

Birth measurements could predict lung health in teen years

September 9 2014

A new study has found that factors, such as birth weight, gestational age at birth and lung function, growth and other measures at 8 years, can be used to predict lung function during mid to late teenage years.

The study, presented at the European Respiratory Society (ERS) International Congress in Munich today (9 September 2014), is part of a growing area of research aiming to understand how early life factors have an impact on the development of disease into adulthood.

Data out of the Avon Longitudinal Study of Mothers and Children (ALSPAC) from over 3000 children were used in this study. The researchers analysed weight and [gestational age](#) at birth, followed by height, weight and lung function at the age of 8 years, with the aim of understanding whether factors in early infancy and early childhood could explain the lung function measurement at 14–17 years of age.

Using statistical models, the study showed that a person's lung function at the age of 14–17 years can be largely predicted by measurements taken at the [age](#) of 8 years and at birth. The researchers also discovered that weight at birth had only a small effect on lung function in teen years.

The findings suggest that it could be possible to predict how a person's lung function will develop in the future based on measurements taken throughout childhood. This concept, known as "tracking", suggests that if a child has poor lung function early in life, their [lung function](#) is likely

to remain low throughout their lives.

Dr W. John Watkins, lead author of the study from Cardiff University, UK, said: "This is an important finding as the study suggests that it may be possible to identify children who may develop [lung disease](#) as adults. We know that certain risk factors, such as environmental pollution or tobacco smoking, can lead to adult disease. If we are able to predict which children are more likely to develop adult disease, it will be even more important for us to help prevent exposure to risk factors as they grow up. This represents a key intervention point for clinicians."

More information: Abstract: The influence of parameters at birth and in early childhood on lung function in adolescence, 10 September 10.45-12.45

Provided by European Lung Foundation

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