



Prevention

Lung Cancer Awareness Month November 2024

PREVENTING LUNG CANCER

Note to readers: Innovation is essential to cancer prevention. Strang will continue to highlight innovation in cancer prevention.

LUNG CANCER SCREENING

INNOVATION

Who should get screened? Pack-years or smoking duration? Two large cohort studies, the Southern Community Cohort Study (SCCS) (49,703 individuals) and the Black Women's Health Study (BWHS) (22,126 individuals), found that a **20-year smoking duration** identified more patients with lung cancer (who might benefit from screening) than the **20 pack-years used now**. In the SCCS, duration found **more of both black (58% to 85%) and white (74% to 82%) individuals with lung cancer**. It also **erased racial disparity**. In the BWHS, using duration **increased** the percentage of **Black women with lung cancer by half**, from 42.5% to 63.8%.¹

A modeling approach using people from the 1997–2014 **National Health Interview Survey** and the 2022 **Behavioral Risk Factor Surveillance System** to find **"high-benefit" individuals** (gained 16.2 days or more from screening, using the LYFS-CT screening model). The best criteria were **smoking for 40 years or aged 60 to 80 years with 40 pack-years**. For minorities, they were compared to the current criterion: (Black: 83% vs. 56% [P < 0.001]; Hispanic: 95% vs. 73% [P = 0.086]; Asian: 94% vs. 68% [P = 0.171]).² Effective screening must target the right population and avoid potential bias.

Helping the homeless to get screened: A randomized trial by the Boston Health Care for the Homeless Program found that **patient navigation dramatically increased screening from 9% to 43%** for homeless patients with a **PCP and insurance coverage**. The navigator provided education, facilitated shared decision-making, helped with scheduling and offered smoking cessation support.³ Special populations may need help to take advantage of screening.

Do we need PCPs for lung cancer screening? Only 10% of calls to 527 US hospitals requesting lung cancer CT screening were successful. The most common obstacle (60%) was not having a PCP.⁴ Physicians are usually **available to discuss follow up** for screening results, but a **PCP is needed to act on incidental findings**, such as an adrenal nodule or aortic aneurysm. About 100 million Americans lack PCPs.

Delayed follow-up after CT screening: A multistate lung cancer screening program found that **almost half (47%)** of 369 patients with positive findings had **delayed follow-up** over 30 days, and half 104 days or more. Delays were associated with **more advanced cancers**.⁵ Effective screening requires timely follow-up.

LUNG CANCER PREVENTION

Combine screening with smoking cessation help? Offering an opt-out smoking cessation service co-located with the Yorkshire Lung Screening Trial resulted in 89% acceptance and a 15% quit rate at 4 weeks.⁶ **Air pollution and lung cancer mortality: A meta-analysis of 61 studies** found that exposure to **particulate matter (PM_{2.5})** and **nitrogen dioxide (NO₂)** increased cancer mortality **by 15% and 5%**, respectively.⁷ Congestion pricing may prevent lung cancer.

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REFERENCES

1. Potter AL, Xu NN, Senthil P, Srinivasan D, Lee H, Gazelle GS, et al. Pack-year smoking history: An inadequate and biased measure to determine lung cancer screening eligibility. *J Clin Oncol* 2024;42:2026-37.
2. Kearney LE, Belancourt P, Katki HA, Tanner NT, Wiener RS, Robbins HA, et al. The development and performance of alternative criteria for lung cancer screening. *Ann Intern Med* 2024;177:1222-32.
3. Baggett TP, Sporn N, Barbosa Teixeira J, Rodriguez EC, Anandakugan N, Critchley N, et al. Patient navigation for lung cancer screening at a health care for the homeless program: A randomized clinical trial. *JAMA internal medicine* 2024;184:892-902.
4. DeSantis W, Ayoade O, Caturegli G, Boffa DJ. Lung cancer screening at US hospitals for people lacking primary care. *JAMA Netw Open* 2024;7:e2442373.
5. Ahmed A, Hippe DS, Snidarich M, Crothers K, Triplette M. Delays in recommended follow-up after positive findings in lung cancer screening. *Annals of the American Thoracic Society* 2023;20:1175-81.
6. Murray RL, Alexandris P, Baldwin D, Brain K, Britton J, Crosbie PAJ, et al. Uptake and 4-week quit rates from an opt-out co-located smoking cessation service delivered alongside community-based low-dose computed tomography screening within the Yorkshire Lung Screening Trial. *The European respiratory journal* 2024;63.
7. Ramamoorthy T, Nath A, Singh S, Mathew S, Pant A, Sheela S, et al. Assessing the global impact of ambient air pollution on cancer incidence and mortality: A comprehensive meta-analysis. *JCO Glob Oncol* 2024;10:e2300427.

The Strang Cancer Prevention Cookbook

Reduce your Risk for Cancer by Eating a Healthy Diet!

Citrus Cranberry Sauce * 10 Servings

3/4 pound fresh cranberries, 1/2 cup packed brown sugar,
1 cup fresh orange juice, grated zest of 1 orange and 1 lime



In a medium saucepan combine all the ingredients. Bring to a boil, then lower the heat to simmer. Cover and cook until the cranberries burst open, about 10 minutes. Let the sauce cool and refrigerate.

Calories 70, Protein 1g, Carbohydrates 17g, Fat 0g, Cholesterol 0 mg, Dietary fiber 2g Saturated fat 1g

Major sources of Potential Cancer fighters:

Phytochemicals: plant polyphenols (flavonoids, phenolic acids) plant sterols, terpenes (carotenoids, limonene).

Recipe by Laura Pensiero, R.D., **Strang** Nutrition Consultant
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