DETERMINATION OF MERCURY IN HEAD HAIR OF BRAZILIAN POPULATIONAL GROUPS BY NEUTRON ACTIVATION ANALYSIS.

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Contamination of populations by mercury due to fish consumption or by gold extraction activities has risen much concern from public health authorities in Brazil lately. In the present work, analysis of mercury in head hair of populational groups living near a heavily industrialized region in São Paulo and of Indians living in the Xingu park, in the Amazonic region, are being carried out by instrumental neutron activation analysis. A control group of people with no suspicion of contamination by mercury is also being studied. Accuracy and precision of the analytical procedure are being assessed by analysis of reference materials. Analysis of Hg in IAEA Fish Flesh Homogenate, MA-A-2/TM yielded a relative standard deviation of 9.4% and a relative error of 5.7%. Analysis of the Chinese Human Hair RM SHINR-HH yielded a relative standard deviation of 6.9% and a relative error of 1.8%. The range of mercury concentrations in the control group analyzed up to now was of 0.37 - 2.57 ppm. The hair samples from the other mentioned populational groups are being analyzed.

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