Shared Decision Making
A process of open communication. The physician offers the patient personalized information about treatment options and their associated risks and benefits. The patient then communicates to the physician his or her values, preferences and concerns regarding these variables. The goal is to arrive at a joint decision regarding the best nonemergency surgical procedure.

Both parties benefit. Physicians are better able to manage patient expectations and develop higher patient trust. Patients are better informed, more likely to comply with the treatment plan and more likely to be satisfied with their outcome.

When the Physician and the Patient use this guide together, they will make A Mutually Acceptable Decision.
This guide will walk the physician and the patient through a thoracic surgery discussion once the decision to have surgery has been made. The guide outlines questions and points for the physician to discuss with the patient and provides information for the patient to review at home.
For the **PHYSICIAN**

- Put your patient’s mind at ease
- Explain the diagnosis
- Describe the procedure
- Determine if your patient is a candidate for VATS
- If your patient is a candidate for VATS, review its benefits
- Address possible complications
- Discuss quality-of-life implications
- Prepare your patient for surgery and recovery
- Refer your patient to a qualified surgeon

**For the PATIENT**

- Feel good about your decision
- Understand your surgery
- What surgical approach should you consider
- Know the potential complications
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The information contained in this material is for educational purposes only and is not a substitute for medical advice. Please review the entire document and talk to your physician to discuss which type of procedure may be most appropriate for you.
Put your patient’s mind at ease
• Reassure your patient that you understand their possible stress and confusion about the prospect of thoracic surgery, especially if the diagnosis involves cancer.
• Invite your patient to participate in a decision-making process in which:
  ‣ You provide knowledge and judgment about their condition and treatment options from a medical perspective
  ‣ They provide information about their lifestyle, values, preferences and concerns from a personal perspective
  ‣ Together, you both arrive at a mutually acceptable treatment decision
• Consider using patient education materials and decision aids, many of which are available online, to facilitate the process.

Explain the diagnosis
• Review your patient’s symptoms and diagnostic results.
• Review your patient’s history of treatment to date.
• Explain why thoracic surgery is the next stage of treatment.

Describe the procedure
• Describe open thoracotomy and video-assisted thoracic surgery (VATS).
• Explain why you believe your patient is or is not a candidate for minimally invasive surgery and the reasons for your recommended approach.

Determine if your patient is a candidate for VATS
Clinical evidence suggests that:
• VATS can be routinely used to perform biopsies.¹

If your patient is a candidate for VATS, review its benefits
• Benefits of VATS* may result in:
  ‣ Less bleeding/fewer transfusions²
  ‣ Reduced length of hospital stay⁵
  ‣ An improved ability to receive adjuvant chemotherapy without delay or reduced dosages⁶
  ‣ Shorter chest tube duration⁵
  ‣ Earlier return to preoperative activities³
  ‣ Less impairment of respiratory function³
  ‣ Reduced overall postoperative complications and pain and improved overall functionality over the short term³
  ‣ Less postoperative pain³

Address possible complications
• Potential complications of any thoracic surgery may include arrhythmias, atrial fibrillation, atelectasis, chylothorax, prolonged air leaks, pneumonia, excessive blood loss, renal failure, pulmonary complications, infection and mortality.²,⁷-¹¹
Overall complication rates with VATS are generally lower than with open thoracotomy.\textsuperscript{3, 12}

Postoperative complications such as shoulder dysfunction and chronic pain are lower with VATS.\textsuperscript{3, 13, 14}

In cancer patients, there is a risk of recurrence with either a VATS or open approach.

- An American Association for Thoracic Surgery (AATS) study found an average local recurrence rate of 4\% for VATS and 5\% for open thoracotomy and a distant recurrence rate of 6\% for VATS and 11\% for open thoracotomy.\textsuperscript{15}

- In pneumothorax patients, there may be a higher rate of recurrence with VATS.\textsuperscript{16}

- An insignificant recurrence rate of 0 to 7.7\% for open thoracotomy versus 10.3 to 13\% for VATS was reported in a recent review.\textsuperscript{17}

Minimally invasive procedures must occasionally be converted to open surgery due to factors such as inability to visualize organs adequately or bleeding problems. The reported average conversion rate is 6\%;\textsuperscript{3} however, conversion rates up to 15.7\% have been reported.\textsuperscript{11}

Discuss quality-of-life implications

- Ask your patient to share personal facts and concerns that may affect the decision about the procedure, such as:
  - Daily activities/responsibilities
  - Family and social support
  - Medical coverage

Prepare your patient for surgery and recovery

- Detail expectations, including:
  - Surgery duration
  - Length of hospital stay
  - Recovery time
  - Pain
  - Limitations on activity
  - Resumption of normal activities, including daily eating habits, bowel habits, work and lifestyle

Refer your patient to a qualified surgeon

- Identify surgeons in the area that perform video-assisted thoracic surgery.
- Explain that the surgeon will provide a more in-depth conversation.
- Provide instructions for your patient’s next steps.

Talk to your patient about options, concerns and expectations. An informed patient is a better patient.
Feel good about your decision

If surgery is part of your treatment plan for lung disease, you should know that you can take an active role in making decisions about how your treatment will proceed in partnership with your physician. The best approach is to learn as much as you can so that you are able to discuss your questions and concerns with your physician. You should feel confident that you understand everything fully; that you and your physician have explored all your options; and that together, you are making the decision that is best for you.

