## **CT Lung screen**

Last Updated: 1/29/2020

Name	Plane	Туре	Window	Thick	Space
AX	Axial	MPR	Soft Tissue	2.5 mm	2.5 mm
AX LUNG	Axial	MPR	Lung	2.5 mm	2.5 mm
AX THIN	Axial	MPR	Lung	0.625 mm	0.4 mm
COR MPR	Axial	MPR	Lung	2.5 mm	2.5 mm
SAG MPR	Sagittal	MPR	Lung	2.5 mm	2.5 mm
AX MIP	Axial	MIP		5 mm	5 mm

### **Notes:**

- CT lung cancer screening should not be performed in isolation as a free-standing test but part of a multidisciplinary approach including specialties of chest radiology, pulmonary medicine and thoracic surgery. The patient should be explained the risks and benefits (/Protocol/14218) of lung screening and be a potential candidate for definitive treatment. Processes need to be in place that ensure adequate follow-up.
- All screening and follow-up CT exams are performed with low dose CT (LDCT), unless evaluating mediastinal abnormalities or lymph nodes, where standard dose CT with IV contrast might be appropriate. Although no strict definition of LDCT exists, it is usually considered to be approximately 10-30% of a standard dose CT chest.
- Small patients with <30 BMI:
  - o Total radiation exposure ≤3mSv, kVp 100-120, mAs ≤ 40.
- Large patients with BMI >30:
  - Total radiation exposure ≤5mSv, kVp 120, mAs ≤60.

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 \begin{array}{lll} \text{BMI} = & \underline{\text{(weight in pounds)} \times 703} & \text{BMI} = & \underline{\text{(weight in kilograms)}} \\ & \text{(height in inches)} \times \text{(height in inches)} & \text{(height in meters)} \times \text{(height in meters)} \\ \text{OR} \end{array}
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http://www.cdc.gov/healthyweight/assessing/bmi/ (http://www.cdc.gov/healthyweight/assessing/bmi/)

# **Guidelines for Reporting\***

### (per NCCN Guideline Version 1.2013)

- NODULE SIZE:
  - Describe nodule size based on the mean diameter of the longest diameter and its perpendicular diameter using lung window settings.
- NODULE DENSITY:
  - Solid, ground glass, or mixed/part solid.
- NODULE MARGIN:
  - o Smooth, lobulated, or speculated.

• NODULE CALCIFICATION: Log in (/Login)

- o Present / Absent, solid, stippled, popcorn, central, eccentric, rings, amorphous.
- NODULE FAT:
  - o Report if present.
- LOCATION:
  - By lobe of the lung, preferably by segment, and mention if the nodule is subpleural.
- IMAGE NUMBER AND SERIES:
  - Documenting the image # and series # is helpful for follow-up studies.

### **FOLLOW-UP:**

- Compare with prior chest CT images (not reports) and review serial exams to evaluate for slow growth. If unchanged, include longest duration of no change as directly viewed by interpreting radiologist (not by report); if changed, report current and prior size.
- New nodules are defined as ≥ 3mm in mean diameter.
- Growth is defined based on nodule size:
  - < 15 mm: increase in mean diameter ≥ 2mm in any nodule or in the solid portion of a part solid nodule compared to baseline scan.
    </p>
  - $\circ \geq 15$  mm: increase in mean diameter of  $\geq 15$  % compared to baseline scan.

 $http://www.nccn.org/professionals/physician\_gls/pdf/lung\_screening.pdf$ 

(https://wiki.radntx.com/@api/deki/files/2442/=lung\_screening.pdf)

\*Detail description of nodules without benign pattern of calcification, fat in nodules as in hamartoma, or features suggesting inflammatory etiology.

### Contact Info

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(https://www.google.com/maps/place/816+W+Cannon+St,+Fort+Worth,+TX+76104/32.737612,-97.3359663,17z/data=!3m1!4b1!4m5!3m4!1s0x864e7173b37db063:0xb24e38b6b0fded1b!8m2!3d32.737612!4d-97.3337776)

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