Interventional Pulmonology

The Division of Thoracic Surgery

Department of Cardiothoracic Surgery

New York Presbyterian/Weill Cornell Medical College

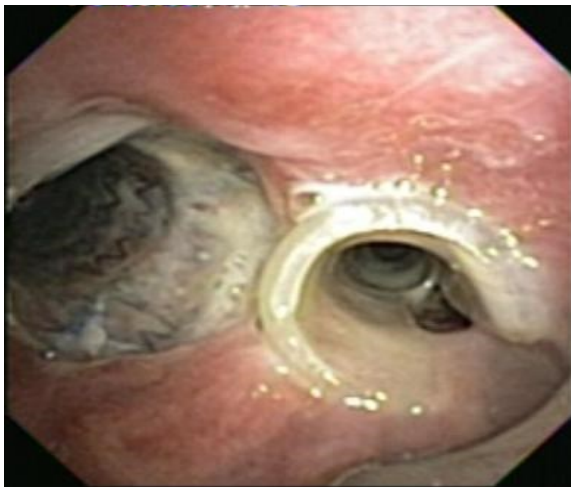
p: 212-746-6275 f: 212-746-8223

https://weillcornell.org/eshostak

Multidisciplinary Lung Cancer Program

We provide advanced therapeutic bronchoscopy for evaluation and management of patients with lung cancer.

Ablative Techniques	***Airway Stenting***
• ***Laser***	• ***Silicone stents***
• ***Argon Plasma Coagulation (APC)***	• ***Metallic stents***
• ***Electrocautery***	• ***Hybrid stents***
• ***Cryotherapy***	
• ***Microdebrieder***	



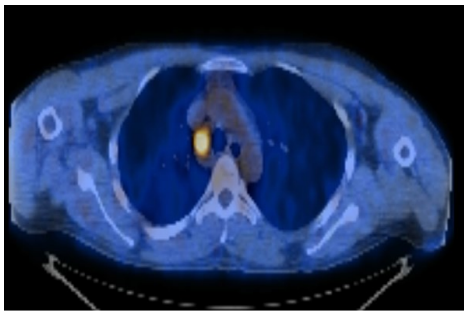
Rigid bronchoscopy with airway stenting in patient with malignant central airway obstruction.

Pulmonary Nodule & Lung Cancer Screening Program

We provide comprehensive evaluation of patients with pulmonary nodules. Lung cancer screening is offered to appropriate patients using a low dose CT screening under the guidance of a coordinated, multidisciplinary team of experts. We also provide smoking cessation therapy and support groups for compassionate counseling and education. Please call 212-746-6275 for more information.

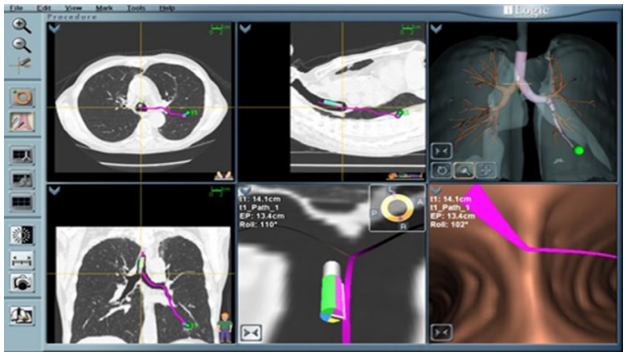
Advanced Diagnostic Bronchoscopy

We utilize endobronchial ultrasound (EBUS) and electromagnetic navigational bronchoscopy to perform minimally invasive mediastinal and hilar lymph node sampling and biopsies of peripheral pulmonary nodules during the same procedure.



PET avid mediastinal lymphadenopathy

EBUS TBNA of mediastinal lymph node. Note blood vessel nearby.



