

USPSTF Bulletin

An independent, volunteer panel of national experts in prevention and evidence-based medicine

U.S. Preventive Services Task Force Final Recommendation Calls for More Research on How Clinicians Can Help Prevent Health Problems Related to Lead Exposure

WASHINGTON, D.C. – April 16, 2019 – The U.S. Preventive Services Task Force (Task Force) today published a final recommendation statement on screening for elevated blood lead levels in children and pregnant women. Based on its review of the evidence, the Task Force found that more research is needed to determine how primary care clinicians can screen for and help prevent health problems that can result from lead exposure in children and pregnant women with no signs or symptoms. **These are I statements** (insufficient evidence) and not recommendations for or against screening.

Grades in this recommendation:

I: The balance of benefits and harms cannot be determined.

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"We are calling for more research so clinicians can have better ways to prevent and treat health problems that can result from lead exposure," says Task Force member Michael Silverstein, M.D., M.P.H. "Clinicians should use their best judgement about if and when to screen children and pregnant women without signs or symptoms for lead exposure and keep up to date on any concerns about lead in their community."

Exposure to lead can have serious, lifelong negative effects on the health and well-being of children. Sources of lead exposure can include lead paint, contaminated drinking water from lead-based plumbing material, and leaded gasoline. In recent decades, successful policy changes to remove lead from gasoline and paint have greatly lowered the risks of lead exposure. However, sources of exposure, such as older plumbing and older homes with lead paint, still exist.

Based on its review of the evidence, the Task Force found that blood tests can detect elevated levels of lead in the blood, but questionnaires to identify people at risk are less effective. In addition, available treatments cannot reverse many of the harmful effects of lead exposure.

"There is no safe level of lead exposure, so finding and removing any source of lead is essential," says Task Force vice chair Alex Krist, M.D., M.P.H.

Elevated amounts of lead in the body affect various organ systems, including the nervous system and the heart, kidneys, and liver. Children absorb lead at a higher rate than adults and are especially vulnerable to the effects of lead on their developing nervous system. High lead levels in children can cause behavioral and learning problems, lower IQ, hyperactivity, impaired growth, hearing problems, anemia, and even death. For pregnant women, high lead levels can cause loss of the fetus during pregnancy, early delivery, low birth weight, and high blood pressure in the mother.

The Task Force's final recommendation statement and corresponding evidence summary have been published online in the *Journal of the American Medical Association*, as well as on the Task Force Web site at: <u>http://www.uspreventiveservicestaskforce.org</u>. A draft version of the recommendation statement was available for public comment from October 30, 2018 to December 3, 2018.

www.uspreventiveservicestaskforce.org

The Task Force is an independent, volunteer panel of national experts in prevention and evidencebased medicine that works to improve the health of all Americans by making evidence-based recommendations about clinical preventive services such as screenings, counseling services, and preventive medications.

The Task Force makes recommendations to help primary care clinicians and patients make informed health care decisions. The Task Force's recommendations only address services offered in the primary care setting or services referred by a primary care clinician. Furthermore, they apply only to people who have no recognized signs or symptoms of the disease or condition.

Dr. Silverstein is a professor of pediatrics, director of the Division of General Academic Pediatrics, and vice chair of research for the Department of Pediatrics at the Boston University School of Medicine. He is also a staff pediatrician and associate chief medical officer for research and population health at Boston Medical Center.

Dr. Krist is a professor of family medicine and population health at Virginia Commonwealth University and an active clinician and teacher at the Fairfax Family Practice Residency. He is codirector of the Virginia Ambulatory Care Outcomes Research Network and director of community-engaged research at the Center for Clinical and Translational Research.

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