Hong Kong College of Paediatricians Position Paper on Exposure to Lead and Mercury in Children and Chelation Therapy

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As there is relatively little controversy about the need for treatment of acute and chronic lead and mercury poisoning in children, this review focuses on low level exposure to these two metals and the use of chelation therapy. For lead, although low level exposure may affect children's intellectual development, reduction in the blood lead level does not necessarily correlate with improvement in cognition. Although chelating agents can reduce blood lead levels, this can also be achieved more safely with environmental interventions. With regard to mercury, major concerns relate to its presence in fish and vaccines, and the hypothesis that it can cause autism. Apart from a few fish high in mercury content identified by the US Food and Drug Administration, common dietary fish in Hong Kong are generally safe. The World Health Organization has recently reaffirmed the safety of thimerosal in vaccines and there is no evidence that autism is related to mercury toxicity. Although newer and safer chelating agents can remove organic mercury from the body, they cannot reverse the damage to the central nervous system. The use of hair analysis for the screening of lead or mercury toxicity is controversial and is not recommended for routine clinical practice. The use of challenge test as a guide to the necessity for therapy is unreliable and not without danger. Non-conventional or alternative treatments should be used only in formal research protocols to evaluate their effectiveness. Currently, reduction of environmental pollution and balanced nutrition are considered to be the best strategies to prevent exposure to lead and mercury. (HK J Paediatr (new series) 2004;9:101-102)