

People born premature have smaller airways causing respiratory problems

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People born prematurely may have smaller airways than those born at full term, which can cause respiratory problems. That's according to research published in *Experimental Physiology* today.

It is known that cardiovascular and respiratory system function is affected by [premature birth](#), but the exact causes are still not completely known. Recent research suggests that the impaired lung (respiratory) function in those born prematurely could be due to smaller airways.

The study looked at adults who were born prematurely (eight or more weeks early) and adults who were born at full term and the same age and height as those individuals in the premature group. The researchers measured the lung function of all participants at rest and during exercise. Using information from the resting [lung function](#) tests, they calculated an estimate of airway size for both premature and full term groups. The researchers found that the estimate of airway size was smaller in the premature group compared to the full term group.

This discovery may provide a basis to help doctors tailor treatment of respiratory ailments in those born prematurely. Current treatment of respiratory ailments in adults born premature is similar to asthma treatments, which work to open up closed airways. This [treatment](#) may not have the same effect in individuals born premature because they might have small rather than closed up airways.

JJ Duke, an author of the study, said, 'our study might suggest that

respiratory treatments would be less effective in individuals born prematurely, but more work needs to be done to directly test this.'

'Our work used only an estimate of airway size and future research should use precise measurements to try and obtain an actual [airway](#) size, rather than an estimate,' he continued.

The work was carried out by researchers at Northern Arizona University, Oregon Health and Sciences the University and University of Oregon, USA, and the University of British Columbia, Canada.

More information: Joseph W. Duke et al, Premature birth affects the degree of airway dysanapsis and mechanical ventilatory constraints, *Experimental Physiology* (2017). [DOI: 10.1113/EP086588](https://doi.org/10.1113/EP086588)

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