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2026 Lung Wedge Resection

Surgical Services

SURG-THORACIC-HH

Last Review Date: 12/29/2025
Previous Review Date: 04/28/2025
Guideline Initiated: 06/30/2019

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Lung Wedge Resection Guideline

Clinical Judgment

These medical policies are designed to provide clinical guidance and do not supplant a provider's independent professional judgment. Physicians retain full and independent authority to determine appropriate care based on each patient's individual clinical circumstances. Although services may be subject to documentation requirements, medical necessity review, or coverage limitations, nothing in this policy is intended to restrict or interfere with a physician's independent medical judgment.

A lung wedge resection is considered medically appropriate when the documentation demonstrates **ANY** of the following clinical conditions:

1. Benign or infectious process for focal **OR** inflammatory lesions when diagnosis is **NOT** known **OR** malignancy **CANNOT** be ruled out.
   References: [11]
2. Diagnostic indications and **ANY** of the following:
   a. Diffuse lung disease is suspected, requiring surgical biopsy for diagnosis and **ANY** of the following:
      i. Autoimmune (eg, dermatomyositis, lupus, sarcoidosis) or vasculitis (eg, Churg-Strauss syndrome, Kawasaki disease, Takayasu's arteritis) lung diseases
      ii. Environmental (eg, black lung, byssinois, silicosis) or occupational (eg, asbestosis, coal worker's pneumoconiosis, occupational asthma) lung diseases
      iii. Interstitial lung diseases (ILD) (eg, hypersensitivity pneumonitis, idiopathic pulmonary fibrosis, sarcoidosis)
      iv. Multiple or large biopsies needed (eg, connective tissue disease related ILD, hypersensitivity pneumonitis, nonspecific interstitial pneumonia [NSIP], suspected usual interstitial pneumonia [UIP])

      References: [7] [13] [4] [2] [3] [12] [11]

   b. Indeterminate pulmonary nodule and **ANY** of the following:
      i. Malignancy is suspected (eg, nodule growth on surveillance [greater than or equal to 2 mm growth over 3-6 months] , positive or borderline PET uptake, suspicious CT findings [eg, part solid or ground-glass nodules with a solid component, size greater than or equal to 8 mm, spiculated or irregular borders]).

ii. Needle biopsy or robotic bronchoscopic biopsy is non-diagnostic or not feasible (eg, bleeding risk, deep location, emphysema).

References: [4] [10]

3. Spontaneous pneumothorax and **ANY** of the following:
   a. Apical bleb or bullae requires removal
   b. Performed along with pleurodesis in recurrent cases
   c. Prolonged air leak is not resolving with conservative management (eg, chest tube drainage and time longer than 5 to 7 days).

References: [5] [8] [7] [11]

4. Therapeutic indications (malignant) and **ANY** of the following:
   a. Peripheral non-small cell lung cancer (stage IA) and **ALL** of the following:
      i. Lesion is less than 2 cm and located peripherally.
      ii. Poor surgical candidate due to limited pulmonary reserve (eg, comorbidities, forced expiratory volume in 1 second [FEV1] or diffusing capacity of the lungs for carbon monoxide [DLCO] less than 40-50% predicted, high risk for major complications [eg, asthma, heavy smoker, severe COPD], overall functional status)
      iii. **NO** nodal disease
      iv. **NOT** able to tolerate lobectomy (eg, elderly, prior lung resection, severe COPD)

   References: [4] [10] [11]

   b. Metastatic pulmonary lesions (eg, colorectal, melanoma, renal cell, sarcoma) and **ANY** of the following:
      i. Isolated pulmonary metastasis with complete resection is achievable.
      ii. Limited oligometastatic disease and **ALL** of the following:
         A. Complete resection (R0) is feasible.
         B. Primary tumor is controlled.

   References: [4] [1] [10]

Lung Wedge Resection Procedure Codes

Table 1. Thoracoscopy/Thoracotomy Lung Wedge Resection Associated Procedure Codes

CODE	DESCRIPTION
32096	Thoracotomy, with diagnostic biopsy(ies) of lung infiltrate(s) (eg, wedge, incisional), unilateral
32097	Thoracotomy, with diagnostic biopsy(ies) of lung nodule(s) or mass(es) (eg, wedge, incisional), unilateral
32505	Thoracotomy; with therapeutic wedge resection (eg, mass, nodule), initial
32506	Thoracotomy; with therapeutic wedge resection (eg, mass, nodule), initial
32607	Thoracoscopy; with diagnostic biopsy(ies) of lung infiltrate(s) (eg, wedge, incisional), unilateral
32608	Thoracoscopy; with diagnostic biopsy(ies) of lung nodule(s) or mass(es) (eg, wedge, incisional), unilateral
32666	Thoracoscopy, surgical; with therapeutic wedge resection (eg, mass, nodule), initial unilateral
32667	Thoracoscopy, surgical; with therapeutic wedge resection (eg, mass or nodule), each additional resection, ipsi-lateral (List separately in addition to code for primary procedure)

