

**SPEAKER:**

With normal breathing, the airways of the lungs are fully open, as in this cross-section of an airway. People with severe asthma have more airway smooth muscles circling their airways. This excess muscle, together with inflammation of the airways, combines to make the airway walls thicker than normal. During an asthmatic attack in response to an asthma trigger, such as an allergen or irritant, the airway smooth muscle contracts, leading to airway narrowing and breathing difficulties.

During bronchial thermoplasty, a small, flexible tube is advanced into the airway through a standard flexible bronchoscope, placed through the mouth or nose. No incision is required. The Alair device has an expandable wire electrode array at the tip. And when it is expanded, the four arms of the electrode array come in contact with and fit snugly against the airway wall.

The expanded electrode array will then deliver controlled radio frequency energy for about 10 seconds to heat the airway smooth muscle. About 1/3 of the targeted lung areas are treated during a single procedure. A total of three procedures are currently needed for complete treatment. Once the procedure is completed, the device and the bronchoscope are removed.

The controlled energy delivered during bronchial thermoplasty creates mild heat within the airway wall that is designed to reduce the amount of airway smooth muscle. By reducing the amount of airway smooth muscle, the procedure reduces the ability of the airway walls to contract and narrow during an asthma attack.