

## HEALTH & SCIENCE

# Playing with danger: From toys to paint


**As millions of playthings are recalled, physicians are reminded that the risks of lead exposure continue for young patients.**

By [Susan J. Landers](#), AMNews staff. Nov. 5, 2007.

Lead is such a well-known health hazard -- perhaps even contributing to the fall of the Roman Empire -- that it came as a shock to discover that toys handled by children could contain this toxin. Physicians are now dealing with the aftershocks.

Just how dangerous is this exposure? That's the question physicians are being asked by parents who find a lead-tainted Elmo, Dora or other toy among their child's possessions. Millions of toys, lunch boxes and pieces of jewelry manufactured in China have been recalled because they contain lead either in the paint that coats them or as a component of the plastic used to make the item more flexible. The lead content in some of the toys recalled this summer was 180 times the amount allowed by law. Some pieces of jewelry were almost 100% lead.

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Experts advise that the items do pose a risk and that physicians should urge parents to check the comprehensive lists of recalled products on the Consumer Product Safety Commission's Web site and return any appearing on those lists to the manufacturers.

If exposure is suspected, a blood test is in order. "Err on the side of caution" is the mantra.

Since there is no safe level of this ubiquitous element, the risk faced by children for lead poisoning and its accompanying threat of learning disabilities and behavior problems is substantial.

Physicians who have toys in their waiting rooms also are advised to see if any of them have been recalled and to check for chipped, flaking paint -- even on those that haven't yet been recalled -- since new announcements of toy risks continue.

## Symptoms of high lead levels in

"What we have been advising parents to do is if their child is under 72 months of age and has been playing with one of these painted toys for a period of a month or more, that it is better to be extremely cautious and have the child tested for lead," said John Rosen, MD, professor of pediatrics at Children's Hospital at Montefiore in New York City. Montefiore has long operated a

**can be vague and easily confused with a viral illness or crankiness.**

### Lead Poisoning Prevention Program.

Since 1969, Dr. Rosen has been treating children exposed to lead . He isn't giving up the fight in the face of this new challenge, either. In October he went to a conference in China to present information on childhood lead poisoning.

"The disappointing aspect of all of this from the U.S. standpoint is that the Consumer Product Safety Commission has not been proactive in preventing hazardous toys from ever getting into the marketplace. They have only taken action after the hazard and the risk was identified," he said.

### Actions to take

One thing doctors and parents don't want to do is wait and see if a child exhibits symptoms of lead poisoning before acting, cautions Allison Muller, PharmD, clinical managing director of the poison control center at Philadelphia Children's Hospital.

The symptoms of high lead levels can be vague and easily confused with a viral illness or even the terrible twos -- and 2-year-olds represent the peak in lead poisoning cases, Dr. Muller said.

**Long-term exposure to lead can result in IQ loss, behavioral and cognitive problems.**

Picture the 2-year-old who doesn't want to eat dinner, may have some constipation and seems a little irritable or under the weather. "That could be a lot of things, but it could be lead poisoning, too," she said. "But we don't want to get a lead test on every child who is cranky and doesn't want to eat their dinner that night."

The risk of poisoning increases depending on whether the child chews on a toy or simply handles it, Dr. Muller noted. "Regardless, I would feel more comfortable screening a child if there had been oral contact with a toy or there was hand-to-mouth contact with flaking paint."

Urging parents to consult lists of recalled toys and pay attention to the condition of the paint on toys not on the recall list would be a good step for any physician to take, said several lead experts. But remember that not all toys pose a threat. For example, none of the toys used by Dr. Muller's 3-year-old daughter showed up on any recall lists, she noted.

Adam Spanier, MD, MPH, medical director of Cincinnati Children's Hospital Lead Clinic, said he is encountering parents who say, "I've gotten rid of all the toys that are from China." Since almost all toys are made in China, Dr. Spanier wonders if those children have any toys left.

Plus, it's hard to make such blanket statements, since lead items may come from any of several countries, noted Rebecca Morley, executive director of the National Center for Healthy Housing, a nonprofit group in Columbia, Md., that develops and promotes measures to protect children from residential environmental hazards.

## A bigger problem

Toys aside, many stress that the largest risk to children continues to be the lead paint found in old homes. "So while lead-based paint in toys does pose a risk, I think there is a lot more exposure still from older housing," Dr. Spanier said.

Until 1978, lead paint was commonly used in homes. The U.S. Dept. of Housing and Urban Development estimates that about 38 million homes in the nation still contain some lead paint. Although paint that is intact does not pose an immediate threat, paint that is allowed to deteriorate creates a hazard.

## 38 million U.S. homes contain some lead paint.

But flaking paint isn't even the only problem, Dr. Muller said. "If it's on a window sill, the constant motion of the window grinding up against the paint can produce lead dust." The lead has a sweet taste to it, and the frequent hand-to-mouth action of the very young can result in lead poisoning."

Testing products or painted surfaces for lead using kits, sometimes called swab tests and sold in hardware stores and large home improvement emporiums, can be somewhat useful. "I don't discourage people from using them as a screen," Morley said. However, on Oct. 22 the Consumer Product Safety Commission questioned the reliability of such test kits.

X-ray fluorescence is another method that has been used for measuring lead in soil and paint, and portable machines can be used in homes, Morely said.

Dr. Spanier hopes that the latest news about lead in toys signals physicians to watch their young patients more carefully. "Many physicians out there believe that the lead poisoning issue has gone away, but I can tell you from working in the lead clinic that we actually have seen more patients in the last few years than we have in previous years. I think it's because the awareness here is a little greater."

