WHAT IS SEVERE ASTHMA?

SYMPTOMS, TRIGGERS, AND MORE

By Kendall K. Morgan
Reviewed by Neha Pathak, MD,
WebMD Medical Editor

About 25 million Americans—approximately 1 in every 12 adults and children—have asthma. For most of them, their asthma responds well to treatment with inhaled medications, including long-term controllers to reduce swelling and prevent symptoms and quick relievers to temper symptoms as they happen. But, for up to 10% of people with asthma, these treatments aren’t enough to control asthma and its symptoms.

“There are two aspects to consider when it comes to severe asthma,” says Reynold A. Panettieri Jr., MD, director of the Rutgers Institute for Translational Medicine in New Jersey and a member of the Asthma and Allergy Foundation of America’s Medical Scientific Council. “One is the amount of medications that’s necessary to control the symptoms. If the disease is under control with maximum therapy, that would still be considered severe asthma but controllable. If symptoms persist or require frequent bursts of oral steroids, then asthma is uncontrolled, and that too is severe asthma.”

If your symptoms—including coughing, wheezing, trouble breathing, chest tightness, and asthma attacks—are persistent and hard to control despite treatment, these are signs your asthma may be severe. Severe asthma is often unpredictable and affects daily life.

There’s no specific cause of severe asthma, Panettieri explains. The condition is defined instead by the severity and frequency of symptoms, the need for maximum therapy including oral steroids, and potentially life-threatening asthma attacks. It’s more likely for people who don’t take their treatments as prescribed or aren’t able to avoid their asthma triggers, such as dust or mold. But, even if you do everything right, you may still have severe asthma along with the side effects of its treatment.

“The more steroids you take, the more adverse effects you’d have—hypertension, mood swings, there’s a whole variety [of side effects],” Panettieri says. “You have to weigh the symptoms [of severe asthma] versus the consequences of therapy.”

But, there’s reason for hope. While they don’t work for everyone, there are now biologic medications that can help people control severe asthma without the side effects of oral steroids.

“If we go back about 10 years, the outlook for severe asthma was pretty grim,” Panettieri says. “It was the same old therapy. We are now in a revolution in therapy for severe asthma, mostly driven by biologics.”
SHOULD YOU SEE A SPECIALIST?
IF YOUR ASTHMA IS SEVERE, IT MIGHT BE TIME

By Kendall K. Morgan
Reviewed by Brunilda Nazario, MD, WebMD Lead Medical Director

Jessica E. Most, MD, a pulmonary specialist at Thomas Jefferson University’s Sidney Kimmel Medical College in Philadelphia, encourages people with severe asthma to seek help beyond primary care. “Anyone with severe asthma should see a specialist, and unfortunately we know from recent data that many people don’t,” she says. “We have many options available to us as specialists that are not available in primary care. It’s also important to be sure the diagnosis is correct and that’s best done by a specialist.” Here are answers to some common questions you may have.

Q WHAT’S THE BEST WAY TO TREAT SEVERE ASTHMA?

It depends on what is driving the severe asthma. We look for triggers or clues about why you have severe asthma. We look for allergies, markers in blood work like elevated eosinophils, how likely you are to improve after using albuterol. We also look for other conditions that may contribute. We check to see if there are other things going on in the lungs, such as dilation of airways and scarring or frequent infections. All of these clues help us to come up with a tailored treatment plan.

Q WHAT DOES TREATMENT FOR SEVERE ASTHMA LOOK LIKE?

First, we make sure you’re on the correct inhalers and using them correctly. If you qualify for biologic medicines, they are a total game changer. I have people tell me it’s the best they’ve felt in 40 years. Biologics are injection medicines taken every few weeks, usually at home. They don’t replace inhaler therapy, but often we get down to one maintenance inhaler. The goal of biologics is to prevent exacerbations and the need for oral steroids. People often can wean off chronic steroids or get down to very low doses. I like to give people 4 to 6 months before deciding if a biologic is working. Some people say they felt better the first day, while others may take a lot longer.

Q CAN A PERSON WITH SEVERE ASTHMA BENEFIT FROM ANY SPECIAL DIET OR AVOIDING CERTAIN FOODS?

The jury is out on this. In general, avoiding processed foods leads to lower inflammation. There’s some evidence people on a Mediterranean diet do better. If you have food allergies, they can trigger asthma. If you have aspirin-sensitive asthma, it might help to avoid foods with chemicals called salicylates in them. If acid reflux is a trigger, avoid foods that cause reflux.

