

Fractional urinary fluoride excretion of young female adults during the diurnal and nocturnal periods

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Objectives: This study aimed to confirm a previously obtained value for the fractional urinary fluoride excretion (FUFE) over a 24-hour period in adults and to assess whether there are significant differences between FUFE measured during the diurnal (7 a.m. and 6 p.m.) and the subsequent nocturnal (6 p.m. until 7 a.m. of the following day) periods. **Methods:** Urine was collected over 24 h from 60 healthy female volunteers residing in Santiago, Chile. The individuals' fluoride intakes over the diurnal and nocturnal periods were calculated from their corresponding F ingestion, measured by dietary analysis. Separate urine collections during both periods were obtained from each volunteer. The fluoride concentrations were measured with a fluoride-ion- selective electrode either directly (urine, water and beverages) or after sample treatment with the microdiffusion technique (food). **Results:** The average 24-hour FUFE value was 0.69, with a 95% CI of 0.65-0.72, while the average FUFE for the diu