| **Author, year, title** | **Population** | **Risk Group** | **Screening intervention** | **Imaging evaluation strategy** | **Suspicious abnormality finding evaluation strategy** |
| --- | --- | --- | --- | --- | --- |
| **Continuing Observation of Smoking Subjects (COSMOS)** | | | | | |
| Veronesi et al, 200896 *Difficulties encountered managing nodules detected during a computed tomography lung cancer screening program* | Median pack-years: 44 Mean age: 57.7 years 64% men 80% current smokers | Smoking history ≥20 pack-years, if former smoker quit <10 years ago | LDCT  High speed multirow detector or 16 slice | Within the study | Within the study: Nodules ≥5 mm repeat CT 1 year Nodules ≥5 to 8 mm repeat CT 3 to 6 months Nodules ≥8 mm or growing CT-PET Nodules growing or CT-PET positive biopsy |
| Veronesi et al, 200891 *Lung cancer screening with low-dose computed tomography: a non-invasive diagnostic protocol for baseline lung nodules* | Median pack-years: 44 Mean age: 57.7 years 64% men 80% current smokers | Smoking history ≥20 pack-years, if former smoker quit <10 years ago | LDCT High speed multirow detector or 16 slice | Within the study | Within the study: Nodules ≥5 mm repeat CT 1 year Nodules ≥5 to 8 mm repeat CT 3 to 6 months Nodules ≥8 mm or growing CT-PET Nodules growing or CT-PET positive biopsy |
| **Japan Studies** | | | | | |
| Toyoda et al, 200889 *Sensitivity and specificity of lung cancer screening using chest low-dose computed tomography* | NR | Cohort includes anyone with ≥1 LDCT | LDCT vs. CXR | Individuals with positive studies asked to followup at Osaka Medical Center | Participants with positive studies asked to undergo further evaluation at Osaka Medical Center and all patients with positive CXR were asked to undergo CT |
| Tsushima et al, 200890  *Radiological diagnosis of small pulmonary nodules detected on low-dose screening computed tomography* | Mean age: 51 years  39% female | High-risk men (70% ever smokers) and medium-risk women (11% ever smokers) | LDCT multislice | Within study | Within study |
| **International Early Lung Cancer Action Program (I-ELCAP)** | | | | | |
| Henschke et al, 200488 *CT screening for lung cancer: assessing a regimen’s diagnostic performance* | ELCAP 1: 46% women ELCAP 2: Median age: 59 years 52% women Median pack-years: 32 | ELCAP 1 ≥10 pack-years high-risk ELCAP 2 ≥1 pack-year | CXR in ELCAP 1 | Most in screening center | Most in screening center |
| Henschke et al, 200631 I-ELCAP Investigators *Women’s susceptibility to tobacco carcinogens and survival after diagnosis of lung cancer* | Median age: 67 years Median pack-years: 47 | Asymptomatic current or former smokers, not otherwise described | Baseline and repeat LDCT | Protocol specified a diagnostic approach Indications for biopsy: Tumor growth Positive PET Nodules ≥15 mm Antibiotics 1 month out No response to CT | ELCAP protocol: specified a common regimen of screening. The definition of positive and the diagnostic evaluation differed for the baseline and annual screening. Evaluations conducted in each study center and recommendations for diagnostic workup were made to the participant and the referring physician. |
| Henschke et al, 2006167  I-ELCAP Investigators  *Survival of patients with stage I lung cancer detected on CT screening* | Median age: 61 years  Median pack-years: 30 | History of smoking or occupational exposure with increased risk or secondhand smoke | Baseline plus annual LDCT | Recommendations made to community physicians | For baseline screen: a positive result defined as identifying ≥1 solid or partially solid nodule ≥5 mm; ≥1 nonsolid NCN ≥8 mm or solid endobronchial nodule  For annual screens: positive result was any new NCN |
