

Tough environment for kids

Chemicals in the air, the walls and everyday products pose a problem for the youngest New Yorkers

► The specialist : Dr. Philip Landrigan on protecting kids from environmental toxins

As chairman of Mount Sinai's Department of Community and Preventive Medicine and a pediatrician for 38 years, Landrigan has worked to develop a field called environmental pediatrics, which seeks to protect kids from things like lead, pesticides, air pollution and plastics. Landrigan has three children and six grandchildren.

► Who's at risk:

"Of all the groups in American society, young children are at the highest risk of exposure to toxic chemicals in the environment," says Landrigan. Not only are they most exposed — because they will eat nonfood items like paint chips — but they are more sensitive to chemicals. "Their brains and immune systems are still growing," explains Landrigan, "and these systems are easily disrupted by chemicals that come into the body."

The four main sources of environmental toxins are lead, pesticides, air pollution and plastics. And there's bad news for New Yorkers, says Landrigan, since "a lot of these environmental problems are concentrated in cities."

In the case of air pollution, that's not surprising, given our city's congestion. If you associate pesticides only with agriculture, the city's pesticide problem may come as a surprise. In fact, Manhattan and Brooklyn use more pesticides than any other counties in the state — because huge quantities are used to fight cockroaches. Lead rates are high here too, because lead is primarily found in buildings that predate 1975.

The threat of certain chemicals common in plastics is still fairly new information. One chemical that has been singled out as particularly toxic is bisphenol A, which is found in the hard polycarbonate plastics that are commonly used to make reusable water bottles. "Some of the research shows that if a baby is exposed to bisphenol A in utero, there is the possibility of brain injury," says Landrigan. "Exposure during pregnancy is the worst, because the human brain is going through such rapid development." Instead of plastic bottles, try stainless-steel or glass.

Exposure to toxins in schools is a big problem, especially because many schools rely heavily on pesticides and industrial-strength cleaning materials. Some older schools even have lead paint. Landrigan encourages parents to work together in groups like the PTA, calling on schools to reveal what chemicals they use and switch to healthier ones.

► Signs and symptoms:

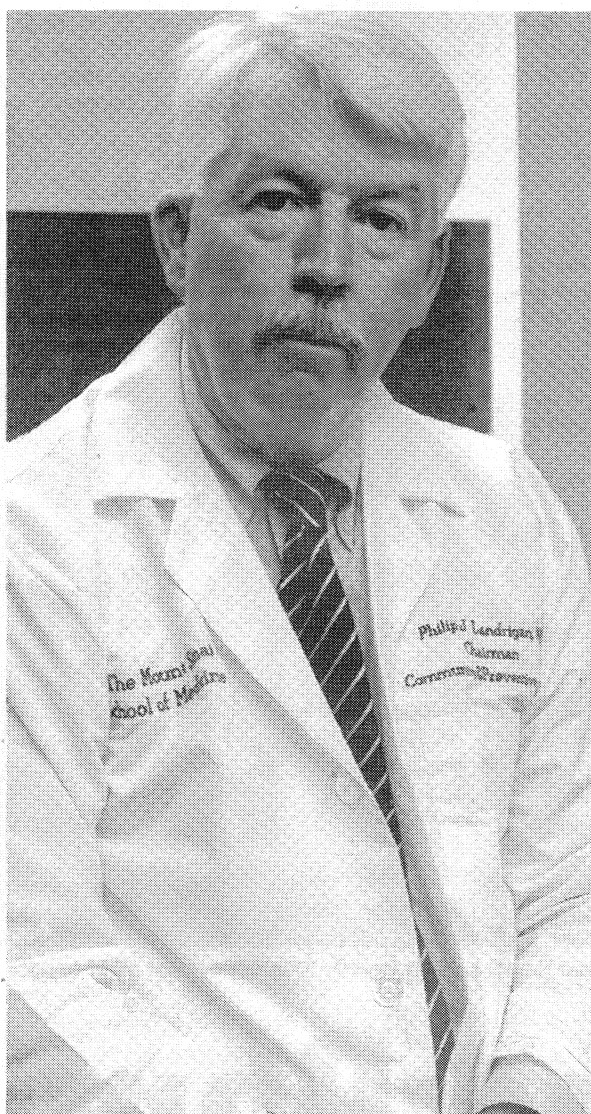
"Many of the chemicals we know damage children show no signs until the chemical levels are extremely high,"

► What you can do:

If your apartment was built before 1975, have it screened for lead. Hundreds of thousands of New York apartments still have lead paint, which can cause severe brain damage and developmental delays if kids ingest it. Your landlord and the city Health Department should be able to help you, and most insurance will cover the cost of the consultation — though not the cost of de-leading the apartment. "But don't try to get rid of the lead yourself," says Landrigan. "Get certified lead-abatement workers."

