Health officials take a new look at an old problem: child lead poisoning

No safe level of exposure to lead has been found

While significant progress has been made in recent decades in decreasing children's exposure to lead, several thousand Minnesota children last year still had elevated levels of lead in their blood. What's more, recent research has led health experts to conclude there is no safe level of lead in the body.

During National Lead Poisoning Prevention Week Oct. 20-26, state health officials are reminding Minnesotans that lead hazards still exist in many homes. The Minnesota Department of Health Lead Program has begun taking a healthy homes approach to more efficiently address lead and other housing-related health hazards across the state.

The human health consequences of lead exposure have been recognized since Roman times. Today, people most often get lead poisoning by breathing or accidentally eating dust from lead paint or other sources. It can cause learning impairment, behavioral problems, and even death. Children under 6 years old, living in homes built before 1978, are most at risk.

Over the past 50 years, the level of lead considered to be "acceptable" in children has been progressively lowered as researchers found adverse health impacts at lower and lower levels. From an acceptable level of 60 micrograms of lead per deciliter of blood (mcg/dL) in 1960, the threshold was gradually lowered until it reached 10 mcg/dL in 1990.

However, recent research has shown that, in fact, there is no safe level of exposure to lead. "While we have historically adjusted the level where public health action takes place" said MDH Commissioner Ed Ehlinger, "there was always a level we thought caused no appreciable health problems. Now we know there is no safe level of lead in the body and all parents need to be vigilant in keeping their children away from lead."

Although there is no safe exposure to lead, in 2012 the Centers for Disease Control and Prevention (CDC) established a "reference level" of 5 mcg/dL to help target resources for lead hazard reduction. MDH has revised state guidelines for screening, case management, and clinical treatment to include actions for
children with blood lead levels of at least 5 mcg/dL. The guidelines also place a greater emphasis on primary prevention.

"We have made great strides in reducing exposure to lead, and the number of children with blood lead levels above 5 mcg/dL has decreased by more than two-thirds in the past decade," Ehlinger said. Nevertheless, during 2012 more than 3,500 Minnesota children still had blood lead levels above 5mcg/dL. However, not all children who may be at risk are known or tested each year.

Parents can take a number of steps to help reduce the risk of lead exposure for their children, according to MDH officials:

2. Get your child tested. If you have young children and are concerned about lead exposure, ask your doctor to test them for lead – even if they seem healthy.
3. Get the facts. Your local health department can provide you with helpful information about preventing childhood lead poisoning.

Numerous housing-related hazards beyond lead pose a threat to human health. In order to more efficiently address those hazards, MDH has been shifting its Lead Program to incorporate a healthy homes approach. A "healthy home" is designed, constructed, maintained, or rehabilitated in a manner that supports the health of residents. The healthy homes approach focuses on the "Seven Principles of Healthy Homes" established by the National Center for Healthy Housing, which are to keep your home dry, clean, well ventilated, pest-free, contaminant free, safe, and maintained.

Unhealthy housing is costly in terms of economics, social capital, and personal health, say environmental health experts. Addressing multiple health threats in a single home visit is more efficient than responding to one condition (such as lead) at a time. "We are using expertise developed addressing lead to reduce hazards from other conditions impacted by housing, such as asthma, radon, ventilation, and unintentional injuries,” said Stephanie Yendell, MDH Lead and Healthy Homes Program, "which will help us promote healthy homes for all Minnesotans.” Yendell noted that the Healthy Homes Strategic Plan, released in late 2012, provides goals, tasks, and priorities for implementing healthy homes in Minnesota.

For additional information on lead poisoning prevention and the MDH healthy homes program, including the Healthy Homes Strategic Plan, go to Lead Poisoning Prevention.