| Shemesh et al, 2006168 *Frequency of coronary artery calcification on low-dose computed tomography screening for lung cancer* | ELCAP population, otherwise not described | High risk smokers | CXR | Most in screening center | Most in screening center |
| Menezes et al, 201086  *Lung cancer screening using low-dose computed tomography in at-risk individuals: the Toronto experience*  Wagnetz et al, 201294  *Screening for lung cancer: implication of lung biopsy recommendations* | Median age: 60 years (range: 50 to 83)  Median pack-years: 30  54% female | High-risk smokers with ≥10 pack-years smoking history | CT  Variable row detector configuration (4 to 64) | Recommendations within protocol to community providers | Positive: NCN ≥5 mm or 1 nonsolid nodule ≥8 mm  Nodules or nodules <5 mm considered of unlikely clinical significance  Biopsy recommended for nodules >15 mm immediately or after 1 month of antibiotics |
| Liu et al, 201195 *The outcome differences of CT screening for lung cancer pre and post following an algorithm in Zhuhai, China* | Zhuhai city 1994 to 2002: 70% nonsmokers 2003 to 2009: 71% nonsmokers | Moderate | 1994 to 2002: single slice CT 2003 to 2009: 16 MDCT | Up to 2002, image interpretation based on morphology and growth Semiautomatic volumetric software used after 2003 | 1994–2002  high suspicion: recommended surgery  moderate suspicion: PET 2003–2009  ELCAP protocol |
| **Lung Cancer Screening Intervention trial (LUSI)** | | | | | |
| Becker et al, 201298 *Randomized study on early detection of lung cancer with MSCT in Germany: study design and results of the first screening round* | 46% ages 50–54 years 28% ages 60–69 years 2622 men; 1430 women 62% current smokers | Current or former (quit <10 years ago) smokers with ≥25 years smoking of ≥15 cigarettes/day or ≥30 years smoking of ≥10 cigarettes/day | LDCT (multidetector, 4 annual) vs. no screening | Nodules <5 mm evaluate annually Nodules 5–7 mm evaluate every 6 months Nodules 8–10 mm evaluate every 3 months Immediate recall for >10 mm nodules | Contact physician of choice |
| **Mayo Clinic** | | | | | |
| Swensen et al, 200587 *CT Screening for lung cancer: five-year prospective experience* | 788 men; 732 women 61% current smokers Median pack-years: 45 (range: 20 to 230) | Current or former (quit <10 years ago) smokers with ≥20 pack-years | CT (4-detector row helical CT, at low-dose) | Mayo Clinic | Mayo Clinic |
| Marcus et al, 200658 *Extended lung cancer Incidence follow-up in the Mayo Lung Project and over-diagnosis* | NR | High risk | CXR with sputum cytology either every 4 months vs. usual care | SCT at Mayo Clinic | Mayo Clinic |
| Sincirope et al, 2010101  *Perceptions of lung cancer risk and beliefs in screening accuracy of spiral computed tomography among high-risk lung cancer family members* | NR | 1st-degree relative with lung cancer and ≥3 blood relatives with lung cancer | SCT | SCT at Mayo Clinic | Mayo Clinic |
| **Pittsburgh Lung Screening Study (PLuSS)** | | | | | |
| Wilson et al, 200897 *The Pittsburgh Lung Screening Study* | Mean age: 59 years 51% men, 49% women Mean pack-years: 47  60% current smokers | Current or former (quit <10 years ago) smokers with ≥half a pack/day history for 25 years | CT | Screening study results reported to patient and personal physician described as low, moderate, or high risk of being malignant. Study physicians an option. Only imaging within study is initial and 1 year LDCT. | Followup evaluation in the community |