Lung Wedge Resection Summary of Changes

Lung Wedge Resection guideline from 2025 to 2026 had the following changes:

Table 1. 2025 Lung Wedge Resection Summary of Changes

Date	Type of Change	Summary
12/29/2025	Annual Review	• Citations updated per the evidence. • Removed the following as no longer supported by research: ▪ CT/PET completed within 60 days with cancer indication ▪ Non-small cell lung cancer stage II-III ▪ Pleural mesothelioma

Lung Wedge Resection Definitions

Apical bleb is a small, thin-walled air-filled sac that can form just under the lung's surface, near the apex (top) of the lung. These are often harmless, but they can rupture and release air into the space between the lung and chest wall, causing a collapsed lung (pneumothorax).

Apical bullae are large, air-filled pockets that form in the upper part of the lungs. They are a form of bullous emphysema, a condition often caused by smoking, where air spaces in the lungs become enlarged. These bullae can lead to serious health issues, such as a collapsed lung, because they disrupt normal breathing.

Autoimmune lung disease (ALD) occurs when the immune system mistakenly attacks the lungs, causing chronic inflammation, scarring (fibrosis), and damage to airways, air sacs (alveoli), or blood vessels, leading to symptoms like shortness of breath, coughing, and fatigue, often linked

to systemic conditions like rheumatoid arthritis or lupus, but also including rare primary lung-specific forms. These conditions, such as IPAF (Interstitial Pneumonia with Autoimmune Features) or aPAP (Autoimmune Pulmonary Alveolar Proteinosis), involve immune cells (lymphocytes, macrophages) attacking lung tissue, hindering gas exchange.

Comorbidity is a condition of having two or more diseases at the same time.

Diffuse lung disease (DLD) refers to a group of disorders, often called interstitial lung diseases (ILDs), that cause widespread inflammation and scarring (fibrosis) in the deep tissues and air sacs (alveoli) of both lungs, making it hard for oxygen to enter the blood, leading to shortness of breath and chronic cough, with causes ranging from environmental exposures (asbestos, mold) and autoimmune diseases (rheumatoid arthritis, lupus) to medications and unknown factors.

Diffusing capacity for carbon monoxide (DLCO) measures how well oxygen moves from the air in your lungs into your blood. It essentially reflects the ability of gases to transfer across the alveolar-capillary membrane in the lungs. This test uses a small amount of carbon monoxide, which binds readily to red blood cells, to assess this transfer process.

Environmental lung diseases are lung conditions from breathing harmful substances like dust, chemicals, or pollutants, causing inflammation, scarring, or disease, including asthma, COPD, silicosis, asbestosis, and mesothelioma, often linked to occupational or outdoor/indoor air quality issues, with symptoms like cough, wheezing, and shortness of breath. These conditions result from long-term exposure to irritants, damaging lung tissue and airways, with prevention focusing on identifying and removing exposure sources and improving air quality.

Focal infection is a localized infection that acts as a source, spreading bacteria or their toxins through the bloodstream or lymphatic system to cause problems in distant parts of the body, leading to systemic issues like arthritis, fatigue, or skin problems.

Forced expiratory volume in 1 second (FEV1) is the amount of air a person can forcefully exhale in one second after taking a deep breath. It's a key measurement in spirometry tests, used to assess lung function and diagnose conditions like asthma and COPD.

Hypersensitivity pneumonitis (HP) is a lung inflammation caused by repeated inhalation of organic dusts, molds, or animal proteins, triggering an exaggerated immune response, leading to cough, shortness of breath, fatigue, fever, and chills, with acute episodes feeling like the flu, but chronic cases potentially causing irreversible lung scarring (fibrosis). It's often linked to occupational exposures like farming (farmer's lung) or bird keeping (bird fancier's lung) but can also stem from hobbies or contaminated systems (humidifiers, hot tubs).

Idiopathic pulmonary fibrosis (IPF) is a progressive, chronic lung disease where scar tissue (fibrosis) builds up in the lungs, making them stiff and impairing their ability to transfer oxygen to the blood. "Idiopathic" means the cause is unknown, though genetic and environmental factors (like smoking, dust) are suspected. It causes shortness of breath, a dry cough, fatigue, and often leads to worsening lung function over time, with no cure but treatments to slow progression.

