

Conclusions: Although most of the study participants were classified as euhydrated, the contribution of water-rich and nutritionally dense food, and non-alcoholic beverages, particularly in men, should be promoted.

Key words: *free water reserve, elderly.*

DOI:10.3305/nh.2015.32.sup2.10303

Hydration status and water sources in free-living physically active elderly

A. Gonçalves¹, J. Silva¹, J. Carvalho², P. Moreira¹, P. Padrão¹.

¹Faculty of Nutrition and Food Sciences. University of Porto (FCNAUP). Porto. Portugal. ²Research Centre in Physical Activity, Health and Leisure. Faculty of Sport. University of Porto. Porto. Portugal.

Introduction: Age-related changes contribute to increased susceptibility to dehydration in the elderly.

Objective: To evaluate the hydration status and the contribution of food and beverages to the total water intake in a sample of free-living physically active elderly.

Method: A sample of 74 individuals (28 men), between 60 and 83 years old, were included in this study. To assess hydration status, a 24h urine sample was collected; urinary markers were quantified in order to estimate the Free Water Reserve (FWR) and the hydration status. Additionally, a 24h food recall corresponding to the day of urine collection was obtained. Food and beverage groups were created to estimate the contribution of food groups to total water intake and its association with the hydration status.

Results: Most of the participants were classified as being euhydrated (91.9%). Water from food was about half of the total water intake (47% in females and 48% in males, $p=0.757$). “Water” (22%) and “Foods with reduced water content” (19%), were the groups that contributed most to the total water intake in women and men, respectively. In men, the contribution of “Alcoholic beverages” was significantly higher than that of women (10.5% vs. 1.7%, $p < 0.001$).