| Byrne et al, 2008100 *Anxiety, fear of cancer, and perceived risk of cancer following lung cancer screening* | Mean age: 59 years 51% men, 49% women Mean pack-years: 47  60% current smokers | Current or former (quit <10 years ago) smokers with ≥half a pack/day history for 25 years | CT | Screening study results reported to patient and personal physician described as low, moderate, or high risk of being malignant. Study physicians an option. Only imaging within study is initial and 1 year LDCT. | Followup evaluation in the community |

| **Author, year, title** | **Inclusion criteria** | **Exclusion criteria** | **Number of subjects** | **Country and setting** | **Sponsor** |
| --- | --- | --- | --- | --- | --- |
| **Continuing Observation of Smoking Subjects (COSMOS)** | | | | | |
| Veronesi et al, 200896 *Difficulties encountered managing nodules detected during a computed tomography lung cancer screening program* | Asymptomatic men and women ages >50 years with a ≥20 pack-year history; current or prior smokers who quit <10 years ago | Prior malignant disease (except nonmelanoma skin cancer) | Number approached: NR Number eligible: NR Number enrolled: 5200 | Italy | NR |
| Veronesi et al, 200891 *Lung cancer screening with low-dose computed tomography: a non-invasive diagnostic protocol for baseline lung nodules* | Asymptomatic men and women ages >50 years with a ≥20 pack-year history; current or prior smokers who quit <10 years ago | Prior malignant disease (except nonmelanoma skin cancer) | Number approached: NR Number eligible: NR Number enrolled: 5200 | Italy | NR |
| **Japan Studies** | | | | | |
| Toyoda et al, 200889 *Sensitivity and specificity of lung cancer screening using chest low-dose computed tomography* | All residents from Osaka between 1998 and 2000, smokers recommended to undergo LDCT and sputum cytology | Past or suspected lung cancer | Number approached: NR Number eligible: NR Number enrolled: 18,070 (4689 vs. 13,381) | Japan | Ministry of Health, Labor, and Welfare Japan |
| Tsushima et al, 200890  *Radiological diagnosis of small pulmonary nodules detected on low-dose screening computed tomography* | All population, NR | NR | Number approached: NR  Number eligible: NR  Number enrolled: 2486 | Japan | NR |
| **International Early Lung Cancer Action Program (I-ELCAP)** | | | | | |
| Henschke et al, 200488 *CT screening for lung cancer: assessing a regimen’s diagnostic performance* | ELCAP 1 Ages ≥60 years with a smoking history of ≥10 pack-years ELCAP 2 Ages ≥40 years with a smoking history of ≥1 pack-years | CT scan <3 years prior | Number approached: NR Number eligible: NR Number analyzed: 1000 (ELCAP 1) and 1968 (ELCAP 2) | United States | NCI |
| Henschke et al, 200631 I-ELCAP Investigators *Women’s susceptibility to tobacco carcinogens and survival after diagnosis of lung cancer* | Asymptomatic past or current smokers ages ≥40 years fit for surgery | History of cancer | Number approached: NR Number eligible: NR Number enrolled: 14,435 (6296 women vs. 8139 men) | International study involving many countries, including the United States | NIH, many supporting institutions |
| Henschke et al, 2006167  I-ELCAP Investigators  *Survival of patients with stage I lung cancer detected on CT screening* | Asymptomatic adults ages >40 years with a history of smoking or occupational exposure with increased risk or secondhand smoke | NR | Number approached: NR  Number eligible: NR  Number enrolled: 31,567 | International: Europe, United States, Japan, China, Israel | NIH, DOE, New York City |
