

## **1. What are the health effects of lead poisoning?**

Lead affects practically all systems within the body and has devastating consequences for the health of the world's children. At high levels of acute exposure, lead damages the central nervous system to cause coma, convulsions and even death. Children who survive acute lead poisoning are often left with intellectual impairment and behavioural disorders. WHO estimates that lead is responsible for 143 000 deaths or 0.6% of the global burden of disease, causing some 600 000 new cases of intellectual disability among children every year. Overall, 99% of children affected by high exposure to lead live in low- and middle-income countries.

At lower levels of exposure that cause no visible symptoms (and that previously were considered safe), lead is now known to produce a spectrum of injuries that lead to reduced cognitive abilities, shortening of attention span, alteration of behaviour, dyslexia, attention deficit disorder, hypertension, renal impairment, immunotoxicity and toxicity to the reproductive organs. In general, these effects are permanent.

## **2. Why is lead poisoning a persistent problem?**

Lead is a naturally occurring toxic metal found in the Earth's crust. It has many uses, including in the manufacture of lead-acid batteries for use in motor vehicles, in pigments and paints, solder, ammunition, ceramic glazes, jewellery, toys and also in some cosmetics and traditional medicines. It also continues to be used in gasoline in a small number of countries. The processing, use and disposal of lead can result in environmental contamination and human exposure. Lead exposure is particularly harmful to young children and can have chronic and debilitating health impacts in both adults and children. There is no known safe level of exposure to lead. Lead poisoning remains a reality for a large number of people worldwide. The good news is that lead poisoning is entirely preventable through a range of measures to restrict uses of lead and monitor and manage exposures. One important source of lead exposure, leaded gasoline, is no longer used in most countries. Although lead paint is another important source of exposure among children and workers, very little has been done to eliminate this hazard in many countries.

## **3. What is lead paint?**

The term 'lead paint' is defined as paint to which one or more lead compounds have been added. In this context, 'paint' is used to include varnishes, lacquers, stains, enamels, glazes, primers and other coatings. Paint is typically a formulated mixture of resins, pigments, fillers, solvents and other additives.

## **4. How is WHO tackling lead in paint and its effects on health?**

The World Health Organization (WHO) has identified lead as one of ten chemicals of major public health concern, and that require action by Member States in order to protect the health of workers, children and women of reproductive age. WHO is currently developing guidelines on the prevention and management of lead poisoning, which it will provide policy-makers, public health authorities and health professionals with evidence-based guidance on the measures that they can take to protect the health of children and adults from lead exposure.

Since leaded paint is a continuing source of exposure in many countries, WHO has joined with the United Nations Environment Programme (UNEP) to form the Global Alliance to Eliminate Lead Paint (GAELP). The alliance focuses and catalyses efforts to achieve international goals on preventing children's exposure to lead from leaded paints and minimizing occupational exposures to such paint. Its broad objective is to promote a phase-out of the manufacture and sale of paints containing lead and eventually eliminate the risks that such paints pose.

## **5. Why is WHO undertaking this campaign?**

The campaign raises awareness of the need for action to address the human health effects of exposure to lead, in particular in relation to children, and urges further action to eliminate lead paint. Global campaigns set the stage and offer great potential to raise awareness and understanding the issues – in this case particularly the health issues around lead paint – and mobilize support for action, from the local community to decision-makers.

## **6. Why is the campaign focusing on paint and how did this come about?**

Since the phase-out of leaded petrol, lead paint is one of the largest sources of exposure to lead in children causing 600 000 new cases of intellectual disability among children every year. Overall, 99% of children affected by high exposure to lead live in low- and middle-income countries. Lead paint is still used in the majority of countries. In addition, leaded paint can remain a source of exposure to lead and lead poisoning for many years after the paint has been applied to surfaces. As of 2009, lead-based residential paint was the main source of lead poisoning in children in the United States. Studies in Australia, Portugal and India have correlated household lead paint exposure to high blood lead levels in children. This decision came about at the International Conference on Chemicals Management at its second session (ICCM-2, Geneva, 11-15 May 2009) where it endorsed a resolution to establish a global partnership to promote the phase-out of the use of lead in paint. WHO and UNEP jointly serve as the alliance secretariat, in accordance with their respective mandates.

