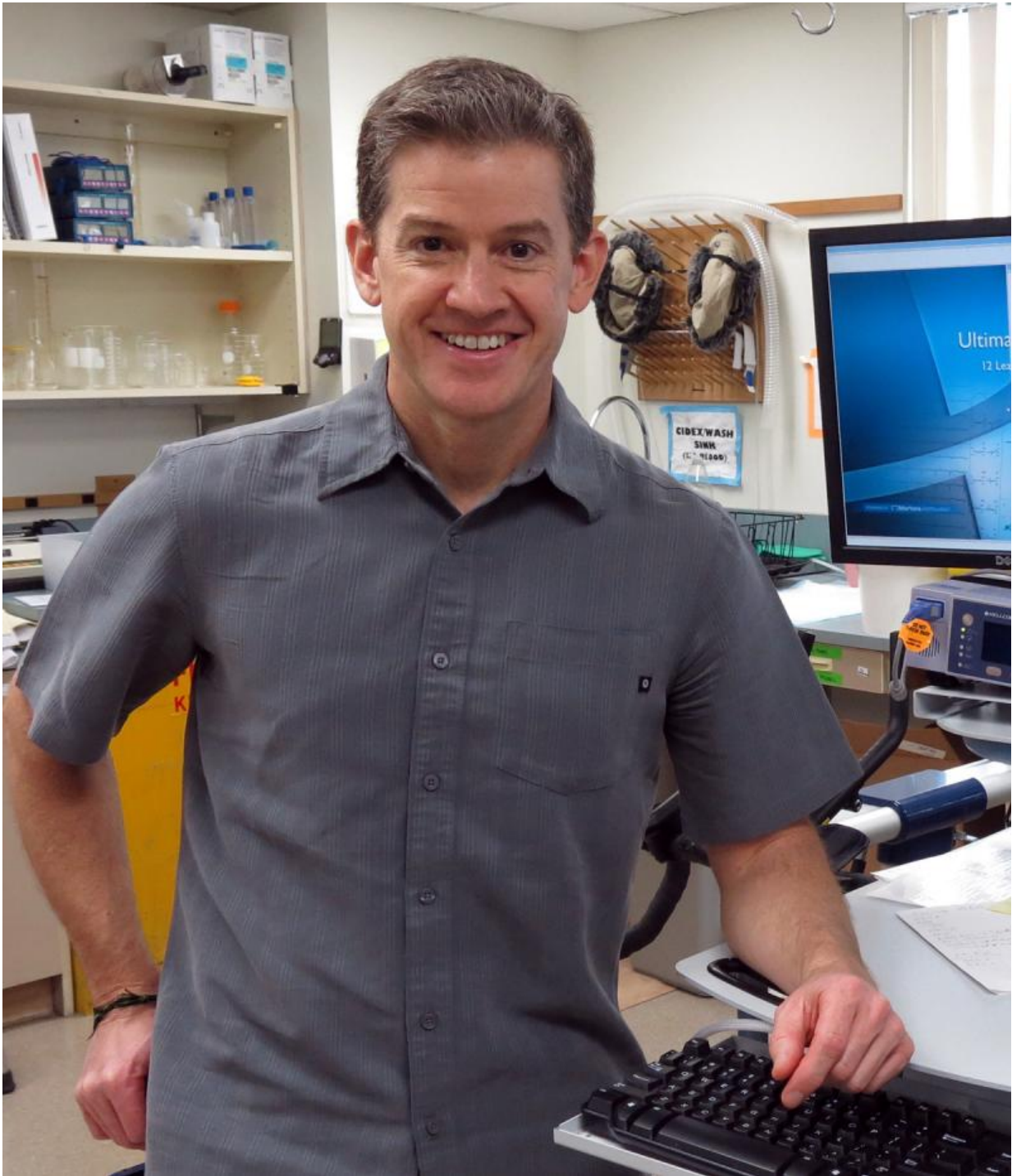


Young adults born preterm may live with lungs of elderly, study finds

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Andrew Lovering of the Department of Human Physiology at the University of Oregon led a study that found that young adults who had been born premature are at a higher risk for developing chronic obstructive pulmonary disease, a progressive disease that makes it harder to breathe. Credit: University of Oregon

Adult survivors of preterm births may have a lung capacity that resembles the healthy elderly or casual smokers by the time they reach their early 20s, according to a University of Oregon study.

The study, led by Andrew T. Lovering, a professor of human physiology, compared the lung function of adults born after fewer than 32 weeks to adults born full-term. It was published in the December issue of the *Annals of the American Thoracic Society*.

The study found premature infants are at increased risk for contracting bronchopulmonary dysplasia, a chronic respiratory condition mainly affecting infants born less than 28 weeks of age. BPD primarily affects [preterm infants](#) who receive oxygen therapy to help them breathe. The higher levels of oxygen, as well as the increased pressure from the ventilator used for treatment, can result in tissue scarring in their lungs in addition to other complications from an early birth.

Research has indicated that infants with BPD are at a higher risk for the subsequent development of chronic [obstructive pulmonary disease](#), a progressive disease that makes it harder to breathe. COPD, commonly known as smoker's lung, is a fairly common condition, affecting 329 million people worldwide.

The condition is most often the result of smoking or exposure to air pollution. According to the World Health Organization, COPD was the third-leading cause of death worldwide in 2012, the most recent year in which statistics were available.

To study the [lung capacity](#) of adult survivors of preterm births, Lovering and colleagues looked at three groups: 20 adults born prematurely with BPD, 15 adults born prematurely without BPD and a control group of 20

healthy adults born full-term. All went through a series of tests designed to examine lung function during exercise.

The study suggests that adults born prematurely without BPD, like their counterparts with BPD, show symptoms of a mild form of COPD in their mid-20s. Their lungs did not function as efficiently as the [control group](#), which caused them to tire sooner.

"We were expecting more variation between the two preterm groups—with and without BPD," Lovering said. "We didn't anticipate that they would share a similar lung profile."

Even if the rate of decline in their lung function remains normal throughout their life, adult preterm survivors with COPD will likely develop respiratory complications at a much younger age, Lovering said. The more rapid decline of their [lung function](#) will lead to accelerated development of fatigue and poor exercise capacity, as well as an overall reduction in their quality of life.

Researchers have yet to reveal the most effective means of caring for adult preterm survivors as they enter adulthood. According to Lovering, few respiratory physicians routinely inquire about the neonatal period when treating their patients. Preterm adults often are misdiagnosed as asthmatic, although the underlying causes may be different.

"Additional research is needed to find better ways to serve adult survivors of [preterm birth](#)," Lovering said. "We need to better understand how we can help them maximize their quality of life and lung health as they age."

More information: *Annals of the American Thoracic Society*, [www.atsjournals.org/doi/abs/10 ... 2-466OC#.VTVvbmZU0Tm](http://www.atsjournals.org/doi/abs/10...2-466OC#.VTVvbmZU0Tm)

Provided by University of Oregon

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