| Shemesh et al, 2006168 *Frequency of coronary artery calcification on low-dose computed tomography screening for lung cancer* | ELCAP 1 Ages ≥60 years with a smoking history of ≥10 pack-years ELCAP 2 Ages ≥40 years with a smoking history of ≥1 pack-year | CT scan <3 years prior | Number approached: NR Number eligible: NR Number enrolled: 4250 | United States | NCI |
| Menezes et al, 201086  *Lung cancer screening using low-dose computed tomography in at-risk individuals: the Toronto experience*  Wagnetz et al, 201294  *Screening for lung cancer: implication of lung biopsy recommendations* | Asymptomatic, ages ≥50 years, and ≥10 pack-year smoking history | Prior cancer (except nonmelanoma skin cancer) and poor health | Number approached: NR  Number eligible: NR  Number enrolled: 3352 | Canada | Princess Margaret Foundation |
| Liu et al, 201195 *The outcome differences of CT screening for lung cancer pre and post following an algorithm in Zhuhai, China* | Government workers age ≥40 years | NR | Number approached: NR Number eligible: NR Number analyzed: 3348 (1994 to 2002) and 3582 (2003 to 2009) | Zhuhai City, China | NR |
| **Lung Cancer Screening Intervention trial (LUSI)** | | | | | |
| Becker et al, 201298 *Randomized study on early detection of lung cancer with MSCT in Germany: study design and results of the first screening round* | Current or former (quit <10 years ago) male and female smokers with ≥25 years smoking of ≥15 cigarettes/day or ≥30 years smoking of ≥10 cigarettes/day, ages 50 to 69 years | Cancer diagnosis within the past 5 years, medical circumstances preventing surgical treatment in  case of a lung cancer diagnosis in screening, serious illness shortening life expectancy below 10 years | Number approached: 292,440 Number eligible: 4913 Number enrolled: 4052 Number analyzed: 2029 | Germany | German Research Foundation and Dietmar-Hopp-Stiftung, members of the German Center for Lung Research by the German Research Ministry |
| **Mayo Clinic** | | | | | |
| Swensen et al, 200587 *CT Screening for lung cancer: five-year prospective experience* | Current or former (quit <10 years ago) smokers with ≥20 pack-years history, age >50 years | On supplemental O2, history of cancer within 5 years, mentally incompetent, unable to undergo lung resection surgery, and <5-year life expectancy | Number approached: NR Number eligible: NR Number enrolled: 1520 | United States, single site at Mayo Clinic | NCI and Mayo Clinic |
| Marcus et al, 200658 *Extended lung cancer Incidence follow-up in the Mayo Lung Project and over-diagnosis* | Male smokers who had tested negative for lung cancer with CXR and/or sputum cytology at baseline judged to have life expectancy of ≥5 years and sufficient respiratory reserve to undergo lobectomy if needed | Tested positive for lung cancer on CXR | Number approached: NR Number eligible: NR Number enrolled: 9121 (4618 vs. 4503) | Mayo Clinic | NCI |
| Sincirope et al, 2010101  *Perceptions of lung cancer risk and beliefs in screening accuracy of spiral computed tomography among high-risk lung cancer family members* | Ages >30 years, 1st-degree relative with lung cancer and ≥3 blood relatives with lung cancer and current medical insurance | Personal history of lung cancer | Number approached: NR  Number eligible: 371  Number enrolled: 60 | United States, single site at Mayo Clinic | NCI |
| **Pittsburgh Lung Screening Study (PLuSS)** | | | | | |
