

Patient education



- There is ample evidence that asthma education results in a variety of patient- and society-important outcomes, including the following
 - Improved quality of life
 - Improvement in symptoms
 - Fewer limitations in activity
 - Improved medication adherence
 - Fewer urgent care visits and hospitalizations
 - Reduction in asthma-related costs

ESTABLISHING A PARTNERSHIP

The clinician should make efforts to establish **open communication** and a sense of shared **responsibility and decision-making** by doing the following at every asthma visit:

- Involve the patient and **caregivers in decision making**. For school-age children, the partnership also should involve the **school**.
- Encourage the patient and family in their **self-management** efforts
- **Ask openly** about patient **preferences and goals** and incorporate these into treatment when possible
- Enquire about patient and family concerns and fears about chronic illness, medication use, nebulizer use, dependency, **health beliefs, and cost**.
- Foster a **trusting relationship** that allows patients to express the barriers they face that impede successful self-management

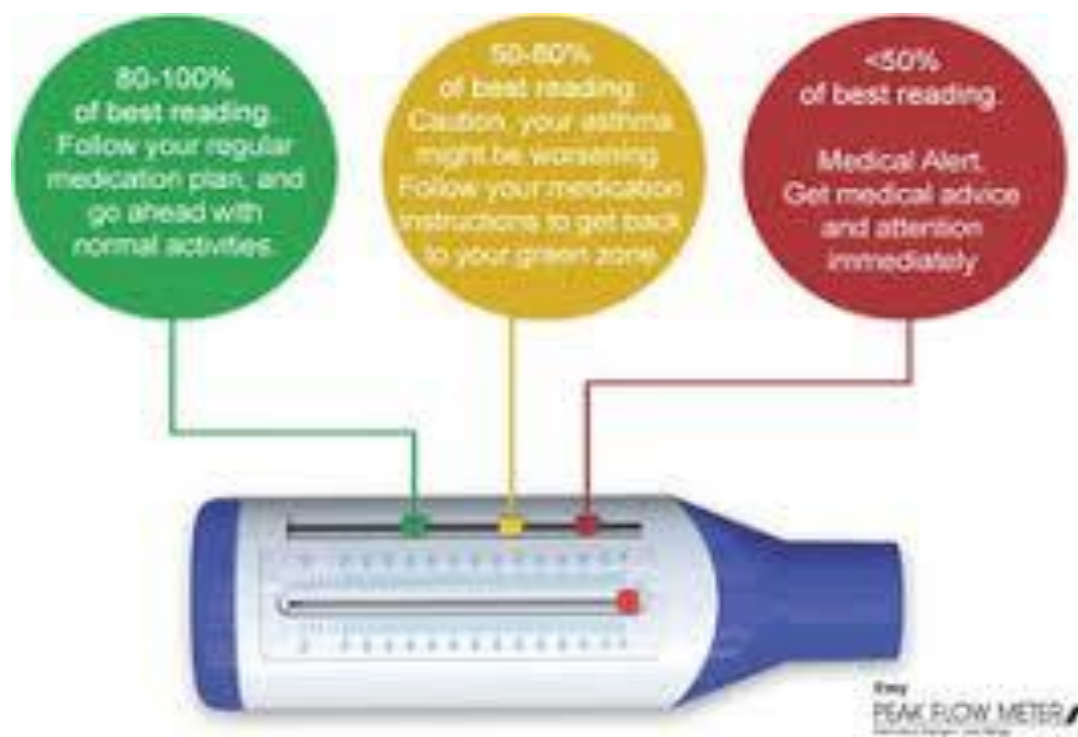
- Identify relevant indoor allergens for mitigation.

- Social needs:** It is important to build a strong relationship with patients so that we can encourage questions about the patient's social needs and provide recommendations for resources: Are the medications I am prescribing affordable? Are there **smokers in the home**? Are there **water leaks** in the home? Is there significant **anxiety and stress** in the home? Is there **enough money for food** for the week? Are there any **barriers to transportation to and from doctor's** appointments?

