Microplastics and Children's Health

What Are Microplastics?

Microplastics are small specks of plastic material that can measure smaller than a red blood cell. Microplastics are released when plastics are exposed to extreme temperatures (hot or cold) or damaged from regular use. The more a plastic item is used, the more it breaks down and releases microplastics.

Microplastics have been found in:



How Can Microplastics Affect Health?

Research into microplastics is new. Studies in mice show that microplastics hurt fertility in adult mice. The offspring of those mice then had digestion issues.

Chemicals like **Bisphenol A (BPA)** and **phthalates** are in many plastics. These chemicals upset hormone levels. This can harm the development of reproductive organs.

Phthalates interfere with the hormone testosterone. This disturbs the function of male reproductive organs. They are also linked to asthma. They can also cause early birth, low birth weight, and behavior problems in children.

Children's bodies are smaller and still growing. They have longer lives ahead of them. Microplastics cause children more harm because there are more chances for them to be exposed.

What Can You Do to Reduce Exposure?

Plastics are all around us. They are convenient and often cost less than other products. It is difficult to stop all contact with microplastics.

Product labels are not always clear. Even plastics labeled "BPA Free" may contain the chemicals Bisphenol S (BPS) or Bisphenol F (BPF). These chemicals likely have similar health effects as BPA. Plus, **there are thousands of other chemicals used in plastic that have not been tested**. Their health effects are unknown. So microplastics could cause more harm than scientists know.

You can best reduce exposure by limiting plastic use as much as possible.

Home Safety

- NEVER heat breast milk or baby formula in plastic containers or bottles.
- Do not heat food/beverages in plastic packaging.
- Wet dust or mop to prevent buildup of plastic chemicals in the home.
- Do not freeze plastics.
- Wash hands before eating.

Shopping Safety

- Choose children's products that are free of BPA and phthalates. This includes toys, pacifiers, and bottle nipples.
- Do not use products with recycling numbers 3, 6 or 7.
- Choose fresh instead of canned foods.
- Look for glass or stainless steel baby bottles and food containers.

Resources

American Academy of Pediatrics



Healthy Tomorrow



Region 1 PEHSU



Harvard Medical School



Vital Records



Western PEHSU Toolkit



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Pediatric Environmental Health Center

