**Fruits and vegetables as important contributors to an adequate hydration status**

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**Introduction:** A healthy hydration status can only be achieved with a proper balance of water and mineral. In this sense fruits and vegetables are good sources of both of them, furthermore they are rich in vitamins, fiber and antioxidants and low in calories.

**Objective:** The aim of this study was to evaluate how fruit and vegetable contribute to the Total Water Intake (TWI), and to the mineral intake (Na, Mg, K).

**Method:** 466 Spanish adults aged 18–50 years (260 women and 206 men). Dietary data was obtained from a 3-day food record (including one weekend day). Dial software was used to calculate fruit and vegetable intakes as well as their contribution to TWI (g/day) and the mineral intake.

**Results:** Water from fruit and vegetables represented a 77% of non-beverage water intake. Mean TWI was 2,030±734 g/day and non-beverage water intake 534 g/day. Fruit at vegetable contributed with 25% of the total Mg intake, 37% of total K intake, and only 3% of total Na intake.

**Conclusion:** Increasing fruit and vegetable consumption can contribute to a healthier and more balance hydration status.

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**Key words:** fruits, vegetables, hydration, water intake.

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**How can a 0.7% loss of body mass influence cognitive functioning? A mechanistic investigation**

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**Introduction:** The study of small changes in hydration status has been largely ignored.

**Objective:** To see if drinking water, when mildly hypo-hydrated (a loss of 0.7% of body mass), helps to maintain cognitive functioning and mood and to explore underlying mechanisms.

**Method:** 118 (61 male) young adults were exposed to a temperature of 30°C for four hours and either did or did not drink two 150ml glasses of water during that time. On three occasions, once at baseline and once after each drink, they completed cognitive tests and rated their thirst, energy and task difficulty. Changes in body temperature and perspiration were monitored throughout and considered, along with thirst and ratings of difficulty, as potential mediators. Individual differences in habitual water consumption and baseline urine osmolality were also considered.

**Results:** Participants had better memory, attention and energy levels if they had drunk water but this depended upon habitual water consumption and baseline osmolality. Thirst mediated the effect of drinking on memory and energy levels, whereas perspiration mediated the effects on attention. Neither a change in temperature, nor gender, affected the results. Although participants found the tasks easier if they had drunk, these ratings of task difficulty were not found to mediate the effects on cognition.

**Conclusions:** Drinking water when hypohydrated improves cognition although the mechanisms involved vary with cognitive domain.

**Key words:** hydration, cognition, mood, water, thirst.

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**Lifestyles associated with the adhesion of the Mediterranean Diet in the elderly**

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**Introduction:** Eating habits play a crucial role in the maintenance of health both at individual and population level. The Mediterranean diet (MD) and healthy eating pattern is associated with a reduction in overall mortality, cardiovascular disease and various cancers. Recent studies have shown that individuals who combine healthy lifestyles and have healthier eating habits have improved health.

**Objective:** to know which lifestyles are associated with adherence to the MD in older people.

**Method:** Cross-sectional study with a total of 351 subjects over 60 years of age living in the Levant, where the relationship between adherence to the MD and lifestyle were evaluated. We excluded patients with a score of 3 or more errors in the Pfeiffer test. Statistical analyzes were performed using logistic regression adjusting for sex.
Results: 57.3% (201) of the sample were women and 42.7% (150) men. Adherence to the DM was positively associated with not using tobacco (OR = 0.568, 95% CI: 0.31 to 0.89) and physical activity (OR = 0.430, 95% CI: 0.24 to 0.75), but inversely with BMI (PR = 1.32, 95% CI: 0.73 to 2.37).

Conclusions: Adherence to the DM was associated with more healthy lifestyles such as physical activity and not using tobacco, but also with a high BMI. Similar results were found in other studies, but more research is needed to delve into the involved factors.

Key words: Mediterranean diet, elderly, lifestyles.

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Drunkorexia habits of University students


Introduction: drunkorexia is a new eating disorder characterized by a reduction in food consumption to offset the excess calories provided by the intensive consumption of alcohol (binge drinking). In particular, sweets containing a high caloric density and having a low nutritional contribution are one of the main foods whose consumption is being restricted by the subjects who suffer from this disorder.

Objective: To evaluate the relationship between binge drinking pattern and reducing the consumption of sweets in university students.

Method: The sample consisted of 113 University students enrolled in Health Sciences from the University of Alicante. The students completed an online questionnaire about lifestyles and eating habits in the last 30 days.

Results: The results of this study indicated that the proportion of students presented an intensive alcohol intake, understood as the intake of 5 or more glasses the same occasion, was significantly higher among those students with a lower consumption of commercial sweets (p<0.005).

Conclusions: these results could indicate that a change is occurring in the trends of eating habits and intake of alcohol among young people. Future studies should assess the magnitude of this phenomenon in order to develop prevention programmes.

Key words: eating disorder, students, food habits.

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Hydration status in patients diagnosed of chronic idiopathic constipation by Rome III criteria

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Introduction: chronic idiopathic constipation (CIC) is a common condition which affects the gastrointestinal tract and reports an important degree of impairment in health-related quality of life. Inadequate fluid and poor fiber diet consumption is common in this condition. However, studies reporting the data are limited.

Objectives: to evaluate the hydration status (HS) of a CIC population using the Water Balance Questionnaire (WBQ) and other hydration markers recommended by the EFSA. The data will permit to study the relationship between the HS and the characteristic symptoms of this disorder.

Methods: participants will be recruited from La Paz University Hospital. Firstly, participants will complete the WBQ, 3-day food record, frequency food intake, Bristol scale, SF-36-questionnaire, usually drugs consumption and urinary color questionnaires. Secondly, a nutritionist will measure anthropometric parameters including total body water by tetrapolar-biimpedance method and they will recommend an adequate consumption of liquids and fiber in their diet. Thirdly, the diet adherence will be assessed. Ultimately, participants will complete again the same studies at first.

Results: statistical analysis and preliminary results will be presented once the estimated sample size is achieved (95% confidence interval, mean difference 0.610, SD 2.2).

Conclusion: contribution of knowledge of the HS and nutritional profile of this population and the results could to help to take appropriate support in this condition.

Keywords: chronic idiopathic constipation, hydration, hydration status, water balance.

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Hydration status of cancer patients with palliative care: hydrated or dehydrated?


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Introduction: cancer patients usually have a low fluid intake due to the side effects of the treatment. This is considered a major concern since it may cause dehydration, which can negatively affect the welfare and quality of life of these patients.

Objectives: to assess the hydration status of cancer patients with palliative care, and to determine if there is a difference in hydration status between those who were hydrated or dehydrated.

Methods: a cross-sectional study was conducted in a palliative care unit of a university hospital. All cancer patients receiving their last line of palliative care were included. The hydration status was assessed using the Water Balance Questionnaire (WBQ) and other hydration markers recommended by the EFSA.

Results: a total of 100 patients were included in the study. The mean age was 62 years (SD 12.5). The majority of patients were women (55%). The median duration of palliative care was 6 months (IQR 3-12). The median WBQ score was 50 (IQR 40-60). The majority of patients (70%) were hydrated, while 30% were dehydrated.

Conclusion: the hydration status of cancer patients with palliative care was assessed, and a significant difference was found between those who were hydrated and those who were dehydrated. Further research is needed to determine the effectiveness of interventions to improve hydration in this population.

Keywords: cancer patients, hydration, palliative care.