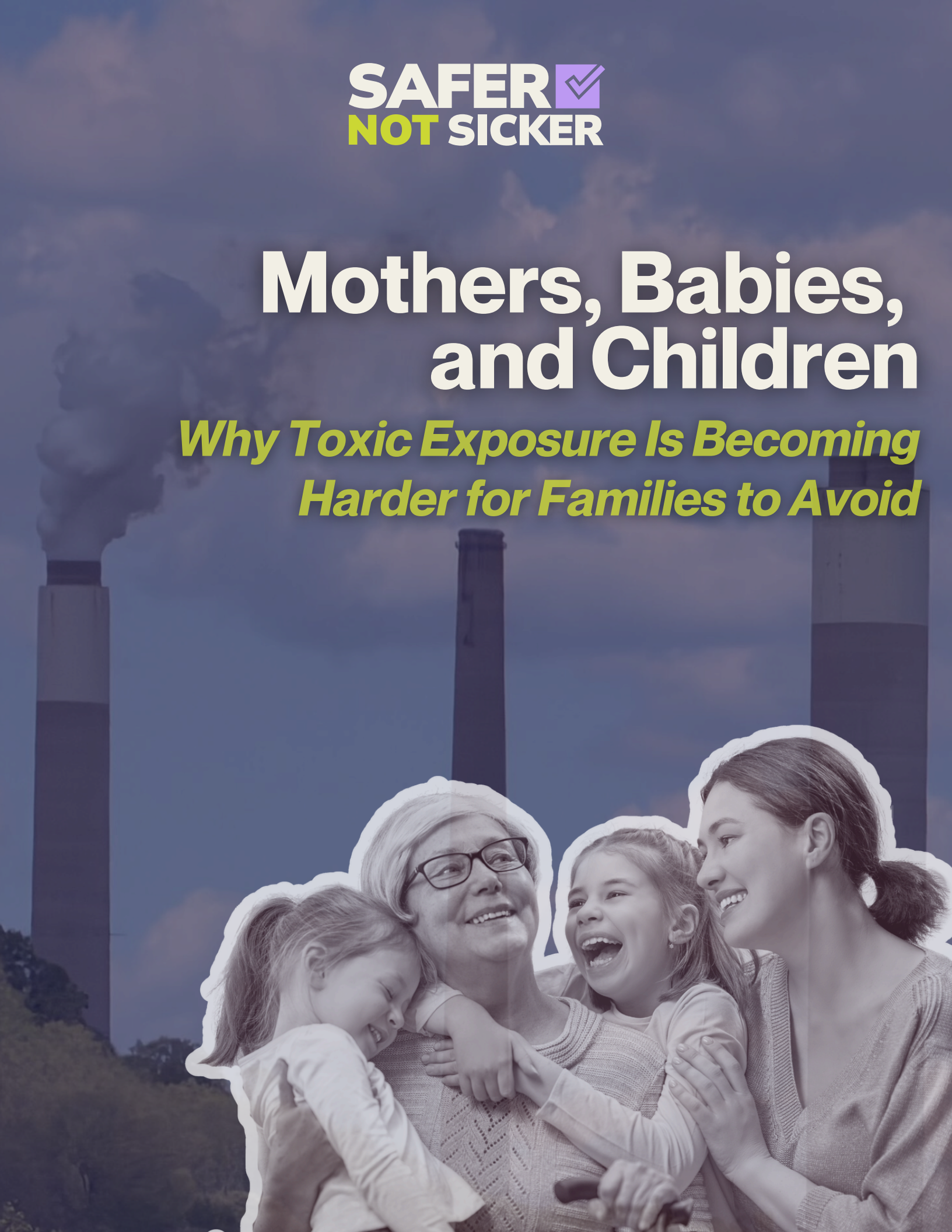
SAFER NOT SICKER

Mothers, Babies, and Children

Why Toxic Exposure Is Becoming Harder for Families to Avoid



Toxic Exposures Create Risks for Mothers and Children

Parents do everything they can to keep their children safe and healthy. They read labels, choose the right products, and make careful decisions every day. But when toxic chemicals are in the air we breathe, the water we drink, the food we eat, and even inside our homes, there's only so much any family can control.