## **7. Who are the partners in this campaign?**

The partners include the International Pediatrics Association, the United Nations Environment Programme (UNEP), the United States (US) Centers for Disease Control and Prevention, the US Environmental Protection Agency and the World Health Organization working together as part of the Global Alliance to Eliminate Lead Paint (GAELP).

## **8. What are the economic costs of lead paint?**

There are both direct and indirect economic costs resulting from the use of lead paint. These include health care costs and productivity losses. By contrast, the economic cost of eliminating the use of lead in many paints is known to be low, with a number of manufacturers already successfully reformulating products that avoid the intentional addition of lead.

## **9. What are the alternatives to lead paint?**

Alternatives to lead in paints do exist and cleaner substitutes for lead-based pigments have been in use for some time now. However, there is still a general lack of awareness on the issue of lead and an absence of mandatory standards for lead in paints.

## **10. If I know that there is lead paint in my house, how do I protect my child?**

Lead paint becomes a hazard when it starts to decay into chips and dust, and when it is removed using methods involving friction or heating. Chips and dust from lead paint contaminate the home environment and are readily consumed by young children who typically play on the ground and frequently put their hands to their mouths. Heating or burning lead paint generates fumes containing lead that can be inhaled. There are various short-term measures that you can take to reduce the hazard, such as repairing damaged areas and painting over with new, non-lead paint as well as regular cleaning to keep down dust levels. The long-term solution is to remove the paint entirely and, if possible, this should be done by a professional, while you stay elsewhere until the work is completed. Your local authority may be able to provide further guidance on this issue.

## **11. Is it just ingestion, or can my child get poisoned playing on a lead-painted surface?**

Children can become exposed to lead by inhaling lead-contaminated dust and by ingesting contaminated dust and soil through normal hand-to-mouth activity, as well as through mouthing and swallowing lead-painted or lead-containing objects. Although playing on an intact lead-painted surface would probably not give rise to lead poisoning, once the surface becomes damaged it becomes a source of lead exposure. Lead hazards in a child's environment must be identified and controlled or removed safely.

## **12. What countries are most proactive in eliminating lead in paint?**

Those countries with previous use of lead paint, such as Australia the United Kingdom and the US have done a great deal to document the dangers of using lead paint and the persistence of the problem for many years after the paint has been applied to surfaces. The economic costs associated with childhood lead exposure have been estimated by these countries to be substantial and they have been proactive in sharing this information with other countries so that the unfortunate lessons learned in terms of direct medical costs and the economic burden to society can be avoided.<sup>4</sup>It is estimated that approximately 30 countries have phased out the use of lead paints. The GAELP target aims to eliminate lead paint in all countries by 2020, with an interim target of 70 countries by 2015.

## **13. What obstacles are preventing countries from eliminating lead paint?**

A number of countries face obstacles in managing chemicals and have a range of capacity-building needs. They may require additional information about lead paints being produced or used in their countries and may not be aware of the dangers posed by the use of lead paint. These products remain largely unregulated in all but developed countries.

## **14. What is the WHO/UNEP initiative to eliminate lead in paint (GAELP)?**

The alliance is a global, voluntary partnership that was endorsed by the International Conference on Chemicals Management (ICCM), an intergovernmental body comprising governments, intergovernmental and nongovernmental organizations and representatives of various sectors interested in the gains to be made by a more strategic approach to the international management of chemicals. In 2009, the second session of the ICCM endorsed the establishment of the alliance and invited all stakeholders to become members. WHO and UNEP jointly serve as the alliance secretariat, in accordance with their respective mandates. The broad objective is to achieve the phase-out of the manufacture and sale of paints containing lead and to eventually eliminate the risks that such paints pose. [Click here for more information on the Global Alliance to Eliminate Lead Paint](#)

## **15. What can Member States do to eliminate lead in paint?**

National actions to eliminate lead paints are needed in every country. In some countries where there have been lead paint public information campaigns, several paint manufacturers have taken voluntary action to stop adding lead compounds to their products.

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