

**BRUNSWICK** — Researchers investigating decades of exposure of coastal residents to toxic manufacturing chemicals shared new, early findings with the public at a community meeting Tuesday night in **Brunswick**.

Last year, a team of scientists from Emory University enrolled 100 **Brunswick** residents in their study and drew blood samples from them, seeking evidence of whether levels of certain metals, pesticides and other man-made chemicals were higher than normal in their bodies.

Long an industrial hub, **Brunswick** has been home to various chemical, wood, paper, paint and other manufacturing plants over the years. As a result, it is also home to some of the most polluted sites in Georgia. For years, the city's residents — most of them Black and many impoverished — have voiced concerns about whether the toxic environmental stew is affecting their health. Many suspect the chemicals have harmed their health, but for now, the Emory study is focused on determining whether **Brunswick** residents have unusually high exposure to some of the toxins present in the area.

Of the state's 18 locations designated or proposed for listing as federal Superfund sites — a federal program requiring long-term cleanup for the most toxic sites — four are located near **Brunswick**, more than any other city in Georgia. About 62 percent of **Brunswick**'s residents are Black and the annual median household income in the city is just under \$30,000, less than half the state average of \$71,000, according to the U.S. Census Bureau.

Emory has partnered with several local organizations to conduct the research, including the environmental protection groups One Hundred Miles and Glynn Environmental Coalition, health care providers at Coastal Community Health, and the University of Georgia's Marine Extension and Sea Grant, among others.

In September 2023, the researchers made their preliminary analysis public, which showed that blood levels of certain heavy metals in the study group were similar to those in the general population. But a significant number of participants showed higher-than-normal levels of several rare chemicals associated with some now-shuttered factories that operated in **Brunswick**.

Those compounds include toxaphene, a pesticide that was used in cotton farming until 1990, and three types of now-banned polychlorinated biphenyls or PCBs, a class of man-made chemicals once used in electrical equipment and heavy machinery applications. Both toxaphene and PCBs are probable human carcinogens, according to the federal Environmental Protection Agency.

Toxaphene was produced at the now-defunct Hercules, Inc., pesticide factory, which operated in a residential area of **Brunswick** until 1980. The PCBs were used at the former LCP Chemicals site, which over the years was home to an oil refinery, a paint company, a power plant and a chlorine plant. Contaminated land used by the companies to manufacture products or discharge chemical-laden wastewater is now classified as Superfund sites.

In front of roughly 50 attendees at Tuesday's meeting, Noah Scovronick, an environmental scientist and assistant professor at Emory, shared new insight into which groups appear more likely to have higher blood levels of the chemicals.

Scovronick, who is part of the research team, said early findings show levels of some of the PCBs were roughly twice as high in participants aged 60 and older, compared to younger ones.

"Statistically speaking, the strength of evidence for that is higher, so we have some confidence that those are real differences that show older people are more exposed to those PCBs," Scovronick said.

Toxaphene levels were also slightly higher in older participants, but the researchers had less confidence in those results.

The team also found there may also be racial disparities in exposure. For some of the PCBs, the researchers found higher exposure levels among Black participants compared to white ones, but the team's confidence in those results vary. For one of the two types of toxaphene, Black participants showed higher levels of exposure, but Scovronick said more testing and analyses is needed to investigate that conclusion.

The scientists also found study participants who worked at the LCP Chemical factory themselves or who lived with someone who did showed higher levels of PCBs. The link between participants' toxaphene levels and exposure from working at the Hercules, Inc., plant was less clear.

Scovronick said his Emory team plans to continue to analyze the early results and explore whether residents' living near the sites may have increased chemical exposure. The group has also applied for funding to expand the study to more participants and to investigate the pathways of exposure, such as eating seafood caught in potentially polluted areas.

#### **CITATION (AGLC STYLE)**

Drew Kann, 'Researchers share new findings in Brunswick pollution exposure study', *Atlanta Journal-Constitution, The: Web Edition Articles* (online), 17 Jan 2024 <<https://infoweb-newsbank-com.proxy.library.emory.edu/apps/news/document-view?p=WORLDNEWS&docref=news/196A3C8AD49E2ED8>>

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