

# Low Dose Lung Screening 16 Sensation

<b>Indications</b>	Majority of patients screened are between the ages of 55 and 80, Have a smoking history of 30 pack years					
	If no longer smoking, stopped smoking in the past 15 years, Persons who have undergone chest CT within 12 months should be excluded					
	Screening should be discontinued once a person has not smoked for 15 years or develops a health problem that substantially limits life expectancy or the ability or willingness to have curative lung surgery.					
<b>Diagnostic Task</b>	Detect abnormalities that may represent lung cancer and may require further diagnostic evaluation. Detect nodules and masses.					
	For individuals with no known signs or symptoms of lung cancer that have appropriate risk factors, such as those recommended by professional societies and health care organizations. See the ACR LungCancer Screening Resources webpage for more information.					
<b>Scan mode</b>	Helical					
<b>Position/Landmark</b>	Head -Supine Craniocaudal					
<b>Topogram</b>	AP 120 kv 30mA					
<b>kVp/Reference mass</b>	120kVp 35mas/Care Dose on					
<b>Rotation time/pitch</b>	0.5/pitch 1.2					
<b>Detector Configuration</b>	16x0.75					
<b>Table Speed/Increment</b>	14.4					
<b>Dose reduction</b>	CareDose 4D					
<b>Allowed CTDI ranges*</b>	0.25 mGy to 8 mGy					
<b>XR29 Dose Notification va</b>	8 mGy					
<b>Helical Set</b>	recon	body part	thickness spacing	kernel	window	recon destination
	1	chest	2mmx 2mm	31medium	smooth	mediastinum pacs
	2	lung	1.5mmx 1.5mm	70very	sharp	lung pacs
	3	lung	1mmx.8mm	B20f	smooth	lung mpr
	4	soft tissue	1mmx.8mm	31medium	smooth	mediastinum mpr
	5	coronal chest	2mmx2mm	31medium	smooth	mediastinum pacs
	6	sag chest	2mmx2mm	31medium	smooth	mediastinum pacs
<b>Scan Start/end loca</b>	lung apex lung base					
<b>DFOV</b>	35cm decrease appropriately					
<b>IV contrast volume/type</b>	na					
<b>Scan delay</b>	na					
	<b>Approximate Values for CTDIvol</b>					
	Patient size	weight(kg)	weight(lbs)	CTDIvol(mGy)		
	SMALL	50-70	110-155	0.25-2.8		
	AVERAGE	70-90	155-200	0.5-4.3		
	LARGE	90-120	200-265	1.0-5.6		
	*The ACR Reference Dose for a "standard size patient" (by definition, is approximately 5' 7" and 155 lbs or 170 cm and 70 kg with a BMI of about 24) is a CTDIvol of less than 3 mGy.					
	*There is no AAPM recommended NEMA XR29 Dose Notification Value for lung screening scans. In general, lung screening exams should not have a CTDIvol greater than 7 mGy. Exams with CTDIvol values less than the minimum allowed range should not be performed unless approved by a radiologist.					