



**The Lead Education and Abatement Design Group**  
Working to eliminate lead poisoning globally and to protect the  
environment from lead in all its uses: past, current and new uses  
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## Renovation and Pregnancy - a Toxic Mix

by Ann Gethin

**The following article was published by The LEAD Group Inc. in *LEAD Action News* volume 4 number 3 1996.**

A pregnant woman stands half way up a ladder, busily sanding back the old paint in what is to be the new nursery. What she doesn't know is that she is poisoning herself, her baby and quite possibly her future grandchildren. The unseen danger is lead in the paint.

Unborn babies and young children are particularly at risk from lead, as they absorb more than adults and because their brains and nervous systems are still developing. Even low levels of lead poisoning have been connected to reduced intelligence, hearing damage and learning and behaviour problems. Lead easily crosses the placenta so it is important for pregnant women (along with any children) to move out while renovations are being completed.

Lead-based paint was used in houses up until the late sixties. You can find out if your house contains leaded paint by sending samples away for laboratory testing ('do it yourself'-sampling lead test kits which enable you to send the samples to a lab, are available for purchase – cost includes lab costs – from The LEAD Group Inc. See ). If lead is present then renovations must be undertaken with extreme caution. Paint cannot be sanded, scraped or burnt but must be taken off using 'wet methods', for example, chemical stripping, wet sanding or wet scraping. Removing lead paint incorrectly causes minute particles to lodge throughout carpets, ceiling and outside soil creating a long-term hazard.

It is not just during renovations that couples need to take care, but in the months (even years) before trying for a baby. Male fertility is reduced by lead and high levels in either partner can result in miscarriages, stillbirths, neonatal deaths and birth defects. A woman's lifetime exposure to lead can harm her baby. During pregnancy lead that has lodged in the bones is flushed out into the blood. So, if a woman was lead poisoned at age two, or has done unsafe renovations in the past, her growing baby can in turn be damaged. It is not possible to tell exactly how much lead will be released as this varies between women and with each pregnancy, but a good intake of calcium can help to lock the lead in the bones.

Women who may have been exposed to lead should have a blood test before conception and then again in the third trimester. Both partners should aim to have their blood lead levels below normal (readings of 5 micrograms per decilitre (5 ug/dL) or 0.24 micromoles per litre (0.24 umol/L)) prior to conception. The male should have a level below 5 ug/dL for at least three months prior to conception to ensure the healthy development of the sperm.

If the woman's second blood-lead test is high (due to bone lead entering the blood) then the baby's lead levels can be painlessly tested at the birth using a sample of umbilical cord blood. A result above normal should be referred to a paediatrician who is aware of lead. The baby will also especially benefit from breastfeeding and a lead-free environment (as much as possible). Blood tests can be done at major hospitals (if you have a doctor's referral) and will show exposure for the past six weeks.

Just living in a house with leaded paint in poor condition (peeling, chalking or flaking), or one that has been unsafely renovated is not a risk to a pregnant woman herself (unless her cravings include paint chips and ceiling dust!). However, it will definitely be a problem for the new baby, particularly once he/she starts crawling and putting everything in his/her mouth. Lead must be cleaned up to ensure the health of future generations.

[Article updated by Elizabeth O'Brien, 26<sup>th</sup> February 2008]

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