Electromagnetic navigational bronchoscopy for biopsy of peripheral nodule

Pleural Disease Program

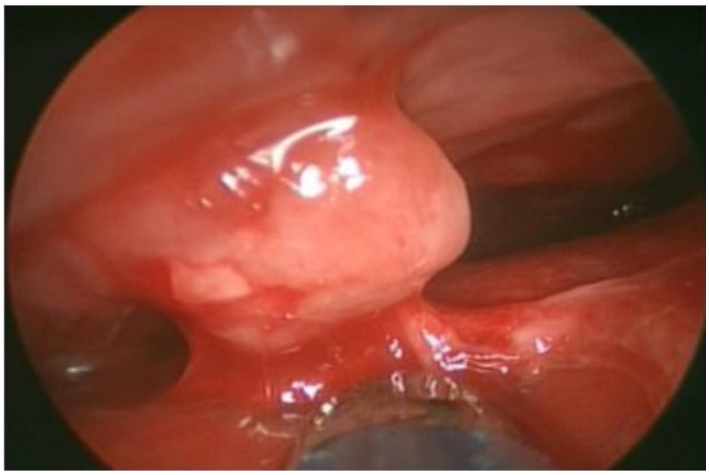
We provide comprehensive evaluation and treatment of patients with pleural diseases affecting the lungs, such as malignant pleural effusion, empyema, chylothorax, pneumothorax, and trapped lung.

Patients are evaluated using:

- Chest Ultrasound
- Pleural Manometry
- Thoracentesis
- Pleuroscopy

Available therapies include:

- Insertion of Chest Tubes
- Insertion of Tunneled Pleural Catheters
- Pleurodesis

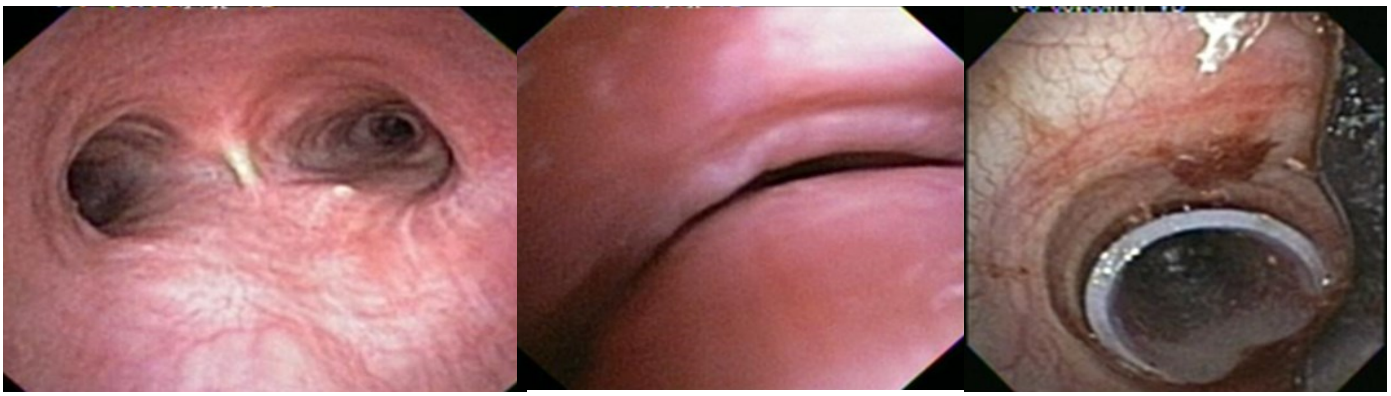


Pleural mass biopsied during pleuroscopy (medical thoracoscopy)

Complex Airway Program

We provide comprehensive, multidisciplinary care for patients with malignant and benign airway disorders. Conditions we treat include tracheal and bronchial stenosis, tracheobronchomalacia (TBM), tracheo-esophageal fistula, tracheostomy-related complications, removal of foreign body and laryngeal, tracheal, and bronchial tumors.

