

**LEARN MORE
BREATHE BETTER®**



ASTHMA MANAGEMENT GUIDELINES AND YOUR CARE



WHAT ARE ASTHMA GUIDELINES AND HOW DO THEY AFFECT YOUR CARE?

The *2020 Focused Updates to the Asthma Management Guidelines* are designed to improve the care of people living with asthma and also help primary care providers and specialists make informed decisions about asthma management.

These guidelines are based on the best available scientific evidence in selected topics and can be used by your health care provider to develop a treatment plan that is right for you. Health care providers nationwide can use the information to deliver the best possible care—hopefully with the best possible outcomes—to everyone living with asthma.

Asthma care involves not only a proper diagnosis and treatment, but also long-term, regular follow-up medical care that helps achieve and maintain control of your asthma so that you can lead a full and active life.

Work with your health care provider to develop a comprehensive prevention and treatment plan that includes:

- Taking prescribed medications
- Addressing environmental factors that worsen symptoms
- Helping you learn skills to manage your asthma on your own
- Monitoring your care to assess how well it's working and how to adjust, if needed



**U.S. Department of Health and Human Services
National Institutes of Health**



National Heart, Lung,
and Blood Institute

NIH Publication No. 20-HL-8149
February 2021

For more information and resources on asthma,
visit nhlbi.nih.gov/BreatheBetter.

WHO DEVELOPED THE ASTHMA GUIDELINES?

The guidelines were developed by the Expert Panel Working Group of the National Asthma Education and Prevention Program Coordinating Committee, which is coordinated by the National Heart, Lung, and Blood Institute, part of the National Institutes of Health.

The panel included asthma experts (pediatric and adult pulmonologists and allergists, an emergency room physician, and a pharmacist), primary care physicians (pediatric, internal medicine, and family medicine providers), health policy leaders, and experts skilled at helping turn policies into practice. It received support from individuals experienced in the use of a system called GRADE that helps assess scientific evidence. GRADE, which stands for Grading of Recommendations Assessment, Development and Evaluation, provided a way for the panel to rate their recommendations as “strong” or “conditional,” based on the strength and quality of the evidence.

WHY IS IT NECESSARY TO UPDATE THE ASTHMA GUIDELINES?

The original guidelines, published in 1991, were last updated in 2007. Since then, researchers have made much progress in understanding the origins of asthma and how the disease evolves over time. In addition, the U.S. Food and Drug Administration has approved several new asthma treatments.

The new guidelines help health care providers and people with asthma work together to develop a comprehensive management plan based on the most promising, evidence-based treatment options available.



DOES THIS UPDATE REPRESENT A COMPLETE REVISION OF THE EXISTING GUIDELINES?

No. The *2020 Focused Updates to the Asthma Management Guidelines* address health questions in six important areas:

- Intermittent inhaled corticosteroids
- Long-acting muscarinic antagonists (LAMAs)
- Indoor allergen reduction
- Immunotherapy
- Fractional inhaled nitric oxide (FeNO) testing
- Bronchial thermoplasty

Other important aspects of care—such as asthma education and tools to assess asthma control and patient compliance—are not covered.



LEARN MORE
BREATHE BETTER®

**ASTHMA MANAGEMENT
GUIDELINES AND YOUR CARE**

nhlbi.nih.gov/BreatheBetter

WHAT DO THE NEW ASTHMA GUIDELINES ADDRESS?

The *2020 Focused Updates to the Asthma Management Guidelines* contain 19 recommendations that address the following areas:

- Intermittent inhaled corticosteroids for people with recurrent wheezing or persistent asthma. This medicine helps control inflammation, or swelling, in your airways over time.
- Use of long-acting antimuscarinic agents (LAMAs) with inhaled corticosteroids for long-term asthma management. A LAMA is a bronchodilator, a medicine that helps to keep airway muscles relaxed.
- The benefit of reducing exposure to indoor allergens (such as house dust mites or pet dander) when a person has a known sensitivity to a specific allergen.
- The role of immunotherapy for some people with allergic asthma. Immunotherapy may make your body less sensitive to allergens (such as grass or ragweed pollen).
- The value of fractional exhaled nitric oxide (FeNO) testing to manage asthma or help confirm an asthma diagnosis in some patients when a diagnosis is unclear. FeNO testing measures the amount of nitric oxide, a byproduct of inflammation, in the air you breathe out. It is a safe test that can help determine how much inflammation you have in your airways.
- The risks and benefits of a procedure called bronchial thermoplasty (BT) to treat selected adults with severe asthma. BT uses heat to reduce the smooth muscle around the airways that tighten during asthma attacks and makes it hard to breathe.