Parents shouldn't have to worry about the safety of the air, water, toys or parks where their children play.

Families rely on government safeguards to limit these exposures and protect children's health. But right now, some of those protections are being weakened—shifting more of the burden onto parents and caregivers.

Recent rollbacks of federal safeguards on toxic chemicals in air, water, and household products have left families with fewer protections and fewer resources to keep their children safe.

For example, in 2025, EPA tripled the level of lead in soil considered acceptable at schools and daycare sites. In the same year, it reversed finalized limits on PFAS "forever chemicals" in drinking water—chemicals now detected in nearly every American, including newborns.

Toxic chemicals are often invisible, but also widely present in everyday life. They come from many sources and can act together to increase health risks—especially during critical stages like trying to conceive, pregnancy, and early childhood. Exposure can make it harder to get pregnant, increase risks during pregnancy, and affect how children grow and develop. For families with fewer resources to reduce exposure, the risks can be even greater—and the impacts can last a lifetime.

No parent can eliminate these risks alone—even if some personal choices reduce select exposures.

The Environmental Protection Agency (EPA) is responsible for limiting harmful exposures and holding polluters accountable. But recent decisions have sidelined independent science, weakened standards for toxic chemicals like lead, delayed enforcement of clean water protections, and rolled back limits on harmful air pollution.

These EPA choices put mothers, babies, and children at greater risk during some of the most important stages of life.

"As a doting grandmother, it breaks my heart to think that my grandchildren will grow up and live in an environment that is less clean, less safe, and less protected than the one they were first born into because EPA safeguards have been eroded.

Their health and future are at risk."

Dr. Tina Levine
Former Director,
EPA Health Effects Division

In This Issue Brief

This brief explores the top health harms to mothers, babies and children through five key stages:

1. **Fertility: Making it Harder to Get Pregnant**
2. **Pregnancy: Risks for Expecting Mothers**
3. **Fetal Development: Impact of Early Exposure**
4. **Feeding: Exposures Through Breast Milk**
5. **Childhood: Growing Up in a More Toxic World**

Toxic Chemicals Glossary

- **Benzene:** Produced by fossil fuel and industrial emissions, and can come from indoor air pollution like gas stoves
- **Ethylene Oxide:** Used for sterilizing medical equipment and producing chemicals like plastics, and detergents
- **Formaldehyde:** Found in building materials, furniture and household products,
- **Lead:** Found in drinking water and older housing, and there is no safe level of lead.
- **Methyl Mercury**: Comes from industrial and power plant pollution and in certain fish
- **Microplastics**: Found in our food, water, and even in our blood and our brains
- **Ozone (air pollution)**: Emitted from power plants, vehicles, and indoor sources
- **Perchlorate**: Used in rocket fuel and fireworks, and found in our water and food
- **Pesticides**: Used for crop farming, in home gardens and for pest control in the home
- **PFAS (Forever Chemicals)**: Used for food packaging, cookware, waterproof clothing and more, and do not break down in our bodies or environment
- **Phthalates**: Found in plastics, personal care and household items
- **PM 2.5 (soot)**: Comes from vehicle exhaust, wildfire smoke, power plants, agriculture, smoking, candles, and fireplaces
- **Trichloroethylene (TCE) and Arsenic**: Comes from industrial solvents, dry cleaning operations, military sites, and coal power plants
- **Vinyl chloride**: Comes from industrial facilities, vehicles, and indoor sources

1 Fertility: Making it Harder to Get Pregnant

Many women find that it is harder to get pregnant than they expected, and while there are several factors that can affect fertility, toxic chemicals can play a part.

Exposure to toxic chemicals and metals in our air, food, water, and household products can disrupt the body's natural hormone and reproductive systems.

