

# N U T R I T I O N FACT SHEET

## ☐ LEAD POISONING

**L**ead poisoning can be found in young children because of their tendency to put their hands in their mouth, because they eat nonfood items such as dirt, and because their growing bodies absorb more lead than adults. Children under 7 years are at highest risk because their brains and internal organs are still developing; The effects of lead on a child depend on how much lead the child absorbs. Even low levels can lead to decreases in a child's intelligence, and higher levels can lead to impairment of growth, kidney damage, seizures, coma and even death.

### POSSIBLE SOURCES

#### ▮ Houses and playground equipment with lead-based paint

Lead-based paint was used on most houses and playground equipment before 1980. Soil immediately around the house or playground equipment may contain high levels of lead from old coats of paint that have fallen off and turned to dust.

#### ▮ Industrial

Soil may be contaminated in industrial areas where lead has been released into the environment or paint has peeled over the years. Parents who work in factories where lead-containing chemicals are used can carry lead dust home on their clothes.

#### ▮ Hobbies

Activities such as fishing with lead weights or reloading ammunition can expose children to lead.

#### ▮ Pottery

Some pottery glazes contain lead. This lead can leach into the foods that are cooked, eaten from or stored in these items.

#### ▮ Imported toys and candy

Some imported toys are painted with lead-

based paint. Wrappers on Mexican candy are sometimes printed with lead-containing ink.

#### ▮ Crayons

Many crayons made in China have been shown to contain lead. Most, but not all, crayons that say "conforms ASTM-4236" are lead free. Caution should be used with crayons, and children should not be allowed to chew on them.

#### ▮ Herbal medicines/home remedies

Greta and azarcon, two folk medicines used to treat diarrhea or stomach upsets, contain powdered lead. Much of the lead found in other herbal medicines comes from the containers in which they are stored.

#### ▮ Pipes

Very old pipes or copper pipes may be lead-soldered and may leach lead into the drinking water that sits in the pipes between uses.

### PREVENTION

▮ Good nutritional practices can reduce the amount of lead that a child absorbs. Because more lead is absorbed on an empty stomach, the child should eat three meals and two or three snacks each day. In addition, foods high in calcium and iron can reduce lead absorption.

□ Prevent iron deficiency and anemia. The American Academy of Pediatrics says, "Iron deficiency, even in the absence of anemia, appears to be the single most important predisposing factor for increased absorption of lead."

Children should not be allowed to play in areas where they may come in contact with lead-containing soil, such as near homes painted before 1980 and playgrounds with old, peeling paint. (Note: Grass helps decrease contact with contaminated soil.) Parents should report any playground equipment with peeling paint to the playground authorities.

If children play in dirt, wash their hands and faces before they eat. Change and wash their clothes as well as any toys used at the playground. Wash pacifiers and toys each time they fall on the ground.

Do not let children play in the dirt along busy highways. The soil there may be contaminated with lead deposited there by car exhausts many years ago.

Watch what children put in their mouths; don't let them eat dirt, make mud pies or chew on anything painted or inked.

■ If in doubt about plastic miniblinds, throw them away. People who rent their homes should request that plastic blinds be tested or replaced with blinds labeled "new formulation," "non-lead formula," "no lead added" or "new non-lead vinyl formulation" – or with metal or cloth blinds, which have not been found to contain lead.

Once the blinds have been removed and discarded, wash the window sills and floors under the windows with detergent and water. Shampoo carpets and discard into the toilet all water used in the cleanup.

□ Do not let children put lead items (such as fishing weights) in their mouths.

□ Parents who are exposed to lead-based compounds at work or while doing hobbies should wash their clothes and shower so as not to spread lead dust around the house.

R Foods should be stored in glass, plastic or pottery made with lead-free glaze. Imported pottery or pottery items not intended to be used with food should not be used for storage.

■ Use only cold water for drinking, cooking and preparing infant formula. Run the cold water for several minutes before using. Because boiling can concentrate lead, boil water for infant formula for only 5 minutes.

H Wash fruits and vegetables before cooking or eating to remove soil that might contain lead.

## TREATMENT

Parents can have their children tested for lead poisoning as part of the EPSDT (Texas Health Steps) program if they are on Medicaid or by their private physician. Children can be treated to remove much of the lead they have absorbed. If children are found to have high levels of lead, their environment will be tested to determine the source.

## References

*Preventing Lead Poisoning in Young Children.* Centers for Disease Control, Atlanta, GA 30333. October 1991.

Sommers, Janet and Edward H. Norman, "Nutritional Implications of Lead Poisoning in Young Children." *Nutrition Focus for Children with Special Health Care Needs*, Child Development and Mental Retardation Center WJ- 10, University of Washington, Seattle, WA 98195. September/October 1993.