WHAT ARE THE KEY POINTS?

INTERMITTENT INHALED CORTICOSTEROIDS

- ✓ **In children ages 0-4 years with recurrent wheezing**, a short (7-10 day) course of daily inhaled corticosteroids along with an as-needed short-acting bronchodilator (such as albuterol sulfate) is recommended at the start of a respiratory tract infection.
- ✓ **In people ages 4 years and older with mild to moderate persistent asthma who use inhaled corticosteroids daily**, increasing the regular inhaled corticosteroid dose for short periods is not recommended when symptoms increase or peak flow decreases.
- ✓ **For people ages 4 and older with moderate to severe persistent asthma**, the preferred treatment is a single inhaler that contains an inhaled corticosteroid and the bronchodilator formoterol. This should be used as both a daily asthma controller and quick-relief therapy.
- ✓ **People ages 12 and older with mild persistent asthma** may benefit from inhaled corticosteroids with a short-acting bronchodilator for quick relief. Treatment may include inhaled corticosteroids daily or as needed when asthma gets worse.



**ASTHMA MANAGEMENT
GUIDELINES AND YOUR CARE**

nhlbi.nih.gov/BreatheBetter

LEARN MORE
BREATHE BETTER®

LONG-ACTING MUSCARINIC ANTAGONISTS (LAMAs)

If inhaled corticosteroids alone do not control asthma, a health care provider may add a long-acting bronchodilator such as a long-acting beta₂-agonist (LABA) or LAMA.

- ✓ For children under 12 and most people ages 12 and older with asthma that is not controlled by an inhaled corticosteroid alone, adding a LABA rather than a LAMA to an inhaled corticosteroid is preferred.
- ✓ For people 12 years old and older, if a LABA cannot be used, a LAMA may be used with inhaled corticosteroid treatment instead of continuing the inhaled corticosteroid alone.
- ✓ For people 12 years old and older whose asthma is not controlled with an inhaled corticosteroid plus a LABA, adding a LAMA is recommended.

INDOOR ALLERGEN REDUCTION

- ✓ For people with asthma who are sensitive to indoor substances (such as house dust mites), using multiple strategies to reduce the allergen is recommended (such as pillow and mattress covers that prevent dust mites from going through them along with high efficiency particulate air [HEPA] filtration vacuum cleaners). Using only one strategy often does not improve asthma outcomes.
- ✓ Integrated pest management is recommended for those who are allergic and exposed to cockroaches, mice, or rats.
- ✓ These strategies are not recommended for people who are not allergic to indoor substances.

IMMUNOTHERAPY

- ✓ Allergy shots, known as subcutaneous immunotherapy, are recommended for people who have allergic asthma and whose symptoms worsen after exposure to certain allergens.
- ✓ Sublingual immunotherapy, which involves placing liquid drops or tablets containing allergens under your tongue, is not recommended for the treatment of allergic asthma.

FRACTIONAL EXHALED NITRIC OXIDE (FeNO TESTING)

- ✓ FeNO testing in individuals ages 5 and older is recommended when either the diagnosis or the approach to therapy is uncertain.
- ✓ FeNO testing should not be used alone to assess asthma control or predict the course of the ailment. In children ages 4 years and younger who have recurrent episodes of wheezing, FeNO measurement does not reliably predict the future development of asthma.

BRONCHIAL THERMOPLASTY

- ✓ Most individuals ages 18 years and older with uncontrolled, moderate to severe persistent asthma should not undergo bronchial thermoplasty because the benefits are small, the risks are moderate, and the long-term outcomes are uncertain.
- ✓ Some individuals with moderate to severe persistent asthma who have troublesome symptoms may be willing to accept the risks of bronchial thermoplasty and, therefore, might choose this intervention after shared decision making with their health care provider.