

Staying Healthy with Asthma

Your Handbook for Asthma Self-Care



A Public Entity

Inland Empire Health Plan

Asthma 101 Class Handbook

Your Asthma Can Be Controlled!

To control your asthma, you need a good plan to manage your symptoms. You should also follow your treatment plan the way your Doctor tells you. Other ways to control your asthma include knowing your triggers and working around them.

You have access to a wide range of help, from support groups to local asthma classes. You can also check online. There are many helpful websites on asthma self-care as well. We listed some of these websites for you at the end of this handbook.

**Above all, keep a good mindset.
If you take good care of yourself,
asthma won't stand in the way of
an active, healthy life.**

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Module 1

- Summary of Asthma

- Triggers and Outdoor Factors

In this Module you will learn to:

- 1.1 Talk about what asthma is
- 1.2 Spot asthma symptoms
- 1.3 Talk about normal breathing and the main causes of reduced airflow in asthma
- 1.4 List common asthma triggers found in the home, work, school, and childcare places

Summary of Asthma

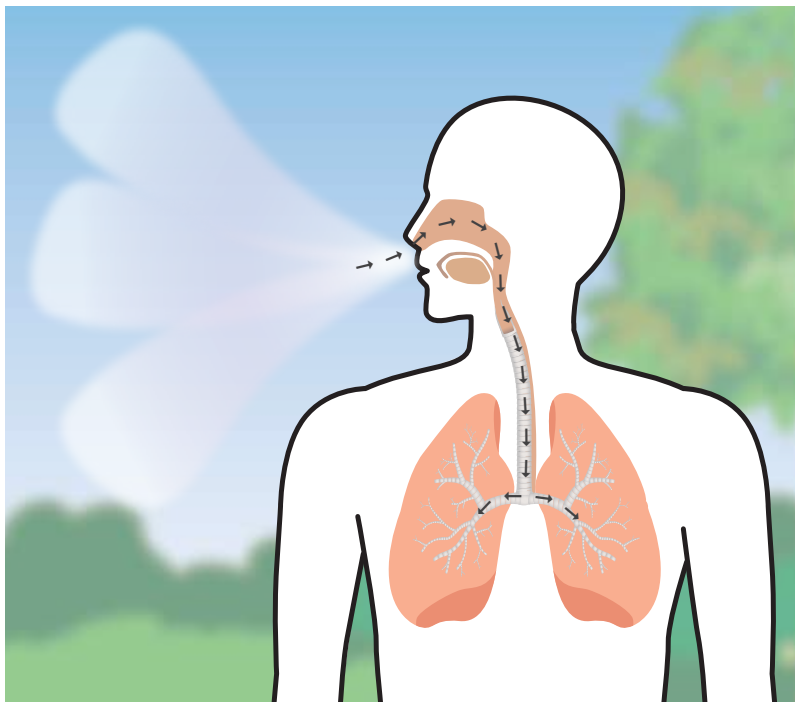


Asthma can start at any age, and impacts men, women, and people of all ethnicities.

Asthma is a chronic condition. This means asthma cannot be cured, but it can be well controlled with the right treatment.

- **1 in 12 people in the U.S. have asthma.** This adds up to about 25 million adults and children in the U.S. living with asthma.
- Asthma accounts for more than 10 million missed work days and about 13 million missed school days each year.
- In 2007, asthma costs the U.S. about **\$56 billion** in health care costs, lost school and work days, and early deaths.
- Asthma has major financial impacts on households due to costly medicines, missed days of work, hospital stays, and ER visits.
- Asthma is more frequent among **minorities**.
- People living in **low income** communities have a higher risk of dying from asthma.

Sources: 1.) National Asthma Education and Prevention Program Guidelines Implementation Panel Report: Partners Putting Guidelines Into Action <http://www.nhlbi.gov/files/doce/resources/lung/naci-factsheet.pdf>. 2.) <http://www.cdc.gov/vitalsigns/asthma>



Asthma is a lasting lung disease that impacts the airways.

Airways are small tubes that carry air in and out of your lungs. **When you have asthma, the inside walls of your airways** react strongly to things that are breathed in.

