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

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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 (11.5% vs. 1.7%, p<0.001).

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.

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Isotonic sports drinks vs water in the hydration recovery after an immediate postpartum period


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Introduction: The study aimed to evaluate the effects of isotonic sports drinks versus water on hydration recovery after an immediate postpartum period.

Method: A randomized trial was conducted on 35 healthy women. They were divided into two groups: one received isotonic sports drinks and the other water. The participants were instructed to drink 1500 mL of their assigned beverage in 15 minutes. Urine samples were collected before and after the intervention.

Results: The isotonic sports drinks group showed a significant increase in urine specific gravity (p<0.05) and a decrease in urine volume (p<0.05) compared to the water group. These changes were indicative of increased water retention in the isotonic sports drinks group.

Conclusions: Isotonic sports drinks may be more effective than water in improving hydration recovery after an immediate postpartum period.

Key words: hydration, sports drinks, postpartum recovery.

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Fluid needs of aging cerebral palsy patients

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Introduction: Aging people with cerebral palsy have raised present dehydration that can cause serious physical and psychological damage risk.

Objective: This study analyzes the water needs of aging people with cerebral palsy.

Method: A descriptive-interpretative study on water necessities is performed. In Cerebral Palsy Association of Burgos, 26 adults (8 females, 18 males) with an average age of 40 years were selected to answer the questions; the oldest participant was 65 years old. All persons were classified with the Gross Motor Function Classification System (GMFCS), the Ability Classification System Manual (MACS), the Communication Function Classification System (CFCS) and the interviews on water needs. A statistical frequency analysis was conducted.

Results: The participants had 88% GMFCS level V and IV, 53% MACS level V and 38% CFCS level III. The factors that determine the fluid needs are their ability to move, swallowing disorders, medication and fear of incontinence.

Conclusions: It was confirmed that the people with a severe degree of disability presented a higher average of liquid needs. The adequate intake of water has been established to prevent the effects of dehydration. The degree of hydration can influence the health and welfare of people with cerebral palsy.

Key words: primary prevention, health, drinking, disability.

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**Introduction:** During pregnancy, hormonal changes cause a change in the thirst threshold. This is recovered in the postpartum period by a demand of drink to get back hydration homeostasis due to liquid loss after labour. Thus, an increase of necessity of drinking liquids is produced to generate milk.

**Objects:** To demonstrate whether there are any differences of glucose and ions in the immediate recovery of postpartum. To compare the administration of isotonic drinks vs water during the post-labour period after a low-risk pregnancy, as well as the degree of satisfaction.

**Method:** Comparison of the levels of glucose and ions in the pre-labour stage, post-labour stage and 24 hours after drinking isotonic drinks in a group of 50 women (experimental group) and another group of 50 women (control group) after drinking water. All participants completed a satisfaction survey.

**Results:** The analytical control either of administration of isotonic drinks or of water doesn’t make clear a meaningful difference. However, there is a great satisfaction when drinking isotonic drinks and there is a feeling of quicker recovery.

**Conclusions:** Although isotonic drinks may not be essential in the analytical recovery at postpartum, woman’s satisfaction is higher due to her feeling of taking part in her own recovery by drinking, the increase in blood glucose is also important, instead of just drinking water.

**Key words:** hydration, ions, isotonic drinks, postpartum.

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**Beneficial effects of hydrotherapy on immunity and longevity in a mouse model of social isolation**

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**Introduction:** Hydration and Hydrotherapy is a new type of environmental enrichment strategy, reverting the age-related decline of the homeostatic systems (nervous, endocrine and immune systems), enhancing the neuroendocrine-immune communication and, consequently, improving health and life span. In social species (humans, rodents), loneliness and social isolation are psychological stressors which impair the neuroendocrine-immune communication, increasing morbidity and mortality. Since aging especially affects homeostatic systems and older adults are more vulnerable to feeling lonely or socially isolated, suffering these stressors may aggravate health state in the later stages of life.

**Objective:** The aim of this work was to study the effects of hydration-hydrotherapy on immunity and life span in socially isolated old mice.