

金属元素	主要危害
汞 (Hg)	根据世界卫生组织的资料显示，化妆品中的无机汞会造成肾功能损害、皮疹、皮肤变色、结疤、焦虑、抑郁症、精神病、周围神经病变、抗感染能力降低等 <sup>1</sup> 。
砷 (As)	砷作用于神经系统、刺激造血器官，长期接触砷会引发细胞中毒和毛细管中毒、高血压、神经机能障碍，还有可能诱发恶性肿瘤 <sup>2</sup> 。人体暴露实验显示，越来越多的关于肺、肝、心脏的疾病、肺癌以及婴儿夭折与砷的接触有关 <sup>3</sup> 。儿童智力低下可能与砷的暴露有关 <sup>4</sup> 。
铅 (Pb)	铅是已知神经毒素，会影响人的感官、行动、认知和行为，包括学习障碍、难以集中注意力等；还可能影响儿童协调、视觉、空间和语言能力，以及贫血 <sup>5</sup> 。幼年接触铅所造成的健康危害会持续到青少年和成年阶段 <sup>6</sup> 。美国疾病控制和预防中心研究指出，儿童血液中的铅含量安全值应该为零 <sup>7</sup> ，对铅的接触不存在安全阈值 <sup>8</sup> 。

<sup>1</sup> World Health Organization (2011) Mercury in skin-lightening products  
[http://www.who.int/ipcs/assessment/public\\_health/mercury\\_flyer.pdf](http://www.who.int/ipcs/assessment/public_health/mercury_flyer.pdf)

<sup>2</sup> Chen Y, Parvez F, Gamble M, Islan T, Ahmed A, Argos M, Graziano JH, Ahsan H (2009) Arsenic exposure at low-to-moderate levels and skin lesions, arsenic metabolism, neurological functions, and biomarkers for respiratory and cardiovascular diseases: review of recent findings from the Health Effects of Arsenic Longitudinal Study (HEALS) in Bangladesh, Toxic Appl Pharmacol 239:184 - 192

<sup>3</sup> States JC, Barchowsky A, Cartwright IL, Reichard JF, Futscher BW, Lantz RC (2011) Arsenic toxicology: Translating between experimental models and human pathology, Environ Health Perspect doi:10.1289/ehp.1103441  
<http://ehp03.niehs.nih.gov/article/citationList.action;jsessionId=766E1CABBFF4B6A6B60EE9F5CF80F924?articleURI=info%3Adoi%2F10.1289%2Fehp.1103441>

<sup>4</sup> 3Dong J, Su SY (2009) The association between arsenic and children's intelligence: a meta-analysis, Biol Trace Elem Res 129:88 - 93

<sup>5</sup> 4U.S. Environmental Protection Agency (2006) Air Quality Criteria for Lead (September 29, 2006); WHO (2004) Burden of disease attributable to selected environmental factors and injuries among Europe's children and adolescents  
[http://www.who.int/quantifying\\_ehimpacts/publications/9241591900/en/index.html](http://www.who.int/quantifying_ehimpacts/publications/9241591900/en/index.html)  
 Review of Scientific Information on Lead (2008), developed by UNEP in response to Governing Council Decisions 23/9 and 22/4 (draft November 2008)

<sup>6</sup> 5U.S. Environmental Protection Agency (2006) Air Quality Criteria for Lead (September 29, 2006)

<sup>7</sup> 6US Centers for Disease Control (2005). Prevention of lead poisoning in young children: a statement by the Centers for Disease Control and Prevention. Atlanta, GA USA: CDC; 2005,  
[www.cdc.gov/nceh/lead/publications/prevleadpoisoning.pdf](http://www.cdc.gov/nceh/lead/publications/prevleadpoisoning.pdf); (2002) Managing elevated blood lead levels among young children: recommendations from the Advisory Committee on Childhood Lead Poisoning Prevention. Atlanta, GA: CDC; 2002.  
[www.cdc.gov/nceh/lead/casemanagement/casemanage\\_main.htm](http://www.cdc.gov/nceh/lead/casemanagement/casemanage_main.htm)

<sup>8</sup> 14 Basic Information about Lead in Drinking Water  
<http://water.epa.gov/drink/contaminants/basicinformation/lead.cfm>