European Respiratory Society/American Thoracic Society technical statement: standardisation of the measurement of lung volumes, 2023 update

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Shareable abstract (@ERSpublications)
This document provides updated technical standards for measurement of lung volumes, developed by the European Respiratory Society (ERS) and American Thoracic Society (ATS) https://bit.ly/474TxuC


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Abstract
This document updates the 2005 European Respiratory Society (ERS) and American Thoracic Society (ATS) technical standard for the measurement of lung volumes. The 2005 document integrated the recommendations of an ATS/ERS task force with those from an earlier National Heart, Lung, and Blood Institute workshop that led to the publication of background papers between 1995 and 1999 and a consensus workshop report with more in-depth descriptions and discussion. Advancements in hardware and software, new research and emerging approaches have necessitated an update to the 2005 technical standard to guide laboratory directors, physiologists, operators, pulmonologists and manufacturers. Key updates include standardisation of linked spirometry, new equipment quality control and validation recommendations, generalisation of the multiple breath washout concept beyond nitrogen, a new acceptability and grading system with addition of example tracings, and a brief review of imaging and other new techniques to measure lung volumes. Future directions and key research questions are also noted.