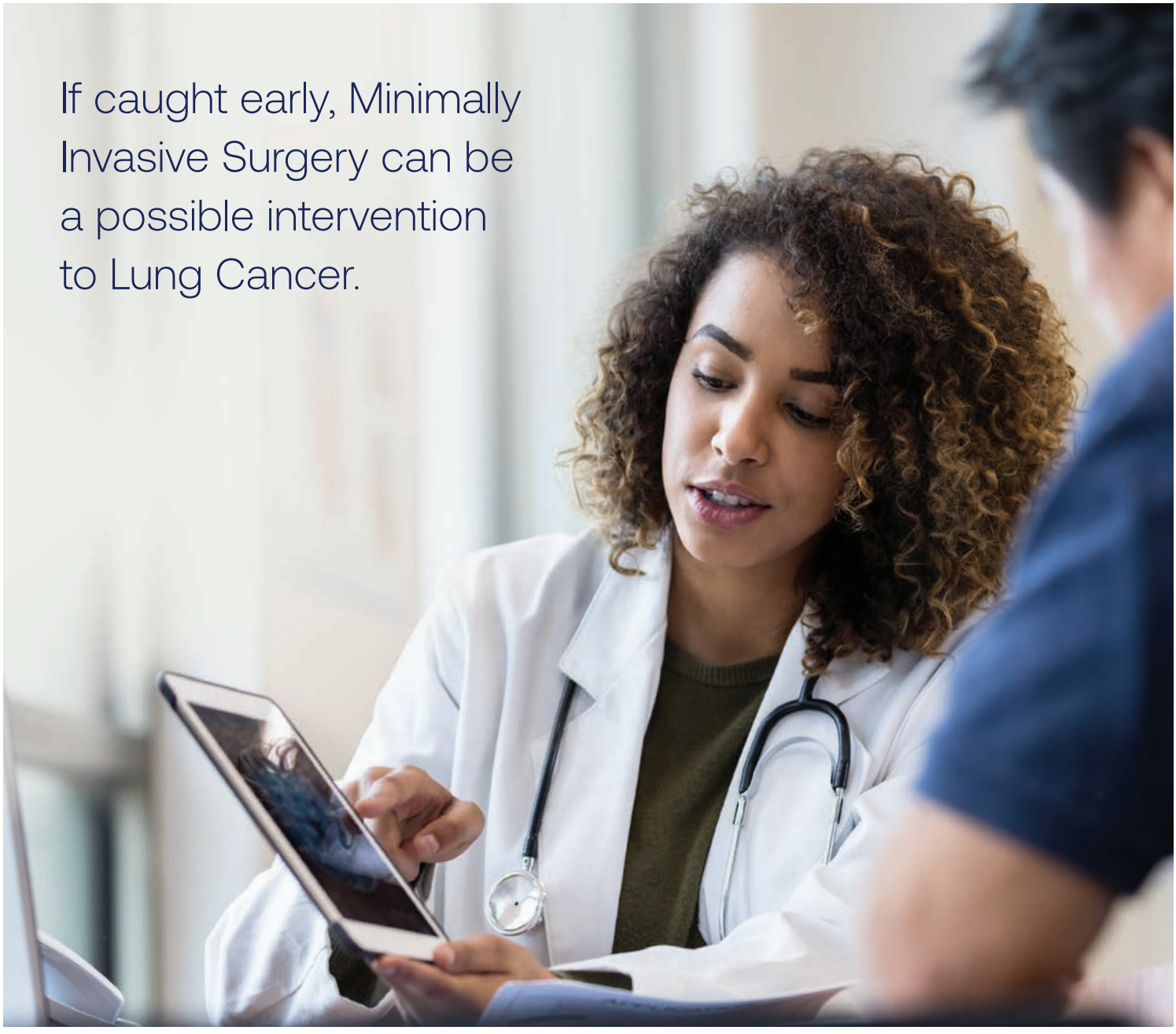
American Lung Association.

