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Bronchial Thermoplasty

Pulmonary Endoscopy

Boston Scientific is committed to **helping advance the diagnosis and treatment of pulmonary diseases** by
focusing on the development of less invasive devices
and procedures.

In the past, we have demonstrated this dedication by bringing to market the first metal stent technology to help manage airway obstruction. Our stent technologies have since been used to benefit thousands of patients.

In addition to our innovation in airway stent technologies, Boston Scientific offers a range of diagnostic and therapeutic devices including biopsy forceps, transbronchial aspiration needles, cytology brushes, dilation balloons, and retrieval baskets.

We would also like to introduce Bronchial Thermoplasty, a new device-based treatment of severe persistent asthma in patients 18 years and older.

Our mission is to remain the globally recognized leader in the management of pulmonary disease. We are fully dedicated to developing devices and procedures to improve the quality of life for patients.



This brochure is also available for download to your iPad® Device.

Radial Jaw® 4

Single-Use Pulmonary Biopsy Forceps

The Radial Jaw 4 Pulmonary Biopsy Forceps are intended to collect tissue endoscopically for histologic examination.

New Surgical Stainless Steel Jaw with Improved Micromesh teeth

Designed to Provide:

- ➤ Tissue specimens for excellent sample handling and preparation
- Clean, precise bite for accurate histological diagnosis

New Streamlined Catheter Designed to Provide:

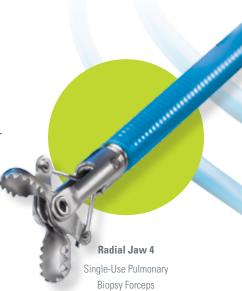
- Enhanced passability through tortuous anatomy
- The right balance of columnar strength and flexibility for excellent pushability and control during scope passage

Single-Use

- Eliminates the risk of transmitting patient-to-patient disease
- Provides first time sharpness

New Distal End Tube

- ➤ Improved visibility
- Prevents inadvertent lodging of the cap in the scope working channel



Radial Jaw 4 Pulmonary

Single-Use Biopsy Forceps

| Radial Jaw | 4 Single-Use Pulmonar | y Biopsy Forceps | | | | |
|--------------------|---------------------------|---------------------------------------|----------------|------------------------|---------------------------------|--------|
| Order Number | Product Description | Differentiator | Jaw OD (mm) | Working Length (cm) | Minimum Working Channel (mm) | Units |
| M005 1518 1 | Single Use Biopsy Forceps | Pulmonary Standard Capacity | 1.8 | 100 | 2.0 | Box 5 |
| M005 1518 2 | Single Use Biopsy Forceps | Pulmonary Standard Capacity | 1.8 | 100 | 2.0 | Box 20 |
| M005 1519 1 | Single Use Biopsy Forceps | Pulmonary Standard Capacity w/ Needle | 1.8 | 100 | 2.0 | Box 5 |
| M005 1519 2 | Single Use Biopsy Forceps | Pulmonary Standard Capacity w/ Needle | 1.8 | 100 | 2.0 | Box 20 |
| M005 1520 1 | Single Use Biopsy Forceps | Pulmonary Large Capacity | 2.2 | 100 | 2.8 | Box 5 |
| M005 1520 2 | Single Use Biopsy Forceps | Pulmonary Large Capacity | 2.2 | 100 | 2.8 | Box 20 |

Cellebrity®

Single-Use Cytology Brush

The Cellebrity Cytology Brush is indicated for acquiring tissue samples used for the diagnosis of suspected pathology in the airway tree.

