

LEAD HAZARDS PREVENTION LEAD IN SCHOOLS

(Oct 2019)

Lead is a highly toxic metal that can cause adverse health effects for both children and adults. There is no safe blood lead level in children, and there are approximately half a million U.S. children ages 1-5 with blood lead levels above 5 micrograms per deciliter ($\mu\text{g}/\text{dL}$). This is the reference level at which the Centers for Disease Control and Prevention recommend public health actions be initiated. Lead exposure can affect nearly every system in the body. Because lead exposure often occurs with no obvious symptoms, it frequently goes unrecognized. The most common source of lead is from paint in buildings built before 1978.

Why is lead in schools a concern?

Children spend a significant portion of their day in schools, and many school buildings are aging structures that can pose lead health hazards. Lead exposure can increase children's risk for learning disabilities, central nervous system damage, kidney damage and other detrimental health effects.



Lead was used in paint prior to 1978 to produce brighter colors and to make the paint last longer. Many older schools used lead paint to cover walls, floors, doors and especially window frames. Lead was also used in stains, varnishes and shellacs. Intact lead paint generally does not pose a health risk. However, when lead paint is allowed to deteriorate or is damaged, it can release paint chips and dust into the environment creating lead hazards. Lead hazards can also be found in the soil outside of school buildings and in dust inside the buildings.

Lead can also be found in plumbing materials and potentially leach into drinking water supplies. Lead pipes were most commonly installed prior to the 1930s. However, lead can also be found in the solder used to join pipes together, as well as in other plumbing components and fixtures. The potential for lead to leach into water increases the longer the water is in contact with the lead. Because of intermittent water usage patterns, schools can be at increased risk for lead leaching.



What lead hazards are regulated in schools?

The North Dakota Department of Environmental Quality (NDDEQ) regulates the abatement of lead paint from all pre-1978 schools where there are children under the age of 6. The U.S. Environmental Protection Agency (EPA) regulates all renovation activities where lead paint will be disturbed in pre-1978 schools where there are children younger than 6.

The NDDEQ implements the drinking water standards set by EPA for public water systems which are required to regularly test drinking water taps for lead. However, these tests are not often conducted at schools due to specific sampling site requirements of the EPA rule.

How can schools address lead hazards and comply with regulations?

Complete the one-page, voluntary, NDDEQ *School Lead Hazards Assessment* and conduct any recommended follow-up:

<https://deg.nd.gov/LeadInSchools/SchoolLeadHazardsSurvey.aspx>

Hire a NDDEQ-licensed, lead-based paint (LBP) firm (<https://deg.nd.gov/publications/WM/Lead/NDLIBLBP.pdf>) to perform an LBP inspection and/or risk assessment to identify where lead paint and lead hazards are located in the building.



- An **LBP Inspection** identifies which building components contain lead-based paint.
- An **LBP Risk Assessment** will provide the location of all identified lead paint, dust and soil hazards and recommend how to address the lead hazards. Your certified LBP Risk Assessor can also inspect plumbing and test the drinking water in a school to determine if there is a potential lead hazard.

As required by federal law, hire an EPA-certified lead renovation firm to conduct any renovation activities that may disturb assumed or tested lead paint.

If a lead hazard is identified by an LBP inspection and/or LBP Risk Assessment, or if your remodeling contract mandates lead abatement, then you must hire an NDDEQ-licensed LBP abatement firm.

Follow best management practices for reducing lead hazard risks.

- Examine all interior and exterior painted surfaces for cracking, chipping or peeling paint or varnish, paying special attention to impact surfaces (e.g., steps) and doors or windows where painted surfaces rub together. Don't forget to check outdoor playground equipment and play areas.
- Have children wash their hands thoroughly after playing outside and before eating.
- Develop a water flushing plan and flush all water outlets used for drinking or food preparation prior to use. This is especially important following long periods of stagnation such as after weekends, holidays, and summer breaks.
- Use only cold water to prepare food and drinks.
- Clean debris from all faucet outlet screens (aerators) on a regular basis.

For more information:

North Dakota Department of
Environmental Quality
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