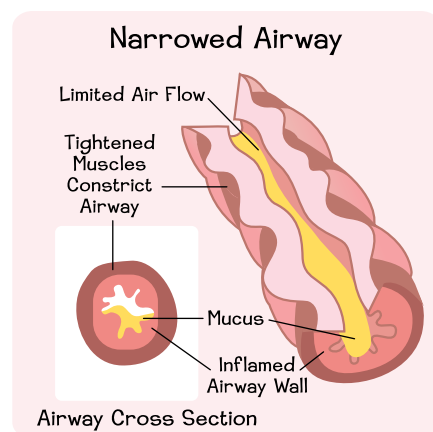
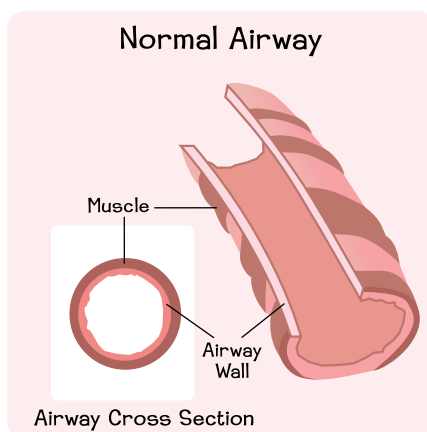
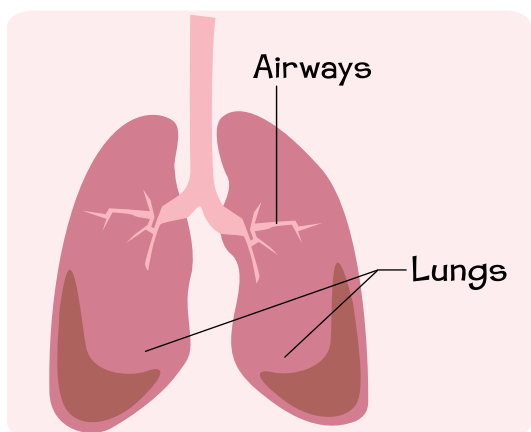
In normal breathing: air enters through the nose and mouth. It then **travels down the airways into the lungs until it enters the air sacs.** This is where the oxygen in the air enters the blood stream.

During an asthma attack: the airways are smaller making it harder for air to travel through. This makes it hard for you to breathe.

The airways may get smaller due to:

- **Swelling** and **mucus**, a sticky and thick liquid made inside the airway.
- **Squeezing** from the smooth muscle that surrounds the outside of the airway.

This chain response results in asthma symptoms.



Sources: 1.) <https://www.cdc.gov/asthma/faqs.htm> 2.) https://www.cdc.gov/asthma/impacts_nation/asthmafactsheet.pdf 3.) <http://www.lung.org/lung-health-and-diseases/lung-disease-lookup/asthma/patient-resources-and-videos/videos/what-is-asthma.html>

Not all people with asthma have the same symptoms.

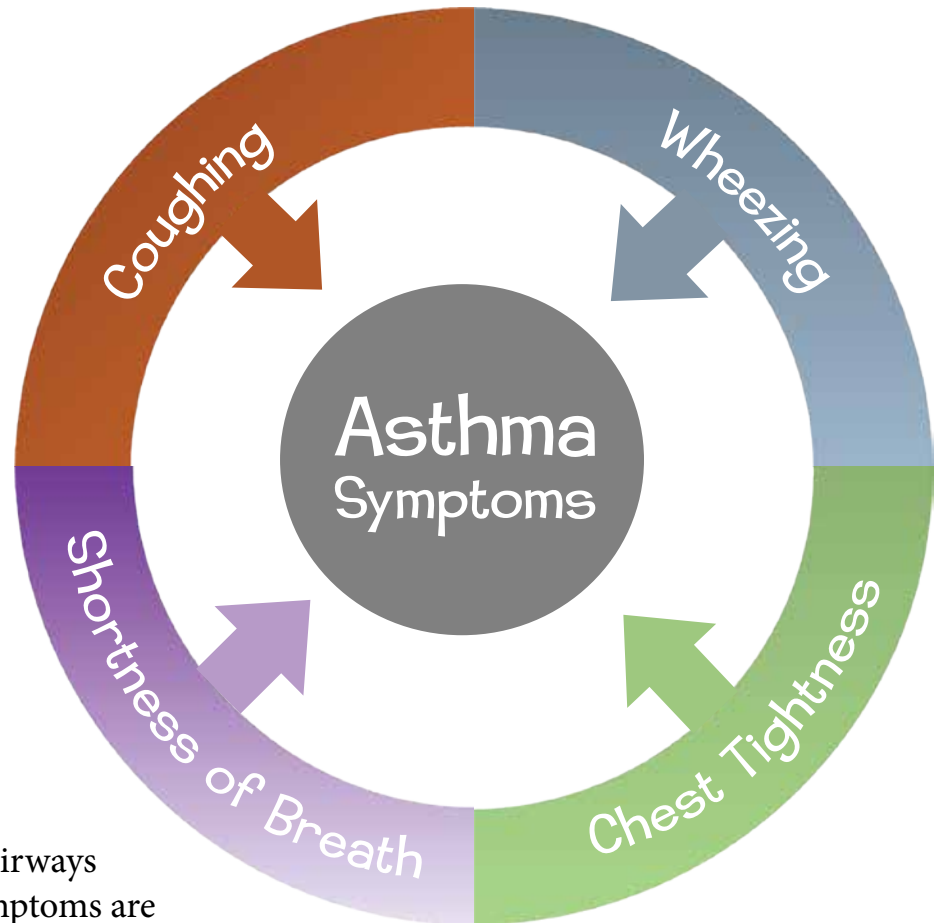
Common symptoms are:

