

Microplastics and our babies

Minuscule bits of plastic that permeate our environment – are found inside our bodies – and a recent study found that the level of one type of microplastic found in the feces of infants is substantially higher than in adults.



The small, pilot study published in Environmental Science & Technology Letters compared the feces of ten adults and six infants in New York State. (<https://pubs.acs.org/doi/10.1021/acs.estlett.1c00559>)

New York University School of Medicine researchers, led by Dr. Kurunthachalam Kannan, study co-author and NYU professor of pediatrics and environmental medicine, found that one type of microplastic called PET, or polyethylene terephthalate, showed up in the waste of infants 10 times more than that of adults, based on body weight.

Infants are of course often surrounded by things made of plastic – sippy cups, bottles, pacifiers, blankets and plastic food containers, for example – and they can't be reasoned with to stop putting these things in their mouths. Older children that spend time crawling and lying on synthetic carpeting may also be inhaling the PET particles.

Microplastics are fragments of plastic smaller than 5 mm in length, according to the U.S. National Oceanic and Atmospheric Administration.



The bits are often created as larger pieces of plastic break down, shedding the minuscule shards. Other examples are microbeads, which are manufactured bits of plastic often used to exfoliate in soaps or hand sanitizers. Former President Obama banned microbeads in so-called “rinse-off cosmetics” in 2015.

It's not yet clear what, if any health ramifications there are for infants with higher levels of PET, and scientists are in agreement that an exhaustive study is needed with a larger cohort of patients.

Presently, parents can switch to glass bottles - when the babies are not breast-feeding – to reduce plastic intake.

There are 6 other ways to reduce your exposure to microplastics

- Filter your tap water and don't buy bottled water
- Avoid plastic Tupperware, use glass mason jars
- Avoid hot takeout in plastic packaging
- Avoid reheating food or drink in plastic
- Vacuum your house regularly
- Look for non-synthetic material when purchasing clothing

References:

Occurrence of Polyethylene Terephthalate and Polycarbonate Microplastics in Infant and Adult Feces

<https://pubs.acs.org/doi/10.1021/acs.estlett.1c00559>

Babies' poop has way higher levels of microplastic than adults'

<https://www.theverge.com/2021/9/23/22689941/babies-infants-poop-microplastics>

More microplastics in babies' faeces than in adults' – study

<https://www.theguardian.com/science/2021/sep/22/more-microplastics-in-babies-faeces-than-in-adults-study>