

# Mice exposed to retinoid deficiency in utero exhibit bronchial hyperresponsiveness as adults

January 9 2014

---

Individuals with asthma and COPD are subject to debilitating bronchospasm as a result of airways that are hyperresponsive to stimuli. Factors that lead to the development of airway hyperresponsiveness are not well characterized.

In this issue of the *Journal of Clinical Investigation*, Wellington Cardoso and colleagues at the Boston University School of Medicine reveal that mice born to mothers with retinoid deficiency during pregnancy are at increased risk of developing airway hyperresponsiveness. Prenatal retinoid deficiency promoted altered airway development and lung differentiation. Bronchial hyperresponsiveness and abnormal phenotypes persisted throughout the postnatal period regardless for vitamin A status in the adult.

These results suggest that retinoid signaling in the lung is important for proper airway development and prevention of inappropriate pulmonary inflammatory responses.

**More information:** Prenatal retinoid deficiency leads to airway hyperresponsiveness in adult mice, *J Clin Invest.* [DOI: 10.1172/JCI70291](https://doi.org/10.1172/JCI70291)

Provided by Journal of Clinical Investigation

Citation: Mice exposed to retinoid deficiency in utero exhibit bronchial hyperresponsiveness as adults (2014, January 9) retrieved 19 April 2024 from <https://medicalxpress.com/news/2014-01-mice-exposed-retinoid-deficiency-utero.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.