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Perspective

## Exposure to Heavy Metals from the Consumption of Cosmetics and Personal Care Products

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Cosmetics and personal care products are routinely used world-wide and considered as an essential part of body care. Heavy metals are a group of chemicals that can be found in such products including mercury, arsenic, lead, aluminum, cadmium and etc [1]. There is a great concern about the occurrence of heavy metals in cosmetic products due to their hazardousness [2,3]. Because of the harmful effects of metals on health, some countries restricted their content in body care products. On the other hand, many countries have no regulations regarding their occurrence in cosmetic products [4].

Metals such as nickel, cobalt and chromium can be absorbed from the skin causing allergic contact dermatitis [5]. Other metals such as mercury, lead, cadmium and aluminum can transfer to blood vessels and transported into various organs and consequently accumulated in these organs causing toxic effects [6]. The association between the high level of mercury, lead, cadmium and aluminum in blood, urine and organs of people who are extensively use cosmetic products confirm the absorption of these metals through the skin [7].

Assessment of the content of metals in personal care products is highly needed in order to estimate the potential human exposure to such chemicals. Several studies have reported high concentrations of heavy metals in cosmetic products, thus regulatory agencies have to set strict rules in this regard. In addition, people should be enlighten on the harmful effect of these chemicals.

## **Bibliography**

- 1. Shaaban H. "Endocrine Disruptors from Cosmetic Products: Health Impacts and Regulatory Methods". *Acta Scientific Medical Sciences* 2 (2018): 01-02.
- 2. Safe SH. "Endocrine Disruptors and Human Health-Is There a Problem? An Update". *Environmental Health Perspective* 108.6 (2000): 487-493.
- Shaaban H. "Exposure to Endocrine Disrupting Compounds from Personal Care Products: Can be Reduced?" Annals of Pharmacology and Pharmaceutics 2 (2017): 1-2.
- OJEU (Official Journal of the European Union). Regulation (EC) No 1223/2009 of the European Parliament and of the Council of 30 November 2009 on cosmetic products (2009).
- 5. Filon FL., et al. "In vitro absorption of metal powders through intact and damaged human skin". Toxicology in Vitro 23.4 (2009): 574-579.
- Lin SH., et al. "Lead powder use for skin care and elevated blood lead level among children in a Chinese rural area". Journal of Exposure Science and Environmental Epidemiology 22.2 (2012): 198-203.
- Tang HL., et al. "Minimal change disease caused by exposure to mercury-containing skin lightening cream: a report of 4 cases". Clinical Nephrology 79.4 (2013): 326-329.

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