Wheezing – a whistling sound when you breathe.

Chest tightness – it feels like something is squeezing or pressing on your chest.

Shortness of breath – you feel like you can't get enough air and need to breathe faster.

Coughing – this often happens at night or early in the morning.

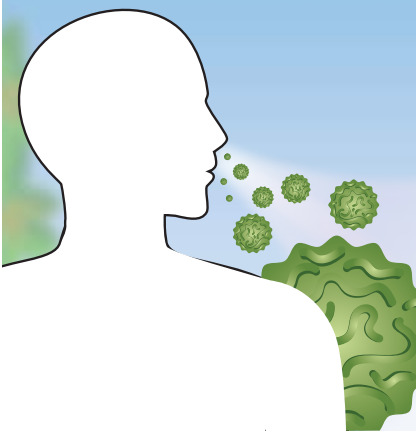


Symptoms can happen when the airways are bothered. Sometimes mild symptoms are treated with asthma medicines. When symptoms get very bad, you may be headed for an **asthma attack**.

Warning signs of an asthma attack are:

- Coughing, very bad wheezing, or chest tightness
- Breathing hard and fast
- Feeling panicky
- Ribs may show more than normal when you are breathing in
- Lips or nails may turn blue
- May not be able to walk or talk well

Triggers and Outdoor Factors



A **trigger** is anything that, when breathed in, causes airways to become smaller. This makes it hard to breathe.

The asthma trigger is breathed in through the nose or mouth and travels down the airways.

Our body protects itself by making mucus and swelling and tightening the muscles around the airways. This stops the trigger from passing.

There are two types of triggers:

Allergens – are things the body reacts to. They work inside the body and set off a response from the body's immune system.

Examples of allergens are:

- **Animal dander:** animal's skin flakes, urine and saliva
- **Pollen:** : found outside but can be brought inside the home on clothes, shoes, and the body
- **Dust mites:** live in beds, pillows, carpets
- **Pests:** droppings or body parts of pests such as roaches or rodents
- **Molds:** grow in damp areas

Irritants – are things in the air. They do not trigger the body's immune system.

Examples of irritants are:

- **Smoking:** tobacco products such as cigarettes, e-cigs, cigars, hookahs, marijuana, wood smoke, fuel by products from heating sources
- **Secondhand smoke:** the smoke exhaled by the smoker
- **Thirdhand smoke:** the smoke that stays on clothing, furniture, and carpeting
- **Chemicals:** cleaning products
- **Pollution:** debris in the air
- **Strong odors and sprays:** perfumes and cleaning products

HOME (BEDROOM, KITCHEN, BATHROOM)

Triggers	Remove/Reduce/Avoid



SCHOOL/CHILDCARE/WORK

Triggers	Remove/Reduce/Avoid



Make Your Home Asthma-friendly

Asthma triggers cause breathing problems for people with asthma. Keeping your home clean can lower indoor triggers and can keep your asthma from getting worse.

Reducing Dust and Dust Mites

Dust and dust mites are the most common causes of asthma symptoms.

To cut down on dust and dust mites:

- Wash bedding once a week in very hot water.
- Use hypoallergenic mattress covers and pillow cases.
- Dust often; use a damp cloth to keep dust from flying into the air.
- Do not allow clutter in places where dust collects.
- Get rid of or cut down on stuffed animals and fluffy toys.

Reducing Pet Dander

Pet dander is found on pet hair. It is made up of dried saliva and tiny flakes of dead skin. If you have pets, it is a good idea to keep them off beds and out of sleeping areas.

