values of urine and desirable water volumes per energy unit consumed. Those reference values for total water intake included water from drinking water, beverages of all kind, and from food moisture; and they only apply to conditions of moderate environmental temperature and moderate physical activity levels (PAL 1.6). The Spanish Society of Community Nutrition (SENC) published recommendations for a Healthy Hydration in 2008.

This 2nd International-4th Spanish Hydration Congress reflects the increasing interest on water, hydration and beverages as part of the whole diet, the physiological relevance and influence on health and wellbeing. The scientific program includes different presentation formats, such as conferences, round tables and a debate. It also provides ample space for open participation of young researchers in 12 different sessions. Among other themes, the following issues will be discussed: methods for assessment of fluid intake and hydration status; hydration in different physiological contexts; energy balance, hydration, eating habits and dietary patterns; fluid intake and hydration status in different population groups; genetic influence on hydration status; the role of hydration in short and long term health; hydration, the brain and cognition and several topics related to hydration, physical activity, sports medicine and sport performance.

National and international experts will meet and debate in this event contributing to highlight recent advances in research, to debate controversial areas and to seed new ideas to fill in the existing gaps. Furthermore, the valuable contribution of younger researchers will fuel discussions and enhance the exchange of experiences.

Key words: hydration, diet, health, research, dietary reference values.

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Opening Remarks: The burden of disease attributable to hydration in Europe


Dehydration occurs when the body loses more water than it takes. It is often accompanied by disturbances in the body’s mineral salt or electrolyte balance, especially in the concentrations of sodium and potassium.

Population at particular risk of hypohydration are on the one hand, the very young who are engaged in professions where fluid homeostasis is regularly challenged and on the other, the elderly. Limited data are available on the prevalence of hypohydration, but there is evidence to suggest that this may be relatively common among the European elderly population. The percentage of population with an inadequate intake of water may vary from 5 to 35% in the different European countries.

While the burden of disease from inadequate water, sanitation and hygiene is well known in developing countries, the consequences of an inadequate water intake in Europe are far from being well understood. Recent researches into the risk of disease (falls and accidents, bowel, metabolic and kidney diseases), disability (cognitive function, physical performance, headache) and death are confirming the importance of poor hydration to overall disease burden and quality of life in Europe.

Moreover, the number of hospitalizations for dehydration has steadily increased in recent decades. In this case, dehydration increases the health care burden in a direct way, as a disease itself. But sometimes, dehydration appears as a comorbidity condition in some diseases. Dehydration has been defined as the second most common comorbidity factor, occurring in 14% of all hospitalizations. In addition to its individual clinical impact, dehydration also represents an important public health issue by imposing a significant economic burden. Depending on the degree or magnitude of the dehydration in hospitalized patients their costs may increase from 7% to 8.5%. Higher costs will be associated with an increase in the hospital mortality, as well as with an increase in the utilization of intense short and long term care facilities, readmission rates and hospital resources, especially among those with moderate to severe hyponatremia. Dehydration represents a potential target for intervention to reduce healthcare expenditures and improve patients’ quality of life.

Improving drinking habits during working and leisure time, developing comprehensive hydration guidelines for healthcare professionals and patients would be cost-effective means of addressing the burden of hypohydration in Europe. Given the extent of the problem and its under-acknowledgment, will the Commission engage in a pan-European research and awareness-raising strategy on the burden of hypohydration in Europe? Will the Commission address the burden of dehydration in the elderly as part of its action plan on active ageing to be proposed in the near future?

Key words: hydration status, public health, Europe.

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