# What Are My Lung Cancer Surgery Options?



## Introduction to Lung Cancer Surgery

According to the American Lung Association's State of Lung Cancer Report, **states with higher lung cancer survival rates usually have higher lung cancer surgery rates**. Surgery may be an option for patients with early-stage non-small cell Lung Cancer (NSCLC). Lung cancer surgery involves removing the tumor along with surrounding lung tissue and/or lymph nodes in the area where the tumor was located. How much lung tissue is removed is determined by the surgeon based on many health factors. Early detection and treatment of lung cancer leads to higher survival rates.

If lung cancer is caught before it spreads, the likelihood of surviving five years or more improves to 60%. Nationally, 20.7% of cases underwent surgery, which was a 3% improvement over the last five years.

Surgery may not be right for every patient with lung cancer. Underlying conditions such as COPD, pulmonary fibrosis, coronary artery disease, and congestive heart failure may play a role in lung cancer surgery as a treatment option and can be a factor in the type of surgery or treatment a surgeon will recommend.

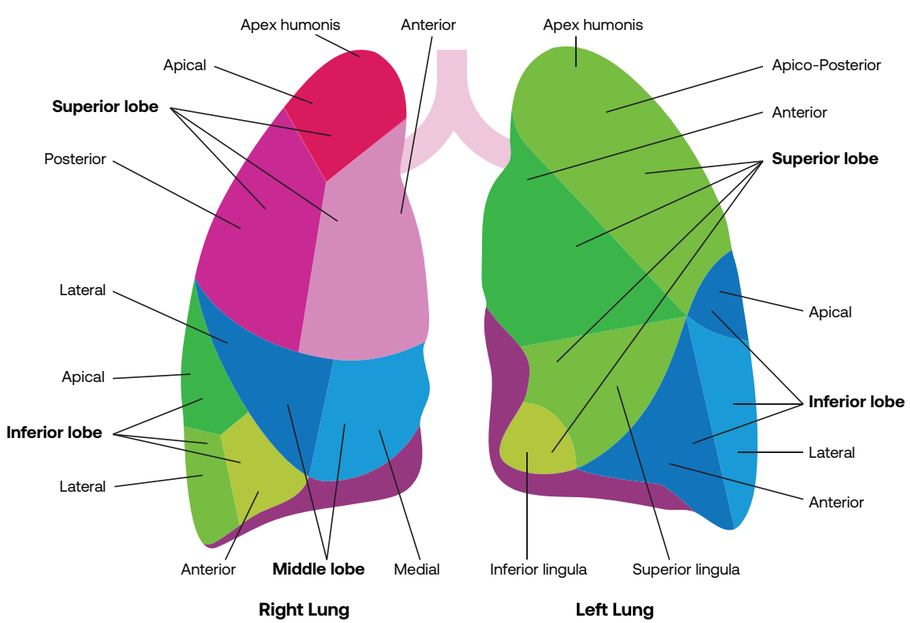
## Surgical Approaches

There are two common surgical approaches to entering the chest cavity.

**Thoracotomy** - An incision is made on the side of the chest and follows the curve of the ribs. It typically involves dividing muscles of the chest wall using an instrument to gently spread two ribs to provide the surgeon access to the lung. The muscles are repaired when the incision is closed.

**Minimally Invasive Surgery** - This approach typically involves one to four small incisions to access the chest cavity. This is known as thoracoscopy or video-assisted thoracoscopic surgery (VATS) and can also be done with the assistance of a surgical robot (RAS). Minimally Invasive Surgery is more common.

### Bronchopulmonary Segments




## Types of Procedures

The following procedures describe how much of the patient's lung is removed.