Studies have shown that a partnership between clinicians and patients that establishes a rapport, provides educational **information, teaches skills, and provides a written asthma action plan** improves treatment adherence and clinical outcomes compared with less patient-centered care.

Action plan

- For those patients who have or will be provided with a **peak flow meter**, the concepts of personal best peak flow rate and how this measurement is used should be discussed. The patient should receive a **chart to record peak flow rates**. At a subsequent visit, the patient's personal best peak flow can be added to the plan. Specific instructions for including peak flow in an individualized asthma action plan, as well as the needed charts for recording peak flows, are reviewed separately.
- The plan should be **reviewed and refined** at subsequent follow-up visits. Emphasizing the patient's personal goals is essential to enhancing adherence. For example, ask, "Have you had any problems taking your bronchodilator immediately before playing basketball? Has it helped you stay in the game?". Question the patient about any aspects of the plan that were confusing or unhelpful.
- The action plan should also include relevant allergen mitigation activities if any are identified.



- **Detecting symptoms and initiating treatment** Stress the importance of recognizing and immediately treating early warning signs and symptoms.
- These include a drop in peak expiratory flow rate (despite optimal technique), an increase in asthma symptoms, awakening at night or early in the morning with asthma symptoms, or other individual patterns related to shortness of breath or tightness in the chest.
- Give patients written instructions about when to take extra doses of quick-acting reliever medications and when to initiate a course of oral glucocorticoids .

- **Indications for emergency care**

- Describe signs that require immediate emergency medical attention, such as cyanosis, failure of medications to control symptoms, or a drop in peak flow rate by more than 50 percent. Stress the importance of understanding the difference between attacks they can manage on their own and those that require a patient to seek medical attention without delay. Emphasize the benefits of staying calm during a severe exacerbation.
- The asthma action plan should include emergency telephone numbers for the clinician, emergency department, rapid transportation, and family/friends for aid and support.

YOU CANNOT CURE ASTHMA BUT YOU CAN CONTROL ASTHMA

People with asthma can have normal, active lives when they learn to control their asthma.

When your asthma is under control:

- You can work, play, and go to school.
- You can sleep well at night.
- You can avoid most asthma attacks.



- You can get asthma at any age. Asthma is **not a contagious** disease.
- You **can not catch** asthma from other people.
- Asthma is not caused by one single factor.
- There are **different types** of asthma. In some types of asthma, several family members may have asthma, but this is not seen in some other types of asthma

HOW TO CONTROL YOUR ASTHMA AND KEEP ASTHMA ATTACKS FROM STARTING:



1. Make sure you know how to use your inhaler correctly, and use it as often as the doctor says.



2. Go to the doctor at least once a year for check-ups, or right away if you have had an asthma attack or flare up of symptoms. Go even when you feel fine and have no breathing problems.



3. Ask for a written asthma action plan so you will know when your asthma is getting worse and how to respond.



4. Stay away from things that start your asthma attacks.

MOST PEOPLE WITH ASTHMA NEED TWO KINDS OF MEDICINE

1. Preventive medicines (“**controllers**”) protect the lungs & keep asthma attacks from starting.
2. Quick-relief medicines (“**relievers**”) are used to relieve asthma symptoms when they occur.
3. Some reliever inhalers contain both a low dose controller AND a quick-relief long-lasting medicine called formoterol. They can be used both to relieve your symptoms and as your controller inhaler taken every day, to protect you from having asthma attacks.
4. For people with mild asthma (for example with asthma symptoms a few times a week or less often) taking one of these combination reliever inhalers (controller AND formoterol) whenever you have asthma symptoms gives just as good protection from asthma attacks as taking a regular daily controller.



PREVENTIVE MEDICINES FOR ASTHMA ARE SAFE TO USE EVERY DAY.

- You cannot become **addicted** to preventive medicines for asthma even if you use them for many years.
- Preventive medicine makes the swelling of the airways in the lungs go away.
- They **do not become less effective overtime** and so you should not be worried about them not working if you take them everyday.

