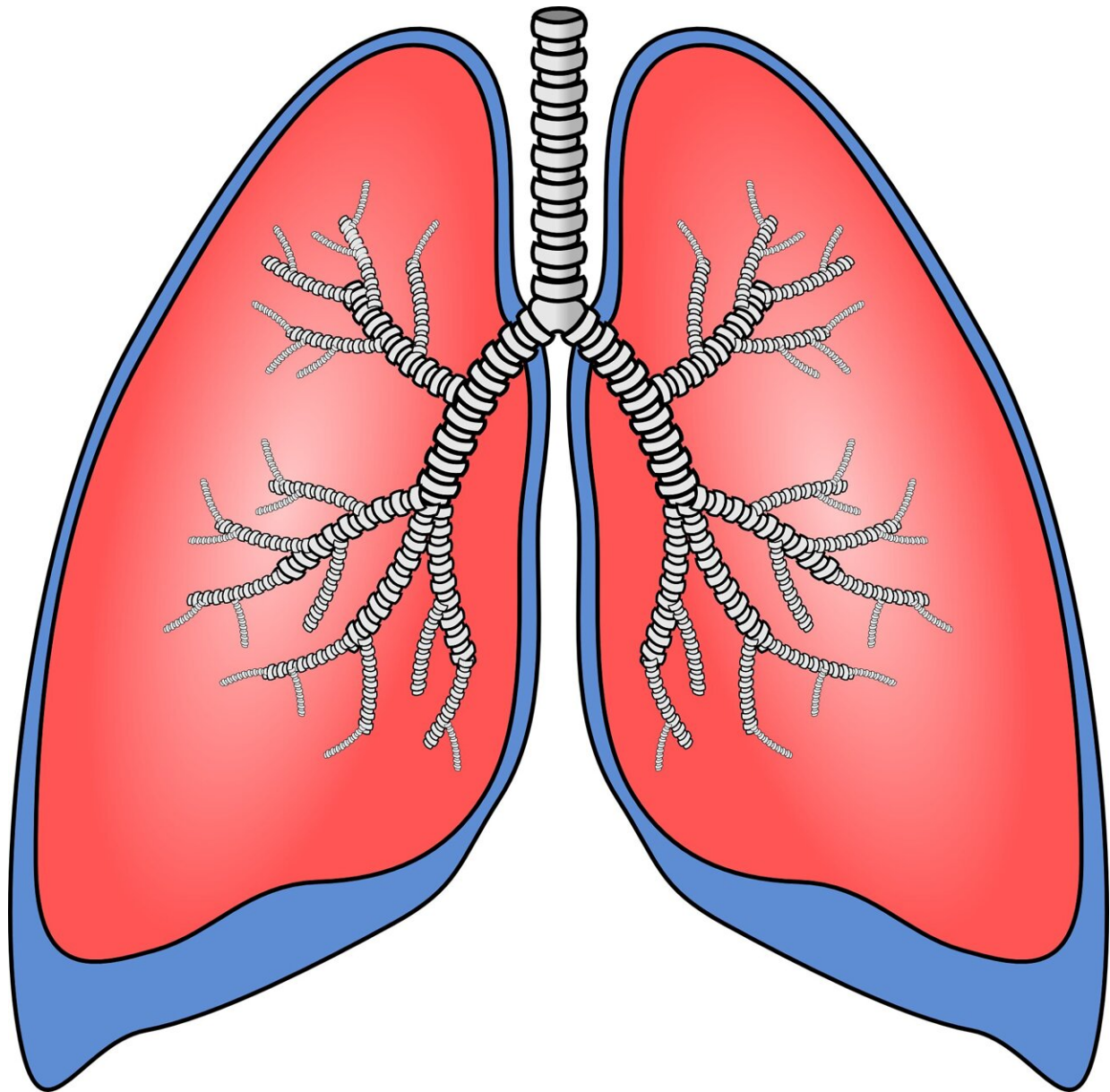


Hypoxemia due to sleep apnea is associated with risk of lung cancer reoccurrence

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A new study to be presented at the [SLEEP 2024](#) annual meeting, held in Houston, Texas, June 1–5, is the first to find that episodic hypoxemia and hypoxic burden related to obstructive sleep apnea are associated with the risk of accelerated lung cancer reoccurrence.

Results show that a 4% oxygen desaturation index of more than 15 and time spent in desaturation events were [risk factors](#) for [cancer](#) reappearance in less than two years. Measures of hypoxic burden such as time spent below 89% oxygen saturation, average oxygen saturation value below 89%, and single nadir oxygen levels, showed a similar association.

After adjustment for potential confounders, average [oxygen saturation](#) below 89% and single minimum oxygen level remained strongly correlated with accelerated cancer reoccurrence.

"We were suspecting that we would find a [positive association](#) between measures of intermittent hypoxemia and lung cancer reoccurrence; nonetheless, we never expected to see such a strong signal," said lead author Dr. Fernando Figueroa Rodriguez, sleep medicine fellow at the Mayo Clinic in the division of pulmonary, [critical care](#), and sleep medicine in Rochester, Minnesota.

"This caught us by surprise; but at the same time, this keeps us encouraged and eager to produce more data."

The study involved a retrospective record review of 403 [adult patients](#) from January 2016 to September 2023. They had a median age of 74 years, and 52% were female. The patients had a history of non-small cell lung cancer and received an overnight oximetry study within three years prior to undergoing curative malignancy treatment. During the study period, 68 patients (22%) had lung cancer reoccurrence, with a median time period of 19 months.

Figueroa Rodriguez noted that a new study with an increased sample size has been initiated for the performance of additional analyses to better

understand this relationship. Similarly, researchers at the Mayo Clinic are evaluating the impact of CPAP therapy for sleep apnea on cancer outcomes.

"At this time we have not finalized these next steps; nevertheless, we have a fantastic team working on the necessary requirements to have this data ready soon," said Figueroa Rodriguez.

The [research abstract](#) was published recently in an online supplement of the journal *SLEEP* and will be presented Tuesday, June 4, during SLEEP 2024 in Houston.

More information: Fernando Figueroa Rodriguez et al, 0468 CRASH: Cancer Reoccurrence Is Accelerated by Episodic Hypoxemia, *SLEEP* (2024). [DOI: 10.1093/sleep/zsae067.0468](https://doi.org/10.1093/sleep/zsae067.0468)

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