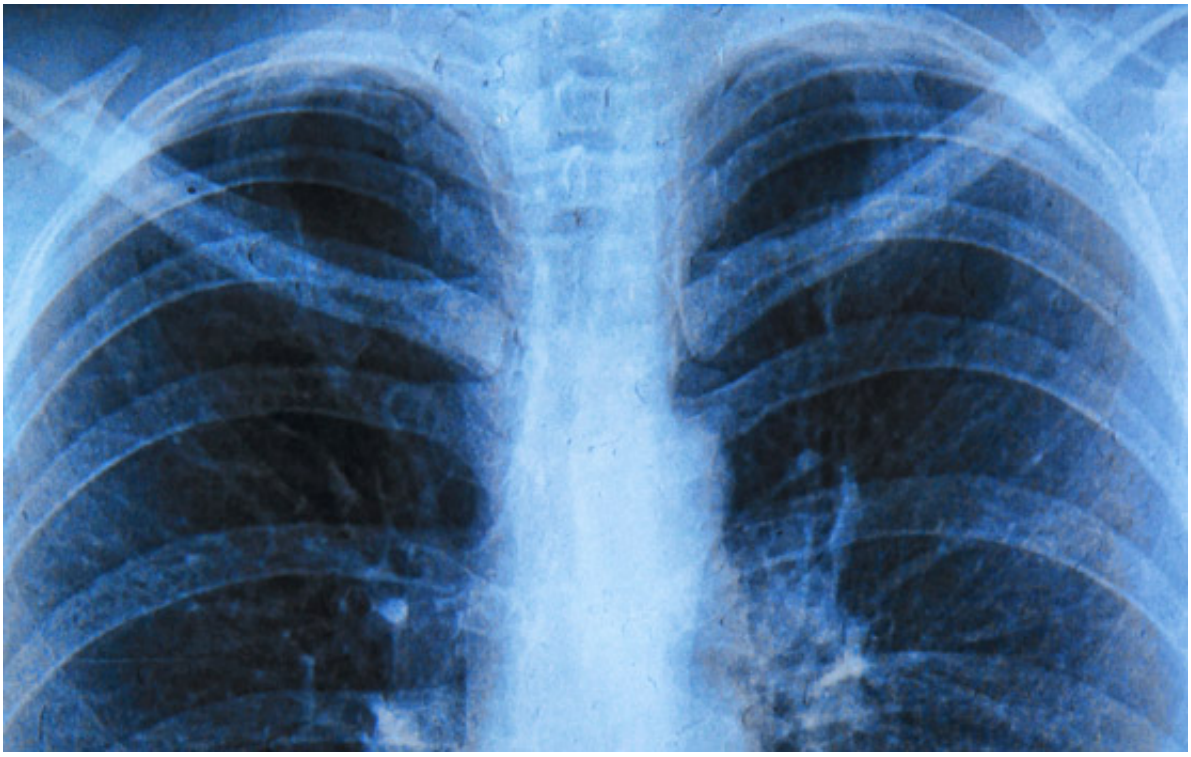
Poor sleep in kids with cystic fibrosis may impact overall health

May 22 2017



Credit: Monash University

A Monash University study into the sleep patterns of children with cystic fibrosis (CF) has found, even when the disease is clinically stable, they experience less sleep than healthy children, impacting their health and quality of life.

More than 3,000 Australians have CF, a genetic disease that causes

persistent lung infections and limits the ability to breathe over time, leading to an average life span of just 40 years. Monash University researchers have conducted a world first study of the sleep patterns of children with CF, published in The *Journal of Pediatrics*.

A second study published in the *Journal of Cystic Fibrosis* today shows that this poor sleep is related not only to lung health and other complications of CF, but also to family characteristics and poor sleep hygiene such as use of electronic devices in the bedroom. Improving sleep has the potential to improve health and quality of life in these children, according to the study.

The study was part of the PhD of Dr Moya Vandeluer, a paediatric respiratory and sleep specialist, led by Professor Rosemary Horne, from the Monash Children's Hospital. Dr Vandeleur studied 87 Victorian children with CF and 55 healthy control children aged between 7 and 18 years of age. The study is important because – unlike previous research that relied on subjective responses from parents – the Monash study measured sleep using Actigraphy (a wrist watch – like device which detects movement levels) as well as testing children with recognised questionnaires for sleep disturbance and daytime sleepiness.

While there have been numerous studies of sleep quality in adults with CF, this is the first to objectively and subjectively study the quality of sleep in children with clinically stable disease.

The study found that – even in periods when a child's CF was clinically under control – the children with CF got less sleep than their peers. "This was due to the children with CF spending more time in wakefulness during the night rather than less time in bed," Professor Horne said.

According to Professor Horne the study is important because it tested sleep over a 14 day period in the home environment, including weekends

and weekdays "to get on overall view of how the child was sleeping and the quality of their sleep."

The study revealed that poorer quality of sleep in children with CF, compared to healthy children without CF, was due to increased time spent awake during the night, rather than differences in time spent in bed due to treatment regimes such as physiotherapy and nebulised treatments as had previously been thought.

Professor Horne argues that decreased quality of sleep in children with CF may be impacting on their mood, quality of life, behaviour and emotional regulation, "all of which impact on the treatment and long term outlook for these children."

"Sleep is clearly something that needs to be considered when developing overall treatments for children with CF," she said.

Provided by Monash University

Citation: Poor sleep in kids with cystic fibrosis may impact overall health (2017, May 22) retrieved 20 March 2024 from https://medicalxpress.com/news/2017-05-poor-kids-cystic-fibrosis-impact.html