



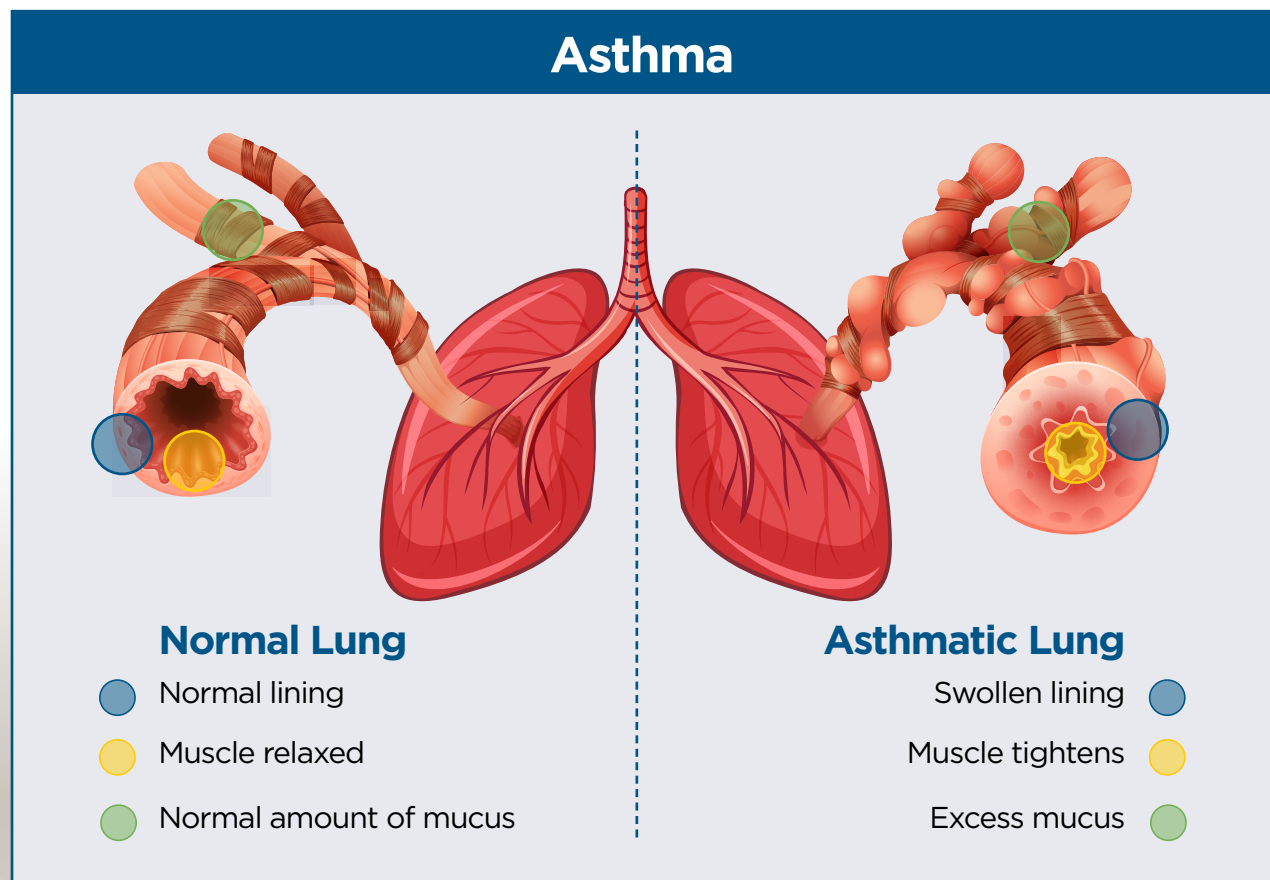
# Asthma

## Patient and Family Education



## What is Asthma?

- Asthma is a disease that affects your lungs. It causes swelling and narrowing of your airways.
- Asthma is a chronic condition. That means you live with it every day.
- Over time, asthma can cause permanent lung damage.
- Asthma can be serious. You can die from asthma.
- There is no cure for asthma, but it can be managed to live a healthy life.