To reduce pet dander around the house:

- Vacuum or mop floors at least once or twice a week.

Make Your Own Asthma-friendly Cleaning Products

While keeping your home clean is a good way to reduce asthma triggers, the cleaning products you use can also cause asthma flare-ups.

Store-bought cleaning products often have strong fumes that can trigger asthma symptoms. But you can make your own cleaning products. Homemade household cleaning products are easy to make, work really well, and can save you money. Best of all, they can be made from items you may have or can get at any market:

- **Baking soda** – cleans, deodorizes, scours; softens water
- **Lemon** – kills mold, mildew, and bacteria; freshens air; removes stains
- **White distilled vinegar** – cuts grease; removes mildew, odors, stains, sticky residue, and wax build-up
- **Rubbing alcohol** – disinfects and cleans most surfaces; great for use on mirrors and windows
- **3 percent hydrogen peroxide** – disinfects; cleans fruits and vegetables; brightens teeth and freshens breath

All-natural Disinfectant

To kill germs and leave a fresh smell, clean your counters and table tops with 3 percent hydrogen peroxide. Simply spray and wipe off. To kill mold or clean grout, mix one part hydrogen peroxide with two parts water in a spray bottle. Spray and let stand for one hour. Rinse well.

All-natural Toilet Bowl Cleaner

To clean toilets and remove hard water stains, pour 1/4 cup baking soda and 1 cup vinegar into the toilet bowl. Stir mixture with a toilet brush, wait 20 minutes, and then scrub.

All-purpose cleaner

Ingredients:

- 8 cups water
- 1/2 cup white distilled vinegar
- 1/4 cup baking soda

Directions:

Mix well and store in a spray bottle. Use for cleaning nonporous surfaces such as stovetops, sinks, and bathroom fixtures.

Module 2

- Treatment and Devices

- Tools for Asthma Control

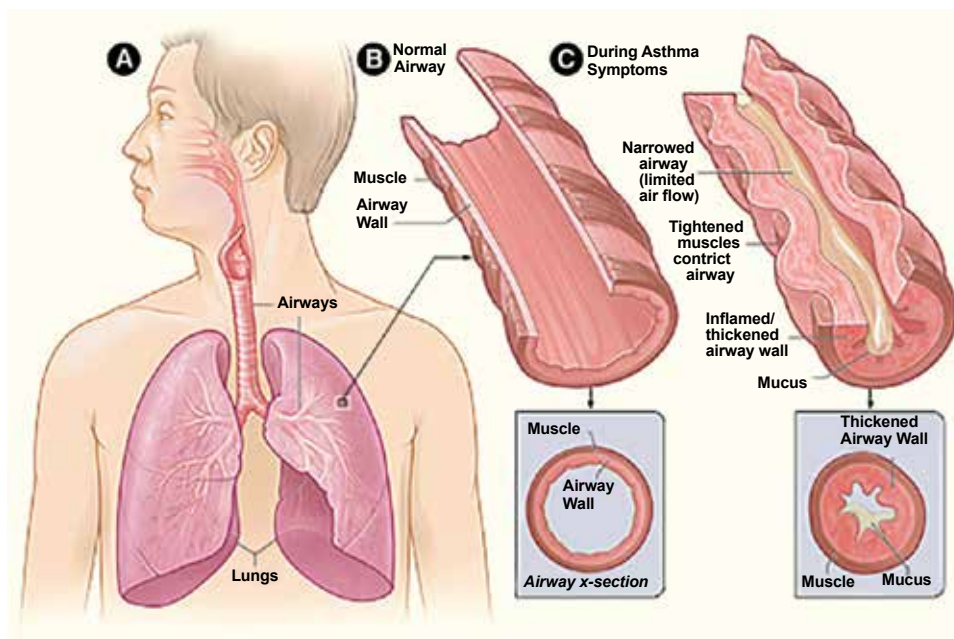
In this Module you will learn to:

- 2.1 Talk about the role of the long-term controller medicines
- 2.2 Talk about the role of quick-reliever medicines
- 2.3 Know the negative consequences linked to uncontrolled asthma
- 2.4 Talk about the use of an Asthma Action Plan

Treatment and Devices

RECAP: Air enters the body through the **nose** and **mouth**. Oxygen travels down the **airways** in the lungs where it enters the air sacs. This is where oxygen in the air enters the blood stream. When a person with asthma breathes in a **trigger**, the airways become smaller, making it hard to breathe.