PTFE Sheath

 Designed to help reduce friction, facilitating passage through the scope

Stainless Steel Wire Shaft

 Intended to provide strength to help resist kinking or bending during advancement

Bullet-Shaped Tip

> Designed to help reduce tissue trauma

Ergonomic Handle

- Ergonomic handle with automatic stop
- > Facilitates single-hand brush advancement and withdrawal
- ➤ Helps reduce the risk of overwithdrawal and subsequent kinking of proximal shaft





Cytology Brush

Cellebrity

Single-Use Cytology Brushes

| Cellebrity S | Single-Use Cytology Brushes | | | | |
|--------------------|-----------------------------|----------------------------------|----------------------|-----------------------|--------|
| Order Number | Product Description | Required Working Channel (mm) | Bristle O.D. (mm) | Sheath Length (cm) | Units |
| M005 1600 1 | Cytology Brushes | 2.0 | 1.0 | 140 | Box 10 |
| M005 1601 1 | Cytology Brushes | 2.0 | 1.5 | 140 | Box 10 |
| M005 1607 1 | Cytology Brushes | 2.0 | 1.9 | 100 | Box 10 |
| M005 1615 1 | Cytology Brushes | 2.0 | 1.9 | 150 | Box 10 |

eXcelon®

Single-Use Transbronchial Aspiration Needle

The eXcelon Transbronchial Aspiration Needle is indicated for use in aspiration in carinal, paratracheal, and hilar lesions of the bronchial tree where biopsy forceps cannot obtain a submucosal sample.

Procedural Safety Features

- > Button Lock system is designed to reduce risk of accidental needle deployment during catheter advancement, potentially avoiding costly scope damage
- > Fused hub and needle configuration is designed to help prevent needle detachment
- ➤ Clear catheter designed for visualization if blood is drawn during aspiration

High Performance Design

- ➤ "X-Catheter" is engineered to promote responsiveness and kink resistance for smooth needle penetration
- Distal coil is designed to promote tip flexibility while maintaining rigidity at the proximal end
- ➤ Needle internal volume is designed to provide increased space for specimen collection

Procedural Convenience Features

- > Syringe locking feature is designed to reduce aspirating effort during the procedure and facilitate "single-handed" actuation
- Ergonomic handle design
- No need to disconnect syringe to break vacuum

The needle is locked in the extended position when button lock is depressed, moved completely forward and released next to the symbol shown above.



The needle is locked in the retracted position when button lock is depressed, moved completely back and released next to the symbol shown above.



X-Catheter Design

eXcelon Single-Use Transbronchial Aspiration Needle

| eXcelon Sir | *Needle packaged v | vith 20cc Syringe. | | | | |
|--------------------|----------------------------------|--------------------|-----------------------|-------------------------|---------------------|-------|
| Order Number | Product Description* | Needle Gauge | Needle Length (mm) | Catheter Length (cm) | Sheath O.D. (mm) | Units |
| M005 6410 1 | Transbronchial Aspiration Needle | 19 | 15 | 130 | 1.8 | Box 5 |
| M005 6411 1 | Transbronchial Aspiration Needle | 20 | 15 | 130 | 1.8 | Box 5 |
| M005 6412 1 | Transbronchial Aspiration Needle | 21 | 15 | 130 | 1.8 | Box 5 |

CRE™

Single-Use Pulmonary Balloon Dilator

The CRE Pulmonary Balloon Dilator is intended to be used to endoscopically dilate strictures of the airway tree.

Three-in-One Technology

- Designed for successive, gradual dilation of strictures
- ➤ Helps eliminate the need for multiple balloons to employ multi-size dilation therapy

First Balloon Indicated for the Airway

➤ Indicated for airway stricture management

High Degree of Radial Vector Force

 Promotes low stricture compliance with little or no balloon waisting

0.035" Guidewire Compatible

➤ Designed for use with 0.035" Jagwire® Pulmonary Guidewires

Rectilinear Shoulder Design

- > Engineered to help promote endoscopic visualization
- Designed to provide greater usable balloon surface area during dilation

Radiopaque Markers

 Designed to facilitate fluoroscopic guidance of balloon positioning within a stricture

Inflation and Deflation

- ➤ Compatible with the Alliance™ II Inflation System
- Designed for rapid inflation and deflation when used with the Alliance II Inflation System