The toxic substances listed below are a few of the chemicals that can impact the fertility process:

- **Benzene** can affect reproductive organs.
- **Microplastics** have been found in reproductive tissues and they can interfere with reproductive hormones which affect egg and sperm quality and thereby decrease the likelihood of conception.
- **Pesticides** can damage reproductive cells and interfere with hormone regulation that is necessary for fertility.
- **PFAS** can make it take longer to get pregnant by disrupting hormones.
- **Phthalates** can make it harder to get pregnant by disrupting ovulation cycles in women, and lowering sperm quality and reducing testosterone levels in men.
- **PM 2.5** damages cells in the body and triggers systemic inflammation that negatively affects reproductive health, as well as egg and sperm quality.

2 Pregnancy: Risks for Expecting Mothers

Not only is it harder to get pregnant with all the potential toxics in our lives, but it also can be harder to stay pregnant. Pregnancy alone can be dangerous for mothers, but exposure to toxic substances can increase health risks, including the following:

- **Ethylene Oxide** can also be used for sterilization and significantly increases the risk of miscarriage.
- **Lead** can raise blood pressure during pregnancy and contribute to complications, even at low levels of exposure.
- **Pesticides** can disrupt endocrine functions that are essential for maintaining pregnancy.
- **PFAS** can increase the risk of miscarriage, preterm birth, and pregnancy complications due to long-lasting hormone disruption in the body.
- **PM2.5** can increase inflammation and cardiovascular stress, which is associated with preterm birth and low birth weight.
- **Trichloroethylene (TCE) and Arsenic** can contribute to systemic toxicity that increases pregnancy risks.

Pregnant women can pass on these toxic chemicals to their babies, which can cause harm to the fetus as it grows.

3 Fetal Development: Impact of Early Exposure

Babies develop quickly in the womb and each stage produces major developments in the formation of the body and mind. As the fetus grows, toxic substances can cross the placenta, which exposes babies to harmful chemicals before they are even born.

Chemicals that are especially dangerous for babies include:

- **Lead** causes lower birth weight, behavioral and developmental delays, longterm impacts on brain function and lower IQ in children.
- **Methyl Mercury** can damage brain development in the fetus, affecting learning and memory after birth.
- **Perchlorate** can impact thyroid function and brain development in babies.
- **PFAS** are often detected in umbilical cord blood, indicating exposure during prenatal development, and can cause immune system and developmental impacts, and low birth weight.
- **Phthalates** can disrupt hormones that support reproductive tract and brain development, especially in baby boys.
- **PM 2.5** can reduce oxygen delivery during pregnancy which is linked to low birth weight and impaired development.
- **TCE and Arsenic** can cause low birth weight and even miscarriage. And TCE exposure can result in abnormal organ development, including heart defects.

These are linked to real risks like preterm birth, low birth weight, and pregnancy complications.

4 Feeding: Exposures Through Breast Milk

Breast milk is a baby's first food, and often all they consume for the first six months of life. But there are many toxic substances that can enter a mother's breast milk, thereby exposing her baby.

These include **PFAS, lead, methyl mercury, phthalates, and pesticides**.

Babies have smaller bodies and are still developing, which makes them more sensitive to toxic substances than adults. These exposures happen at a time when babies are most vulnerable, making even low levels of certain chemicals more concerning.

As children are weaned, their exposure to toxic chemicals doesn't stop—it expands.

"While caring for a crawling one-year-old and a rampaging three-year-old, I observed constant hand-mouth activity both indoors and outdoors. That means any PFAS in carpets or toxic metals in the soil would be ingested by young children."

Dr. Elizabeth "Betsy" Southerland
Former Director, Office of Science & Technology
EPA Office of Water

5 Childhood: Growing Up in a More Toxic World

Children's bodies are growing, which means they breathe more air, drink more water, and eat more food relative to their size—and so they are exposed to more toxic substances relative to their size as well. Children can be exposed to toxics from the air, water, food, household products, and when parents bring them home from their workplaces. Toddlers also have more hand to mouth behavior which increases their exposure to dust and soil that can carry toxic substances.