The body protects itself by **squeezing** the muscles around the airway and making **mucus** and **swelling** in the airways. These changes in the airways lead to four major asthma symptoms: **wheezing, coughing, chest tightness, and shortness of breath.**



The medicines that treat asthma symptoms work to get rid of the swelling and relax the squeeze. There are two main groups of asthma medicines:

1. Controller medicines (long-term)
2. Rescue medicines (short-term)

Examples of these medicines are:

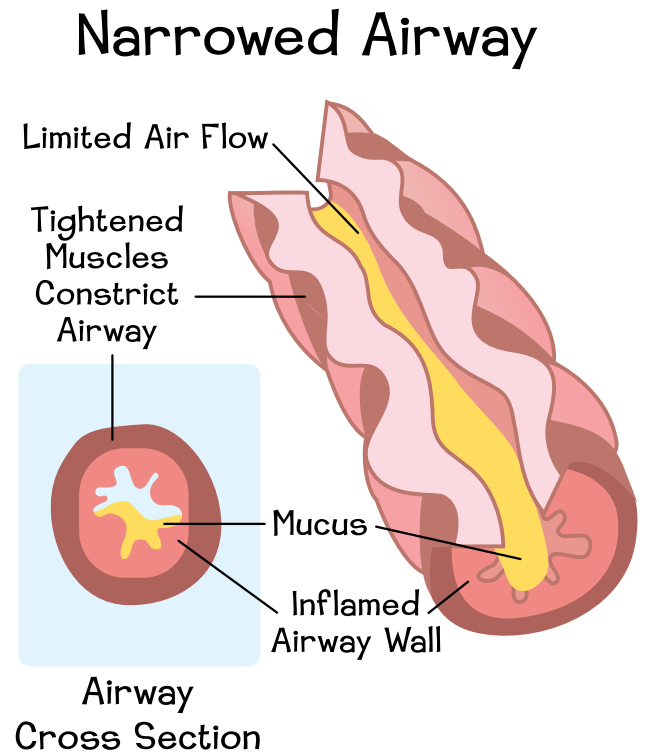
Controller Medicines	Rescue Medicines
Beclomethasone Fluticasone Budesonide	Levalbuterol Albuterol

Long-term Controller Medicines:

- Work to **prevent** asthma symptoms
- Work to control the **swelling** and **mucus** in the airways
- **Take 4-6 weeks to fully work** in airways
- Are taken even when there are **no asthma symptoms**
- Can work without you feeling anything

There are three classes of controller medicines to help control asthma:

- Corticosteroids or Steroids
- Corticosteroid plus Long-Acting Bronchodilator or Combination Medication
- Leukotriene Modifiers



Rescue Medications:

- Use to used to **treat** asthma symptoms. They are only to be used **as needed**.
- **Relax** the muscles around the airways
- Usually give **relief in a few minutes**
- Only last for a short period of time (**4-6 hours**)

Are the Steroids in Asthma Medicine Safe?

You may be worried that the steroids used in asthma medicines are like those used by athletes. They are **not** the same. Steroids in asthma medicines are known as **Corticosteroids**. Corticosteroids help to **reduce swelling**.

Inhaled corticosteroids have very small amounts of steroids. They are safe to use long term to keep asthma symptoms under **control**, even for children or pregnant women. They do not build muscle or slow down growth.

Oral corticosteroids have a greater amount of steroids than the inhaled form. They are mostly used **short term**, or to treat severe asthma attacks at the **ER**.

Source: 1.) <http://asthma.nmanet.org/docs/factsheet-asthma-print.pdf> 2.) <http://www.lung.org/lung-health-and-diseases/lung-disease-lookup/asthma/living-with-asthma/managing-asthma/understand-your-medication.html>

Remember, always take your medicine the way your Doctor tells you. If you choose not to take your medicine and you have uncontrolled asthma, you may be at risk for many negative consequences.

Possible Negative Consequences:

- Loss of sleep
- Missing school or work
- Sitting in a crowded ER
- Reduced quality of life
- Hospital stays
- Sadness
- Death



There are many types of devices used to give asthma medications. These devices include but are not limited to: Metered Dose Inhalers, Dry Powder Inhalers, Nebulizer, and Oral Steroids.

Metered Dose Inhaler



Metered Dose Inhalers (MDIs) have two ingredients, medicine and propellant.

Before each use, you need to mix the medicine and propellant by shaking well.

