Sensitivity to air pollution linked to hormonal status of female mice

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Keywords: air pollution, sex hormones, follicular phase, inflammation, hormone levels, estrous cycle, menstrual cycle, mice, pollution exposure, ozone, lung tissue, bronchoalveolar lavage fluid, respiratory mechanics, luteal phase, follicular phase, regulatory pathways, Penn State College of Medicine, Physiological Reports

Posted Date: September 20th, 2019

DOI: <https://doi.org/10.21203/rs.2.15141/v1>

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Abstract

New research finds that female mice are most vulnerable to air pollution early in their reproductive cycle. That finding calls for a closer look at menstrual cycle phase when studying air pollution effects in women. Researchers gathered mice at two different stages of their reproductive cycle marked by clear differences in circulating sex hormones. They then exposed each group to ozone, a reactive air pollutant known to worsen symptoms of lung disease. Those in the earlier phase showed higher activation of the immune system, suggesting higher sensitivity to air pollution at that time. The carryover to women hasn't yet been explored. But the overall message is clear: Women's hormonal status should always be recorded in studies on air pollution and lung inflammation. Fuentes et al. "Modulation of the lung inflammatory response to ozone by the estrous cycle." *Physiological Reports*