| Wilson et al, 200897 *The Pittsburgh Lung Screening Study* | Current or former (quit <10 years ago) smoker with ≥half a pack/day history for 25 years, and symptoms were allowed | Prior history of lung cancer, chest CT within past year, weight >400 lbs, and other lung cancer screening | Number approached: 9386 Number eligible: 5034 Number enrolled: 3642 | United States, single site in Pittsburgh | University of Pittsburgh Cancer Institute via NCI |
| Byrne et al, 2008100 *Anxiety, fear of cancer, and perceived risk of cancer following lung cancer screening* | Current or former (quit <10 years ago) smoker with ≥half a pack/day history for 25 years, and symptoms were allowed | Prior history of lung cancer, chest CT within past year, weight >400 lbs, and other lung cancer screening | Number approached: 9386 Number eligible: 5034 Number enrolled: 3642 Number analyzed: 341 | United States, single site in Pittsburgh | University of Pittsburgh Cancer Institute via NCI |

| **Author, year, title** | **Results** | **Sensitivity** | **Specificity** |
| --- | --- | --- | --- |
| **Continuing Observation of Smoking Subjects (COSMOS)** | | | |
| Veronesi et al, 200896 *Difficulties encountered managing nodules detected during a computed tomography lung cancer screening program* | 43% NCN 106 invasive procedures: 15 for benign disease 91 lung cancers, of which 71% stage I (89 screen-detected) 79/91 curative surgery 24-month survival (85%) Interval cancer: NR \*This paper defines false-negative as any cancer beyond stage I at diagnosis | 91% | 100% |
| Veronesi et al, 200891 *Lung cancer screening with low-dose computed tomography: a non-invasive diagnostic protocol for baseline lung nodules* | 2198 at baseline had ≥1 NCN ≤5 mm 354 (6.8%) had ≥1 NCN 5.1 to 8 mm 206 had nodules >8 mm 504/5201 had ≥1 indeterminate nodule recalled for ≥1 additional evaluations 55 cancers diagnosed at baseline 36 cancers diagnosed at year 1 1 interval cancer after 1st incidence screening Among 36 cancers diagnosed at 2nd screen, 24 had prevalent nodule 1st year prior, 12 had new malignancy Baseline cancers: 79 Incidence: 13 Stage I: 66% | 91% 1 interval cancer after incidence screen 36 cancers detected on incidence screen, of which 24 on baseline | 100% |
| **Japan Studies** | | | |
| Toyoda et al, 200889 *Sensitivity and specificity of lung cancer screening using chest low-dose computed tomography* | 40 cancers 5 interval cancer LDCT | Overall: 89% Smokers: 84% Nonsmokers: 100% Adenocarcinoma LDCT: 100% Nonadenocarcinoma: 62% Women: 85% Men: 91% | LDCT: 93% CXR: 97% LDCT baseline: 91% LDCT annual: 96% Men LDCT: 92% Women: 94% Smokers: 92% Nonsmokers: 94% |
| Tsushima et al, 200890  *Radiological diagnosis of small pulmonary nodules detected on low-dose screening computed tomography* | 2486 scans  Negative: 2132  Seminegative: 140/354 (14%) patients with nodules  Semipositive: 111  Positive: 103  HRCT: 1837 cancers  3/7 cancers in nonsmoking women | 100% | 97%  PPV LDCT: 9.9% |
| **International Early Lung Cancer Action Program (I-ELCAP)** | | | |
| Henschke et al, 200488 *CT screening for lung cancer: assessing a regimen’s diagnostic performance* | Baseline (positive result: ≥1 solid/part solid nodule ≥5 mm; semi positive: <5 mm NCN): 368 nodules 79 lung cancer 2 interval 77 screen-detected 75 stage I 65 adenocarcinoma Repeat screen (any new or growing nodule; interval cancer = lung cancer diagnosis within 1 year of prior CT): N=4538 254 nodules (6%) 29 lung cancer 1 interval 27 stage I 17 adenocarcinoma | Baseline: 77/79 (97%)\* Annual: 28/29 (97%)\* | Baseline: 2889/3178 (91%) 11 screen 254 abnormal 29 false-positive: 225 TN: 286/3085 Annual: 2860/3085 (93%) 4538 screens 254 abnormal 29 lung cancer False-positive: 225  TN: 4509 |
