

# Lung Cancer Screening Overview

Carrie Oscarson, APRN, FNP-C

Center for Lung Health

Cleveland Clinic – Martin Health

# Objectives


- Understand the importance of lung cancer screening.
- Verbalize risk factors for lung cancer
- Be able to identify patients eligible for lung cancer screening.

# Lung Cancer

- 2<sup>nd</sup> Leading new cancer diagnosis in men and women
- Leading cause of cancer death.
- Most early lung cancer patients have no symptoms
- Survival Rates (based on diagnosis date 2010-2016)
  - Non-Small Cell Lung Cancer
    - Localized – 63%
    - Distant – 7%
  - Small Cell Lung Cancer
    - Localized – 27%
    - Distant – 3%

# Lung Cancer Statistics

## Leading Sites of New Cancer Cases and Deaths – 2021 Estimates

	Male				Female		
Estimated New Cases	Prostate	248,530	26%		Breast	281,550	30%
	Lung & bronchus	119,100	12%		Lung & bronchus	116,660	13%
	Colon & rectum	79,520	8%		Colon & rectum	69,980	8%
	Urinary bladder	64,280	7%		Uterine corpus	66,570	7%
	Melanoma of the skin	62,260	6%		Melanoma of the skin	43,850	5%
	Kidney & renal pelvis	48,780	5%		Non-Hodgkin lymphoma	35,930	4%
	Non-Hodgkin lymphoma	45,630	5%		Thyroid	32,130	3%
	Oral cavity & pharynx	38,800	4%		Pancreas	28,480	3%
	Leukemia	35,530	4%		Kidney & renal pelvis	27,300	3%
	Pancreas	31,950	3%		Leukemia	25,560	3%
	<b>All sites</b>	<b>970,250</b>			<b>All sites</b>	<b>927,910</b>	
Estimated Deaths							
	Lung & bronchus	69,410	22%	Lung & bronchus	62,470	22%	
	Prostate	34,130	11%	Breast	43,600	15%	
	Colon & rectum	28,520	9%	Colon & rectum	24,460	8%	
	Pancreas	25,270	8%	Pancreas	22,950	8%	
	Liver & intrahepatic bile duct	20,300	6%	Ovary	13,770	5%	
	Leukemia	13,900	4%	Uterine corpus	12,940	4%	
	Esophagus	12,410	4%	Liver & intrahepatic bile duct	9,930	3%	
	Urinary bladder	12,260	4%	Leukemia	9,760	3%	
	Non-Hodgkin lymphoma	12,170	4%	Non-Hodgkin lymphoma	8,550	3%	
	Brain & other nervous system	10,500	3%	Brain & other nervous system	8,100	3%	
<b>All sites</b>	<b>319,420</b>		<b>All sites</b>	<b>289,150</b>			

Estimates are rounded to the nearest 10, and cases exclude basal cell and squamous cell skin cancers and in situ carcinoma except urinary bladder. Estimates do not include Puerto Rico or other US territories. Ranking is based on modeled projections and may differ from the most recent observed data.

©2021, American Cancer Society, Inc., Surveillance Research

# Lung Cancer Risk Factors



- Smoking
- Radon Exposure
  - Leading cause of lung cancer in non-smokers
- Occupational exposure
  - Asbestos
  - Diesel Fumes
  - Inhaled chemicals or minerals
- Air pollution
- Prior radiation therapy
- Personal or family history of lung cancer