Indeterminate pulmonary nodule (IPN) is a small (usually less than 3 cm) spot or growth in the lung found on imaging that lacks clear features to immediately classify it as definitively benign (non-cancerous) or malignant (cancerous), placing it in an intermediate risk category.

Interstitial lung disease is a group of disorders characterized by inflammation and fibrosis of the lung parenchyma, leading to impaired gas exchange, dyspnea, and reduced exercise tolerance.

Isolated pulmonary metastasis (IPM) means cancer has spread from its original site to the lungs, forming new tumors there, but not to any other distant organs or locations in the body, making the lungs the sole site of spread. It's a specific form of metastasis where only lung nodules are present, often considered for curative treatment like surgical removal (metastasectomy) because of better potential outcomes compared to widespread metastatic disease.

Lesion is a damaged or abnormal area of tissue in the body. Lesions can be caused by injury, infection, or disease. They can appear in many parts of the body, including the skin, brain, blood vessels, and other organs.

Limited oligometastatic disease (OMD) describes an intermediate cancer stage where cancer has spread to a few (often defined as ≤5) distant sites, representing a transitional state between localized and widespread (polymetastatic) cancer, allowing for curative-intent local treatments like surgery or radiation in addition to systemic therapy. It signifies a lower tumor burden where aggressive local therapy targeting all visible metastases, combined with systemic treatment, can significantly improve long-term survival, potentially leading to long-term control or cure in some patients.

Lobectomy is a surgical procedure involving the removal of a lobe (a section) of an organ, most commonly the lung. It's often performed to treat lung cancer, but can also be used for other lung conditions like infections, emphysema, or benign tumors. In some cases, it can also be done on other organs like the liver or thyroid.

Lung wedge resection is a surgical procedure to remove a small, wedge-shaped portion of lung tissue, usually to remove a tumor or other diseased area. This technique is often used for early-stage lung cancers or other localized lung conditions. It's considered a less invasive option than removing an entire lobe (lobectomy) or lung (pneumonectomy) when feasible.

Malignant is the presence of cancerous cells that have the ability to spread to other sites in the body (metastasize) or to invade nearby (locally) and destroy tissues. Malignant cells tend to have fast, uncontrolled growth and do not die normally due to changes in their genetic makeup.

Metastases is the spread of a disease-producing agency (such as cancer cells) from the initial or primary site of disease to another part of the body.

Necrotizing pneumonia (NP) is a rare but severe complication of pneumonia characterized by the destruction and death of lung tissue, leading to the formation of cavities (areas of liquefaction and necrosis) within the lung. This condition is distinct from typical pneumonia, where inflammation occurs without significant tissue destruction.

Nodule is a small, often solid, rounded lump or growth in tissue, which can occur in various parts of the body, including under the skin, or in organs. They can be caused by a range of factors, including infections, inflammation, or tissue overgrowth, and can be either benign (non-cancerous) or malignant (cancerous).

Nonspecific interstitial pneumonia (NSIP) is a type of interstitial lung disease (ILD) characterized by inflammation and scarring in the lung tissue, specifically around the air sacs (alveoli), but without the specific patterns of other, more defined ILDs like usual interstitial pneumonia (UIP). It's called "nonspecific" because its tissue damage isn't distinct, often showing uniform inflammation and fibrosis over time, and it frequently links to autoimmune conditions (like rheumatoid arthritis, lupus) or occurs without a known cause (idiopathic). Symptoms include chronic dry cough, shortness of breath, and fatigue, with diagnosis relying on high-resolution CT scans (HRCT) and lung biopsy.

Occupational lung disease is a range of lung conditions caused by exposure to irritants like dusts, chemicals, and fumes in the workplace. Symptoms can include cough, shortness of breath, and chest pain, and conditions range from occupational asthma to more severe diseases like asbestosis, silicosis, and black lung disease.

Pleurodesis is a medical procedure that joins the two layers of the pleura (the membranes surrounding the lungs) to prevent fluid (pleural effusion) or air (pneumothorax) from building up in the space between them, effectively obliterating the pleural cavity and stopping recurrence. It works by causing inflammation, usually with a chemical (like talc or povidone iodine) or mechanical irritation, which makes the lung stick to the chest wall, creating a fused, single space.

Poor pulmonary reserve refers to a reduced capacity of the lungs to respond to increased oxygen demands or stress, such as during exercise. It indicates that the lungs have a limited ability to function normally when faced with increased workload, potentially leading to shortness of breath and other respiratory symptoms.