- The doctor will usually tell you to take your preventive medication every day:
 - If you cough, wheeze, or have a tight chest more than twice a week
 - If you wake up at night because of asthma
 - If you have many asthma attacks
 - If you have to use quick-relief medicine more than twice a week to stop asthma attacks.
- If you are pregnant, do not stop your asthma medication - consult your doctor.
- Most asthma medications are safe during pregnancy and keeping your asthma under good control will help protect your child.

ASK THE DOCTOR TO WRITE DOWN WHAT ASTHMA MEDICINES TO TAKE AND WHEN TO TAKE THEM .

- The doctor may use an asthma action plan.
- Use the asthma action plan to know what **quick-relief medicines** to take when you have asthma symptoms or an asthma attack.
- Use the asthma action plan **to help remember** what preventive medicines to take every day.
- Use the asthma action plan to see if you should take asthma medicine just **before sports or working hard.**

ASTHMA MEDICINE CAN BE TAKEN IN DIFFERENT WAYS.

- When asthma medicine is breathed in, it goes directly right to the airways in the lungs where it is needed. Inhalers for asthma come in many shapes. Some are **sprays** and some are **powder**.



MANY THINGS CAN START ASTHMA ATTACKS.
THESE THINGS ARE CALLED “TRIGGERS”:



**ANIMALS
WITH FUR,**
*if you are
allergic to them*



**CIGARETTE
SMOKE**



SMOKE



**DUST IN BEDS
AND PILLOWS**
*if you are allergic
to house dust mites*



**DUST FROM
SWEEPING**



**STRONG SMELLS
AND SPRAYS**



**POLLEN FROM TREES
AND FLOWERS**
if you are allergic to them



THE WEATHER



RUNNING, SPORTS AND WORKING HARD



COLDS



WORKPLACE

Some people find their asthma is made worse from work related exposures. If this is the case for you, talk to your doctor as seeing a specialist may be helpful in this case

Different people with asthma respond to different triggers.
Know which ones start asthma attacks for you.

KEEP TRIGGERS THAT START YOUR ASTHMA ATTACKS OUT OF YOUR HOME.

