Introduction

Lead is a highly toxic metal that was used for many years in products found in and around our homes. Pregnant women are one of the most sensitive populations to the toxic effects associated with lead (Pb) exposure **(Lamadrid-*Figuero et al., 2006)*.**

There is no protective barrier to the transplacental transport of lead during pregnancy. Maternal and cord blood lead levels are strongly correlated. It is generally accepted that cord blood lead level is a good indicator of prenatal exposure. Over 99% of lead in blood is associated with erythrocytes, their mean life-time is about 120 days, **90**% of lead in tissues of adult subjects is found in bone and also lead deposits in bones have a long half-life of 20-30 years. ***(Gulson et al., 1997)***

During pregnancy the body burden of lead stored in maternal bone can be released. ***(Gulson et al., 1998)***

A pregnant woman can be the potential source of lead intoxication for her children during prenatal development. It is important to understand that mother's environment, social background and lifestyle can determine the concentration of lead in a neonatal organism ***(Kasznia-Kocot J, 1999).***

Lead has been documented to impact a variety of health outcomes including, neurodevelopment **(*Bellinger, 2008)***, cardiovascular disease **(*Navas-Acien et al., 2007)***, neurodegenerative diseases and cognitive decline ***(Weisskopf et al., 2004)***, immune system impairment ***(Dietert* and *Piepenbrink, 2006),*** renal system function, and adverse birth outcomes

(*Weaver et al., 2009*). Many of these health impacts have been shown to occur at increasingly lower exposures suggesting that there is no 'safe' threshold to lead exposure ***(Cantonwine et al., 2009)***.

The principle routes of external exposure to and intake of lead usually occur through ingestion and inhalation **(*Hu et al., 2007)***.

Lead exposure may affect the fetus in a number of detrimental ways. Because lead is readily transmitted from mother to fetus via the placenta, maternal exposure must be reduced to protect the fetus ***(Atabek et al., 2007).***

High-level occupational lead exposures have been associated with adverse pregnancy outcomes, including intrauterine growth retardation and congenital anomalies ***(Gardella, 2001*)**. A significant relationship was found between birth weight and lead burden in newborns **(*Atabek et al., 2007*).**