What doctors want patients to know about asthma

APR 11, 2025

Sara Berg, MS

News Editor

Asthma is a chronic respiratory condition that affects more than 25 million people in the U.S. Characterized by inflammation and narrowing of the airways, the disease can trigger symptoms such as wheezing, shortness of breath, chest tightness and coughing. While some individuals manage their asthma with medication and lifestyle adjustments, others face life-threatening complications when symptoms escalate into severe attacks.

The AMA's What Doctors Want Patients to Know™ series gives physicians a platform to share what they want patients to understand about today's health care headlines.

- Sindhura Bandi, MD, an allergist and immunologist at Rush University Medical Center, which is part of Rush University System for Health in Chicago.
- Rabab Nasim, MD, a pulmonary and critical care physician in Dover, Delaware, at Bayhealth.

Bayhealth and Rush University System for Health are members of the AMA Health System Program, which provides enterprise solutions to equip leadership, physicians and care teams with resources to help drive the future of medicine.

It's a chronic disease

"Asthma is a chronic lung disease that causes inflammation and narrowing of the airways that can supply the lungs with air," Dr. Bandi said.

"It causes airway tightness or what we call bronchospasm and it is often triggered by a hyperresponsiveness of the airways to known triggers," said Dr. Nasim. "And oftentimes,

URL: https://patients.ama-assn.org/public-health/chronic-diseases/what-doctors-want-patients-know-about-asthma

Copyright 1995 - 2026 American Medical Association. All rights reserved.

this is going to be showing up in the form of a dry cough, chest tightness and wheezing."

Keep an eye out for early symptoms

"Oftentimes, asthma can get under-recognized, so there are a couple of things I would want patients to keep in mind," Dr. Nasim said. "Dry coughing or long-term or persistent dry coughing—specifically if it's occurring at night or you're waking up with dry coughing or if you're having a longer recovery from an infection—all of these can be early signs of asthma."



Rabab Nasim, MD

Additionally, "shortness of breath or a decrease in your exercise ability, which is often limited by dry coughing or chest tightness, can also be early signs of asthma," she said.

Asthma triggers will vary

"There can be multiple triggers for asthma, and these can vary from patient to patient," Dr. Bandi said, noting "common triggers include allergens such as pollen, dust, mold and pets."

Other triggers include "viruses or infections, exercise and irritants such as cigarette smoke, strong odors and air pollution," she added.

URL: https://patients.ama-assn.org/public-health/chronic-diseases/what-doctors-want-patients-know-about-asthma
Copyright 1995 - 2026 American Medical Association. All rights reserved.

“My patients who have had what we call childhood asthma—that means they’ve been affected by asthma as a child—more often than not, this is going to be allergic responses,” Dr. Nasim said. “For patients of mine who have what we call adult onset of asthma, that means as an adult they have been affected by asthma, those triggers can actually vary because their disease is not necessarily the same pathway of an allergic response like in children.”

“It is unknown what can exactly cause adult onset of asthma. However, there are certain known risk factors which are associated with chronic inflammatory states. For example, obesity and exposure to environmental triggers,” she explained. “A significant percentage of my adult patients who have asthma actually have occupational exposure including woodwork, smoke and fumes.”

Cockroaches can be a trigger

One environmental trigger for asthma can be cockroaches, Dr. Bandi said. “Cockroaches can shed allergens that may worsen asthma symptoms.”

“Cockroach allergens can be found in their saliva, feces and exoskeleton and people can actually be allergic to those components, similar to a dog or cat allergy,” she added. “It can exacerbate asthma symptoms and we see this particularly in children who live in inner cities that may have a cockroach sensitization.”

Weather also affects asthma

“Some patients may experience asthma symptoms at the extremes of weather,” Dr. Bandi said. For example, “if it’s very cold or very hot and humid they can experience worsening of their asthma symptoms.

URL: https://patients.ama-assn.org/public-health/chronic-diseases/what-doctors-want-patients-know-about-asthma
Copyright 1995 - 2026 American Medical Association. All rights reserved.



Sindhura Bandi, MD

“Windy and wet weather can also disperse pollen and mold, which can be triggers for patients,” she added. “And then with climate change, we’re seeing longer pollen seasons and increased allergies. With the increase in natural disasters, such as wildfires, we are seeing a correlation with increased rates of asthma exacerbations.”

Anyone can have asthma

“Asthma can actually be seen in all age groups and demographics, but there are many factors that can impact the prevalence or the rate of asthma in a certain population,” said Dr. Bandi. “That can be things like race and ethnicity, presence of other allergic conditions, a family history of asthma and socioeconomic factors.”

“Globally we have around 300 million people who are affected. In the U.S. itself, around 8% of adults and 10% of children are affected,” said Dr. Nasim. “Over the past few decades, what we have seen is there has been a dramatic increase in the prevalence of asthma.

