


I'm not robot  reCAPTCHA

**Next**

- LungRADS 1: Negative - next LDCT in 12 months
    - Solid nodules < 4 mm
    - Ground glass nodules < 5 mm
    - Characteristically benign findings: atelectasis, scarring, calcified granuloma, etc
  - LungRADS 2: Benign - next LDCT in 12 months
    - Solid nodules > 4 mm but stable for > 2 years
    - Biopsy proven benign histology (eg, necrotizing granuloma)
  - LungRADS 3: Positive, likely benign (< 4% chance of malignancy)
    - Solid nodules 4-8 mm or ground glass nodules > 5 mm → next LDCT in 3-6 months
    - Stable nodules without documented 2 years of stability → next LDCT in 6-12 months
    - Probable infection/inflammation → next LDCT in 1-2 months, consider antibiotics
  - LungRADS 4: Positive, suspicious for malignancy (> 4% chance of malignancy)
    - Growing solid or ground glass nodule
    - Solid nodule greater than 8 mm
    - Other findings suspicious for malignancy (adenopathy/effusion)
    - Pulmonary consultation advised
  - LungRADS 5: Known cancer
- Significant incidental findings "Category S":
- Positive(P) or Negative(N)
  - Indeterminate breast, liver, kidney, adrenal lesions, aneurysms, etc

10 final assessments (1P, 1N, 2P, 2N, 3P, 3N, 4P, 4N, 5P, 5N)

ATS (12)	USPSTF (10)	NCCN (11)	ACS (11)
79 years with	Age 55-79 years	Age 55-74 years with ≥30	Age 55-74 years
10 pack year history of	with ≥30 pack	pack year smoking history	with ≥30 pack
current or former Lung cancer	year history	and currently smoke or	smoking history
or age ≥50 with	of smoking	smoking cessation <15 years	currently smoke
10 pack year history of	or Smoking	(category 1)*; OR;	have quit with
and added risk	cessation	age ≥50 years and ≥20 pack	past 15 years
developing lung	<15 years	year smoking history and one	who are in re
within 5 years-		additional risk factor (other	good health
		than second-hand smoke	
		exposure) (category 2B)**†	
Low	Annual Low	Annual Low	Annual Low
	dose CT	dose CT	dose CT
10 mm solid nodule;	NA	>6 mm solid or part solid	NA (as per N
10 mm Ground Glass	(as per NSLT)	nodule	

In high-level evidence, there is uniform NCCN consensus that the intervention is appropriate; †, ‡. In low-level evidence, there is NCCN consensus that the intervention is appropriate; †, ‡. Exposure (e.g., silica, cadmium, asbestos, arsenic, beryllium, chromium, diesel fumes, radon), occupational disease history (COPD, pulmonary fibrosis), and family history of lung cancer. Preventive Services Task Force; NCCN, National Comprehensive Cancer Network; NSLT, National Society of Clinical Oncology; NA, not defined.

**NCCN Guidelines Version 1.2014 Lung Cancer Screening**

[NCCN Guidelines Index](#)  
[LCS Table of Contents](#)  
[Discussion](#)

**EVALUATION OF SCREENING FINDINGS**

- Ground glass opacity (GGO)<sup>1</sup>
- Ground glass nodule (GGN)<sup>1</sup>
- Nonsolid nodule (NS)<sup>1,4</sup>