Small children are especially vulnerable to:

- **Benzene** causes increased risk of leukemia and other cancers, anemia, and immune system damage.
- **Formaldehyde** can irritate airways, trigger asthma,, and increase cancer risks.
- **Lead** can result in learning disabilities, lower IQ, and behavior problems.
- **Methyl Mercury** can impact brain development and motor skills through ongoing exposure.
- **Ozone (air pollution)** can irritate airways and reduce lung function and growth during early development.
- **Pesticides** can affect brain development and neurological function.
- **PFAS** can weaken immune system development and reduce vaccine effectiveness.
- **PM 2.5** can penetrate deep into the lungs and enter the blood stream causing asthma attacks, reduced lung development and/or increased risk of chronic respiratory diseases.
- **Vinyl chloride** can increase long term cancer risk and damage blood and organ systems.

Steps Families Can Take
But Shouldn't Have To Rely On

Parents can't protect their children from every potential harm. There are steps families can take to reduce exposure, but these are partial solutions. They require time, money, and information that not everyone has access to. The following actions can reduce exposure to better protect mothers and their children:

Reduce exposure through drinking water

Includes PFAS, lead, arsenic, perchlorate, and TCE.

- Use a certified water filter (such as carbon or reverse osmosis) for drinking and cooking
- Let cold water run briefly before use, especially in older homes
- Test your water if you rely on a private well

Make safer choices for food and food storage

Includes pesticides, microplastics, methyl mercury, and PFAS.

- Wash and, when possible, peel fruits and vegetables
- Limit use of plastic containers, especially for heating food
- Choose glass or stainless steel for cooking and storage
- Select fish lower in mercury, such as salmon or sardines

Improve indoor and outdoor air quality

Includes PM2.5, ozone, benzene, formaldehyde, and ethylene oxide.

- Use HEPA air filters and increase ventilation when possible
- Avoid smoking or burning materials indoors
- Limit idling vehicles near the home

Reduce exposure from household products and materials.

Includes phthalates, PFAS, formaldehyde, and plastics like PVC.

- Avoid products with added fragrances when possible
- Choose furniture and building materials labeled low-emission
- Reduce use of nonstick, stain-resistant, or waterproof products when possible
- Choose products that avoid certain plastics (like PVC)

Limit exposure to dust, soil, and residues.

Includes lead, pesticide residues, and other persistent contaminants like PFAS.

- Wash hands frequently, especially for young children
- Keep homes free of dust, particularly around windows and doorways
- Use a HEPA-filtered vacuum
- Address peeling paint in older homes
- Take precautions if work or hobbies involve chemicals that can be brought home

Mothers need help.

A parent's primary job is keeping their children safe, even from toxic chemicals.

Mothers can reduce exposure risks for themselves and their children by buying safer products, filtering water and air, and keeping home environments free of dust. But no mother can filter away every toxic substance. **This problem is too big to solve at the kitchen table.**

Toxic chemicals show up everywhere, and the risks are too high for pregnant women, babies and children. No mother should have to become a toxicologist to keep her child safe. No grandmother should have to wonder whether the soil her grandchild plays in is poisoned. These are not personal failures — they are policy failures. The federal government has the tools to make children safer. But leaders have to use those tools to protect children and mothers.

Protecting mothers, babies and children from toxic substances requires the EPA to do its job: limit toxic chemicals at the source, hold polluters accountable, clean up contaminated water and soil, and invest in the science that keeps our children safe. These are choices. Safer is a choice and it's one we should expect our leaders to make.

This brief is based on EPN's **Terrible Toxics: A Situation Report**, which takes a deeper look at the most common toxic exposures families face.

To learn more and to take action, visit SaferNotSicker.org

SAFER NOT SICKER
The EPA must put our health first.


Environmental
Protection Network