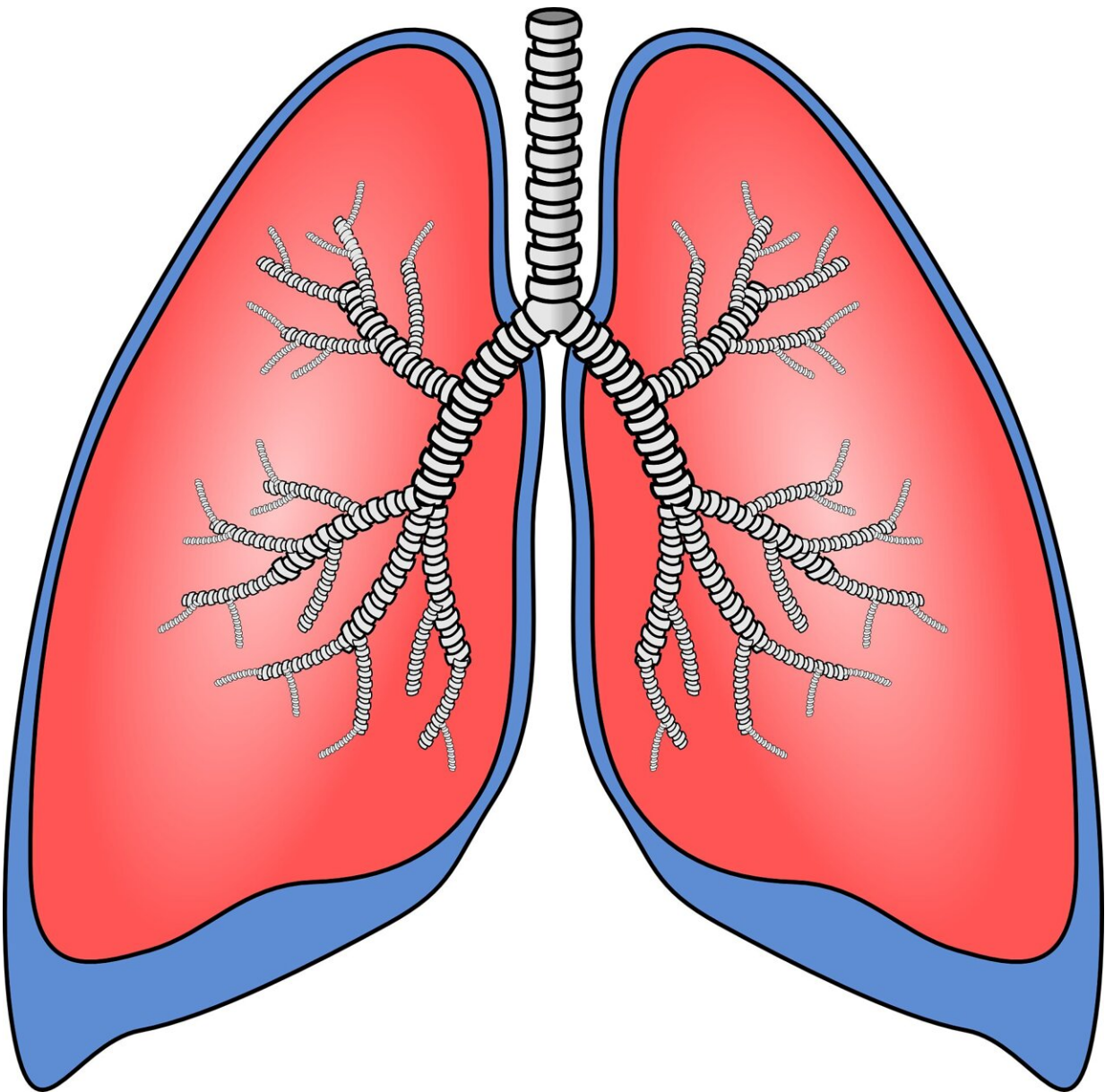


New study supports saving more lung tissue in lung cancer surgeries

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The traditional treatment for early-stage non-small cell lung cancer is a lobectomy, where a surgeon eradicates cancerous tissue by removing an entire lung lobe.

Yet, new research finds that select patients with early-stage disease who undergo a less invasive procedure have comparable outcomes, sparking hope for a less aggressive approach to [lung cancer](#) surgery.

The 10-year study, published in the [New England Journal of Medicine](#) and led by University of Chicago Medicine medical oncologist Everett Vokes, MD, adds evidence that supports a new standard to preserve [lung tissue](#) in [cancer patients](#) whenever possible.

"It's great to know that we can safely offer our patients a procedure that allows for the preservation of functional [lung](#) tissue as long as patients are properly staged and the [surgical team](#) has the necessary experience," said Vokes.

Lung cancer is one of the most common forms of cancer in the United States and causes the most cancer deaths in both men and women. While related to having a history of smoking, lung cancer is increasingly diagnosed in nonsmokers as well as former smokers. An estimated 235,000 new cases of lung cancer will be diagnosed in 2023.

Most patients will be diagnosed after the cancer has spread to other parts of their body. Fortunately, improved screening in smokers means doctors are detecting lung cancer at earlier stages.

In this study, 697 patients with peripheral stage 1 tumors less than 2

centimeters in size were randomly assigned to undergo a lobectomy or a sublobar resection, where part of the cancerous lobe is removed.

In the case of the latter, patients received either a wedge resection, which involves removing a nonanatomic, wedge-shaped piece of tissue containing the tumor, or an anatomical segmentectomy in which surgeons remove the anatomic lung segment with the tumor, along with the small airway, individual artery and vein that feed and drain the region.

After a median follow-up of seven years, the multicenter, phase 3 randomized trial found disease-free survival was similar between lobectomies and sublobar resections. Five-year [disease-free survival](#) and five-year overall survival were similar, supporting the less-invasive procedure as the preferred option.

"This is a very important study that will change how we treat patients with small early-stage lung cancers—especially as we move into the era of lung cancer screening, where we hope to find many more small nodules that could be treated with this tailored surgical approach," said UChicago Medicine thoracic surgeon Jessica Donington, MD, MSCR.

The research follows a study by [Japanese researchers](#) published last year in *The Lancet* that compared lobectomy to segmentectomy (but not wedge resection). That study revealed patients who received segmentectomies fared better in terms of overall survival, but not for local recurrence. Saving lung tissue seemed to help with survival from other diseases and secondary cancers.

"Overall survival in this most recent trial was around 80% in both arms," said Donington, adding that more therapies are needed for lung cancer. "These are the earliest-stage patients and our smallest tumors. We've done all of the currently recommended therapy and yet overall survival is

still only 80%, when it's well above 90% for similar-stage breast cancer or prostate cancer."

Generally, healthy nonsmokers with relatively good lung function can tolerate lobectomies without long-term side effects. However, patients with reduced lung function, due to smoking or other comorbidities, may be too sick to undergo the procedure.

"There are times when we can't do a lobectomy because there's just not enough good lung for us to be able to remove an entire lobe," said Donington. "This research is good news for all patients."

Both Donington and Vokes cautioned the importance of lung [cancer](#) patients finding a surgeon skilled in performing sublobar resections, which are more technically challenging surgeries than a lobectomy.

More information: Nasser Altorki et al, Lobar or Sublobar Resection for Peripheral Stage IA Non–Small-Cell Lung Cancer, *New England Journal of Medicine* (2023). [DOI: 10.1056/NEJMoa2212083](https://doi.org/10.1056/NEJMoa2212083)

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