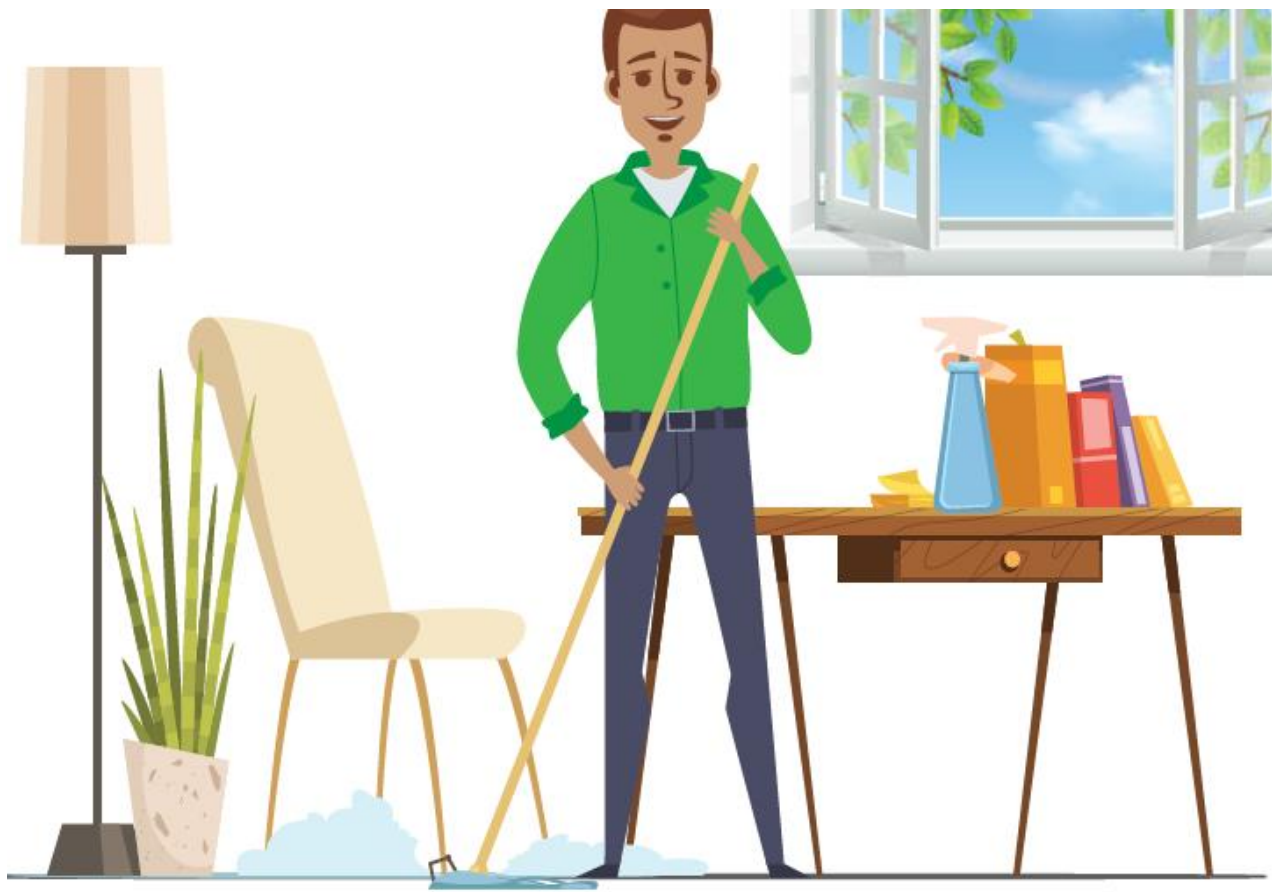
- No smoking or vaping. Get help to quit **smoking or vaping**. Smoking damages your lungs and can reduce how well your controller medication works. Vaping can cause acute respiratory problems and its long-term effects are unknown.
- If your asthma attacks are triggered by **strong smells or perfume**, keep these out of the home.
- No **soap, shampoo, or** lotion that smells like perfume. No incense.
- If you are allergic to **animals** with fur, keep them outside, and ask someone else to change their bedding or litter.



- Consider taking out rugs and carpets.
They get dusty and moldy.

PLAN TO DO THESE CHORES WHEN THE PERSON WITH ASTHMA IS NOT THERE:

- Sweep, vacuum, or dust
- Paint
- Spray for insects
- Use strong cleaners
- Cook strong smelling foods.
- Air out the house before the person with asthma returns.
- If there is no one to help, people with asthma can use a mask or scarf when they sweep or dust.
- Keep the windows open if possible while sweeping, dusting or vacuuming



REGULAR PHYSICAL ACTIVITY IS GOOD FOR PEOPLE WITH ASTHMA

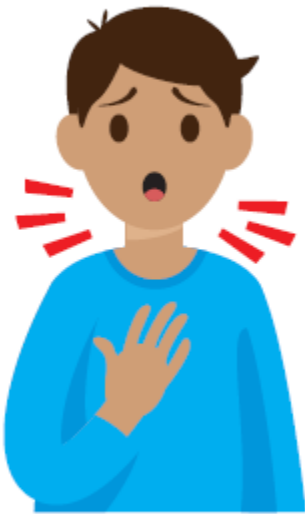
- Running, sports, or working hard can also
cause asthma symptoms in some asthmatics.
- But these activities are good for you.
- Use your controller medication as prescribed to reduce the chance of you getting asthma symptoms when you exercise.
- Your doctor may also tell you to take your reliever medication about 10 to 15 minutes before exercise. If you need to take your reliever before, during or after exercise, your asthma may be out of control, consult your doctor to see if you need a medication adjustment.