Understand your surgery

Make sure you understand the nature of your condition and how thoracic surgery will be used to treat it. Thoracic surgery is performed to diagnose and treat a variety of conditions that involve the lungs and/or chest cavity. One of the most common reasons for thoracic surgery is the removal of cancerous lung tissue, since lung cancer has now become the most prevalent cancer in the world. Typical procedures for lung cancer are:

- Wedge resection or segmentectomy — removal of a small part of the lung
- Lobectomy — removal of a whole section of the lung called a lobe (the left lung has two lobes and the right lung has three)
- Pneumonectomy — removal of an entire lung

Thoracic surgery is also used in the treatment of many benign conditions, such as collapsed lungs and infections that obstruct the bronchial airways.

What surgical approach should you consider

Historically, surgeons have had to gain access to the lungs through a 6- to 10-inch open incision that wraps around the body from the front of the chest under the armpit toward the back. This open surgical approach is called a thoracotomy. The ribs and muscles are stretched apart to allow the surgeon to reach the lung. In some cases, muscles must be cut and nerves may be damaged in the process. Because of the trauma involved in gaining access to the diseased area, this type of surgery involves considerable postoperative pain, a 6- to 13-day hospital stay and a lengthy recovery period.

On the other hand, minimally invasive options have emerged, such as thoracoscopy or video-assisted thoracic surgery (VATS) which requires only a number of small incisions or ports. These ports allow the surgeon to insert specially designed surgical devices for removal of diseased tissue, fluid drainage and repair of damaged areas. A small video camera called a thoracoscope is also inserted into a port, allowing the surgeon to view the procedure on a video monitor. Viewing the operation this way allows the surgeon to magnify the image of the surgical target. With the VATS procedure, the ribs are not spread and do not affect the nerves under the ribs. VATS is becoming the preferred approach for many thoracic surgeries because it causes less injury to the body and is just as effective as an open thoracotomy.

Robotic or robotic-assisted laparoscopic surgery is a variant of laparoscopic surgery using special remotely controlled instruments that allow the surgeon finer control as well as three-dimensional magnified vision. Another minimally invasive technique is the Uniportal VATS Approach which allows surgeons to perform intrathoracic surgical procedures through a single incision (2-2.5 cm long).

These minimally invasive procedures may offer benefits such as a lower risk of postoperative complications and pain and a faster return to pre-operative activities. Not everyone is a good candidate for VATS. For example, internal scar tissue from previous surgeries, blood clotting disorders, large tumors or areas of disease or other preexisting conditions are factors your physician will consider.

Know the potential complications

All surgical procedures have risks, but the risk for serious complications depends on the type of surgery, your medical condition and age, as well as the surgeon’s and anesthesiologist’s experience and skill.

Video Assisted Thoracic Surgery (VATS) is associated with a lower risk of complications compared to open procedures. Complications of VATS include:

- Heart problems
Problems with anesthesia
- Breathing problems
- Excessive bleeding
- Prolonged air leaks
- Collection of fluid in the pleural space
- Pneumonia
- Inadvertent injury to rib muscles or nerves
- Wound infection

Sometimes a procedure can start out as minimally invasive, but may have to be converted to conventional surgery based on factors such as: obesity, a history of prior abdominal surgery causing dense scar tissue, inability to visualize organs, bleeding problems during the operation and other underlying medical conditions. This decision is made by the surgeon and is based on what is best for you.

Recovery after surgery
Your recovery will depend on your medical condition and the type of surgery you have.

Regardless of the type of surgery you have, your physician will want to follow you for several months to ensure that you are free from postoperative complications. For cancer patients, long-term surveillance will be suggested to guard against recurrence.

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Open</th>
<th>VATS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wedge Resection¹</td>
<td>6.34</td>
<td>4.44</td>
</tr>
<tr>
<td>Lobectomy²</td>
<td>13.3</td>
<td>8.3</td>
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Healthcare costs
Check your benefit plan and know your co-insurance rates (the amount you are required to pay of the total bill) and your deductible. It is advisable to call your insurance company and inquire about the costs of the procedures. Ask specifically about the cost differences in the two procedures so you can determine what your co-insurance payments will be.

Due to decreased hospital stays, health plan data estimates suggest minimally invasive thoracic procedures will cost approximately half of the open procedure costs. The total cost of the procedures will impact your co-insurance.¹⁹

Talk to your Physician and Surgeon. Become an active partner to develop the surgical plan that’s right for you.
Informational websites:

www.cts.usc.edu/lpg-index.html
http://www.smarterpatient.com/patients/health-topics/lung/conditions/lung-cancer
www.sts.org/patient-information/lung/thoracic-surgery
Take this page with you to your appointment with the surgeon. This will ensure you receive helpful information to make an informed decision.

Ask your surgeon questions

Never be afraid to ask questions if there is something you don’t understand. In addition to the topics covered here, you should know that minimally invasive surgery requires special training and expertise.

You should feel free to ask your surgeon:

- Have you received advanced training in minimally invasive surgical techniques?
- How many VATS procedures have you performed?
- Who assists you with a minimally invasive surgery (residents, surgical physician assistants, surgeons)?
- What have you seen in terms of patient outcomes with this procedure?
- How long do you expect my hospital stay to be?
- How long do you expect my recovery to be?

Use the opposite side to write down any additional questions or concerns you want to discuss with your surgeon.
References


If you and your physician have decided to explore a thoracic procedure as a possible next step, please visit www.smarterpatient.com/patients/health-topics/lung/conditions/lung-cancer or access it by scanning the QR code to the right.