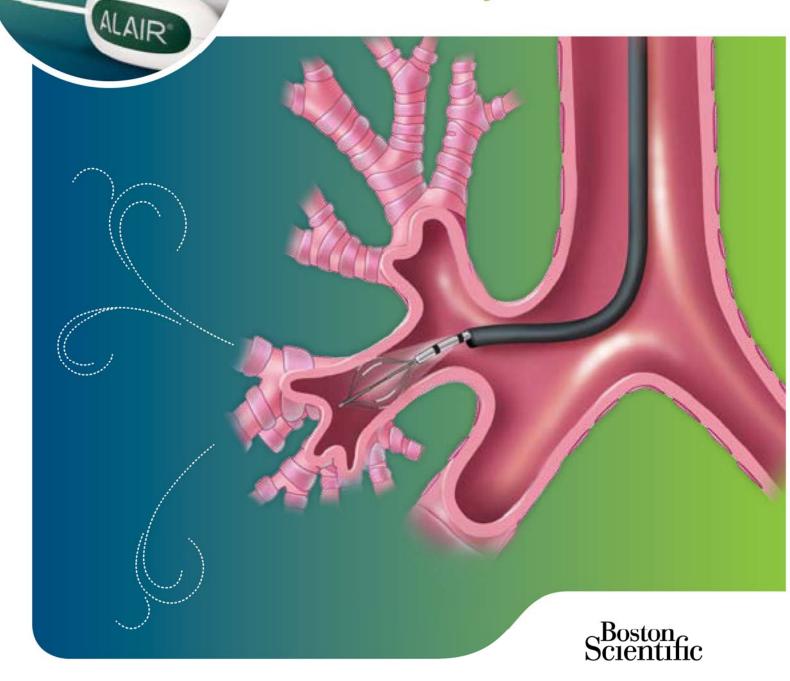


Bronchial Thermoplasty:

A New Procedure for Severe Asthma





Ordering Information

Alair Catheter ATS 2-5							
Order Number	Model	Description	Active Electrode Length (mm)	Tip Diameter (mm)	Minimum Working Channel (mm)		
M005ATS25020	ATS 2-5	Alair BT Catheter – Global	5.0	~1.5	2.0		
M005ATS25010	ATS 2-5	Alair BT Catheter – North America	5.0	~1.5	2.0		
Alair RF Controller ATS 200							
Order Number	Model	Description					
M005ATS20000	ATS 200	Alair RF Controller – monopolar (return electrode not included)					
Alair Controller Accessory Kits ATS 201*							
Order Number	Model	Description					
M005ATS20130	ATS 201	EU Hybrid Type E/F Plug					
M005ATS20110	ATS 201	North American Plug					
M005ATS20120	ATS 201	British Type G Plug					
M005ATS20140	ATS 201	Australian Type I Plug					
M005ATS20150	ATS 201	Danish Type K Plug					
M005ATS20160	ATS 201	Brazil IEC 60906-1 Plug					
M005ATS20170	ATS 201	Chinese CPCS-CCC (Chinese 10 A/250 V) Plug					
M005ATS20180	ATS 201	Swiss Type J Plug					
M005ATS20190	ATS 201	Israel Type H Plug					

^{*} All accessory kits include power cord with moulded plug; foot switch; and operating manual

- 1) Castro M, Rubin AS, Laviolette M, et al.; AIR2 Trial Study Group. Effectiveness and safety of Bronchial Thermoplasty in the treatment of severe asthma: a multicenter, randomized, double-blind, shamcontrolled clinical trial. Am J Respir Crit Care Med. 2010 Jan 15;181(2):116-24
- 2) Castro M, et al., Two-Year Persistence of Effect of Bronchial Thermoplasty (BT) in Patients With Severe Asthma: AIR2 Trial, Chest. 2010; 138:768A
- 3) Pavord I, et al., 5-Year Safety of Bronchial Thermoplasty Demonstrated in Patients with Severe Persistent Refractory Asthma: Research in Severe Asthma (RISA) Trial, AJRCCM 183; 2011: A6382
- 4) Thomson et al. Long-term (5 year) safety of Bronchial Thermoplasty: Asthma Intervention Research (AIR) trial. BMC Pulmonary Medicine 2011, 11:8
- 5) Rabe KF, Vermeire PA, Soriano JB, Maier WC. Clinical management of asthma in 1999: the Asthma Insights and Reality in Europe (AIRE) study. Eur Respir J 2000;16:802-807
- 6) Rabe KF, Adachi M, Lai CK, Soriano JB, Vermeire PA, Weiss KB, et al. Worldwide severity and control of asthma in children and adults: the global asthma insights and reality surveys. J Allergy Clin Immunol 2004;114:40-47
- 7) Braman SS. The global burden of asthma. Chest 2006; 130: 4S-12S

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What is **Bronchial Thermoplasty?**

Bronchial Thermoplasty is a new, long lasting, non-drug treatment for adult asthma patients, over the age of 18, whose asthma is not well controlled despite conventional therapy.

Bronchial Thermoplasty is a bronchoscopy based procedure that uses radiofrequency (RF) energy to reduce the amount of excess airway smooth muscle (ASM) present in the airways and limit its ability to contract and narrow the airways.

