

## Prenatal smoking exposure effects stick around in genes

**The GLP aggregated and excerpted this blog/article to reflect the diversity of news, opinion and analysis.**

A collaborative research team led by scientists at the Johns Hopkins Bloomberg School of Public Health found that blood taken from children up to the age of five contains molecular evidence about whether their mothers smoked during pregnancy. The epigenetic study (“Presence of an Epigenetic Signature of Prenatal Cigarette Smoke Exposure in Childhood”), published online in *Environmental Research*, offers strong evidence that environmental exposures that go as far back as the womb may continue to remain in the body and potentially affect someone’s health for years after birth.

The study also suggests that with further research it could be possible to detect exposures to other potential toxins during pregnancy that are less evident such as to chemicals in plastics, undetected infections, or contaminants in drinking water. Ultimately, the hope would be to link these exposures to chronic diseases such as autism, obesity, or heart disease to better understand how diseases develop and possibly help prevent them.

“If you have a blood sample, you may be able to ask research questions that you could never ask before,” says study leader M. Daniele Fallin, Ph.D., the Sylvia and Harold Halpert Professor and Chair of the Bloomberg School’s department of mental health. “We have long known that the body is an accumulator of past exposures — evidence of lead exposure lives on in our bones, for example. But we did not know that something as easy to collect as blood could contain evidence of exposures not only during your life but prenatally. That’s what makes this so compelling.”

**Read full, original post:** [Epigenetic Study Reveals Prenatal Exposure of Children to Smoking](#)