| Henschke et al, 200631 I-ELCAP Investigators *Women’s susceptibility to tobacco carcinogens and survival after diagnosis of lung cancer* | Lung cancer: 156 Stage I: 139 Resection: 125 Lung cancer deaths: NR Carcinoid: 8 Adenocarcinoma: 114 Squamous: 22 Large cell: 5 Small cell: 4 Other NSCLC, not specified: 3 | NR | NR |
| Henschke et al, 2006167  I-ELCAP Investigators  *Survival of patients with stage I lung cancer detected on CT screening* | Baseline (n=31,567)  4186 with concerning nodule (13%)  405 lung cancer (prevalence 1.3%)  5 interval cancers among 27,381 without nodule  Annual (n=484 diagnosed cancers)  1460 new nodules (5%)  74 lung cancer (prevalence 0.3%)  Interval cancers (n=484 diagnosed cancers)  411 resected, 57 radiation therapy, chemoprevention or both  16 no treatment  Operative mortality: 0.5% (2/411)  412 stage I  39 died  75/484 with lung cancer died, including 2 who died ≤4 weeks before surgery | Baseline: 4186/4191 (99%)  Annual: 100% | NR |
| Shemesh et al, 2006168 *Frequency of coronary artery calcification on low-dose computed tomography screening for lung cancer* | CAC score 2: 1544 (36%) Positive CAC: 2706 (64%) Frequency of positive CAC: 66% in former vs. 62% in current smokers CAC increased with age and was higher in men | NA | NA |
| Menezes et al, 201086  *Lung cancer screening using low-dose computed tomography in at-risk individuals: the Toronto experience*  Wagnetz et al, 201294  *Screening for lung cancer: implication of lung biopsy recommendations* | Nodules:  Positive: 600/3352 (18%)  CT with contrast: 12  1-month followup: 44  3-month followup: 521  6-month followup: 3  Biopsy (within 6 months): 57  Lung cancer: 44 (13% previous)  ≥1 repeat CT: 2686 (range: 1 to 5)  65 total cancers  3 interval (false-negative)  48/65 women  56/65 prevalent  6/65 incident  3/65 interval  Stage  Stage I: 42/65  Stage II: 4  Stage III/IV: 10  Pathology  Adenocarcinoma: 44  Squamous: 9  Small cell: 4  Unknown: 1  Carcinoid: 1 | 1 year: 88%  For NSCLC: 89% | 99% |
| Liu et al, 201195 *The outcome differences of CT screening for lung cancer pre and post following an algorithm in Zhuhai, China* | 1994 to 2002 cohort 36 screen-detected cancers with 1 interval cancer 6.2% had nodules ≥5 mm 67% stage I 35 contrast CT scans 9 PET scans Cumulative incidence: 0.9% 2003 to 2009 cohort 34 cancers with no interval cancers 9.8% had nodule ≥5 mm 91% stage I 89 contrast CT scans Lung cancer diagnosis: 0.9% | NR | NR |
| **Lung Cancer Screening Intervention trial (LUSI)** | | | |
| Becker et al, 201298 *Randomized study on early detection of lung cancer with MSCT in Germany: study design and results of the first screening round* | 2029 initial screens 1488 (73%) negative 540 (27%) suspicious  -31% solitary  -35% 2–4 nodules  -27% 5–9 nodules  -7% >10 nodules 393 (19%) 5–7 mm nodules  -72 “cleared” and back to normal 78 (5%) 8–10 mm nodules  -7 “cleared” and back to normal 69 (5%) >10 mm nodules  -11 “cleared” and back to normal 22 lung cancers diagnosed in first round  -4 in 5–7 mm nodules  -1 in 8–10 mm nodules  -17 in >10 mm nodules 1 interval cancer from round 1 to 2, stage IV adenocarcinoma | NR | NR |
| **Mayo Clinic** | | | |
| Swensen et al, 200587 *CT Screening for lung cancer: five-year prospective experience* | 2038 nodules <4 mm; 1034 (4 to 7 mm); 268 (8 to 20 mm); 16 (>20 mm) Subjects with prevalence nodules: 780  False-positive rate: 92% to 96%; 69% with ≥1 Prevalent lung cancer stage: N=31; IA: 20, IB: 2, IIA: 4, IIIA: 2, IV: 1, SCLC: 2 Incident/interval lung cancer stage: N=35; IA: 16, IB: 1, IIA: 2, IIB: 2, IIIA: 4, IIIB: 2, IV: 0, unknown: 2, SCLC: 6 Mortality: overall: 48; lung cancer: 9 (of 5481.5 py) Volume doubling time: of 48 cancers with info, mean VDT: 518 days (SD, 1094); 13 tumors with VDT more than 400 days (11/13 in women) | 3 interval cancers 63/66: 95% | NR |