The inhaler must be primed **before** first use and when **not used for a while**.

Priming means you are getting the inhaler ready or use.

Priming a Metered Dose Inhaler:

- Shake the inhaler well and spray two puffs into the air away from your face.
- Check the instructions that come with your inhaler for priming frequency.

It is suggested to use a Valve-Holding Chamber or Spacer with a Metered Dose Inhaler. A **Chamber/Spacer** slows down the mist to allow more medicine to go deep into your lungs.

Dry Powder Inhaler

Dry Powder Inhalers (DPIs) do not need a Chamber/Spacer.



You do not need to shake a DPI before using.

DPIs should be stored in a cool and dry place.

Unlike MDIs, DPIs do not come with pumps. Therefore, **when using a DPI, you need to take a deep, forceful breath.**

Nebulizer

The Nebulizer **has five parts**: a medicine cup, a mouth piece (with or without mask), plastic tubing, and a compressor.



People use a Nebulizer to take their medicines in the form of a mist. **The mist is breathed into the lungs.**

Nebulizers are often used for people who have a hard time using inhalers.

Nebulizers are also **often used in the ER** for people having an asthma attack.

Oral Steroids



Oral steroids are strong medicines used to reduce swelling in the airway during an asthma attack. Oral means the medicine is taken by mouth. **These medicines can come in a pill or liquid form.** They are often used with rescue medicines to treat moderate to severe asthma attacks.

They are often prescribed for short periods of time. If your Doctor has given you Oral Steroids, make sure you take the full course.

Tools for Asthma Control

What is an Asthma Action Plan?

An **Asthma Action Plan** is a plan that you and your Doctor make together. The plan tells you how to manage your asthma when you have symptoms. This way you can take better control of your asthma.

If your child has asthma, be sure your child's teachers or any adults who take care of your child has a copy of the Asthma Action Plan.

Your plan will list the medicines you take, your asthma symptoms, and your peak flow ranges.

Your Doctor will help you decide what your best peak flow ranges should be.

Peak Flow Meter

A **Peak Flow Meter** is a tool that measures how well air moves out of the lungs.

It is given to people with asthma who are 5 years or older. It is found at most drug stores or medical supply stores.

Peak Flow Ranges:

- Tell you if your airways are getting smaller **before** you start to have asthma symptoms
- **Show** when your triggers make your asthma symptoms worse
- Tell you to **take action** and treat the start of an asthma attack
- Help you to know if your treatment plan is working well
- Help you to know when to seek emergency care



Asthma Action Zones

An Asthma Action Plan is divided into three action zones: **green**, **yellow**, and **red**. The color of the zone lets you know in which stage of action your asthma symptoms fall.

Based on your symptoms and peak flow readings, your Asthma Action Plan will tell you what steps you need to take to prevent your symptoms from getting worse.

Green = Healthy

The green zone is where you want to be on a daily basis.

In this zone:

- You have no asthma symptoms.
- Your peak flow is normal or near normal.
- You can do your usual activities.

Be sure to take your asthma controller medicine even if you don't have asthma symptoms.

Yellow = Caution

The yellow zone is where quick action stops symptoms from getting worse.

In this zone:

- Your asthma is starting to flare-up.
- You have some symptoms.
- Your peak flow range is low.

In this zone you should slow down and follow the steps in your plan that tell you which medicines you need to take and how you should take them.

Red = Medical Alert

The red zone is where you must take action **right away**.

In this zone:

- You are having an asthma flare-up.
- Your peak flow is very low.
- You cannot do your usual activities.

Use your rescue medicine and call your Doctor or the IEHP Nurse Advice Line. If you are afraid for your safety, have someone take you to the ER or call 911.

My Asthma Plan

ENGLISH

Patient Name: _____

Medical Record #: _____

Provider's Name: _____

DOB: _____

Provider's Phone #: _____

Completed by: _____ Date: _____

Controller Medicines	How Much to Take	How Often	Other Instructions
		_____ times per day EVERY DAY!	<input type="checkbox"/> Gargle or rinse mouth after use
		_____ times per day EVERY DAY!	
		_____ times per day EVERY DAY!	
		_____ times per day EVERY DAY!	
Quick-Relief Medicines	How Much to Take	How Often	Other Instructions
<input type="checkbox"/> Albuterol (ProAir, Ventolin, Proventil) <input type="checkbox"/> Levalbuterol (Xopenex)	<input type="checkbox"/> 2 puffs <input type="checkbox"/> 4 puffs <input type="checkbox"/> 1 nebulizer treatment	Take ONLY as needed (see below — starting in Yellow Zone or before exercise)	NOTE: If you need this medicine more than two days a week, call physician to consider increasing controller medications and discuss your treatment plan.