“It is more often diagnosed in childhood, but we are now seeing an increased prevalence in adult-onset asthma,” she added.

“Adult-onset asthma is something that is being studied now. We don’t know the exact cause of adult-onset asthma, but we do know that there are certain risk factors for developing asthma later in life,” said Dr. Bandi. “And those are things like being born

Copyright 1995 - 2026 American Medical Association. All rights reserved.

female, having a history of allergies or acid reflux, being exposed to different irritants or air pollution as well as obesity."

Diagnosis is multifactorial

"Asthma can be diagnosed by your doctor after performing a detailed medical history, physical examination and lung function testing," Dr. Bandi said, noting "we put a lot of those pieces together in a comprehensive approach to make a diagnosis of asthma."

First, physicians will look at the "clinical presentation or episodes of your symptoms of chest tightness, wheezing, shortness of breath that is often triggered by stimuli. For example, exercise, smoke or fumes exposure," Dr. Nasim said. "But we also want to have objective data through tests, which are called pulmonary function tests."

"Lung-function tests are commonly done as an outpatient procedure. As a patient, there will be a respiratory therapist asking you to do what we call breathing maneuvers," she said. "You take a deep breath in, breathe out and hold your breath. It tells me if you are having tightness of airways or not."

"The second thing is during testing you will be given bronchodilators or an inhaler and the test will be repeated to see if you're having what we call a reversibility in your airway tightness or bronchodilator response," Dr. Nasim said. But "it's important for my patients to remember that your lung function test and asthma can actually be normal.

"That means if you're not in an acute asthma flare up state, there are chances that your lung function test at that particular moment can be normal. It doesn't rule out asthma," she added. Then "sometimes your bronchodilator response might not show a complete reversal, or it might not show complete bronchodilation. That does not mean that you will not respond to inhalers on a long-term basis."

Other conditions will be ruled out

Copyright 1995 - 2026 American Medical Association. All rights reserved.

Respiratory conditions such as chronic obstructive pulmonary disease and seasonal allergies “can actually be quite similar to asthma,” Dr. Bandi said, “so this can be tricky.”

“Patients can also have asthma in conjunction with allergies and other respiratory conditions, so it’s not necessarily mutually exclusive,” she said. “It’s important to assess for other conditions as well as getting a detailed history, physical exam and testing.”

Treatment is often a type of inhaler

“There are multiple treatment options for asthma, and you and your physician will decide what therapy is going to be best,” Dr. Bandi said. “These can include things like a rescue inhaler, which is called a short-acting beta agonist, and inhaled corticosteroid inhalers that reduce inflammation.”

Additionally, there are “leukotriene modifiers, which can improve allergies and airway inflammation,” she said, noting another option is “biologics, which are injections that can block specific chemical pathways to improve asthma.”

When it comes to asthma treatment, “your physician is probably going to be starting you on maintenance inhaler therapy,” Dr. Nasim said. “If your asthma is well controlled and you only have a mild form of asthma, you might be given an as needed inhaler, which means it is short-acting, and you will only need it when you’re getting the symptoms of coughing or wheezing.”

“Other patients will—if they’re having frequent flare-ups of asthma or their asthma symptoms are uncontrolled—get placed on a maintenance inhaler, which often will have a corticosteroid in it, and these are the ones that you will take every day no matter how you’re feeling,” she said. “When you’re on this inhaler therapy, we often monitor you very closely to look at whether your asthma is controlled or not.”

Steroids play a role in asthma treatment

Patients should be asking about the role of steroids in asthma treatment and what long-term risks might be present, Dr. Bandi explained. “Inhaled corticosteroids work by blocking

Copyright 1995 - 2026 American Medical Association. All rights reserved.

chronic airway inflammation and the mucus production that occurs in asthma."

"These medications are often used daily to prevent asthma attacks and reduce the need for being given oral steroids," she said noting that "oral steroids may be necessary in more severe asthma attacks but can cause side effects such as weight gain, elevated blood pressure and poor sleep.

"That's why it's really important to make sure that you're taking your maintenance inhaler to reduce the need for oral steroids," Dr. Bandi added.

There is no cure for asthma

While there is no cure for asthma, "implementation of lifestyle interventions and regular use of prescribed therapies can reduce the inflammation and airway narrowing that we see in asthma," Dr. Bandi said, noting "this can result in improved health and quality of life where a patient may not even experience symptoms."

"A new area of asthma research is looking at whether utilizing certain treatments can induce a remission of asthma symptoms," she said.

Recognize your triggers

Beyond the use of an inhaler, "the other thing in terms of treatment for asthma is monitoring and recognition of what we call control of triggers," Dr. Nasim said. "During your first few visits, your physician is going to go through what you recognize are the triggers for asthma and trying to avoid those triggers as much as you can."