Q SHOULD SOMEONE WITH SEVERE ASTHMA EXERCISE?

I’m a huge proponent of exercise. We know asthmatics tend to be less physically fit. Some don’t even realize their asthma is bothering them because they’ve limited their activities. That’s not our goal. We want to treat the asthma, so you can do any activities. Exercise improves the perception of being short of breath. Over time, breathing will feel better.
I grew up in Jamaica and remember playing freely as a child. Things changed when I moved to the U.S. in middle school and noticed a change in my breathing. Perhaps it was the different environment or that I was becoming more active, but my breathing became much more difficult. I had shortness of breath, and it made playing with the other kids and doing activities like sports and ballet extremely difficult.

Back then in the late 1980s, some doctors didn’t look at asthma as severe unless you had constant wheezing. I was on a rescue inhaler, but my asthma was getting worse. It was a pain to carry my inhaler around all the time, so I just stopped being as active.

It wasn’t until I was an adult and I saw an allergist, a pulmonologist, and got a full workup that I learned how serious my asthma was. My doctors told me I had severe asthma. Here I was, just out of college and facing a stark reality: I had a lifelong condition, and it would require ongoing care. Some days, I would be so sick and my breathing so bad that I’d need high doses of steroids to help with the inflammation in my lungs.

Once diagnosed, I went on a daily maintenance therapy. I use a combination inhaler with two medications—a steroid for inflammation and a bronchodilator, which helps open my airways. It was day and night compared to what I thought was breathing normally. That’s the sad part, really. I had gotten used to breathing the way I did and just accepted it as normal.

For my type of severe asthma there are two triggers—cells that attack my body and create excess mucus and allergies, mostly during the spring. Once my doctors and I understood the root cause of my asthma, it was easier to treat. For the cells that cause mucus, I do an IV therapy every 8 weeks that helps decrease the number of bad cells. For my allergies, I take a daily over-the-counter antihistamine.

My form of asthma is very serious and can be fatal if not controlled. My lungs don’t process asthma the way that most people are familiar with, such as wheezing. I think everyone still associates wheezing with a more serious asthma attack, and that’s not always the case.

Living successfully with severe asthma means you have to make some changes in your life. I have to be aware of the air quality and pay attention to my triggers. I have an air purifier in my bedroom and my husband and I use special AC filters to reduce allergens.

You may also have to understand that not everyone will get the severity of your condition. While my close friends and family understand my limitations, others may not get why I may have to call out sick for something as “simple” as asthma. I tell people—imagine breathing through a plastic coffee stir stick. That’s what it feels like. When I am having an attack, it’s not a game.

I just had a baby, and I didn’t know what to expect. I’ve always heard about the rule of thirds and that your asthma can either get worse, get better, or stay the same once you’re pregnant. Fortunately for me, it got a little better. Overall, with the exception of a few bad days where I’ll need a treatment, I do well. You can live a full, active life when your asthma is under control.
If you are having frequent asthma attacks despite taking your medicines as prescribed, your asthma may be severe. Take this quiz to find out how much you know about severe asthma and learn some things that could help you breathe easier along the way.

1. If you have severe asthma, it’s not a good idea to exercise or spend time outdoors.
   - True
   - False

2. Black Americans have worse asthma outcomes because of genetic differences.
   - True
   - False

3. If you take asthma medicines all the time, they will stop working.
   - True
   - False

4. Alternative therapies such as breathing exercises and acupuncture can treat severe asthma.
   - True
   - False

5. Biologic medicines for severe asthma fight inflammation in your airways.
   - True
   - False

1. **False.** The goal of treatment for severe asthma is for you to live a normal life and participate fully in activities including exercise, both indoors and out. If you are struggling with exercise, tell your doctor to see if there’s a way to adjust your medicines. There also could be certain times when you need to take extra care. For example, if you live in an area affected by wildfire smoke or you know a pollen you are allergic to is at high levels, you might want to take a break from high-intensity outdoor activities for a while or wear a mask to stop you from breathing in air particles that could trigger asthma symptoms.

2. **False.** Some people are more prone to severe asthma or less likely to respond well to common asthma medicines because of their genetics, that’s true. Researchers are trying to learn more about this to improve asthma treatment in studies such as The Precision Interventions for Severe and/or Exacerbation-Prone Asthma Network (PrecISE). But genetic differences aren’t why Black Americans tend to have worse asthma outcomes than other groups. Studies show that racial disparities in asthma are mainly due to differences among groups in access to health care and other environmental factors, not genetics.