Special instructions when I am  *doing well*,  *getting worse*,  *having a medical alert.*

Doing well.

- No cough, wheeze, chest tightness, or shortness of breath during the day or night.
- Can do usual activities.

Peak Flow (for ages 5 and up):
is _____ or more. (80% or more of personal best)

Personal Best Peak Flow (for ages 5 and up): _____



PREVENT asthma symptoms every day:

- Take my controller medicines (above) every day.
- Before exercise, take _____ puff(s) of _____
- Avoid things that make my asthma worse. (See back of form.)

GREEN ZONE

Getting worse.

- Cough, wheeze, chest tightness, shortness of breath, or
- Waking at night due to asthma symptoms, or
- Can do some, but not all, usual activities.

Peak Flow (for ages 5 and up):
_____ to _____ (50 to 79% of personal best)



CAUTION. Continue taking every day controller medicines, AND:

- Take _____ puffs or _____ one nebulizer treatment of quick relief medicine. If I am not back in the **Green Zone** within 20-30 minutes take _____ more puffs or nebulizer treatments. If I am not back in the **Green Zone** within one hour, then I should:
- Increase _____
- Add _____
- Call _____
- Continue using quick relief medicine every 4 hours as needed. Call provider if not improving in _____ days.

YELLOW ZONE

Medical Alert

- Very short of breath, or
- Quick-relief medicines have not helped, or
- Cannot do usual activities, or
- Symptoms are same or get worse after 24 hours in Yellow Zone.

Peak Flow (for ages 5 and up):
less than _____ (50% of personal best)



MEDICAL ALERT! Get help!

- Take quick relief medicine: _____ puffs every _____ minutes and get help immediately.
- Take _____
- Call _____

RED ZONE

Danger! Get help immediately! Call 911 if trouble walking or talking due to shortness of breath or if lips or fingernails are gray or blue. For child, call 911 if skin is sucked in around neck and ribs during breaths or child doesn't respond normally.

Health Care Provider: My signature provides authorization for the above written orders. I understand that all procedures will be implemented in accordance with state laws and regulations. Student may self carry asthma medications: Yes No self administer asthma medications: Yes No (This authorization is for a maximum of one year from signature date.)

Healthcare Provider Signature _____

Date _____

ORIGINAL (Patient) / CANARY (School/Child Care/Work/Other Support Systems) / PINK (Chart)