■ Follow weather advisories.

"When a weather report says it will be a high-ozone day, have the kids play inside," says Landrigan. "The high pollution can trigger an asthma attack."



Dr. Philip Landrigan is one of the pioneers in the field of environmental pediatrics.

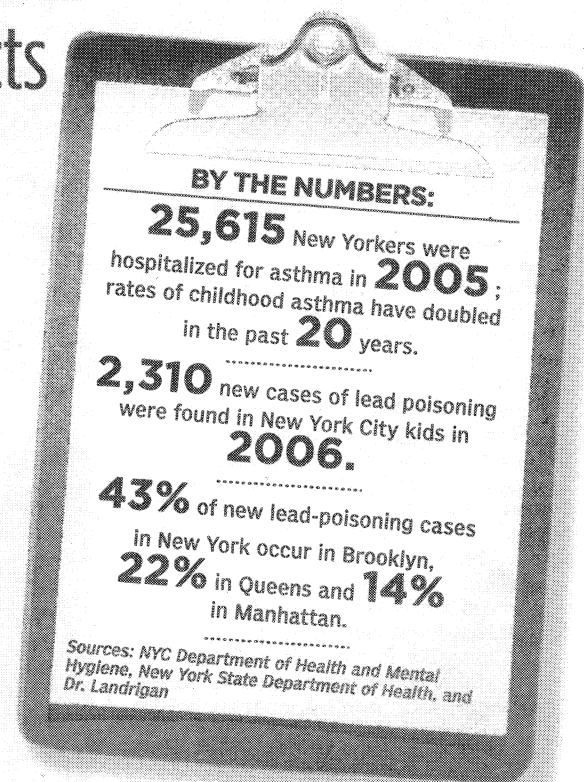
says Landrigan, "so doctors focus on looking for sources of exposure and working to eradicate or control those sources." In addition, by the time kids show symptoms, their brains may have suffered permanent damage — so doctors work to catch poisoning cases very early.

The key to preventing lead poisoning is screening babies

Don't smoke around your kids — ever. Secondhand smoke is a strong risk factor for asthma. "Any amount of tobacco smoke is too much for a child, especially for little children," says Landrigan. "Don't smoke in your apartment, and not in front of your child, even if you are a few feet away."

■ Get kids vaccinated.

Many parents worry about possible toxins in vaccines, but the medical community has reached a consensus that vaccines are safe. "We find no evidence that autism and vaccines are related," says Landrigan. "But there's a lot of evidence that failure to vaccinate a child leads to terrible diseases like measles and polio."



for lead in their blood and screening apartments for lead (usually in old paint). As for other toxins, if you have a cockroach problem, "think twice before you spray toxic pesticides," says Landrigan. Integrated pest management can help you get rid of roaches without exposing your family to dangerous bug sprays. Asthma can be triggered by mold and mildew, which are usually the result of a water leak — so work with your landlord to stopper any leaks.

As for symptoms: "When things are bad," says Landrigan, "lead exposure can cause headache, abdominal cramps, nausea and vomiting. Pesticide does the same." Air pollution can manifest itself in asthma, coughing, wheezing and shortness of breath. Most frightening of all, poisoning from plastics often causes "no symptoms, but quiet erosion of IQ," says Landrigan.

► Research breakthroughs:

Mount Sinai is one of the hospitals around the country that will lead a massive project called the National Children's Study, which will follow 100,000 children from conception to age 21 and tracking everything they're exposed to.

Doctors will be looking for the links between environmental exposure and common problems like asthma, autism, obesity and ADD. "The ultimate goal is to come up with a blueprint for the prevention of diseases in American children," says Landrigan.

Doctors are still finding toxins in everyday products. "One breakthrough was the finding that if the mom is exposed to organic phosphates — commonly found in insect sprays like Raid — when she is pregnant, she is at very high risk of giving birth to a baby with developmental delays," says Landrigan.

Check labels for organophosphates like Dursban and Malathion. "If a product has it, don't use it in a house where pregnant women or babies will be," says Landrigan.

► Questions for your doctor:

Every New York State pediatrician is supposed to screen every child for lead exposure at around the one-year mark and again at age 2. If your child hasn't yet been screened, ask, "Can you check my child's blood lead level?"

If you worry that your child's disease comes from environmental exposure, ask your doctor to **refer you to an environmental pediatrician**. "It's a new field, so few doctors are trained in it," Landrigan explains. "If you think your child has a toxic exposure, you should call a Center of Excellence." ♦