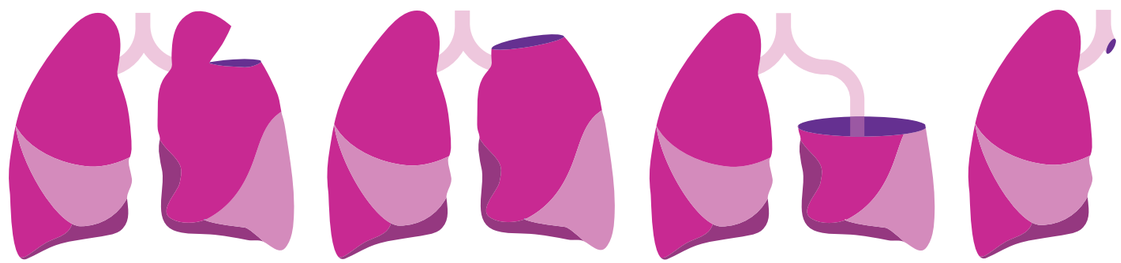
**Wedge Resection** is the removal of a small, wedge-shaped piece of lung tissue surrounding a cancerous tumor.

**Segmentectomy** - Each lung lobe is made up of two to five lung segments. Surgeons can remove one to four segments of certain lobes and save uninvolved tissue.

**Lobectomy** is the removal (resection) of the lobe of the lung affected by lung cancer. This is the most commonly performed lung cancer surgery.

**Pneumonectomy** is the removal of the entire lung affected by cancer. This procedure is considered if the cancer cannot be fully removed with the lobectomy or if the lesion is centrally located.

**Sleeve Lobectomy** starts with the removal of the cancerous lobe and a portion of the main bronchus to that lung. The remaining end of the main bronchus is then rejoined with the bronchus to any unaffected lobe(s). A sleeve lobectomy avoids the need for a pneumonectomy.



Wedge Resection | Segmentectomy | Lobectomy | Pneumonectomy

## Potential Risks and Complications

Each lung cancer treatment option, including surgery, has possible side effects and may carry additional risks depending on the procedure and the person's condition. Side effects may include:

Drowsiness from Anesthesia | Blood clots and bleeding | Heart Arrhythmia | Prolonged air leak | Pneumonia, Difficulty breathing

Approximately **97 percent of patients survive** lung cancer surgery utilizing modern, minimally invasive techniques. About 85 percent of patients experience no major complications, and 75 percent of patients get discharged 5 days or sooner from hospital care.

The Lung Association recommends discussing Lung Cancer Surgery and other treatment options with your doctor on your next visit. The back of this brochure has a Lung Cancer Surgery checklist for you to follow if you decide to pursuit Lung Cancer Surgery as a treatment option.

## Lung Cancer Surgery Check List

**Pre-treatment checklist:**

- ☐ Ask your doctor if lung cancer surgery is right for you
- ☐ If you use tobacco products, seek out support and resources to quit
- ☐ Understand your insurance coverage

**Preparing for surgery:**

- ☐ Arrange for transportation to and from the hospital
- ☐ Set up help at home with chores and errands
- ☐ Make accommodations for time off work
- ☐ Find out what you can eat and drink before surgery
- ☐ Leave jewelry, valuables and contact lenses at home the day of surgery
- ☐ Wear loose, comfortable clothing
- ☐ Follow all instructions given to you by your doctor

**Questions for your care team:**

- ☐ What can I do to get ready for surgery?
- ☐ How long will I be in the hospital?
- ☐ Should I receive physical therapy or pulmonary rehabilitation after surgery?
- ☐ Who do I contact if I have any questions?

**Post-surgery checklist:**

- ☐ Walk as soon as you can as advised by your care team
- ☐ Get recovery instructions from your doctor
- ☐ Ask your doctor about physical activity and if you need a referral to physical therapy or pulmonary rehab
- ☐ Communicate with your doctor about your level of pain or discomfort and if it is keeping you from taking a deep breath, coughing or moving.
- ☐ Call your doctor immediately if you have signs of complications

## Vist the Lung Association Website for More Information and Resources

Up-to-Date Lung Cancer Information: Lung.org/lung-cancer

HelpLine: Lung.org/helpline or 1-800-LUNGUSA

Mentorship: Lung.org/cancer-mentor

Online Support Communities: Lung.org/community

Covid-19 Resources: Lung.org/covid-19

Lung Cancer Webinars: Lung.org/patient-meetup

Quit Smoking: Lung.org/quit-smoking

Assistance with Treatment: Lung.org/treatment-assistance

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