## Your Notes:

[illegible]

## Asthma Signs and Symptoms



**Coughing** is usually the first sign of an asthma attack, especially if you are coughing at night or early in the morning.



**Wheezing.**  
This sounds like whistling.



**Retractions.**  
This is when you can see your skin “sucking in” between the ribs and below the ribcage.



**Chest tightness or pain.** For younger children, this may feel like a **stomach ache**.

Children may place themselves in “**tripod**” position to help them breathe more comfortably.

### **Emergency Signs and Symptoms**

- It is **hard for you to breathe** or you have **shortness of breath**.
- You feel like you **cannot get enough air** no matter how hard you breathe.
- It is **hard for you to speak in full sentences**.
- Your **lips are blue**.
- You have **changes in your level of consciousness** (hard to arouse).



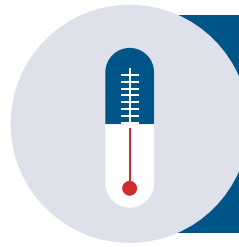
## Your Notes:

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## Asthma Triggers

A **trigger** is anything that irritates your airways. Knowing your triggers is important to help control your asthma. These are some examples of triggers:



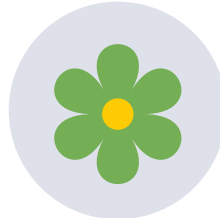
**Colds and respiratory viruses** are the most common triggers



**Pet dander**



**Strong smells**



**Pollen**



**Weather**



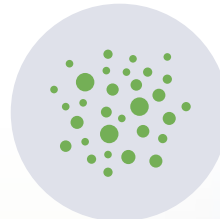
**Exercise**



**Smoke**



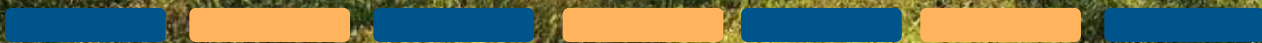
**Cockroaches**



**Mold**



**Dust mites**



## Your Notes:

[illegible]

## What are your asthma triggers?

To learn your triggers, keep a diary of your activity and exposure. This could help you figure out what is triggering your asthma and also help you to control it.

Asthma Diary				
	Morning	Afternoon	Evening	Night
What did you do?				
Where were you?				
How did you feel?				
Asthma symptoms (cough, wheeze, shortness of breath)				
Short-term relief medications (Albuterol)				
Symptoms treated by medication (cough, wheezing, before sports)				
Other asthma medication (controller medication)				

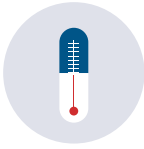




## Your Notes:

[illegible]

## Controlling your asthma triggers



To control the spread of germs, wash hands often. Wear a mask when in crowded places or around sick persons. **Keep up to date with your annual Flu and COVID vaccines.**



Quit smoking and vaping. Avoid second-hand smoke. Even if you smoke outside, the smoke is still on your clothing and in your hair and can cause an asthma attack.



Avoid leaving food open or exposed. Store garbage in an outside container. Use traps or poison baits instead of spraying chemicals.



Avoid wearing perfumes or colognes or using any strong-smelling cleaning products.



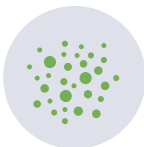
Avoid outside activities when the pollen levels or pollution levels are high.



Hypoallergenic covers on pillows and mattresses may help. Wash bedding in hot water weekly and minimize stuffed animals as much as possible. Put items in the dryer for an hour each week to get rid of any dust. Wet mop your windowsills, the floor, and corners of your room, especially the bedroom.



Your doctor may recommend using quick-relief medications before you exercise.



Clean visible mold with a stiff brush using hot water and soap. Try to reduce indoor humidity to less than 50%. Avoid using humidifiers and throw out anything with visible mold.



## Your Notes:

This image shows a single page from a notebook or ledger. It features ten evenly spaced horizontal blue lines across its entire width, providing a guide for writing. The background is plain white, and there are no margins, text, or other markings present.

