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## Improving Diagnosis of Lung Disease: New Global Benchmarks



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New research that was presented at the European Respiratory Society (ERS) Annual Congress in Vienna on 3 September has established the first global benchmarks for assessing lung function across the entire life span, taking a number of variables into account. The new research aimed to provide a consistent benchmark to enable clinicians across the world to tell patients what their lung capacity should be, based on healthy individuals of the same age, sex, ethnic group and stature. The lung growth charts will enable healthcare professionals to better understand lung disease progression, and the new benchmark will help raise awareness of lung disease, which is the world's leading cause of death, according to the WHO. The international Global Lung Function research group collected data from 74,187 healthy non-smokers aged 3–95 years and used modern statistical methods. They derived continuous, multi-ethnic lung growth charts for application to people of all ages. Lung function charts were often previously only applicable to white subjects of European descent, due to gaps in research and un-balanced representation of patients in clinical trials. The new charts include the black population, those of oriental descent and those of mixed ethnic origins. Lung function is measured by a spirometry test, which involves blowing out as hard and fast as possible into a device that records the amount and the rate of air that is breathed in and out over a specified period. There has previously been no global benchmark for these results, so doctors' interpretation of the results can vary widely. A number of different charts have been used across the world to help doctors interpret spirometry results, which has led to incomparable results across clinics, and differing perceptions of normal. An adolescent may see their level of lung function apparently decrease dramatically when their care is transferred to an adult clinic, and errors can occur if an individual's ethnicity and associated differences in body composition or stature are not taken into account. The new lung growth charts will enable more accurate analysis of spirometry results and allow meaningful comparisons to be made between countries. See [www.lungfunction.org](http://www.lungfunction.org) for further information on the Global Lung Function Initiative.

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