



# The ACS Lung Cancer Screening Guideline Update 2023

Robert A. Smith, PhD  
ACS Chair, NLCRT  
Senior Vice President, Cancer Screening  
American Cancer Society

# The American Cancer Society's Lung Cancer Screening Guideline



Cigarette smoking significantly increases the risk of lung cancer and mortality

In 2013, the American Cancer Society (ACS) recommended that persons, aged 55-74 years with a 30 or greater pack-year smoking history, including those who had quit smoking within 15 years, undergo annual screening with low-dose computed tomography (LDCT)

However, evidence suggests that the risk of lung cancer remains high beyond 15 years after quitting and increases with age



**The updated guideline recommends annual LCS with LDCT for asymptomatic persons who smoke or used to smoke (aged 50 to 80 years) and have a 20 or more pack-year smoking history.**

# ACS (2023) vs. USPSTF (2021) Lung Cancer Screening Recommendations



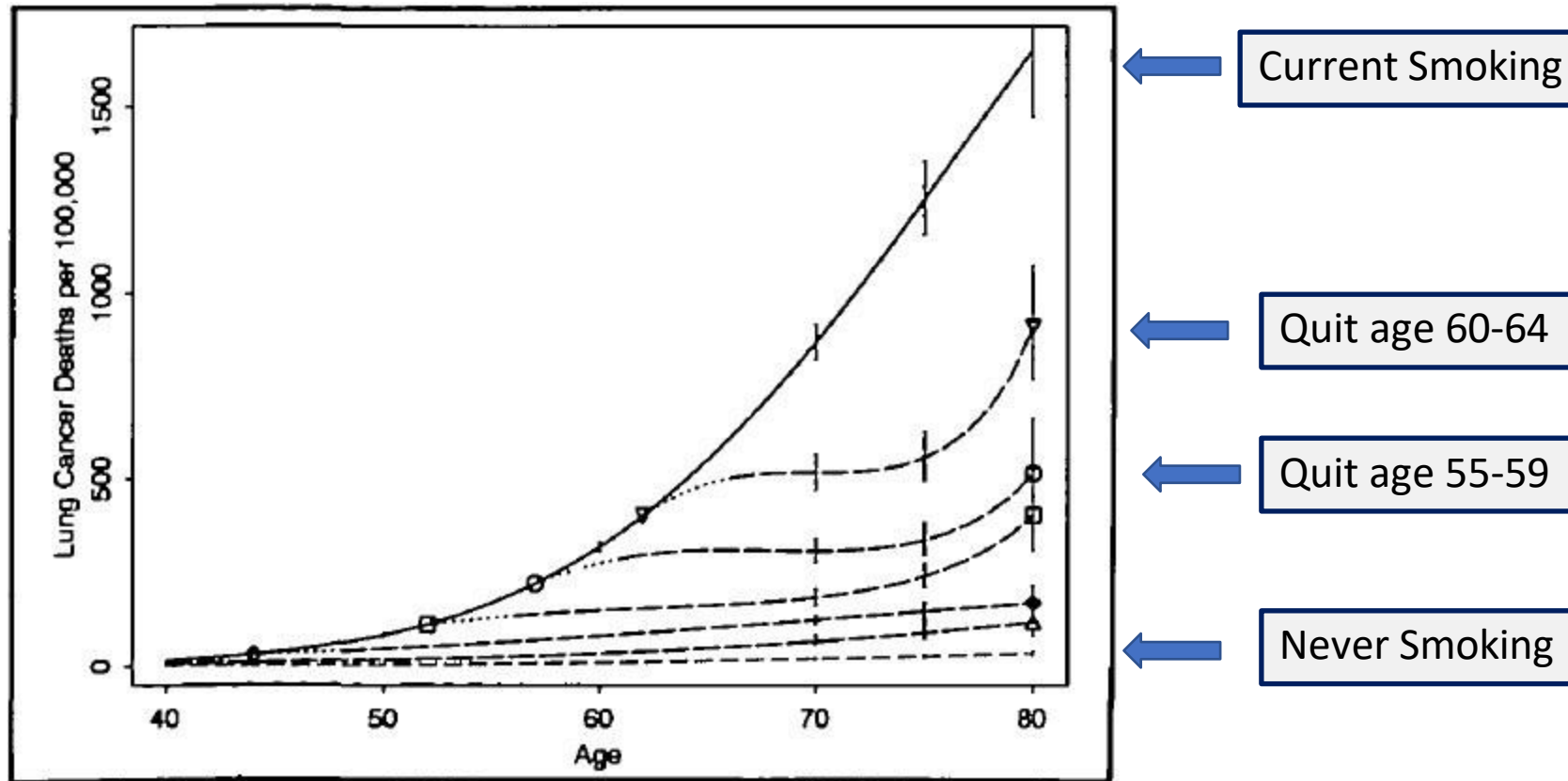
Eligibility	ACS	USPSTF
Age	50-80	50-80
Smoking Status	<p>Persons who currently smoke, or formerly smoked</p> <p><b>Years since quit is no longer an eligibility factor for people who formerly smoked</b></p>	<p>Persons who currently smoke, or formerly smoked <b>(and quit no more than 15 years ago)</b></p>
Smoking History	≥ 20 pack years	≥ 20 pack years
Recommendation	Annual screening with LDCT	Annual screening with LDCT

