

# Strategies In Surgery

## Thoracic and Cardiovascular Surgery:

### A Concert of Patient Services

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No other specialty in medicine or surgery relates more interdependently with other physicians than thoracic and cardiovascular surgery. The scope of pathophysiology and organ dysfunction is all-encompassing. Disease entities involve cardiac and pulmonary systems in adult and pediatric patients. Surgical patient care is coordinated with radiation therapy and oncology as well as gastroenterology, neurology, endocrinology, laryngology and trauma. The collaboration of surgeon with interventional specialist is well-established, and anesthesiology and perfusion technology are crucial for patient care.

The thoracic and cardiovascular surgeons of OU Physicians are part of a collective force of primary care and tertiary specialists of unsurpassed quality. The Section of Thoracic and Cardiovascular Surgery provides a full spectrum of diagnostic and treatment procedures for patient care.

#### Pulmonary Procedures

Diagnostic and therapeutic procedures for pulmonary disease include **mediastinoscopy** and **thoracoscopy** (Figure A) for diagnosis, staging, and potential curative resection of cancer. Other applications include control of pneumothorax and decortication for pleural space problems. **Thoracotomy** with conservative exposure for resection remains a mainstay of care. **Flexible bronchoscopy**

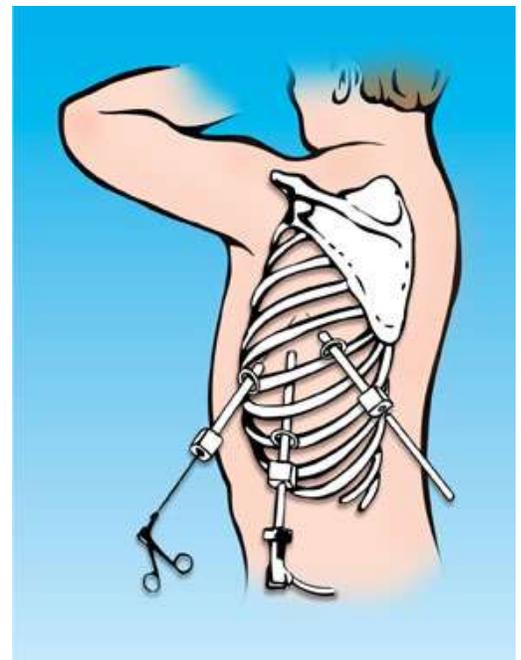


Figure A. Video-assisted thoracoscopy

(including fiberoptic) provides versatile visualization and biopsy capability, while **rigid bronchoscopy**, although less often needed, is sometimes critical for diagnosis and control of endobronchial disease and therapeutic control of the airway with massive hemoptysis (Figure B).

#### Cardiac Procedures

**Surgical revascularization** for coronary ischemia is the cornerstone of cardiac care. State-of-the-art approaches with both perfusion



Figure B. Rigid bronchoscopy

support and **off-pump** procedures are provided. The OU Physicians group provides extensive experience in **cardiac valve repair and replacement**, in both pediatric and adult patients, with a broad array of choices and counseling regarding all current mechanical and tissue prostheses, including homograft valve replacement and autograft valve implantation with the Ross operation.(1)

The range of **pediatric cardiac surgery** procedures performed by OU Physicians is unsurpassed in the state, including the correction of some of the most complex congenital defects in neonates and infants. This experience with repair of **Ebstein's anomaly** in the neonate (2) is at the leading edge in the world, and emphasizes in-utero diagnosis and specialized interdisciplinary care leading up to surgery soon after birth.

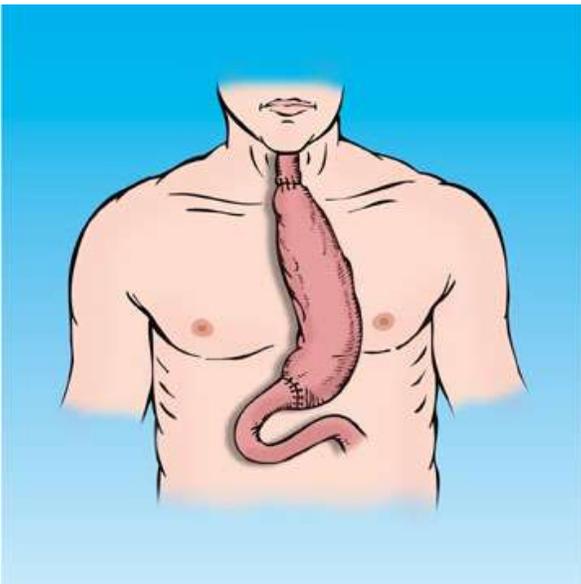


Figure C. Esophagogastrostomy

Unique applications for treatment of arrhythmia including atrial fibrillation involve **left and right-sided Maze procedures**, either alone or in association with correction of valve disease or closure of septal defects. (3)

## Esophageal Procedures

Thoracoscopic staging of esophageal cancer is a minimally invasive procedure for enhancing adjuvant care. **Primary resection and reconstruction** for esophageal disease provides palliation and the potential for cure (Figure C).

## Other Thoracic Procedures

Thoracic surgical procedures for neurologic compromise include **cervical and first rib resection** for **thoracic outlet syndrome** and **thoracoscopic sympathectomy** for disease of the autonomic nervous system including hyperhidrosis. **Tracheal reconstruction** in pediatric developmental disease as well as in adult situations of neoplasm or erosive defects is a subject of attention. **Endovascular procedures** for support of aortic disruption are currently in development. **Thymectomy** may be accomplished by cervical or sternotomy approaches.

## Summary

The physicians of the Section of Thoracic and Cardiovascular Surgery offer innovative procedures with the utmost dedication to our patients and colleagues.

## References:

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3. Theodoro DA, Danielson GK, Porter CJ, Warnes CA. Right-sided maze procedure for right atrial arrhythmias in congenital heart disease. *Ann Thorac Surg* 1998; 65:149-53.

The figures in this publication are reprinted from LR Kaiser, IL Kron, TL Spray. *Mastery of Cardiothoracic Surgery*. Philadelphia: Lippincott, Williams and Wilkins, 1998.



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