3. **False.** It’s important to take asthma medicines as prescribed by your doctor. Some asthma medicines are taken every day to work properly. Others you will take only as needed. Biologic medicines for severe asthma are taken every 2 to 8 weeks. If you’re using a rescue inhaler multiple times a week, your asthma isn’t well-controlled with the medicines you’re taking regularly. Talk to your doctor to see what other options you have. It’s important to take your medicines and keep taking them.

4. **False.** Some people with asthma do use breathing exercises. These exercises probably won’t hurt you and might help you relax or feel better in other ways. But there’s not good evidence this will help much, if at all, with your asthma symptoms. There’s some evidence that acupuncture together with your usual medicines might improve your asthma symptoms. In general, alternative therapies may be OK to try, but it’s always a good idea to check with your doctor to be sure as they won’t replace your regular medications.

5. **True.** There are multiple biologics that work in slightly different ways. They are called biologics because they are made from antibodies that target the proteins or cells that cause inflammation. The goal is to stop inflammation before it starts. Biologics can really help in some cases of severe asthma, but they don’t work for everyone. If your asthma is severe, ask your doctor if a biologic is an option you could try.
According to the American Lung Association, your asthma is well-controlled if you:

- Need your rescue inhaler LESS than 3x per week
- DO NOT wake up with asthma during the night
- Do daily activities including exercise with few to no symptoms

WHAT CAN WELL-CONTROLLED ASTHMA LOOK LIKE?

MY NAME IS JENNIFER, AND I HAVE UNCONTROLLED SEVERE ASTHMA.

If you have symptoms or use your rescue inhaler more than two times per week, wake up at night with symptoms more than two times per month, or refill your rescue inhaler more than two times per year, your asthma might also be uncontrolled.

“FOR ME, IT’S ISOLATING AND LONELY. I CAN’T MAKE PLANS WHEN I’M DEALING WITH ASTHMA. I’VE BEEN STRUGGLING FOR A LONG TIME, BUT I’VE DECIDED THAT MY ASTHMA DOESN’T HAVE TO Dictate HOW I LIVE MY LIFE. YOU CAN FIND HELP TOO.”

JENNIFER, REAL PATIENT WITH ASTHMA

TO HEAR JENNIFER’S FULL STORY, VISIT BREAKTHECYCLE.COM

TWO TOOLS THAT MAY HELP YOU UNDERSTAND YOUR LEVEL OF ASTHMA CONTROL

1. ASSESS YOUR LEVEL OF CONTROL WITH AIRQ™ THEN TALK TO YOUR DOCTOR
   Take this short questionnaire while waiting for your appointment. When you’re done, talk to the doctor about the results.

2. TRACK YOUR RESCUE INHALER USAGE
   Sign up today to get free* access to Propeller, a sensor and mobile app that can give you insight into your asthma symptoms by tracking how often you use your rescue inhaler. This information will help you have a more informed conversation with your doctor about your personal level of asthma control.

   You’ll also get emails about controlling your asthma, more tips for talking to your doctor, and more.

FOR THESE TOOLS AND MORE, VISIT BREAKTHECYCLE.COM

*Free access to Propeller for 12 months sponsored by AstraZeneca.
STATS & FACTS

By Sonya Collins
Reviewed by Neha Pathak, MD, WebMD Medical Editor

25 million
Number of people in the U.S. who have asthma.

5% to 10%
Amount of people with asthma in the U.S. who have severe disease.

$56 billion
Estimated economic cost of asthma in the U.S.

50¢ for every $1
Amount of asthma health care costs in the U.S. that go to hospital stays.

1 in 6
Number of people with asthma who rely on the ER—rather than their regular doctor—for asthma care.

1.6 million
Number of emergency room (ER) visits for asthma in a year.

1 in 4
Number of adults with asthma who miss work due to the condition each year.

10.4 in 10,000
Estimated amount of adults who have severe asthma worldwide.

5%
Amount of asthma health care costs in the U.S. that go to severe asthma.

439,000
Number of asthma-related hospital stays each year.

SOURCES: American Lung Association, Journal of Allergy and Clinical Immunology, American College of Allergy, Asthma and Immunology, Asthma and Allergy Foundation of America, Asthma Research and Practice, Respiratory Research, CDC, Journal of Asthma and Allergy