



Prevalence, Mechanisms and Health Effects of Teratogenic Synthetic Substance

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Description

Teratogenic synthetic substances are synthetic compounds that have been shown to cause birth defects in developing fetuses. These substances can be found in a variety of products, from prescription drugs to common household items. In this study, we discuss the current state of knowledge on teratogenic synthetic substances, including their prevalence, mechanisms of action, and potential health effects. We also highlight the need for continued research and regulation to ensure the safety of these substances.

These substances are a significant public health concern. These compounds are known to cause birth defects in developing fetuses, and can be found in a variety of products, including prescription drugs, pesticides, and consumer goods. While some teratogenic synthetic substances have been well-studied and regulated, many others remain poorly understood and potentially harmful.

Other teratogenic synthetic substances are found in consumer goods, such as plasticizers and flame retardants, which can leach into the environment and be ingested by pregnant women. Pesticides and herbicides are also common sources of teratogenic synthetic substances, with many of these compounds being banned or restricted due to their harmful effects on fetal development. The mechanisms by which teratogenic synthetic substances cause birth defects are varied and complex. Some compounds, such as thalidomide, interfere with the development of limbs and other organs by disrupting the formation of blood vessels. Other compounds, such as valproic acid, can interfere with the regulation of gene expression, leading to abnormal development of the brain and nervous system. Still other compounds, such as alcohol and tobacco smoke, can cause oxidative stress and inflammation, leading to a range of developmental abnormalities.

The health effects of teratogenic synthetic substances can be severe and long-lasting. Birth defects caused by these compounds can range from mild to severe, and can include physical deformities, cognitive impairments, and developmental delays. In some cases, teratogenic synthetic substances can even lead to miscarriage or stillbirth. Furthermore, the health effects of teratogenic synthetic substances can be intergenerational, with some compounds affecting the reproductive health of future generations. In conclusion, teratogenic synthetic substances are a significant public health concern. While many of these compounds have been well-studied and regulated, there are still many others that remain poorly understood and potentially harmful. Continued research and regulation of these substances is essential to ensure the safety of pregnant women and developing fetuses. As consumers, we can also take steps to minimize our exposure to teratogenic synthetic substances by choosing products that are free of harmful chemicals and by advocating for stricter regulation of these compounds.

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