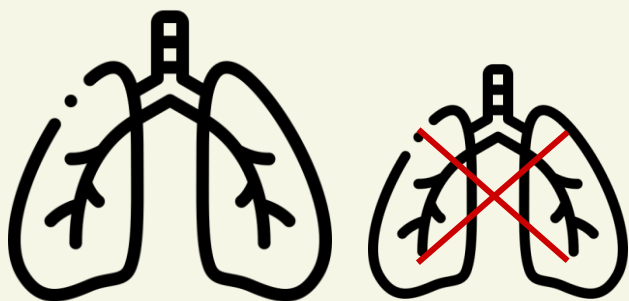


# ACHIEVING HEALTH EQUITY THROUGH RACE-NEUTRAL SPIROMETRY

Understanding the 2023 ATS position on Pulmonary Function Testing

## Normalizing Lung Function for Spirometry



The idea that lung capacity of black persons is compared to whites is an example of scientific racism.<sup>1</sup>

A race based correction factor is applied to spirometry, **reducing** the normal reference range of lung capacity by **10%- 15%** for **Black** or **African-American patients**.<sup>2</sup>

Until recently, **social determinants of health** were largely **overlooked** and **technology has masked** how race-based algorithms are applied.<sup>2,3</sup>



## The Evolution of Race-neutral Spirometry

In 2023, **ATS** issued **new clinical recommendations calling for the use of race-neutral equations in spirometry**, a change representing an evolution in thought supported by recent evidence.<sup>4</sup>

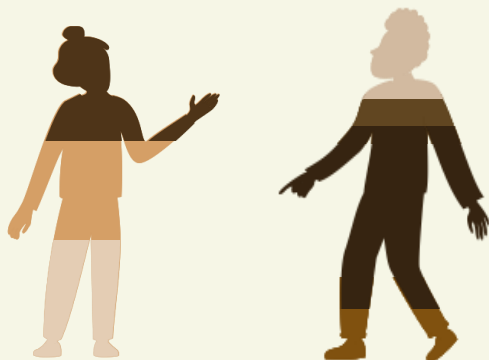
A race-neutral reference equation provides better or equivalent relationships between spirometry and symptoms, airway structure, emphysema, and functional capacity.<sup>1</sup>



# RACE DOES NOT PREDICT GENETIC ANCESTRY

*"Race is a social construct comprising broad, poorly defined categories that neither reliably predict genetic ancestry nor consistently unite people biologically."*

- Collective statements from AAFP, ATS, AMA, AAP<sup>1,2,5,6</sup>



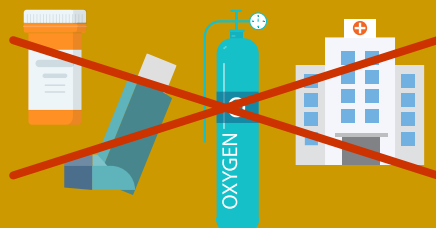
Classifying patients by race alone drives thinking away from the examination of other social, environmental, and genetic factors as drivers of disease.<sup>6</sup> Genetic associations with pulmonary function do not provide evidence for the use of race or ethnicity in PFT interpretation.<sup>1</sup>

## Race-adjusted spirometry can be harmful because it

- May lead to the underdiagnosis and misdiagnosis of pulmonary disease in racial minority patients<sup>2,7,8</sup>
- Can reduce access to effective treatments<sup>1,7,9,10</sup>
- Impacts clinical risk of morbidity and mortality<sup>1,11,12</sup>



## Misdiagnosis and Decreased Access to Care



# ACT on Health Equity

**EDUCATE** leaders at your institution on how race-neutral spirometry could impact quality of care.

**ADVOCATE** for the implementation of ATS recommendations in lung function assessment and determine how race adjustment can be removed.

**EVALUATE** how you can best support patients whose diagnosis may be changed with race-neutral spirometry.

Abbreviations: AAFP: American Academy of Family Physicians; AAP: American Academy of Pediatrics; AMA: American Medical Association; ATS: American Thoracic Society; PFT: pulmonary function test.

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