| Marcus et al, 200658 *Extended lung cancer Incidence follow-up in the Mayo Lung Project and over-diagnosis* | At the end of the study (1983) 206 lung cancers diagnosed in intervention, after followup (1999) 379 more lung cancers diagnosed in intervention group | NR | NA |
| Sincirope et al, 2010101  *Perceptions of lung cancer risk and beliefs in screening accuracy of spiral computed tomography among high-risk lung cancer family members* | Baseline vs. 1 month negative vs. 1 month nonnegative vs. 6 month negative vs. 6 month nonnegative  Cancer thoughts (some): 65% vs. 54% vs. 87% vs. 59% vs. 69%  Mood affected by results (some): 34% vs. 29% vs. 27% vs. 21% vs. 31%  Daily activity affected (some): 8% vs. 3% vs. 0% vs. 6% vs. 6%  Cancer concern (concern): 94% vs. 89% vs. 100% vs. 91% vs. 94%  Perceived comparative cancer risk (higher): 76% vs. 74% vs. 69% vs. 57% vs. 81%  Perceived absolute cancer risk (likely): 64% vs. 63% vs. 75% vs. 66% vs. 75% | NR | NR |
| **Pittsburgh Lung Screening Study (PLuSS)** | | | |
| Wilson et al, 200897 *The Pittsburgh Lung Screening Study* | 80 cases of lung cancer (2.2% cumulative incidence [95% CI, 1.7 to 2.2) 11 small cell (45% limited stage)  69 NSCLC  Stage I: 58%  Stage II: 17%  Stage III: 30%  Stage IV: 7%  Initial LDCT: 1477 (41%) with abnormality and referred for further evaluation (40 [1.1%] high, 182 [5%] moderate, 1255 [85%] low); 1070 imaging studies in 821 subjects in year after initial LDCT; 82 subjects with significant incidental finding | NR | NR |
| Byrne et al, 2008100 *Anxiety, fear of cancer, and perceived risk of cancer following lung cancer screening* | Negative vs. indeterminate vs. suspicious State anxiety Initial: 35.9 vs. 34.4 vs. 32.6 Post: 35.9 vs. 37.7 vs. 38.3 6 months: 34.4 vs. 37.3 vs. 32.6 12 months: 35.1 vs. 35.3 vs. 35.1 Trait anxiety Initial: 37.0 vs. 36.7 vs. 33.9 Post: 36.6 vs. 37.5 vs. 36.6 6 months: 35.7 vs. 36.7 vs. 35.4 12 months: 35.8 vs. 36.3 vs. 35.0 Cancer fear Initial: 7.0 vs. 7.2 vs. 6.4 Post: 7.0 vs. 7.5 vs. 8.5 6 months: 6.5 vs. 7.1 vs. 7.4 12 months: 6.7 vs. 7.1 vs. 7.1 Perceived risk (%) Objective: <1 vs. 1 to 5 vs. 15 to 20 Initial: 17 vs. 19 vs. 19 Post: 11 vs. 20 vs. 35 6 months: 13 vs. 15 vs. 30 12 months: 13 vs. 19 vs. 31 | NR | NR |

\*Calculated.

Abbreviations: CAC = coronary artery calcification; CI = confidence interval; COSMOS = Continuing Observation of Smoking Subjects; CT = computed tomography; CXR = chest x-ray; DOE = Department of Education; ELCAP = Early Lung Cancer Action Program; HRCT = high-resolution computed tomography; I-ELCAP = International Early Lung Cancer Action Program; FNA = fine needle aspiration; LDCT = low-dose computed tomography; LUSI = Lung Cancer Screening Intervention; MDCT = multidetector row computed tomography; NA = not applicable; NCI = National Cancer Institute; NCN = noncalcified nodule; NIH = National Institutes of Health; NR = not reported; NSCLC = non-small cell lung cancer; py = person years; PET = positron emission tomography; PLuSS = Pittsburgh Lung Screening Study; PPV = positive predictive value; SCLC = small cell lung cancer; SCT = spiral computed tomography; SD = standard deviation; TN = true negative; VATS = video-assisted thoracic surgery; VDT = volume doubling time