## Asthma Triggers: **Smoking**

**Did you know?** Smoking is not healthy for anyone.

- Smoking cigarettes, vaping or using e-cigarettes, or exposure to second-hand smoke can make asthma worse.
- Any kind of smoking or exposure to smoking can cause more frequent and severe asthma flares, respiratory infections like bronchitis and pneumonia, ear infections, coughing and wheezing, heart disease, stroke, and lung cancer.
- **Even vape pens, hookah, refillable cartridges, flavored cigarettes, and JUUL devices are dangerous.** They are made with chemicals that irritate airways, worsen asthma, and can cause long-term lung damage.
- Second-hand smoke has more than 7,000 chemicals, including 70 chemicals that can cause cancer. If you breathe in second-hand smoke, you breathe in many of the same chemicals as a smoker inhales.
- **Kids with asthma who are exposed to second-hand smoke are two-times more likely to be hospitalized due to asthma flare ups.**

**Why should I quit smoking, vaping, e-cigarettes, and limit exposure to second-hand smoke?**

- Quitting smoking reduces your risk of an asthma flare, reduces your risk for lung damage, and improves the overall health of your lungs.

**How can I quit?**

**Use the S.T.A.R.T. method**

- **S**et a quit date.
- **T**ell your family and friends you are quitting.
- **A**nticipate problems and think about how you can handle them.
- **R**emove all smoking devices.
- **T**alk with your healthcare provider about quitting.



## Your Notes:

[illegible]



## Asthma Treatment: Medications

### Quick-Relief Medication

- Quick-relief medication is used to help relieve symptoms during asthma attacks.
- During an asthma attack, quick-relief medication is delivered first.
- An example of quick-relief medication is **Albuterol**.
- **Albuterol** is a bronchodilator. It opens up the airways for fast acting relief of asthma symptoms.

If you use a Metered Dose Inhaler (MDI), be sure to keep track of the dose counter so that you always have enough medication!





## Your Notes:

[illegible]



## Asthma Treatment: Medications

### Preventative (Daily Control Medication)

- Preventative medications are taken every day to help prevent frequent asthma flare-ups.
- **You will take these medications even when you feel well and have no symptoms of asthma.**
- Examples of preventative medications are **Flovent, Symbicort, Advair, and Pulmicort.**
- Inhaled corticosteroids like these are the most common preventative medications.

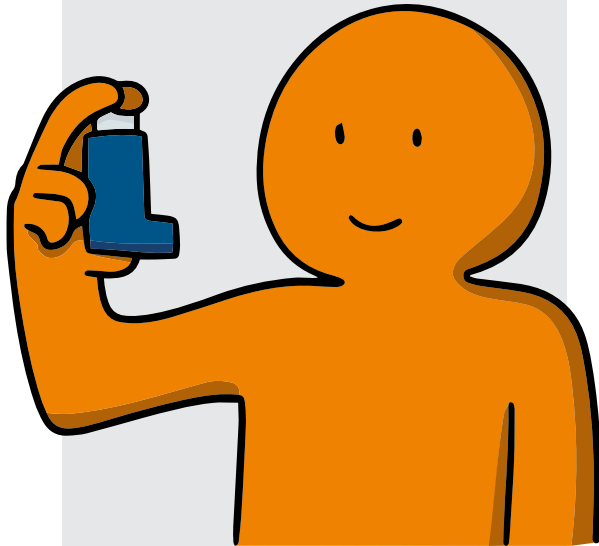


## Your Notes:

[illegible]