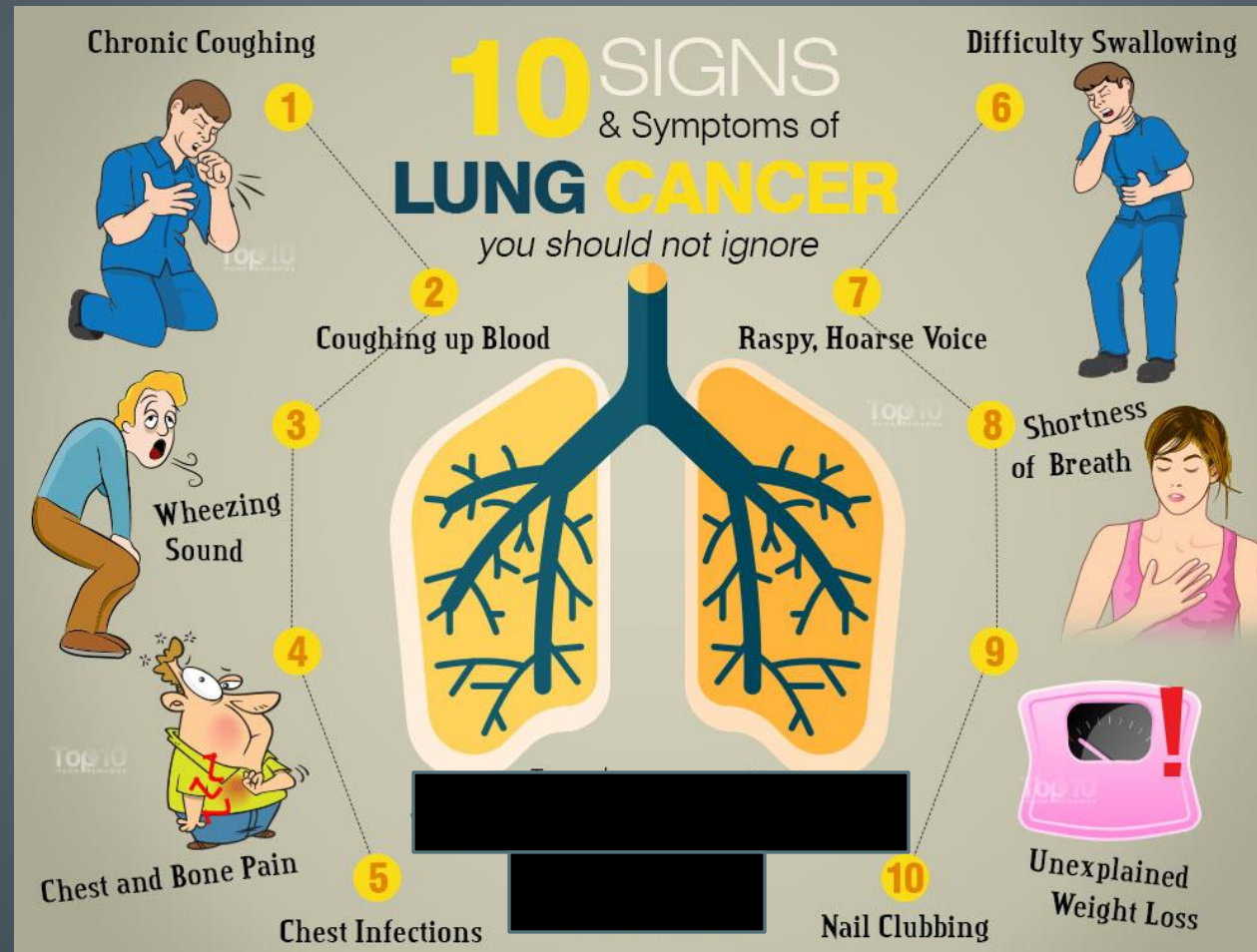


# Occupations at risk for lung cancer



- Automotive
- Aviation
- Construction
- First Responders
- Iron/Steel Workers
- Miners
- Plumbers
- Power Plant/Utility

# Lung Cancer Symptoms



## Chest x-ray vs. Chest CT



- 1 month later,
- CT Chest showed a 9.4mm nodule in the RUL.
- This nodule was subsequently removed and the patient was diagnosed with a Stage 1b adenocarcinoma



# Lung Cancer Screening

# Lung Cancer Screening Facts

- Lung Cancer Screening Criteria
  - 50-80 years old
  - 20+ pack year history
  - Current smoker or quit within 15 years
  - No symptoms concerning for lung cancer
  - Screening should be stopped if patient has developed a health problem which significantly limits life expectancy or ability or willingness to undergo curative lung surgery.



# Risk vs Benefits

## Risks

- False positive results
  - Nodule that appears suspicious but is not cancer
- False negative
- Radiation exposure

## Benefits

- Diagnosis at an early stage
- Reduce lung cancer mortality by 20% compared to chest xray alone
- Incidental findings may lead to early diagnosis for other health problems

# Shared Decision Making Visit Requirements



- Must be documented for Medicare Patients
  - Completed by ordering physician or qualified non-physician practitioner
  - Shared decision making counseling, using a decision aid
  - Documentation of eligibility for screening
  - Counseling on adherence to screening
  - Tobacco counseling

# Smoking Cessation

- Smoking is leading preventable cause of death in the US (480,000)
- 2,577,420 adults in Florida are current smokers
- Florida has the 18<sup>th</sup> highest smoking rate in the nation





Questions?

