

# **Health Implications of Urban Livestock Farming on Meat Quality**

**Assessment of Selected Heavy Metals in Meat Consumed in Eldoret Town, Kenya and Their Health Implications on Consumers**

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## Abstract

The main objective of this study was to assess levels of selected heavy metals lead (Pb) and cadmium (Cd) in meat consumed in Eldoret Town, Kenya. This study focused on Liver and Kidney of bovine, since these are depository sites for toxic heavy metals. 404 samples of liver and kidney were collected, dried and ground, two grams of dried samples were wet digested using concentrated nitric acid and hydrogen peroxide and the digest was analyzed for Pb and Cd using flame Atomic Absorption Spectrometer - Varian 200. Lead concentrations in liver ranged from 0.01 - 0.33mg/kg, while Cd was 0.001 - 0.17mg/kg. In kidney samples, Pb ranged from 0.01 - 0.33mg/kg, while Cd, ranged from 0.001 - 0.436mg/kg. The maximum concentrations of Pb and Cd found in liver and kidney were from animals samples obtained from urban areas. Most of the samples had concentrations below maximum levels recommended by the WHO / FAO, but considering that relatively higher concentrations were observed in animals from urban areas, there is need to educate public about the dangers of keeping animals for consumption in urban areas, and there is need for To ensure continuous monitoring studies meat is free from heavy metals.