## Asthma Treatment: Inhalers and Spacers

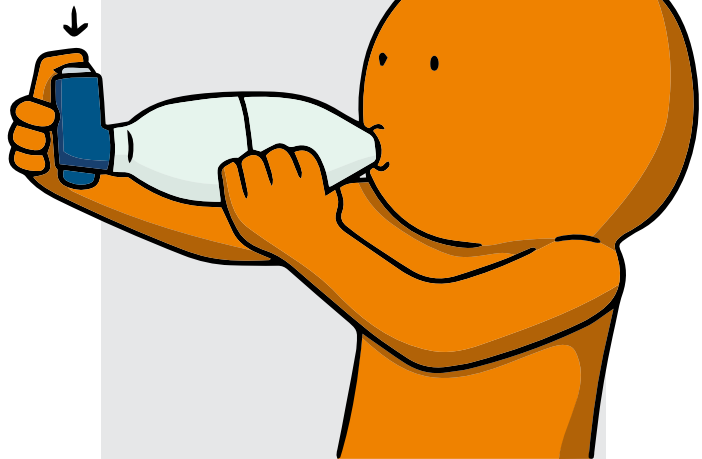
Without a spacer



### Inhaler alone

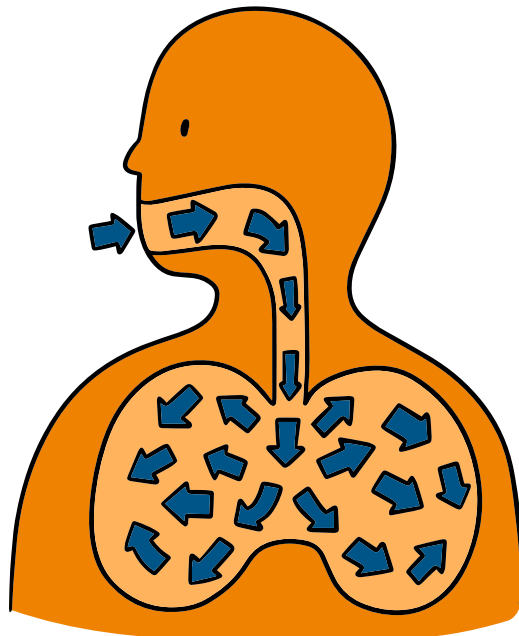
When an inhaler is used alone, medicine ends up in the mouth, throat, stomach, and lungs.

With a spacer



### Inhaler used with spacer device

When an inhaler is used with a spacer device, more medicine is delivered to the lungs.

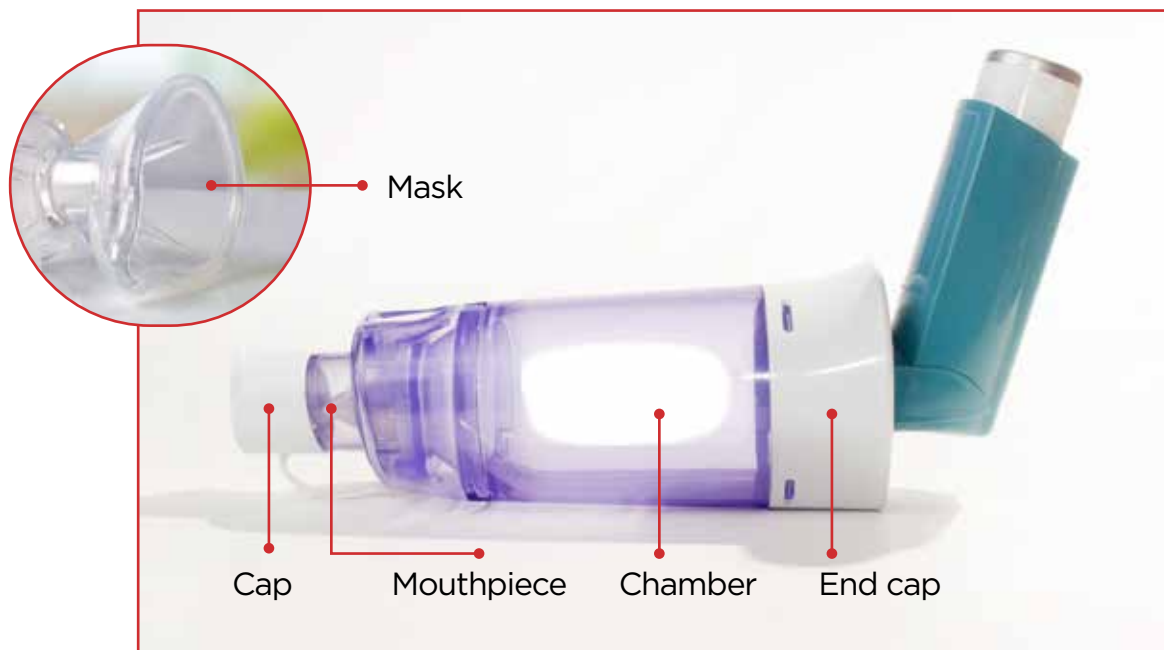


## Your Notes:

[illegible]