Alliance™ II Inflation System

CRE Single-Use Pulmonary Balloon Dilator

| CRE Pulmonar | ry Balloon Dilat | ors | | | | |
|--------------------|----------------------|---|-----------------------------|------------------------|-------------------------|-------|
| Order Number | Diameter at 3 ATM | Diameter (mm) at Intermediate Pressure | Diameter (mm) at Maximum | Balloon Length (cm) | Catheter Length (cm) | Units |
| M005 5030 0 | 12 | 13.5 @ 4.5 atm | 15 @ 8 atm | 5.5 | 75 | Each |
| M005 5031 0 | 15 | 16.5 @ 4.5 atm | 18 @ 7 atm | 5.5 | 75 | Each |
| M005 5032 0 | 18 | 19 @ 4.5 atm | 20 @ 6 atm | 5.5 | 75 | Each |
| M005 5033 0 | 8 | 9 @ 5.5 atm | 10 @ 9 atm | 3.0 | 75 | Each |
| M005 5034 0 | 10 | 11 @ 5 atm | 12 @ 8 atm | 3.0 | 75 | Each |
| M005 5035 0 | 12 | 13.5 @ 4.5 atm | 15 @ 8 atm | 3.0 | 75 | Each |

| Inflation System | |
|-----------------------------------|--------------------------------------|
| Product Description | Units |
| Inflation Handle | Each |
| Single-Use Syringe/Gauge Assembly | Box 5 |
| | Product Description Inflation Handle |

| Jagwire Single-Use Pulmonary Guidewire | | | | | | | | |
|--|---|-----------|-------------|-------|--|--|--|--|
| Order Number | Product Description | O.D. (in) | Length (cm) | Units | | | | |
| M005 1517 1 | Jagwire Single-Use Pulmonary Guidewire | .035 | 180 | Box 2 | | | | |

Zero Tip™

Airway Retrieval Basket

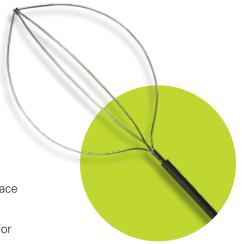
Zero Tip Airway Retrieval Basket is indicated to be used to endoscopically remove foreign bodies in the airway.

Access

 Designed for access to the upper lobes where rigid bronchoscopy may be insufficient

Low-Profile Tip Design

- ➤ Flattened distal surface designed to reduce tissue-to-tip interface for smooth manipulation
- Knotted basket tip designed to help prevent wire movement for more reliable foreign body capture
- Low-profile basket configuration facilitates proximity to foreign body, enhancing retrieval



Zero TipAirway Retrieval Basket

Advanced Construction

- Nitinol wire construction designed to offer a kink-resistant, flexible wire for scope deflection
- Low-friction sheath designed for smooth scope passage
- Multi-layer sheath is designed to enhance pushability, while maintaining flexibility for enhanced scope deflection



Nitinol wireconstruction for enhanced
scope deflection.



Engineered for foreign body retrieval, even in the upper lobes.

Zero Tip

Airway Retrieval Basket

| Zero Tip Airway Retrieval Basket | | | | | | | | | | |
|----------------------------------|----------------------------------|-----------|-----------------------|-------------------------|---------------------------|-------|--|--|--|--|
| Order Number | Product Description | 0.D. (mm) | Sheath Length (cm) | Working Opening (mm) | Basket Sheath Material | Units | | | | |
| M005 1320 0 | Zero Tip Airway Retrieval Basket | 0.8 | 120 | 12 | Polyimide / PTFE | Each | | | | |
| M005 1321 0 | Zero Tip Airway Retrieval Basket | 1.0 | 120 | 16 | Polyimide / PTFE | Each | | | | |

Ultraflex™ Tracheobronchial

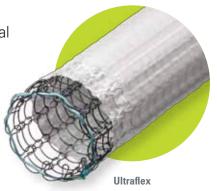
Single-Use Stent System

The Ultraflex Tracheobronchial Stent System is indicated for use in the treatment of tracheobronchial strictures produced by malignant neoplasms.