Triggers can be identified by maintaining "an asthma diary. That means identifying when you start getting symptoms of shortness of breath, coughing and wheezing, noting it down as to what you think might have triggered it," she said. For example, "did you suddenly change your environment? Did you change the air conditioning? Were you outside? Did you get exposed to smoke? Is it a strong perfume?

URL: https://patients.ama-assn.org/public-health/chronic-diseases/what-doctors-want-patients-know-about-asthma
Copyright 1995 - 2026 American Medical Association. All rights reserved.

“These would be some of the triggers that the patients themselves are able to identify throughout their day-to-day life,” Dr. Nasim added.

Make appropriate lifestyle changes

“Lifestyle interventions—such as a plant-based diet, exercise, smoking cessation, weight loss—can help patients to reduce their asthma medications,” Dr. Bandi said. “In addition, control of other conditions such as allergies or acid reflux could also improve their asthma symptoms.”

“Your physician will reassess asthma on a regular basis to determine the need for medications and what the appropriate dosage of medication should be,” she said.

Maintain a good exercise regimen

“Exercise is beneficial for patients with asthma and can improve their lung and heart health, so we encourage patients to discuss with their doctor if it’s important for them to take any medication, such as their rescue inhaler, preventatively prior to exercising,” Dr. Bandi said.

“I do tell my patients to be able to do what they can in terms of maintaining a good exercise regimen,” Dr. Nasim said. “Keep your inhalers in hand, but whenever you are able to exercise—even 15 to 20 minutes—during the day, try and get yourself onto an exercise regimen up to five times per week.”

“That is shown to help maintain good immunity and muscle strengthening stops you from deconditioning and that would be something to add to your asthma treatment plan,” she said. “If you have exercise induced asthma, make sure you have your rescue inhaler on hand before you begin your exercise regimen.”

Also, “be very cognizant about the environment that you’re exercising in to make sure it is not an environment which can cause you to have an asthma flareup,” Dr. Nasim said.

Copyright 1995 - 2026 American Medical Association. All rights reserved.

Have an asthma action plan

“Each person who has been diagnosed with asthma should have an individualized asthma action plan of what to do when their asthma symptoms are worsening,” Dr. Bandi said. “This may include instructions on using the rescue inhaler on a more frequent basis, possibly taking oral steroids or seeking further evaluation in the emergency department.”

This can be created with your physician “and a lot of national organizations actually have templates that clearly describe these instructions,” she said, noting “the green zone includes medications to take on a regular basis when feeling well.

“Then there is a yellow zone if you start to experience increased symptoms with recommended interventions and last red zone with instructions on seeking further care for severe symptoms.” Dr. Bandi added.

Know what to do during a flare-up

“When you have an asthma action plan, the red zone is the one in which you’re having an active flare-up, so the things to do when you’re having a flare up is making sure you have access to your rescue inhaler,” Dr. Nasim said, emphasizing the need to “keep your rescue inhaler with you at all times.”

“No. 2, keep making sure that you are still taking your maintenance inhalers. For example, if you slowly feel like you’re getting a flare up and you’re coughing or wheezing, make sure you do take your maintenance inhalers along with taking your rescue inhaler,” she said. “No. 3, always let your pulmonologist know that you might be getting a flare up—don’t try to brave through it.”

“Depending on how severe your symptoms are, your doctor might ask you to either come to the clinic or go to the emergency department to make sure that your flare up does not need antibiotics or intravenous steroids,” Dr. Nasim explained. “Don’t feel shy of letting your pulmonologist or primary care physician know that you’re having a flare up.”

Copyright 1995 - 2026 American Medical Association. All rights reserved.

Be honest with your physician

“If your asthma is not well controlled, you will have a respiratory therapist or a pulmonologist who will go through the inhaler teaching technique with you,” Dr. Nasim said. “Another thing that can be not controlling asthma is the cost of an inhaler.”

“I tell my patients to be very honest with me and let me know up front if there are any issues with either the technique of the inhaler or if there are cost factors affecting your ability to afford an inhaler,” she said. “We can always come up with a plan to make sure that you’re able to take your inhaler every day.”

“Other things that sometimes get missed in difficult to control asthma can be other social factors,” Dr. Nasim said. “For example, the environment you’re staying in, air conditioning, molds and sometimes for my older patients, they can have anxiety, depression, isolation or fear of adverse effects of the inhalers, which might not make them compliant.”

“If you or a loved one may have symptoms consistent with asthma, a specialist can really help guide you through the process of evaluating and diagnosing the condition,” Dr. Bandi said.

URL: https://patients.ama-assn.org/public-health/chronic-diseases/what-doctors-want-patients-know-about-asthma
Copyright 1995 - 2026 American Medical Association. All rights reserved.