Evaluation of the Corporal Composition of Professional Acrobatic Parachutists with Bioelectrical Impedance and Anthropometry

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Introduction: The Parachute Acrobatic Patrol of the Air Force (PAPEA) is an international elite team in this sport. The environmental conditions in which they do their work; 3-4 daily jumps from 2300-11000 feet, the speed of their bodies during the free fall, the abrupt changes of altitude, and also temperature and atmospheric pressure can produce modifications in their bodily composition and level of hydration.

Objective: To assess the body fat measurement by anthropometric equations and bioelectrical impedance methods of PAPEA.

Method: Cross sectional study including 9 members of the masculine team of the PAPEA have participated: men aged 34.4±4.36 years; experience 3,944.4±2,780.8 jumps and 8.6±5.6 years in the team. Device OMRON BF 306 has been used to quantify fat mass. Body fat percentage have been calculated anthropometrically from the formula of Yuhasz, after the measurement of skinfold percentage have been calculated anthropometrically from the formula of Yuhasz, after the measurement of skinfold thickness in biceps, triceps, subscapular and suprailiac regions.

Results: The questionnaire consists of three different parts. The first part includes questions about the different type of fluids consumed one day before the questionnaire is carried out. The second part records the fluid intake during a normal week of each beverage type. The beverages included are: water, juices, soft drinks, diet drinks, milk, milk drinks, coffee, tea or infusions, sport drinks, beer, wine and distilled drinks. The third part includes 20 questions about current drinking habits and changes occurred in the last 30 years, especially in regard to drinking habits before, during and after doing sport.

Conclusions: A specific questionnaire has been developed both paper-based and online to facilitate data collection on water and beverage intake to improve scientific accurateness.

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Key words: beverages, nutrition, questionnaires, fluid, drinking.

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most important source and there were no differences in dairy products between normal weight and OW-O.

Key words: hydration, dairy, dietary water, adolescents.

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Promoting the right nutrition and hydration in schools by community nursing

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Method: We conducted a qualitative descriptive study by two nurses from a health center of Cartagena on 40 Primary pupils of two schools in Cartagena during 30-31 March 2015 to train teachers and students on healthy nutrition-hydration so as to assess previous and acquired knowledge by the students.

Data were obtained through an open question survey about nutrition, hydration, balanced diet and healthy eating prior to a talk and various educational games (food pyramid, drawings, plasticine games...) to strengthen knowledge. In the second day of school we conducted the same survey, assessing their recently learned skills. Teachers were in charge of strengthening the information provided during the school quarter, revealing in previous surveys that were conducted in the classrooms a basic knowledge with a few trends.

Results: They didn’t know which foods are healthy or not and the minimum daily liquid amount required. Some children considered bakery as a must in breakfast and dinner. 95% of students improved their knowledge about nutrition.

Conclusions: Educational activities should be included within existing health programs in all schools. Health education guided by healthcare professionals is better captured by the students at an early age, because is in this age is when they will shape their eating habits and lifestyles.

Key words: nutrition, hydration, school, nursing, primary care.

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Water consumption, body composition and cardiometabolic parameters in children


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Method: A cross sectional study was conducted in 366 schoolchildren aged 9 to 11 years from Cuenca’s province in Spain. Body composition and cardiometabolic parameters were measured and averaged 24h recalls to obtain water and beverage consumption. Cardiorespiratory fitness (CRF) was assessed by the 20m shuttle run test.

Results: In linear multiple regression (adjusted by sex, aged and CRF) we found an inverse association between water (ml)/Kg weight with BMI, Fat mass, Fat free mass, Waist circumference, insulin levels, MetS index, HOMA-IR (p<0.000), and with arterial pressure parameters, SBP (p<0.010), DBP (p<0.028) and Mean Arterial Pressure (p<0.012) and also, direct associations with HDL cholesterol (p<0.001).

Conclusions: Higher consumption of water/kg weight was negatively associated with BMI, Fat mass, Fat free mass, Waist circumference, insulin levels, MetS index, HOMA-IR, DBP, SBP, MAP and positively with HDL cholesterol in children. Water consumption is associated with numerous health benefits and an adequate intake of water could contribute to obesity and cardiovascular disease prevention in children and consequently in adulthood.

Key words: water, body composition, cardiometabolic risk.

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Influence of oral intake of water in improving memory and visual acuity


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Introduction: Water is an essential nutrient since it intervenes in the major metabolic functions of the human body, being necessary to the proper functioning of our brain. A decrease in water intake is associated with states of confusion, irritability, lethargy and cognitive function loss. Brain’s dehydration hurts (lower level of neurotransmitters) nerve transmission and decreases blood circulation in brain what may affect to mental performance. People with a proper hydration have better scores on intelligence tests.