

## PFAS GenX Study Draws Direct Comparisons With PFOA

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A [new study](#) regarding the health effects of the much heralded PFAS named “GenX” shows results that compare in some ways to PFOA studies. While testing of GenX toxicity on human health is still in its infancy, the study will nonetheless undoubtedly be used by proponents who want federal and state governments to regulate all PFAS (thousands of them) as a single chemical type.

### What Is GenX?

GenX is the commonly used term for perfluoro-2-propoxypropanoic acid, a chemical compound produced to make Teflon, which is used to make nonstick coating surfaces for cookware. GenX is a trademarked name by the Chemours Company, and was introduced commercially in 2009 as a replacement for PFOA. Since the chemical has only been manufactured and used commercially for 11 years, the effects of GenX in humans remain widely unknown, though studies are currently being conducted by researchers. GenX was heralded as a safe substitute for PFOA, mainly due to its significantly lower biopersistence as compared to PFOA. In theory, the lower biopersistence means less time for the chemical to cause damage to the human body.

Currently, the only location where GenX is manufactured in the United States is in Fayetteville, North Carolina. The Chemours plant in Fayetteville is located near the Cape Fear River, so scientists have been ardently studying the potency of GenX for several years due to the river’s use as a drinking water source. Currently, there are no federal guidelines for GenX, although the North Carolina Department of Health and Human Services implemented a “health goal” of 140 parts per trillion for GenX.

### The Blake, et al GenX Study

In early 2020, several scientists published a study in which they examined the effects of GenX on pregnant mice and their offspring. The conclusion of the study is that GenX is capable of causing gestational weight gain and maternal liver damage in mice. The authors did, however, find that GenX significantly affected the maternal-embryo-placenta differently from PFOA.

The study was one of two GenX-related research papers the North Carolina science advisory board has been tasked with analyzing since finalizing its toxicological review in October 2018. The 16-member board assists North Carolina’s departments of Environmental Quality (DEQ) and Health

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and Human Services by evaluating and identifying contaminants of concern.

As part of a [2019 consent order](#) between DEQ, Cape Fear River Watch and Chemours, the chemical company must initiate a third-party study looking at the toxicity of up to five PFAS to human health and aquatic life. The study will include mice and rats, as well as fish. DEQ must approve the study plan, which must be submitted within 30 days of the consent order's approval by a superior court judge. The state last month made additions to the order, calling for the company to further reduce PFAS being discharged into the Cape fear River through groundwater contamination on the Fayetteville site.

## Takeaways

While this is but one study regarding GenX chemicals and the impact that they have on health, it is an important one for anyone closely following the PFAS science, litigation and regulations. The test is one of the first to directly try to draw comparisons between GenX and PFOA, as opposed to focusing singularly on GenX. It's conclusions show some adverse health effects in the studied mice, which will add fodder to arguments of those who are pushing for the EPA, state government bodies, and the EU to regulate all PFAS as a single chemical class. Yet, other studies regarding GenX are still not concluded and there is no consensus yet among the scientific community regarding the toxicity profile of GenX, either by itself or as compared to PFOA. As such, litigators, regulators and scientists alike must be careful to draw definitive conclusions from this one study, and would be wise to evaluate the study as compared to the totality of literature regarding GenX that exists and is yet to come.

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