Dr. Muller also would encourage doctors to stay alert to the dangers of lead. "We are in West Philadelphia, and we have a population that always struggles with lead poisoning, so that has always been on our radar," she said. But it isn't always so obvious.

Only in rare cases does a child come into a clinic with acute lead poisoning from a one-time exposure, perhaps swallowing a lead toy, which is considered a health emergency requiring rapid action. Most cases involve chronic, low-level exposures.

## The dangers

The results of such long-term exposure are many and serious. Dr. Rosen reels them off: IQ loss; being unable to sit, listen and learn in school; problems with memory, attention span, language and communication capabilities; and planning, organization and cognitive flexibility. All impact success in school and, ultimately, workplace productivity, he noted.

"If a child mouths a toy or the toys are deteriorating, the only way you can determine if a child has an elevated lead level is to check with a blood test," said Helen Binns, MD, MPH, chair of the American Academy of Pediatrics' Committee on Environmental Health and director of the lead evaluation clinic at Children's Memorial Hospital in Chicago. Testing for

elevated blood lead levels is relatively innocuous and low cost, she added. A small blood sample is sent to a lab, and a report is available in a couple of days.

Several cities and states require that young children be tested for lead. Medicaid has similar requirements. AMA policy recommends that all physicians screen for possible lead exposure and test when appropriate.

Chicago is one of the localities requiring tests. Children with a blood lead level of 10 micrograms of lead per deciliter of blood or higher are referred to Dr. Binns. Some experts suggest that lower amounts of lead also are harmful.

The actions Dr. Binns takes include counseling parents on ways to counter lead's harms. "You encourage good parenting skills," she said. "Parents make a big difference in cognitive development, particularly of the very young."

She also checks to make sure a child is not iron deficient, which could lead to an enhanced absorption of lead. Only occasionally does she use drugs to treat the problem, since they are rarely effective.

The Chicago health department also inspects the home to eliminate sources of exposure. In addition to lead paint in homes, parents who work at jobs or have hobbies involving lead can bring it home on their shoes and clothes.

Other sources of lead have included pottery from other countries and even candy. Folk medicines also may be high in lead. Azarcon or greta, a Mexican remedy for indigestion, was found to contain almost 90% lead.

Despite ongoing challenges, public health efforts are paying off, and lead levels in children have fallen steadily since 1997, according to CDC surveillance data. But some segments of the population, including non-Hispanic black children and the children of recent immigrants, continue to be threatened, and the CDC estimates that 310,000 children ages 1 to 5 continue to be at high risk.

Meanwhile, congressional hearings have begun on ways to ensure the safety of imported products, including toys from China, as well as the effectiveness of the Consumer Product Safety Commission, which is charged with overseeing the safety of such goods. If nothing else, the toy recall brought attention to the need for adequate regulation and oversight of consumer products.

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## ADDITIONAL INFORMATION:

### Keep the lead out

All children are exposed to lead and have some lead in their bodies. Since there is no "safe level" of lead, the goal is to keep exposure as low as possible. The American Academy of Pediatrics recently published answers to the key question of how children get exposed:

- Children get lead-contaminated dust or dirt on their hands and then put their hands in their mouths, or they suck or chew on lead-painted or lead-containing objects. These behaviors are a normal part of development between 6 months and 3 years, so a child's age should be considered when determining who is at highest risk.
- Serious exposure results from swallowing an object that has high amounts of lead, such as jewelry that contains lead, a small lead weight or fishing sinker. If swallowed, medical attention is required immediately.
- If a toy has been recalled because it contains lead, return it as instructed. Children who played with such toys that are cracked or have peeling paint are most at risk.

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## The dangers of lead

Lead exposure produces few physical symptoms, but even at low levels it may change brain development to cause lower IQ scores or behavioral problems. The American Academy of Pediatrics has published the following list of symptoms:

- A child with a blood level of 10 to 20 micrograms of lead per deciliter of blood -- those who are referred for treatment at a lead exposure clinic -- may not exhibit any symptoms at all.
- At higher blood levels, generally more than 40 micrograms per deciliter of blood, symptoms may include abdominal pain, constipation, loss of appetite, agitation, lethargy and seizures.

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## Toy safety advice

The Consumer Federation of America offers the following recommendations for parents who suspect toys or other objects in their homes may contain lead:

- Identify whether products in your home have been recalled by checking the Consumer Product Safety Commission Web site ([www.cpsc.gov](http://www.cpsc.gov)).
- Beware of small children's tendencies to put toys in their mouths.
- Beware of choking hazards, including small magnets. To determine if there are toys or parts of toys that may pose a choking hazard to a young child, use the inside of a toilet paper tube. If a toy or piece of a toy easily fits through, do not let children younger than 3 play with it.

If you do have a recalled toy in your home:

- Take it out of your child's hands immediately.
- Follow the manufacturer's instructions for the recall; do not just throw out the product.
- Clean other toys that were near the recalled product.

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## Weblink

Consumer Product Safety Commission list of recalled toys and other dangerous products ([www.cpsc.gov](http://www.cpsc.gov))

Centers for Disease Control and Prevention's Lead Poisoning Prevention Program on the recalled toys and the dangers of lead ([www.cdc.gov/nceh/lead/faq/toys.htm](http://www.cdc.gov/nceh/lead/faq/toys.htm))

American Academy of Pediatrics on toy recalls, lead exposure, blood testing and safe toys ([www.aap.org/new/toyrecall.htm](http://www.aap.org/new/toyrecall.htm))

National Center for Healthy Housing fact sheets on the toy recall and on testing toys and homes for lead ([www.nchh.org/html/whats\\_new.htm](http://www.nchh.org/html/whats_new.htm))

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