



# LifeSmarts

Learn it. Live it.

## Key Points

### NOT ALL DANGERS ARE VISIBLE

Toxins in air, water, and household items can harm your health even if you can't see or smell them. Many harmful substances have no warning signs until they start causing serious health problems.

### EXPOSURE CAN HAVE LASTING EFFECTS

Invisible toxins can cause breathing problems, brain development issues, and other long-term illnesses.

### AWARENESS AND PREVENTION ARE KEY

Knowing where toxins hide and how to reduce exposure helps you stay safer at home, school, and in your community. Learning how to spot warning labels and choose safer products makes a big difference.

## Core Concepts

### COMMON SOURCES OF INVISIBLE TOXINS

Air pollution from traffic or factories, lead-based paint in older homes, pesticides on food, carbon monoxide leaks, and harmful chemicals in plastics or cleaners.

### HEALTH RISKS OF TOXIC EXPOSURE

Problems can range from headaches and allergies to asthma, nerve damage, learning difficulties, or increased cancer risk over time.

### INDOOR VS. OUTDOOR TOXINS

Toxins can build up indoors from poor ventilation, cleaning chemicals, or mold, while outdoor pollutants include smog, vehicle exhaust, and industrial emissions.

### HOW TO REDUCE EXPOSURE

Open windows for airflow, wash produce, use non-toxic cleaners, test for lead or carbon monoxide, and wear masks or gloves in certain environments.

### ROLE OF REGULATIONS AND SAFETY STANDARDS

Recognize signs of disaster-related stress and seek support from community resources, resilience training, and family support systems to maintain mental health and well-being.

### ADVOCACY AND COMMUNITY ACTION

Students can raise awareness, support clean-air campaigns, and help promote safer environments in schools and neighborhoods.

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# Invisible Toxins

## Additional Resources

### National Institutes of Health - Hidden Hazards

How to identify and clear out toxins in the home  
<https://bit.ly/3UWdMWa>

### WA State Department of Ecology

Toxic chemicals in your home  
<https://bit.ly/3Hok3Hi>

### YouTube - Worst Cookware Lurking in Your Kitchen

Toxicologist reveals the best and worst cookware to own based on chemical exposure  
<https://bit.ly/3JbodTn>

### YouTube - Toxins in Your Home

Toxicologist reveals seven hidden dangers that will shock you  
<https://bit.ly/45M5dn3>

## Listen to the Podcast



## Explore and Explain

1. What common household items or materials can release harmful substances you can't see or smell?
2. How can long-term exposure to invisible toxins affect your health?
3. What steps can you take at home to reduce your risk of exposure?
4. How do government regulations and safety standards help protect people from invisible toxins?

*Learning about invisible toxins helps you understand hidden risks in your environment and how to take steps to protect your health.*

# Invisible Toxins



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## Acronyms

### **ATSDR**

Agency for Toxic Substances and Disease Registry

### **EWG**

Environmental Working Group

### **RSL**

Restricted Substances List

### **TSCA**

Toxic Substances Control Act

### **VOC**

Volatile Organic Compounds

## Vocabulary

### **BIOACCUMULATION**

The buildup of toxic substances in living organisms over time

### **CHEMICAL RESISTANCE**

When a substance (like PFAS) doesn't break down easily in the environment

### **ENDOCRINE DISRUPTOR**

A chemical that interferes with hormones and may affect growth, development, or reproduction

### **LEACHING**

When chemicals seep out of materials (like plastics) into food, water, or soil

### **MICROPLASTICS**

Tiny plastic pieces less than 5mm that form when larger plastics break down

### **OFF-GASSING**

The release of chemicals from new products (like furniture or paint) into the air you breathe

### **PERSISTENT POLLUTANTS**

Chemicals that stay in the environment for a long time without breaking down

### **PFAS**

A group of manmade chemicals used for water and stain resistance; known as "Forever Chemicals"

### **PLASTIC DEGRADATION**

The slow process of plastic breaking down into smaller pieces, including microplastics

### **TOXIC LOAD**

The total amount of harmful chemicals your body has absorbed over time