



***Does Not Belong!***

***Lead in Hannah Montana Accessories***



CEH

center for environmental health

528 61st Street, Suite A  
Oakland, CA 94609-1204

T: (510) 594-9864

F: (510) 594-9863

[www.cehca.org](http://www.cehca.org)

March, 2008

This report was written by Caroline Cox, research director at the Center for Environmental Health.

# Introduction

Lead is a stunningly toxic metal. A long list of problems has been linked to lead exposure: lowered intelligence, behavior problems, cancer, strokes, high blood pressure, kidney problems, anemia, cavities, and delayed puberty. Children are particularly susceptible to lead's toxic effects.

While lead is a mineral that occurs naturally in our soils, people's activities have caused our exposure to lead to dramatically increase. Levels in our environment are about 1000 times what they were a few hundred years ago.

According to the American Academy of Pediatrics lead is "a serious threat to children's health." The Academy reiterates what researchers and government agencies have concluded, "there is no 'safe' level of lead exposure." It is counterintuitive to find this toxic metal in popular toys and other children's products. And yet, last year alone, lead was found in millions of toys.






In this report we identify popular Hannah Montana accessories contaminated with lead.

# What We Did

We purchased Hannah Montana accessories from major California retailers and on line in February, 2008. We tested them for lead using an X-ray fluorescence analyzer. We also used a commercial lab to verify some of our results.

# Lead and Hannah Montana

Products with lead concentrations above the federal standard for lead in paint (600 parts per million)

	<p>“Girls Rock” backpack</p>	<p>walmart.com</p>
	<p>“Undercover Pop Star” backpack</p>	<p>Target</p>
	<p>“Secret Star” wallet</p>	<p>Toys R Us</p>
	<p>slumber tote</p>	<p>Wal-mart, Toys R Us</p>
	<p>gadget tote</p>	<p>Toys R Us</p>

**Products with lead concentrations above the American Academy of Pediatrics' recommended level (40 parts per million)**

	purse	Wal-mart
	backpack	walmart.com
	purse	walmart.com
	purse	walmart.com

# Not Good for Tweens

Lead exposure has profound effects on children of all ages. Recent research has highlighted the particular effects that lead can have on the age group for which Hannah Montana products are designed - late childhood and early adolescence:

- A 2007 study led by a scientist at the Harvard School of Public Health found that lead exposure in children ages 5 to 10 was linked with lower scores on IQ tests, lower scores on standardized reading and math achievement tests, decreased attention, and memory problems.
- Recent research looked at children and teens ages 4 to 15 who participated in a national monitoring program at the Center for Disease Control and Prevention. The study showed that lead exposure may be responsible for Attention Deficit Hyperactivity Disorder (ADHD) in almost 300,000 children.
- A study of the behavior of children and teens' (ages 7 to 16) documented that lead exposure reduces reaction time.
- Research from the State University of New York demonstrated that girls with above average lead exposure have their first menstrual period almost a year later than girls with below average exposure.

Tweens are at a critical stage of their growth and development. None of them need additional exposure to something as toxic as lead.

# Not Good for Adults Either

Lead also causes a wide spectrum of health problems in adults.

One significant disease caused by lead exposure is cancer. The International Agency for Research on Cancer, the U.S. Environmental Protection Agency, and the National Toxicology Program, have all identified lead as a cancer causing chemical.

Lead also reduces our ability to have healthy children. Two recent studies, one from the Taiwan Institute of Occupational Safety and Health and the other from Brown Medical School, showed that women with higher lead exposures were more likely to have infertility problems. Two other studies found that mothers with higher lead exposure during the first part of their pregnancies were more likely to have babies with slower mental development or reduced IQ test scores.

Because of these kinds of problems, the state of California has identified lead as a chemical that causes developmental toxicity.

