

Hip Fractures and Fluoridation in Utah's Elderly Population

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Objective. -To test the effect of water fluoridated to 1 ppm on the incidence of hip fractures in the elderly.

Design. -Ecological cohort.

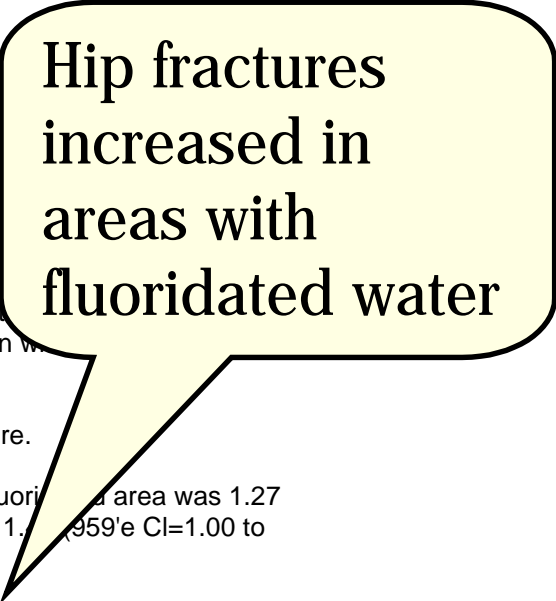
Setting. -The incidence of femoral neck fractures in patients was compared in three communities in Utah, one with and two fluoridated to 1 ppm.

Patients. -All patients with hip fractures who were 65 years of age or older during a 7-year period in the three communities, excluding (1) those with previous hip fractures, (2) those in whom the hip fracture was anything but a femoral neck fracture, (3) those in whom metastatic disease was present, or (4) those in whom a second fracture (n=246).

Outcome Measure. -Rate of hospital discharge for hip fracture.

Results. -The relative risk for hip fracture for women in the fluoridated area was 1.27 (95% confidence interval (CI)=1.08 to 1.46) and for men was 1.19 (95% CI=1.00 to 1.81) relative to the nonfluoridated area's.

Conclusions. - We found a small but significant increase in the risk of hip fracture in both men and women exposed to artificial fluoridation at 1 ppm, suggesting that low levels of fluoride may increase the risk of hip fracture in the elderly.



Hip fractures increased in areas with fluoridated water

HIP fractures, or fractures of the femoral neck, are a major public health problem. In the United States, the cost of hip fracture is approximately \$7 billion annually, and hip fracture is the second most common cause of admission to nursing homes, accounting for approximately 60,000 admissions each year.