Pulmonary reserve refers to the extra capacity of the lungs to inhale and exhale beyond normal breathing. It's the difference between the maximum amount of air the lungs can hold (total lung capacity) and the amount of air used during normal breathing (tidal volume). In essence, it's the lungs' capacity to handle increased demand, like during exercise or illness.

Resectable tumor is a tumor that is able to be removed with surgery.

Sarcoidosis is an inflammatory disease marked by the formation of granulomas (small nodules of immune cells) in the lungs, lymph nodes, and other organs. Sarcoidosis may be acute and go away by itself, or it may be chronic and progressive. Also called sarcoid.

Spontaneous pneumothorax is a collapsed lung that occurs without any apparent cause, such as a traumatic injury. It happens when air leaks from the lung into the space between the lung and the chest wall (pleural space), causing the lung to collapse. This leakage often occurs due to the rupture of small air-filled sacs called blebs or bullae on the lung surface.

Usual interstitial pneumonia (UIP) isn't a disease itself but a specific pattern of lung scarring (fibrosis) seen in Interstitial Lung Diseases (ILDs), characterized by patchy scarring, architectural

distortion (like honeycombing), and fibroblasts, often indicating a poor prognosis, most famously linked to Idiopathic Pulmonary Fibrosis (IPF) but also seen in connective tissue diseases or asbestos exposure. Diagnosis involves a multidisciplinary team, combining radiology (HRCT scans showing basilar, subpleural honeycombing) and pathology (lung biopsy) to differentiate it from other conditions.

Vasculitis lung disease, or pulmonary vasculitis, is a group of disorders causing inflammation and damage to blood vessels in the lungs (arteries, veins, capillaries) and airways, often as part of a wider systemic disease. It manifests with varied symptoms like shortness of breath, coughing, and sometimes coughing up blood (hemoptysis) due to conditions like alveolar hemorrhage, nodules, or airway narrowing. Most commonly seen in small vessels, especially with ANCA-associated vasculitides (like GPA, EGPA, MPA), it leads to diverse radiological signs like nodules, ground-glass opacities, or vessel thickening, requiring specific clinical, lab, and imaging clues for diagnosis.

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Disclaimer section

Purpose

The purpose of the HealthHelp's clinical guidelines is to assist healthcare professionals in selecting the medical service that may be appropriate and supported by evidence to safely improve outcomes. Medical information is constantly evolving, and HealthHelp reserves the right to review and update these clinical guidelines periodically. HealthHelp reserves the right to include in these guidelines the clinical indications as appropriate for the organization's program objectives. Therefore the guidelines are not a list of all the clinical indications for a stated procedure, and associated Procedure Code Tables may not represent all codes available for that state procedure or that are managed by a specific client-organization.

Clinician Review

These clinical guidelines neither preempt clinical judgment of trained professionals nor advise anyone on how to practice medicine. Healthcare professionals using these clinical guidelines are responsible for all clinical decisions based on their assessment. All Clinical Reviewers are instructed to apply clinical indications based on individual patient assessment and documentation, within the scope of their clinical license.

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National and Local Coverage Determination (NCD and LCD)

NOTICE
To ensure appropriate review occurs to the most current NCD and/or LCD, always defer to https://www.cms.gov/medicare-coverage-database/search.aspx.

Background

National Coverage Determinations (NCD) and Local Coverage Determinations (LCD) are payment policy documents outlined by the Centers for Medicare and Medicaid Services (CMS) and the government's delegated Medicare Audit Contractors (MACs) that operate regionally in jurisdictions.

CMS introduced variation between different jurisdictions/Medicare Audit Contractors (MACs) and their associated covered code lists with the transition to ICD 10. The variation resulted in jurisdictions independently defining how codes are applied for exclusions, limitations, groupings, ranges, etc. for the medical necessity indications outlined in the NCD and LCD. Due to this variation, there is an inconsistent use/application of codes and coverage determinations across the United States between the different MACs.

In addition, **WITHOUT** notice, CMS can change the codes that indicate medical necessity and the format of the coverage determinations/associated documents (eg, Articles). This is an additional challenge for organizations to keep up with ongoing, unplanned changes in covered codes and medical necessity indications.

Medical Necessity Codes

Due to the variation in code application between jurisdictions/MACs and that updates can happen without notification, HealthHelp is not able to guarantee full accuracy of the codes listed for any Coverage Determination, and advises that prior to use, the associated Coverage Determination Articles are reviewed to ensure applicability to HealthHelp's programs and any associated NCDs and LCDs.

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