The Ultraflex Tracheobronchial Stent System is Designed to Address the Following Clinical Needs:

Accommodate Varying Airway Anatomy without Kinking Knitted Nitinol Design

Stent geometry is designed to adapt to anatomical contours and exert constant, gentle radial pressure to maintain patency while diffusing acute compression forces



TracheobronchialCovered Stent System

Wide Range of Sizes

Variety of lengths and diameters in both covered and uncovered designs is intended to allow for complete bridging of stricture

Clear Secretions

Flexible Open Loop Design

 Epithelization of uncovered stent may promote mucociliary clearance

Resist Migration

Uncovered Ends

> Epithelization of ends may limit migration

Resist Tumor Ingrowth

Polyurethane Covering

On the covered version, covering helps resist tumor growth



Uncovered Stent System



PET Scan



LLL Tumor



Post Stent

Delivery System

Low Profile

➤ The compressed stent and delivery system have between a 5-7mm outer diameter; The system is designed to facilitate advancement across tumors and may be placed via flexible or rigid bronchoscopy

Flexibility

➤ The flexible delivery catheter is designed to enhance the ease of navigation through the airway

Radiopaque Markers

 Radiopaque markers on the delivery catheter are designed to target the deployed position of the stent

Distal or Proximal Release

➤ Different release systems are designed to allow the physician greater control over stent deployment Ultraflex
Tracheobronchial Stent
Delivery System

Ultraflex[™] **Tracheobronchial**

Single-Use Stent System

| Ultraflex T | racheobronchi | ial Single-Use | Stent Syst | em | | | | |
|------------------------------|--------------------------------|----------------------------------|------------------------------|----------------------------------|---|--------------------------------|-----------------------|-------|
| ORD | ERING CODES | | | D | IMENSIONS | | | |
| Covered Distal Release | Uncovered Distal Release | Uncovered Proximal Release | Expanded Stent OD (mm) | Expanded Stent Length (mm) | Cover Length (If Applicable) (mm) | Compressed Stent OD (Fr) | Tip Max OD (mm) | Units |
| - | - | M005 6464 0 | 8 | 20 | - | 15 | 4.1 | Each |
| M005 6474 0 | - | M005 6465 0 | 8 | 40 | 25 | 15 | 4.1 | Each |
| - | - | M005 6466 0 | 10 | 20 | - | 16 | 4.1 | Each |
| M005 6475 0 | M005 6450 0 | - | 10 | 30 | 15 | 16 | 4.1 | Each |
| M005 6476 0 | - | M005 6467 0 | 10 | 40 | 25 | 16 | 4.1 | Each |
| - | - | M005 6468 0 | 12 | 20 | - | 17 | 4.1 | Each |
| M005 6477 0 | M005 6451 0 | - | 12 | 30 | 15 | 17 | 4.1 | Each |
| M005 6478 0 | - | M005 6469 0 | 12 | 40 | 25 | 17 | 4.1 | Each |
| - | - | M005 6470 0 | 14 | 20 | - | 18 | 4.1 | Each |
| M005 6479 0 | M005 6452 0 | - | 14 | 30 | 15 | 18 | 4.1 | Each |
| M005 6480 0 | - | M005 6471 0 | 14 | 40 | 25 | 18 | 4.1 | Each |
| M005 6481 0 | - | M005 6472 0 | 14 | 60 | 45 | 18 | 4.1 | Each |
| M005 6482 0 | - | - | 14 | 80 | 65 | 18 | 4.1 | Each |
| M005 6483 0 | M005 6453 0 | - | 16 | 40 | 25 | 19 | 5.3 | Each |
| M005 6484 0 | M005 6454 0 | - | 16 | 60 | 45 | 19 | 5.3 | Each |
| M005 6485 0 | - | - | 16 | 80 | 65 | 19 | 5.3 | Each |
| M005 6486 0 | M005 6456 0 | - | 18 | 40 | 25 | 22 | 5.3 | Each |
| M005 6487 0 | M005 6457 0 | - | 18 | 60 | 45 | 22 | 5.3 | Each |
| M005 6488 0 | - | - | 18 | 80 | 65 | 22 | 5.3 | Each |
| M005 6489 0 | M005 6459 0 | - | 20 | 40 | 25 | 22 | 5.3 | Each |
| M005 6490 0 | M005 6460 0 | - | 20 | 60 | 45 | 22 | 5.3 | Each |
| M005 6491 0 | - | - | 20 | 80 | 65 | 22 | 5.3 | Each |

Polyflex®

Self-Expanding Silicone Airway Stent

The Polyflex Self-Expanding Silicone Airway Stent is fully covered and has been designed to reduce in-growth and /or endothelialization of the stent.