Excessive dynamic airway collapse in patient with severe tracheobronchomalacia



Inspiration *Expiration* *Tracheobronchial stent provides central airway support*

Pre-Procedure PFTs

Spirometry	Pre Observed	Pre % Predicted	Predicted
FVC (L)	1.80	41	4.36
FEV1 (L)	1.21	35	3.50
FEV1/FVC (%)	67	82	82
Lung Volumes	**Pre Observed**	**Pre % Predicted**	**Predicted**
TLC	5.07	81	6.24
FRC	3.45	115	3.00
RV	3.23	172	1.88
RV/TLC	64	211	30

Post– Procedure PFTs*

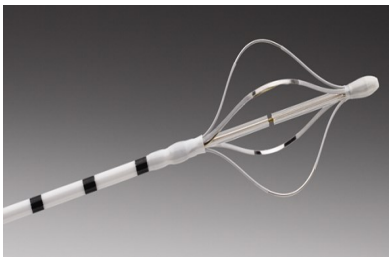
Spirometry	Pre Observed	Pre % Predicted	Predicted
FVC (L)	3.24	75	4.34
FEV1 (L)	2.29	66	3.48
FEV1/FVC (%)	71	87	81
Lung Volumes	**Pre Observed**	**Pre % Predicted**	**Predicted**
TLC	4.82	77	6.24
FRC	1.78	59	3.00
RV	1.61	85	1.90
RV/TLC	33	110	30

Note significant improvement in pulmonary function following central airway stabilization

Novel Endoscopic Treatment For Severe Asthma

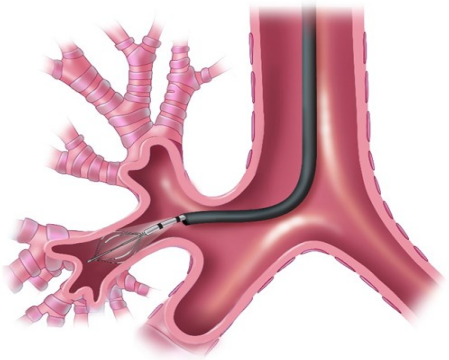
Bronchial Thermoplasty – bronchoscopic treatment of distal airways using radiofrequency ablation (RFA) resulting in reduction of excess airway smooth muscle.

The Alair System



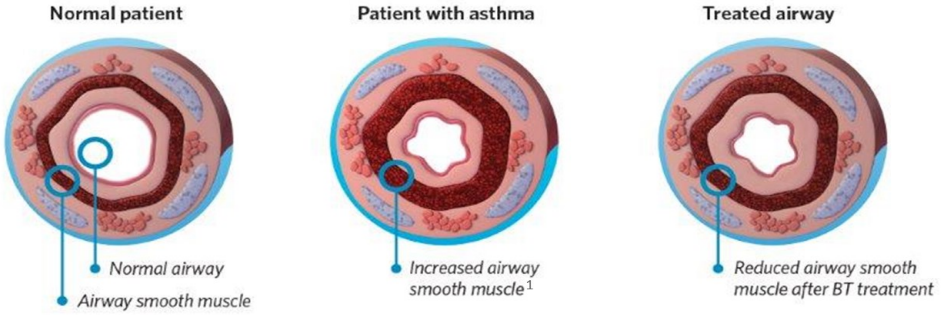
Alair Catheter – ***a flexible tube with an expandable wire array at the tip to deliver therapeutic RF energy to the airway walls via a standard bronchoscope***

Alair Radiofrequency (RF) Controller - ***designed to safely and accurately deliver precise, controlled RF energy through the Catheter to the airway walls***



Device in patient

BT Reduces Excess Airway Smooth Muscle (ASM)