**FOLLOW-UP OF SCREENING FINDINGS**

- ≤5 mm<sup>1</sup> → LDCT in 12 mo<sup>1,4</sup>
  - Stable → Annual LDCT for 2 years (category 1) and consider annual LDCT until patient no longer eligible for definitive treatment<sup>1,4</sup>
  - Increase in size<sup>1,6</sup> and/or becomes solid or part solid → Annual LDCT for 2 years (category 1) and consider annual LDCT until patient no longer eligible for definitive treatment<sup>1,4</sup> OR Consider surgical excision → Annual LDCT for 2 years (category 1) and consider annual LDCT until patient no longer eligible for definitive treatment<sup>1,4</sup>
- >5-10 mm<sup>1</sup> → LDCT in 6 mo<sup>1,4</sup>
  - Stable → Annual LDCT for 2 years (category 1) and consider annual LDCT until patient no longer eligible for definitive treatment<sup>1,4</sup>
  - Increase in size<sup>1,6</sup> and/or becomes solid or part solid → Surgical excision → LDCT 6-12 mo<sup>1,4</sup> OR Biopsy<sup>1,4</sup> → LDCT 6-12 mo<sup>1,4</sup> OR Consider surgical excision → LDCT 6-12 mo<sup>1,4</sup>
- >10 mm<sup>1</sup> → LDCT in 3-6 mo<sup>1,4</sup>
  - Stable → Annual LDCT for 2 years (category 1) and consider annual LDCT until patient no longer eligible for definitive treatment<sup>1,4</sup>
  - Increase in size<sup>1,6</sup> and/or becomes solid or part solid → Surgical excision → LDCT 6-12 mo<sup>1,4</sup> OR Biopsy<sup>1,4</sup> → LDCT 6-12 mo<sup>1,4</sup> OR Consider surgical excision → LDCT 6-12 mo<sup>1,4</sup>

**Outcomes:**

- No cancer → Annual LDCT for 2 years (category 1) and consider annual LDCT until patient no longer eligible for definitive treatment<sup>1,4</sup>
- Cancer confirmed → See appropriate NCCN Guidelines

<sup>1</sup>All screening and follow-up CT scans should be performed at low dose (100-120 kVp & 40-60 mAs or less), unless evaluating mediastinal abnormalities or lymph nodes, where standard dose CT with IV contrast might be appropriate. (See Table 2.) There should be a systematic process for appropriate follow-up.
   
<sup>2</sup>Without benign pattern of calcification, fat in nodules as in hamartoma, or features suggesting inflammatory etiology. When multiple nodules are present and occult infection or inflammation is a possibility, an added option is a course of a broad-spectrum antibiotic with anaerobic coverage, followed by LDCT 1-2 months later.
   
<sup>3</sup>If new nodule at annual or follow-up LDCT, see LCS-6. New nodule is defined as ≥3 mm in mean diameter.
   
<sup>4</sup>There is uncertainty about the appropriate duration of screening and the age at which screening is no longer appropriate.
   
<sup>5</sup>Mean diameter is the mean of the longest diameter of the nodule and its perpendicular diameter.
   
<sup>6</sup>For nodules <15 mm, increase in mean diameter ≥2 mm in any nodule or in the solid portion of a part solid nodule compared to baseline scan. For nodules ≥15 mm, increase in mean diameter of ≥15% compared to baseline scan.
   
<sup>7</sup>Rapid increase in size should raise suspicion of inflammatory etiology or malignancy other than NSCLC.
   
<sup>8</sup>Tissue samples need to be adequate for both histology and molecular testing. Travis WD, et al. Diagnosis of lung cancer in small biopsies and cytology: Implications of the 2011 International Association for the Study of Lung Cancer/American Thoracic Society/European Respiratory Society Classification. Arch Pathol Lab Med 2013;137:669-694.
   
<sup>9</sup>It is crucial that all GGO/GGN/nonsolid lesions must be reviewed at thin (<1.5 mm) slices to exclude any solid components. Any solid component in the nodule requires management of the lesion with the part-solid recommendations (see LCS-3).

Note: All recommendations are category 2A unless otherwise indicated. Clinical trials: NCCN believes that the best management of any cancer patient is in a clinical trial. Participation in clinical trials is especially encouraged.

Version 1.2014, 08/2014 © National Comprehensive Cancer Network, Inc. 07/14 All rights reserved. The NCCN logo and the NCCN Guidelines logo are trademarks of the National Comprehensive Cancer Network (NCCN).





