

No long-term anxiety or distress associated with low-dose computed tomography screening

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Examination and review of several studies that evaluated patient-centered outcomes for individuals undergoing low-dose computed tomography (LDCT) screening for lung cancer found that screening does not appear to significantly influence overall health-related quality of life or result in long-term changes in anxiety or distress, but that positive results in the short-term, do increase distress levels.

The National Lung Cancer Screening Trial showed that three annual LDCT screens, in contrast to standard lung x-rays, can decrease [lung cancer](#) mortality by 20% and overall mortality by 7%, therefore it is widely recommended that individuals between the ages of 55-80 years with an extensive cigarette smoking history, ≥30 pack-years, consider annual screening with LDCT. However, it is not known how the LDCT screens affect patient-centered outcomes like distress, [anxiety](#), and quality of life.

In the July Issue of the *Journal of Thoracic Oncology (JTO)*, the official journal of the International Association for the Study of Lung Cancer, Slatore et al. systematically reviewed 8215 abstracts for randomized controlled trials or large cohort studies that screened with LDCT asymptomatic adults at high risk for lung cancer due to smoking history. They found a total of five studies that reported data on patient-centered outcomes such as distress, anxiety, and quality of life. Two studies each came from the Danish Lung Cancer Screening Trial (DLCST) and the Netherlands Leuven Longkanker Screening Onderzoek (NELSON) trial and one came from the Pittsburgh Lung Screening Study (PLuSS), a cohort study.

These data, while limited, suggest that lung cancer screening with LDCT was associated with short

-term psychological discomfort in many people, but did not have a long-term impact on distress, worry or health-related-quality of life. Falsely positive results were associated with short-term increases in distress; however, over time this distress decreased to the same levels of these with negative results. Negative results were associated with short-term decreases in distress.

Lead author Dr. Christopher Slatore from the Department of Veterans Affairs Hospital in Portland Oregon, USA notes "Given that false positive results can never be entirely eliminated from LDCT screening and the suggestion that there is some short-term [distress](#) associated with a positive result, careful consideration of eligibility criteria, optimization of diagnostic algorithms, and thorough discussions of risks, benefits, values, preferences, results, implications of results, and follow-up plans with patients may improve patient-centered outcomes."

Provided by International Association for the Study of Lung Cancer

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