



## The Effects of Environmental Exposures on Fetal Growth, Children Development and the Corresponding Mechanisms

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### Message from the Guest Editor

Environmental exposures in early life have a great influence on the growth and development of a fetus, birth outcomes and children's growth, behavior and neural development. This not only includes nutritional deficiencies and excesses but also exposure to a variety of environmental pollutants. Prenatal exposures are especially concerning because of the rapid development and growth and increased sensitivity and vulnerability of the developing fetus. Early-life exposure to heavy metals, organic chemicals and pesticides can disrupt processes involved in cellular and organ development, resulting in a host of adverse health concerns. These mechanisms may involve the disruption of placental function, alterations in gene expression, oxidative stress, inflammation, immune regulation and epigenetic modifications, highlighting the complex interplay between environmental factors and biological pathways. Identification of the risk factors for impaired fetal growth, child development and the corresponding mechanisms will help to not only improve children's health but also to provide etiologic insight and informed prevention strategies for many adult diseases.





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