

## Severe Asthma Program Team

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### BRIGHAM HEALTH



BRIGHAM AND WOMEN'S  
The Lung Center

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The Lung Center

## Severe Asthma Program



*A multidisciplinary program for patients with  
difficult-to-control asthma*



HARVARD MEDICAL SCHOOL  
TEACHING HOSPITAL

A FOUNDING MEMBER OF  
PARTNERS  
HEALTHCARE

## Severe Asthma Program

Asthma affects approximately 25 million Americans. Roughly 5 to 10 percent of these people experience severe asthma, a persistent form of the condition that is resistant to traditional asthma therapies due to factors such as allergies, complicating medical conditions, or smoking exposure.

The Severe Asthma Program at Brigham and Women's Hospital, part of Partners Asthma Center, offers state-of-the-art diagnostic and treatment options to help patients with severe asthma achieve improved respiratory health. Our multi-disciplinary approach ensures that patients receive comprehensive care from a team of specialists, including pulmonologists, allergists, otolaryngologists (voice experts, speech therapists, and experts in sinus disease and nasal polyps), gastroenterologists, and psychiatrists.

### Diagnosis

Based on an initial evaluation with one of our asthma specialists, your physician may recommend any of the following office-based diagnostic tests.

- **Lung Function and Challenge Testing**  
Diagnosis often begins with a complete assessment of lung function. Your physician may also perform pulmonary challenge testing to determine the sensitivity of your airways to asthma triggers.
- **Allergy Testing**  
Severe asthma can be triggered by exposure to inhaled allergens such as pet dander, dust mites, mold, fungi, cockroaches, and seasonal pollens. Blood and skin tests may be performed to identify those allergens that can trigger asthma.

- **Chest Imaging**  
X-rays and computed tomography (CT) imaging of the chest can help identify other respiratory illnesses that often occur in patients with severe asthma.
- **Airway Evaluation**  
The throat and vocal cords can be examined using a fiberoptic camera to evaluate hoarseness, altered voice quality and/or a sense of fullness or closure in the throat. Your physician may also recommend direct examination of your bronchial tubes through a bronchoscope.

### Treatments

Individualized treatment options may include the following.

- **Biologic Medications**  
FDA-approved medications called biologics (monoclonal antibodies) block key chemical reactions that cause asthma symptoms. These medications are given as injections once or twice monthly.
- **Bronchial Thermoplasty**  
This procedure involves application of heat to the muscles surrounding the airways through a bronchoscope. Heat weakens the ability of these muscles to contract, lessening the severity of asthma attacks.
- **Aspirin Desensitization**  
Three to five percent of adults with asthma experience a worsening of their condition due to exposure to anti-inflammatory medications such as aspirin. Patients can overcome their intolerance of these medications through a desensitization process that is supervised by one of our allergists.
- **Voice Training**  
We offer breathing exercises and techniques to improve breathing and voice quality. These techniques are particularly useful for patients with "vocal cord dysfunction," a syndrome that can be mistaken for severe asthma.



- **Smoking Cessation and Vaccination**  
Smoking and respiratory infections can worsen asthma symptoms. We offer a cigarette smoking cessation program and may recommend certain vaccinations to prevent respiratory infections.

### Asthma Clinical Trials

Patients can enroll in ongoing clinical trials at Brigham and Women's Asthma Research Center. General areas of asthma research include:

- Evaluation of new biologic medications
- Understanding the role of anti-inflammatory medications
- Causes of aspirin-intolerance
- Identifying treatments for non-allergic asthma

For more information about asthma research, visit [asthmabwh.org](http://asthmabwh.org).

### Connect With Us

The Severe Asthma Program is located at the Center for Chest Diseases, Brigham and Women's Hospital at 15 Francis Street in Boston. We also have locations at Brigham and Women's Health Center at 850 Boylston Street in Chestnut Hill, and Brigham and Women's Faulkner Hospital at 1153 Centre Street in Jamaica Plain.

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