Indications

- Compression or strictures due to tumors (trachea and main bronchus)
- Stenosis of the central airway (such as trachea and main bronchus)
- ➤ Tracheoesophageal fistula
- Airway complications such as anastomosis and stenosis

Placement Technique

➤ The Polyflex Airway Stent requires rigid bronchoscopy

Gentle, Radial Force

- Designed to adapt to airway anatomy
- ➤ Helps maintain patency

Full-length Silicone Coating

- > Helps prevent tumor in-growth
- Designed to seal tracheoesophageal and bronchoesophageal fistulae

Engineered to Elongate when Stretched Lengthwise

Facilitates stent change or removal

Broad Range of Widths and Lengths

> Facilitates placement in a range of strictures

Radiopaque Delivery System

➤ Helps facilitate precise positioning and controlled use





Polyflex Airway Stent in benign tracheal stenosis – shows adaptation to irregularities of the tracheal lumen Note: Polyflex Airway is contraindicated for operable benign tracheal stenosis



Polyflex° Self-Expanding Silicone Airway Stent

| olyflex S | elf-Expar | ding Silicone | Airway Ste | nt | | | | | |
|-------------------|-----------|---------------|-----------------|-------|--------------------|----------|-------------|--------|-----------|
| der | Stent ID | Stent | Delivery System | | Order | Stent ID | Stent | | ry Systei |
| ber | (mm) | Length (mm) | Diameter (mm) | Units | Number | (mm) | Length (mm) | Diamet | er (mm |
| 005 7000 0 | 8 | 20 | 7 | Each | M005 7017 0 | 16 | 50 | 1 | 0 |
| 005 7001 0 | 8 | 30 | 7 | Each | M005 7018 0 | 16 | 60 | 1 | 0 |
| 05 7002 0 | 10 | 20 | 8 | Each | M005 7019 0 | 16 | 70 | 1 | 0 |
| 005 7003 0 | 10 | 30 | 8 | Each | M005 7020 0 | 18 | 30 | 1 | 1 |
| 005 7004 0 | 10 | 40 | 8 | Each | M005 7021 0 | 18 | 40 | 1 | 1 |
| 005 7005 0 | 10 | 50 | 8 | Each | M005 7022 0 | 18 | 50 | 1 | 1 |
| 005 7006 0 | 12 | 20 | 9 | Each | M005 7023 0 | 18 | 60 | 11 | 1 |
| 005 7007 0 | 12 | 30 | 9 | Each | M005 7024 0 | 18 | 70 | 11 | |
| 005 7008 0 | 12 | 40 | 9 | Each | M005 7025 0 | 18 | 80 | 11 | |
| 005 7009 0 | 12 | 50 | 9 | Each | M005 7026 0 | 20 | 40 | 12 | 2 |
| 005 7010 0 | 14 | 20 | 9 | Each | M005 7027 0 | 20 | 50 | 12 | 2 |
| 005 7011 0 | 14 | 30 | 9 | Each | M005 7028 0 | 20 | 60 | 12 | 2 |
| 005 7012 0 | 14 | 40 | 9 | Each | M005 7029 0 | 20 | 70 | 12 | - |
| 005 7013 0 | 14 | 50 | 9 | Each | M005 7030 0 | 20 | 80 | 12 | 2 |
| 05 7014 0 | 14 | 60 | 9 | Each | M005 7031 0 | 22 | 50 | 13 | } |
| 005 7015 0 | 16 | 30 | 10 | Each | M005 7032 0 | 22 | 60 | 13 | 3 |
| 005 7016 0 | 16 | 40 | 10 | Each | M005 7033 0 | 22 | 80 | 13 | 3 |

Dynamic[™] (Y) Stent

Bifurcated Tracheobronchial Stent

The Dynamic (Y) Stent is a tracheobronchial stent designed specifically for the airway anatomy. The stent, which consists of a single piece construction bifurcated tube, is designed to simultaneously secure the trachea, left mainstem and right mainstem bronchus.