## Asthma Treatment: Chambers





## Your Notes:

[illegible]

## Asthma Treatment: **Chambers**

### How to use your OptiChamber Diamond antistatic valved holding chamber

1. Remove the caps from the inhaler and the chamber.
2. Insert the inhaler into the back of the chamber.
3. Shake the chamber and inhaler according to inhaler instructions.
4. Place lips around mouthpiece, form a tight seal, and exhale. Spray one puff of medicine and immediately inhale slowly, taking a full deep breath.\*
5. Hold your breath for up to 8 seconds, then exhale. If flow alert “whistle” sounds, inhale more slowly.
6. If using a mask, place over nose and mouth. Spray one puff of medicine and maintain seal for 5-6 breaths.\*

*\*If instructed to take more than one puff, wait one minute, then repeat steps 4-6.*



## Your Notes:

[illegible]

## Asthma Treatment: **Chambers**

**Clean your chamber and mask weekly.**

1. Remove cap, rotate mouthpiece to disassemble, and remove end cap and mask (if used).
2. Agitate parts for 2 minutes, then soak for 10 minutes in warm soapy water.
3. Rinse parts with warm, clean water and air dry.
4. Reassemble the chamber and store in a clean, dry place.

**Scan the QR codes to see videos of an MDI and a spacer being used.**



How to **use** OptiChamber Diamond anti-static valved holding chamber using a **face mask**



How to **use** OptiChamber Diamond anti-static valved holding chamber using a **mouthpiece**



How to **clean** OptiChamber Diamond anti-static valved holding chamber, mouthpiece, and face mask



## Your Notes:

[illegible]

## Ask your doctor for an Asthma Action Plan!

### Green Zone

This zone tells you what to do when your symptoms are under control.

- No coughing or wheezing, even during activity
- Sleeping well through the night
- Breathing comfortably

### Yellow Zone

This zone tells you what to do when your symptoms begin to appear. You may have symptoms that interfere with exercise, are worse after being exposed to a trigger, or are worse when you have a cold or respiratory infection.

- Waking up from sleep
- Coughing at night or first thing in the morning
- Mild wheezing
- Chest tightness

### Red Zone

This zone is used when asthma symptoms are severe, or you have symptoms that restrict your activity.

- Breathing hard and fast
- You can see ribs and neck muscles when you breathe in
- Your nostrils flare
- Your lips, fingers, or toes are a blue-ish color
- You have trouble speaking in full sentences
- Your symptoms do not improve after 15-20 minutes of using rescue medication

*Your doctor will write you your very own asthma action plan!*





## Your Notes:

[illegible]

## Asthma Management:

### At Home

- Keep up to date with your vaccinations, especially your annual flu and COVID vaccines.
- Know your asthma triggers and take steps to avoid those triggers.
- Keep your Asthma Action Plan in a place where you can see it, like on your refrigerator.
- **Learn your Asthma Action Plan and share it with anyone who takes care of you (school nurse, babysitter, family members, pediatrician).**
- Refill all of your prescriptions and supplies on time. Never run out of asthma medications.
- Pay attention to the weather. Avoid allergies by staying indoors, keeping windows closed, and using an air conditioner when pollen or mold counts are high.
- Never stop taking an asthma medication without your doctor's advice (especially the pulmonologist).
- Until a child is fully reliable and capable of taking their medications by themselves, make sure they are supervised.

### At School

- Tell your teachers and other school staff that you have asthma.
- Share your Asthma Action Plan with the school staff. Discuss ways to avoid your asthma triggers.
- Make sure your school nurse and teacher have copies of your Asthma Action Plan.

### When You Exercise

- Stay active, and look out for asthma signs and symptoms.
- You may need to use your quick-relief medication before exercising.
- Exercise indoors if it is very cold, humid, or the pollen or mold counts are high.
- Warm up before exercising and cool down after exercising.
- Stop exercising right away if you have asthma signs or symptoms.
- Follow your Asthma Action Plan.
- If you play a sport, tell your coach that you have asthma and share your Asthma Action Plan.



## Your Notes:

[illegible]



Children's  
Specialized  
Hospital

