

## Documents

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### **Levels of cadmium and lead in canned meat consumed in Saudi Arabia**

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#### **Abstract**

In the present study the levels of lead and cadmium are reported in canned meat products collected from Eastern Province of Saudi Arabia. Both metals were measured by graphite furnace atomic absorption spectrometry (GFAAS). Mean concentrations of Cd in different varieties of meat analyzed varied between 3.5 and 5.46 µg/kg for beef; 3.8 to 5.8 µg/kg for chicken; 4.17 to 7.6 µg/kg for mutton; 5.8 to 21.4 µg/kg for tuna; 14.9 to 23.96 µg/kg for sardine and 15.4 to 18.2 µg/kg for salmon. The mean concentrations of lead in analyzed brands of meat varied from 29.72 to 84.86 µg/kg for beef; 30.92 to 58.30 µg/kg for chicken; 36.95 to 78.62 µg/kg for mutton; 15.86 to 19.64 µg/kg for tuna; 18.04 to 33.02 µg/kg for sardine and 23.60 to 37.30 µg/kg for salmon. Statistically significant differences were found for the lead and cadmium contents between the red meat and fish groups. Provisional allowed weekly intakes (AWI) were calculated for both metals. The daily intakes of lead from consumption of any of the canned meat brands studied ranged between 0.0316 to 0.1697 µg/kg bw/week, whereas for cadmium it ranges between 0.008 to 0.048 µg/kg bw/week. © by PSP.

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