Airway cross-section

Normal airway



Asthmatic airway



Airway Smooth Muscle

Asthma attack



BT treatment



Treatment Effect

Local Methacholine Challenge (Canine Airway).



Airway on the left above is treated with BT, airway on the right is not treated with BT.



The same airways are given methacholine after the bronchial thermoplasty treatment. BT treated airway on the left remains open.

Reduces Airway Smooth Muscle (ASM)

Reduces bronchoconstriction

Reduces asthma exacerbations

Improves asthma quality of life

Benefits of BT

32% reduction

in asthma attacks ¹

84% reduction

in emergency room visits from respiratory symptoms ¹

73% reduction

in hospitalizations for respiratory symptoms ¹

66% reduction

in days lost from work, school and other daily activities due to asthma ¹

Persistent effects observed up to

2 years²

Stable safety profile observed up to

5 years 3, 4

Severe Asthma



32 million⁵

in Europe have asthma

6 million⁵

of these have severe asthma

1,2 million⁶

of adults
with severe
asthma have
uncontrolled
asthma and
respond poorly
to treatment.



46%⁶

of patients with severe asthma cause increased burden on healthcare budgets and hospitalizations



80%⁶

of asthma deaths occur in patients with poorly controlled severe disease



50%⁷

of direct and indirect asthma costs are attributable to severe asthma

Bronchial Thermoplasty (BT): Targeting the Unmet Need

Patients with severe asthma experience a poor quality of life and account for a substantial portion of the overall economic burden of asthma given frequent physician/ER visits, hospitalizations and lost time from work.

Alternatives are needed to better control asthma symptoms

since 20% of patients with severe asthma cannot gain control despite high intensity treatment with existing options

	Existing Drug Therapies	Severity of Asthma		
. es	Oral Corticosteroids+/- Anti IgE treatment	Severe		
Alternatives	Medium or high-dose ICS + LABA +/- Leukotriene modifier +/- sustained release theophylline	Severe		
3	3 Low-dose ICS + Long-acting Beta2-agonists(LABA) or Medium- dose ICS or Low dose ICS + Leukotriene modifier			
② Lov (IC	Moderate			
① Short-a	Mild			

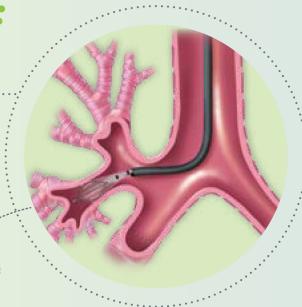
Global Initiative for Asthma (GINA). Global Strategy for Asthma Management and Prevention. 2010; http://www.ginasthma.org/



Bronchial Thermoplasty:The Procedure

Treatment is performed by a trained physician over three procedures, each scheduled approximately three weeks apart and treating a different section of the lung.

Each procedure takes approximately 45-60 minutes and patients should be monitored post procedure in the same way as they would be following other bronchoscopy procedures.



RB¹ (Apical Segment) RB¹ (Posterior Segment) RB¹ (Anterior Segment) RB¹ (Anterior Segment) LB¹¹ (Apicoposterior Segment) LB¹¹ (Apicoposterior Segment) LB¹¹ (Anterior Segment) Superior Division Bronchus LB⁴¹ (Lingula Segment) Procedure 3 RB¹ (Anterior Basal) RB¹ (Lateral Basal) RB¹ (Lateral Basal) RB¹ (Costerior Basal) RB¹ (Costerior Basal) RB¹ (Lateral Basal)

Bronchial Thermoplasty complements current drug therapy

Bronchial Thermoplasty complements asthma maintenance medications by providing long lasting asthma control and improving asthma-related quality of life of patients with severe asthma.

It will not replace daily asthma medications and patients will continue to be monitored on their daily asthma medications by their asthma care physicians.

Treating the Airways

A single activation of the Alair catheter delivers RF energy over a distance of 5mm to airways ≥3mm in diameter and distal to the main stem bronchi.





Catheter placed distally in airway, electrode array expanded and controller activated





Electrode array partially collapsed and moved 5mm proximal to previous activation





Electrode array expanded and adjacent but not overlapping activation completed





Electrode array partially collapsed and moved 5mm proximal to previous activation





Electrode array expanded and adjacent but not overlapping activation completed

Bronchial Thermoplasty delivered by the Alair[™] System

Bronchial Thermoplasty (BT) delivered by the Alair $^{\text{TM}}$ System is a non-drug procedure for long lasting control of severe asthma in adults over the age of 18. The Alair System is a means to deliver thermal energy to the airway via a bronchoscope to reduce airway smooth muscle.

It is comprised of two primary components:

Alair Catheter

A single-use device designed to be delivered through the working channel of a standard bronchoscope:

- Expandable electrode array with four 5mm electrodes that deliver RF energy
- Requires a minimum 2.0mm working channel diameter bronchoscope, and maximum 5.0mm outer diameter



Designed with proprietary control parameters and algorithms to deliver the correct intensity and duration of thermal energy sufficient to reduce excess ASM, while limiting long-term impact to surrounding tissues.