# Lung cancer screening guidelines

Organization	Age to start/ Pack Years/ YSQ	Age to stop	Shared decision
ACS (2013)	55/30/15	74, or 15 yrs. Q	Yes
USPSTF (2013)	55/30/15	80, or 15 yrs. Q	Yes
CMS (2015)	55/30/15	77, or 15 yrs. Q	Yes
USPSTF (2021)	50/20/15	80, or 15 yrs. Q	Yes
AAFP (2021)	50/20/15	80, or 15 yrs. Q	Yes
NCCN (2021)	50/20/No YSQ	No stopping age	Yes
CHEST (2021)	50/20/15 (2 options), or risk prediction	80,77, risk prediction	Yes
<b>ACS (2023)</b>	<b>50/20/No YSQ</b>	<b>80, with individual decisions after age 80</b>	<b>Yes</b>

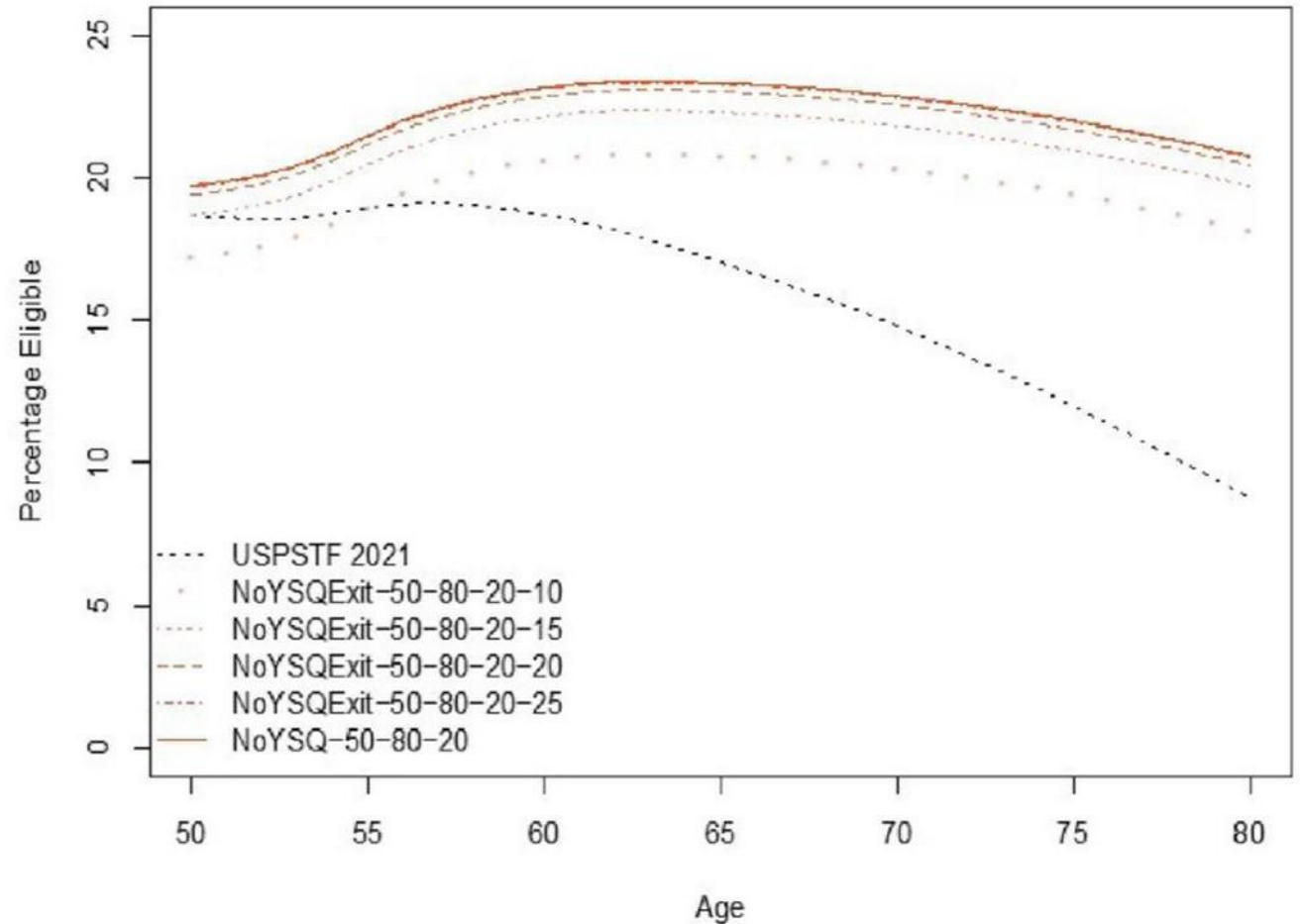
# Lung cancer deaths by age--never, former and current smoking

(Halpern, et al. JNCI 1993;85(6))



Quitting after age 50 reduces the risk of lung cancer death compared with people who continue to smoke, but following a plateau after cessation, risk of lung cancer death rises significantly

- Most people who quit smoking **are not disqualified** for starting to screen for lung cancer at age 50
- Most people who quit smoking **are disqualified** from continuing screening after having started screening



Percentage of the US 1960 birth cohort eligible for low-dose computed tomography screening at each age for the scenarios with the maximum years-since-quitting (YSQ) criterion enforced only at entry into the program (YSQ = 10, 15, 20, 25, 30) to illustrate the small effect of the YSQ criterion on eligibility to initiate screening and the larger effect of  $\leq 15$  YSQ on eligibility to continue screening

## A key question

# How many more people will be eligible for lung cancer screening with the new ACS guideline?

- Presently about **14.3 million** people are eligible for screening under the 2021 USPSTF recommendation (**32%** of those who ever smoked)
- The 2023 ACS guideline increases the number to **19.2 million** (**43%** of those who ever smoked)

# A Key Consideration

- We have observed the guidelines loosening since 2013 based on RCT evidence, but we are recognizing that risk-factor based guidelines (age, and smoking history) fail to achieve equal treatment for equal risk.
- It is urgent that research further identifies additional factors associated with measurable lung cancer risk, and that guidelines evolve to be based on risk calculation software to be more inclusive and reduce disparities.





# Thank You

[Cancer.org](https://www.cancer.org) | [nlcrt.org](https://www.nlcrt.org)