The Dynamic (Y) Stent is intended to maintain patent airways in tracheal stenosis and seal tracheoesophageal fistulas. In addition the stent is applicable to the following conditions, including:

- Tracheomalacia
- Stenosis secondary to lung transplantation



internal surface designed to help clearing of secretions membrane designed to reduce disruption of the mucocilliary elevator





Post-operative chest radiograph confirming proper stent position

Dynamic (Y)

Bifurcated Tracheobronchial Stent

| Dynamic (Y) Bifurcated Tracheobronchial Stent | | | | | | | | |
|---|----------------------------|-----------------------------|-------------------------|-----------------------------------|-------|--|--|--|
| Order Number | Tracheal Width (I) (mm) | Bronchial Width (I) (mm) | Tracheal Length (mm) | Bronchial Lengths (R / L) (mm) | Units | | | |
| M005 7067 0 | 11 | 8 | 110 | 25 / 40 | Each | | | |
| M005 7068 0 | 13 | 10 | 110 | 25 / 40 | Each | | | |
| M005 7069 0 | 15 | 12 | 110 | 25 / 40 | Each | | | |

INDICATIONS: Airway complications such as anastomosis and stenosis following lung transplantation; Tracheo-malacia; Tracheoesophageal fistula

CONTRAINDICATIONS: None in life threatening emergencies; Laryngeal obstruction; Bilateral paralysis of recurrent laryngeal nerve; Patent tracheal stoma; Need for artificial ventilation WARNING: Do not use on patients with: Operable stenosis; Mature, open tracheostoma; Patients who need artificial respiration because of indications other than stenosis; Compression of airway by

APPLICATION: The stent is designed for use by a physician trained in stent insertion of tracheobronchial stents under laryngoscopic, or rigid bronchoscopy

The Alair® System



Bronchial Thermoplasty (BT) is a new procedure indicated for the treatment of severe persistent asthma in patients 18 years and older whose asthma is not well controlled with inhaled corticosteroids and long acting beta agonists.

What is BT?

➤ BT is a bronchoscopy based procedure that uses radiofrequency (RF) energy (or heat) to reduce the amount of excess airway smooth muscle (ASM) present in the airways and limit its ability to contract and narrow the airway. A complete BT treatment is performed in three outpatient procedure visits, each scheduled approximately three weeks apart.

The Alair System

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 to airways ≥ 3mm in diameter and distal to main stem bronchi
- ➤ Requires ≥ 2.0mm working channel diameter bronchoscope



Alair Catheter

RF energy electrode array



Alair RF Controller

Alair

Bronchial Thermoplasty Catheter and Radiofrequency Controller

| Alair Bronchial Thermoplasty Catheter | | | | | | |
|---------------------------------------|---------------|---|---------|--|--|--|
| Order | Model | | | | | |
| Number | Number | Description | Units | | | |
| M005ATS25010 | Alair ATS 2-5 | Alair Bronchial Thermoplasty Catheter | 1 each* | | | |
| *Note: Initial stabling are | | of Contheten (according the complete treatment of 2 national) | | | | |

| Alair Radiofred | Alair Radiofrequency Controller | | | | | |
|-----------------|---------------------------------|---|--------|--|--|--|
| Order | Model | | | | | |
| Number | Number | Description | Units | | | |
| M005ATS20000 | Alair ATS 200 | Alair Bronchial Thermoplasty Controller | 1 each | | | |

Brief Statement of Relevant Indications for Use, Contraindications, Warnings, and Adverse Events: The Alair® Bronchial Thermoplasty System is indicated for the treatment of severe persistent asthma in patients 18 years and older whose asthma is not well controlled with inhaled corticosteroids and long acting beta agonists. The Alair® System, is not for use in patients with an active implantable electronic device or known sensitivity to medications used in bronchoscopy. Previously treated airways of the undergo bronchoscopy. The most common side effect of BT is an expected transient increase in the Ingrequency and worsening of respiratory-related symptoms.





Defining tomorrow, today.™

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Ordering Information 1.888.272.1001

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