Conclusions: Fine motor speed increased when children had a drink of water. This finding is important because children spend a large proportion of the school day using fine motor skills and handwriting skill can predict future academic performance.

Key words: children, hydration, motor skills, cognition.

Consumption of different types of fluids in Hungarian adults

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Introduction: Water is involved in practically all functions of the human body and plays an important role in life and health. The type of fluid intake has an impact on daily calorie intake.

Objective: The aim of this study was to assess the frequency of consumption of different types of fluids in adults.

Method: A total of 1,058 adults (496 men and 562 women) aged 18-85 were recruited from South Hungary. The information on the quality of fluid intake was collected using food and fluid frequency questionnaire.

Results: The main part of daily fluid consumption was water in 76.9% of the study population. A total of almost 50% never drink milk or any other fluid dairy products. Consumption of sweet regular beverages and alcoholic drinks (beer, wine and hard liquor) was significantly higher in men than in women (p<0.05). 63% of women choose yogurt several times a week or more often than men (p<0.05). 74% of subjects consumed coffee.

Conclusions: The biggest part of total fluid intake is water. Differences in the pattern of fluid consumption were observed between genders. Men were at a greater risk than women of unnecessary energy intake from sugar and alcohol.

Key words: fluid intake, types of beverages.

Hydration needs during breast-feeding

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Introduction: Many women stop breastfeeding their newborns because of their subjective perception of a low and insufficient milk supply. Sometimes mothers increase fluid intake hoping that this could improve milk production, based on the popular belief that recommends without any evidence that increasing fluid intake increases milk production.

Objective: To determine if fluid intake in lactating mother increases milk production.

Method: A descriptive study of the available evidence, using as tools for data collection the literature reviews from Cuiden database, Medline, Cochrane and Science.

Results: only a small controlled (210 women) study was found. The trial was of poor quality and did not report significant results. The study showed that extra fluid intake did not lead to increased milk production.

Conclusions: The effect of extra fluid intake in breastfeeding mothers is unknown due to the lack of well-conducted trials. The physiological basis for any improvement is not yet clear. There is insufficient evidence to support that an increase in fluid intake in breastfeeding mothers may be required to meet their physiological needs and satisfy their thirst.

Key words: hydration, breastfeeding.

Hydration for prevention of premature births

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Introduction: Preterm births are one of the risk factors that increase infant morbidity and mortality worldwide. Primary prevention and treatment tools are known. Theoretically, hydration may reduce uterine contractility by increasing uterine blood flow and decrease the pituitary secretion of ADH and oxytocin.

Objective: Find out if hydration in cases of risk of preterm labor is an effective measure.

Method: A descriptive study of the available evidence, using as tools for data collection the literature reviews available in the Cuiden database, Medline, Cochrane and Science.

Results: Two studies involving 228 women with risk of preterm labor and intact membranes, compared intravenous hydration with bed rest alone. Both studies concluded that the risk was similar in both groups, except one which showed a lower risk if hydration occurred from week 35.

Conclusions: The data are too few to support hydration as a specific treatment in patients presenting a risk for preterm labor. There is no proof of important advan-
tages of hydration compared to the bed rest alone. In women with risk for preterm labor, intravenous hydration does not seem to have beneficial effects, however, patients with evidence of dehydration may benefit from the intervention.

Key words: preterm birth hydration.

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Conditions of fluid intake in the elderly

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Introduction: Aging process is associated with several physiologic changes that may affect the water balance, influencing the water input (thirst) and water output (urine, stool, sweat, and insensible respiration and perspiration). Some studies claim that 1% of hospitalized elderly suffer dehydration. This diagnosis is associated with increased morbidity-mortality (40-70%).

Objective: To describe the determinants of fluid intake in the elderly. Urinary osmolality will also be measured.

Method: Descriptive, transversal and observational study. Sample: people aged ≥ 65 years from Toledo. Exclusion criteria: enteral-parenteral nutrition, pathology with water restriction, current acute process, terminal illness and severe dementia. Sampling: recruitment of convenience. Variables (Ad hoc questionnaire): sociodemographic, clinical (drugs, water intake volume, nutritional habits, symptoms and related factors), density and urine pH. Statistical analysis: SPSS 22. Pilot study was conducted to verify the relevance of the questionnaire.

Results: Pilot study: Sixteen adults. 43.8% women, aged 77±7.46. Urine density=1,029.38±6.80, pH=6.03±0.53. Drugs: 12.5% don’t take, 25% take 1-3, 62.5% take ≥4.75% take IECAS and 31.25% take diuretics. Water intake: 12.5%; 6-8 glasses, 37.5%; 8-12 glasses and 50%; ≥12 glasses. Intake of fruits and vegetables: 50% ≥3 times daily and 12.5% don’t take daily. Causes of decreased fluid intake: 44.4% decrease in thirst, 22.2% quickly sated and 11.1% doesn’t like water. Consequences: 28.95% xerostomia, 13.16% dizziness/ hypotension-weakness, 13.16% constipation, 15.79% less urine and 10.53% urinary infection.

Conclusions: Elderly don’t have a good habit of hydration. It’s important to prevent dehydration to minimize the effects on their health. More measures should be included in Health Programs.

Key words: water, hydration, thirst, elderly, fluid-intake.

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Dehydration, cognitive and skill performance in sport. Systematic review

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Introduction: Currently, there is a lack of information about the effect of dehydration on cognitive performance in athletes. Moreover, this information could be an incentive for athletes to improve their liquid intake and, consequently, obtain performance and health benefits.

Objective: To check the effect of dehydration on cognitive and skill performance in sport.

Method: Systematic review following the Campbell Collaboration guidelines. A bibliographic search was performed in Web of Science using the following topic search strategy: (dehydration OR hydration OR liquid* OR fluid*) AND (cognitive performance OR cognitive function OR decision making) AND (sport* OR athlete*); by two independent reviewers. Inclusion criteria were: original research that test the effect of dehydration on cognitive performance with similar conditions for experimental and control groups, not including food-intake restriction. From a total of 56 articles, 12 articles met the inclusion criteria.

Results: Most of the studies (n=8) showed an impairment of cognitive capacities or skills in sport by dehydration. However, 4 articles did not find significant effects. In general, laboratory tasks are more sensitive to find negative effects of dehydration than a more real context (e.g., basketball shooting).

Conclusions: Cofound variables could affect results due to dehydration induction mechanisms and lack of control studies. Notwithstanding, dehydration seems to impair the cognitive performance and it can be used as an incentive for athletes to prevent dehydration and health problems.

Key words: cognitive performance, making decision, athletes.

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Relation of liquid-intake habits and nutritional status, dependency and quality of life in malnourished patients

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