

Exposure to herbicide may increase risk of rare disorder, study finds

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A common herbicide used in the United States may be linked to an increased risk of a congenital abnormality of the nasal cavity known as choanal atresia, say researchers at Baylor College of Medicine and other Texas institutions.

The study by Dr. Philip Lupo, assistant professor of pediatrics – hematology/oncology at BCM and Texas Children's Cancer Center, is scheduled for publication in The [Journal of Pediatrics](#).

Choanal atresia is a disorder where the back of the nasal passage is blocked by tissue formed during fetal development. It is a rare condition but can be serious because it affects a baby's ability to breath. It is typically treated through surgery.

Very few risk factors for choanal atresia have been identified, however chemicals that disrupt the maternal [endocrine system](#) may be associated with risk, according to Lupo. The study focused on atrazine, which is the most commonly used herbicide in the U.S. – especially in [corn crops](#) – and is believed to be an endocrine disrupter.

"Endocrine disrupters aren't fully understood, but it is believed they interfere with or mimic certain hormones, thereby blocking their proper function and potentially leading to adverse outcomes," Lupo said.

The study found that mothers who lived in Texas counties with the highest levels of estimated atrazine application were 80 percent more

likely to have children with choanal atresia or stenosis compared to women who lived in the counties with the lowest levels. Choanal stenosis is a less severe form of the condition.

Data for the study was collected from the Texas Birth Defects Registry.

"Our results warrant more detailed exploration before any public health or policy-related recommendations are made," Lupo said, "but this study is a good first step in trying to understand the origin of this [birth defect](#), including a possible role of atrazine."

Provided by Baylor College of Medicine

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