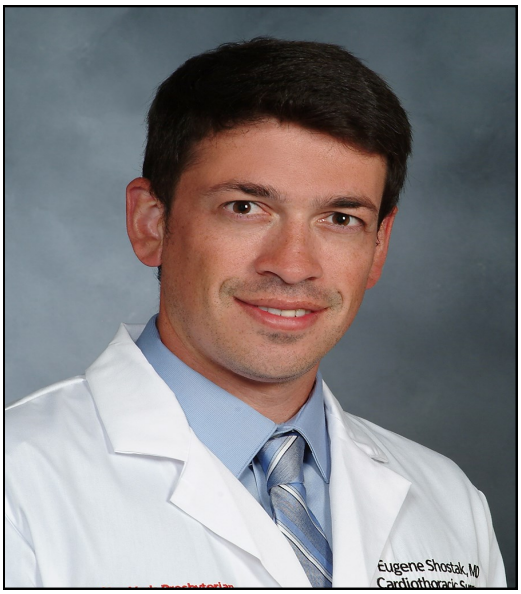
[1]*Woodruff PG, et al. Am J Respir Crit Care Med. 2004;169:1001-1006.*

Canine airway following instillation of methacholine. The BT-treated airway on the left remains open (arrow), while the right airway is constricted, representing what would happen during a severe asthma exacerbation.

[1]Cox et al. Eur Respir Journal. 2004;24: 659-663

Please call 212-746-6275 for more information.

Dr. Eugene Shostak
Interventional Pulmonologist



> *"My life passion has been to establish a state of the art complex airway, lung and pleural center that would serve as a regional and national referral center for patients with a wide range of advanced thoracic and pleural disorders."*

Dr. Eugene Shostak is an Assistant Professor of Medicine and Assistant Attending Physician in Cardiothoracic Surgery specializing in Interventional Pulmonology. Dr. Shostak's interests include lung cancer screening, advanced bronchoscopy for diagnosis of lung nodules utilizing a GPS-like guidance system termed electromagnetic navigation, evaluation of thoracic lymph nodes with assistance of endobronchial ultrasound, and endoscopic surveillance and treatment of early lung cancer using narrow band imaging and ablative therapies, respectively. Dr. Shostak is one of a few pulmonologists nationwide who is formally trained in rigid bronchoscopy and percutaneous dilation tracheostomy. He utilizes a variety of airway prosthesis in the treatment of complex airway disorders such as tracheal stenosis, tracheobronchomalacia, and airway obstruction. Dr. Shostak offers a wide range of treatment options for patients with pleural disorders such as ultrasound-guided thoracentesis with pleural manometry, placement of image-guided percutaneous chest tubes and tunneled pleural catheters. Dr. Shostak also performs medical thoracoscopy, a procedure that allows direct visualization of pleural surface performed under moderate sedation in a spontaneously breathing patient through a single incision. This offers a less invasive approach to patients who may be unable to tolerate thoracoscopy performed through traditional VATS approach. Dr. Shostak's research interests are in novel endoscopic therapies for asthma and emphysema and critical care ultrasonography.

Why Choose Us?

Here at New York Presbyterian Hospital, within the Division of Thoracic Surgery and Interventional Pulmonology, we provide **expert evaluation** and **state-of-the-art treatment** for patients with a broad range of chest conditions. Our services are offered through a variety of specialized programs. We utilize a **multidisciplinary approach** in the evaluation and treatment of patients. With help from our excellent support staff, we **coordinate all services on behalf of our patients** to ensure seamless delivery of care.

Quick, Easy Access:

Simply call **212-746-6275** to speak with a member of our staff. We will arrange an appointment for your patient.

Prompt Regular Communication:

We communicate with you about your patient's treatment plans and progress on a regular basis. We appreciate your referral and will work with your staff to return the patient to your care as quickly as possible.

Мы говорим по-русски

NewYork-Presbyterian
Weill Cornell Medical Center

Cardiothoracic Surgery

525 East 68th Street
Box 110
Suite M404
New York, NY 10065

p: 212-746-6275
f: 212-746-8223

https://weillcornell.org/eshostak