Other important diseases are also linked to lead exposure. Researchers from Tulane University and Johns Hopkins University recently showed that low level lead exposures are linked to a greater risk of heart attacks and strokes. Other recent studies showed that low or normal lead exposures accelerate kidney failure in patients with chronic kidney disease and are linked to an increased risk of Lou Gehrig's disease.

# What You Can Do

The lead we identified in Hannah Montana accessories was in the vinyl parts of these products. Purchase products made of other materials to avoid unnecessary lead.

Tell the stores where you shop that you want vinyl-free options.

During the past decade, the Center for Environmental Health has successfully negotiated agreements with manufacturers of other products that contain toxic chemicals. These agreements reduced the amount of toxic chemicals in children's medicines, wood play equipment, lunchboxes, jewelry, and candy. We used California's Safe Drinking Water and Toxic Enforcement Act of 1986, commonly known as Proposition 65, to initiate these actions. We are taking the same action with some of the Hannah Montana products.

# References

## Introduction

U.S. Department of Health and Human Services. Public Health Service. Agency for Toxic Substances and Disease Registry. 2005. Draft toxicological profile for lead. <http://www.atsdr.cdc.gov/toxprofiles/tp13.html>. Pp. 9-30.

U.S. House of Representatives. 2007. Testimony of Dana Best, MD, MPH, FAAP on behalf of the American Academy of Pediatrics. Energy and Commerce Subcommittee on Commerce, Trade, and Consumer Protection. "Protecting Children from Lead-Tainted Imports." September 20.

## Not Good For Tweens

U.S. Department of Health and Human Services. Public Health Service. Agency for Toxic Substances and Disease Registry. 2005. Draft toxicological profile for lead. <http://www.atsdr.cdc.gov/toxprofiles/tp13.html>. p.23.

P. J. Surkan et al. 2007. Neuropsychological function in children with blood lead levels <10 mg/dL. *NeuroToxicology* 28 (2007) 1170–1177.

Joe M. Braun et al. 2006. Exposures to environmental toxicants and Attention Deficit Hyperactivity Disorder in U.S. children. *Environ. Health Perspect.* 114:1904–1909.

Jin-Young Min et al. 2007. Neurobehavioral function in children with low blood lead concentrations. *NeuroToxicology* 28: 421–425

A.P. Ravenscroft et al. 2005. Relationship of lead, mercury, mirex, dichlorodiphenyldichloroethylene, hexachlorobenzene, and polychlorinated biphenyls to timing of menarche among Akwesasne Mohawk girls. *Pediatrics* 115: e127-e134

## Not Good For Adults Either

U.S. Department of Health and Human Services. Public Health Service. Agency for Toxic Substances and Disease Registry. 2005. Draft toxicological profile for lead. <http://www.atsdr.cdc.gov/toxprofiles/tp13.html>. Pp. 378-380.

Shu-Hao Chang et al. 2006. Low blood lead concentration in association with infertility in women. *Environmental Research* 101: 380–386.

Tali Silberstein et al. 2006. Lead concentrates in ovarian follicle compromises pregnancy. *Journal of Trace Elements in Medicine and Biology* 20: 205–207.

Howard Hu et al. 2006. Fetal lead exposure at each stage of pregnancy as a predictor of infant mental development. *Environ. Health Perspect.*:114:1730–1735.

Schnaas, L. et al. 2006. Reduced intellectual development in children with prenatal lead exposure. *Environ. Health Perspect* 114:791–797.

Andy Menke et al. 2006. Blood lead below 0.48  $\mu\text{mol/L}$  (10  $\mu\text{g/dL}$ ) and mortality among US adults. *Circulation* 114: 1388-1394.

Ja-Liang Lin et al. 2006. Low-level environmental exposure to lead and progressive chronic kidney diseases. *The American Journal of Medicine* 119: 707e1-707.e9.

F. Kamel et al. 2005. Lead exposure as a risk factor for amyotrophic lateral sclerosis. *Neurodegenerative Dis.* 2:195–201.