mental Hygiene. ( no date). Asthma Action Plan, (DHMH Form No. 4643). Baltimore. Department of Health and Mental Hygiene.