WHEN YOU KNOW THERE IS ASTHMA IN THE FAMILY, YOU MAY BE ABLE TO REDUCE THE CHANCE OF YOUR BABY GETTING ASTHMA

- When you are pregnant, do not smoke.
- Keep tobacco smoke away from the baby and out of your home and car.
- Consider putting a special dust-proof cover on the baby's mattress.
- Avoid using antibiotics for the baby unless your doctor says they are necessary.



- Be alert for asthma symptoms.



COUGH



WHEEZE



TIGHT CHEST



**WAKE UP
AT NIGHT**

- Act fast if an asthma attack starts.
- Move away from the trigger that started the attack,if you know what it was.
- Take a quick-relief asthma medicine.Your doctor will tell you which one to use for relief.
- Stay calm for 1 hour to be sure breathing gets better.

GET EMERGENCY HELP FROM A DOCTOR IF YOU DO NOT GET BETTER
OR IF YOUR ASTHMA IS GETTING WORSE FAST

- Get help **straight away** if you see any of these asthma danger signs:
- Your quick-relief medicine does not help for very long or it does not help at all.
- Breathing is still fast and hard.
- It is hard to talk because of your asthma.
- Lips or fingernails turn grey or blue.
- The nose opens wide when the person breathes.
- Skin is pulled in around the ribs and neck when the person breathes.
- The heartbeat or pulse is very fast.
- It is hard to walk.

A PEAK FLOW METER CAN BE USED AT A CLINIC
OR AT HOME TO MEASURE HOW WELL A PERSON IS BREATHING

- If a peak flow meter is used every day at home, people can find if their asthma is getting worse even before they start to wheeze or cough.
- Then they will know when more asthma medicine is needed.

- NOTES:
- Always take the peak flow chart with you when you visit your doctor
- If you miss measuring your peak flow,don't make up a number, just leave a gap.
- Write on the chart if your asthma medicine changed,or you had a cold,or had an asthma attack

IF YOUR ASTHMA IS WELL CONTROLLED

You need your reliever inhaler less than 3 times per week, you do not wake up with asthma and, your asthma does not limit your activities (including exercise) (If used, peak flow over ____L/min)

Your controller medication is: _____ (name) _____ (strength)

Take: _____ puffs/tablet _____ times EVERY DAY

☐ Use a spacer with your controller inhaler

Your reliever/rescue medication is: _____ (name) _____ (strength)

Take _____ puffs if needed to relieve asthma symptoms like wheezing, coughing, shortness of breath

☐ Use a spacer with your reliever inhaler

Other medications: _____ (name) _____ (strength) _____ (how often)

_____ (name) _____ (strength) _____ (how often)

Before exercise take: _____ (name) _____ (strength) _____ (how many puffs/tablets)

IF YOUR ASTHMA IS GETTING WORSE

You need your reliever more often than usual, you wake up with asthma, or you cannot do your normal activities (including exercise) because of your asthma (If used, peak flow between ____ and ____ L/min)

Take your reliever/rescue medication: _____ (name) _____ (strength) _____ (how often)

☐ Use a spacer with your controller inhaler

Take your controller medication: _____ (name) _____ (strength)

Take: _____ puffs/tablet _____ times EVERY DAY

☐ Use a spacer with your reliever inhaler ☐ Contact your doctor

Other medications: _____ (name) _____ (strength) _____ (how often)

IF YOUR ASTHMA SYMPTOMS ARE SEVERE

You need your reliever again more often than every 3-4 hours, your breathing is difficult, or you often wake up with asthma (if used, Peak Flow under ____ L/min)

Take your reliever/rescue medication: _____ (name) _____ (strength) _____ (how often)

Take prednisone/prednisolone: _____ (name) _____ (strength)

Take: _____ tablet _____ times every day in the morning for _____ days

CONTACT A DOCTOR TODAY OR GO TO THE EMERGENCY DEPARTMENT

Dr.Fateme tarighatmonfared
pediatric pulmonologist.

