New research shows that low-level exposures to toxic chemicals that disrupt hormones do not fit the typical dose-response curve. Moderate and low level exposures may be as damaging or more damaging than high doses.

“In the last 40 years, we have learned that serious health effects of air pollutants are experienced at levels much lower than previously considered “safe” levels of exposure, particularly for vulnerable populations such as infants, children .... (a) given dose of a pollutant will have a greater impact on a child than on an adult not only due to their smaller size, but because of the nature of their growing bodies and minds. At sensitive points in child development, environmental exposures can have especially harmful effects....

In fact, air pollution is associated with impaired lung growth that may have permanent, lifelong impacts on an individual’s ability to breathe. These impacts can have health consequences and impose increased health costs across the lifespan.” (American Academy of Pediatrics: Clean Air and Public Health 6/2011)

“Whether low doses of endocrine disrupting chemicals influence certain human disorders is no longer conjecture … environmental exposures are associated with human diseases and disabilities. We conclude that the effects of low doses cannot be predicted by the effects observed at high doses. Thus, fundamental changes in chemical testing and safety determination are needed to protect human health.” (Endocrine Reviews 33: 2012)