Resources

American Lung Association
www.lung.org

American Thoracic Society
www.thoracic.org

National Heart Lung and Blood Institute
www.nhlbi.gov

National Institutes of Health
www.nlm.gov

Important Phone Numbers

IEHP 24-Hour Nurse Advice Line:
1-888-244-4347 or 1-866-577-8355 for TTY users

IEHP Member Services:
1-800-440-IEHP (4347) or 1-800-718-4347 for
TTY users

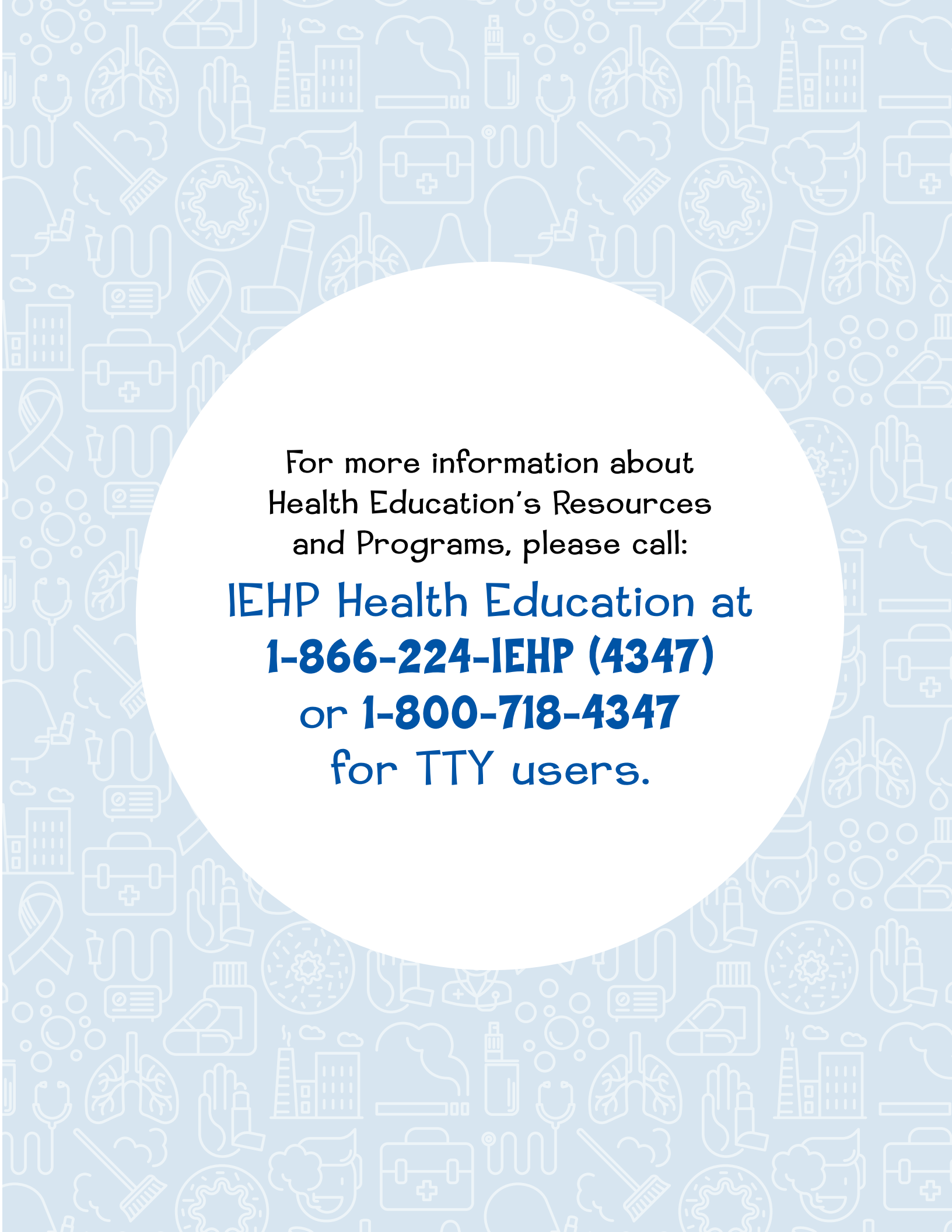
IEHP Community Resource Centers:
1-866-228-4347 or 711 for TTY users

Doctor: _____

Phone: _____

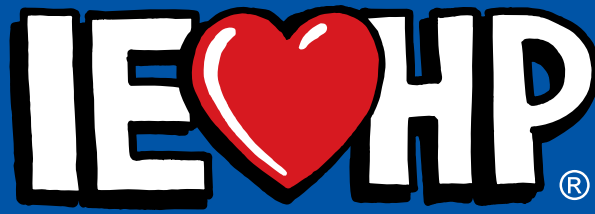
Pharmacy: _____

Phone: _____

The background is a light blue color with a repeating pattern of white line-art icons. These icons represent various health and safety concepts, including lungs, hands being washed with soap, a first aid kit, a factory with smoke, a person coughing, a stethoscope, a microscope, a pill, a person wearing a face mask, and a person wearing a tie. The icons are scattered across the entire background.

For more information about
Health Education's Resources
and Programs, please call:

**IEHP Health Education at
1-866-224-IEHP (4347)
or 1-800-718-4347
for TTY users.**



A Public Entity

Inland Empire Health Plan

www.iehp.org

Destination >>> Health

IEHP complies with applicable Federal civil rights laws and does not discriminate on the basis of race, color, national origin, age, disability, or sex. ATTENTION: If you speak a language other than English, language assistance services, free of charge, are available to you. Call 1-800-440-4347 (TTY: 1-800-718-4347). IEHP cumple con las leyes federales de derechos civiles aplicables y no discrimina por motivos de raza, color, nacionalidad, edad, discapacidad o sexo. ATENCIÓN: si habla español, tiene a su disposición servicios gratuitos de asistencia lingüística. Llame al 1-800-440-4347 (TTY: 1-800-718-4347). IEHP 遵守適用的聯邦民權法律規定，不因種族、膚色、民族血統、年齡、殘障或性別而歧視任何人。注意：如果您使用繁體中文，您可以免費獲得語言援助服務。請致電 1-800-440-4347 (TTY: 1-800-718-4347)。

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