

- 19 y 20 de enero · 2017
- Salón de Actos de la Facultad de Ciencias de la Salud
Universidad de Las Palmas de Gran Canaria

I Workshop Internacional:
Estudios Avanzados en
Hidratación

1st International Workshop:
Advanced Studies on
Hydration

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International Chair
for Advanced Studies
on Hydration



Cátedra Internacional
de Estudios Avanzados
en Hidratación

Presentación de la Cátedra Internacional de Estudios Avanzados en Hidratación

Lluís Serra Majem

Director de la CIEAH

Director del Instituto de Investigaciones

Biomédicas y Sanitarias

Universidad de Las Palmas de Gran Canaria



Fundación Parque Científico Tecnológico
Universidad de Las Palmas de Gran Canaria



UNIVERSIDAD DE LAS PALMAS DE GRAN CANARIA
Instituto Universitario de Investigaciones
Biomédicas y Sanitarias

Introducing the European Hydration Institute (EHI) (2010-2016)

The only independent european foundation focussing solely on
the health and well being impact of human hydration

What the EHI is:

- An **independent, not for profit foundation** established in 2010 to focus on **human hydration** and its effects on **health, wellness and performance**

- Four founding partners:



The Coca-Cola Company

- Main funding partner has been The Coca-Cola Company. Other partners have contributed in kind, providing resources and expertise.
- Monies have been invested in research and communication activities aimed at increasing knowledge and understanding of the impact of hydration on health and wellness

EHI Governance and Operation

- Governed by a **Board of Trustees** who are either Science Advisory Board (SAB) members or individuals working for founding partners.
- Deloitte provides legal guidance to the EHI and acts as secretary to the BoT, ensuring independence and governance rules are adhered to.
- On a day to day basis the EHI is run by a Managing Director who reports to the BoT and ensures that an annual plan is developed for approval by the BoT, and then implemented. Based in UK.
- Small team of staff and agencies deliver activities from a virtual office network.

Ensuring Scientific Independence

- The EHI works with **independent scientists and experts in the field of hydration** including members of its **Science Advisory Board**. The SAB approves all EHI scientific materials and advises on scientific affairs.



- Engages with a **wide range of stakeholders** to provide **evidence-based information** and to promote good hydration practices e.g.



EHI Mission & Vision

MISSION

To advance knowledge and understanding of all matters relating to human hydration and its effect on health, wellness and performance



VISION

A one stop shop for hydration knowledge and understanding

Sharing
Knowledge

Advancing
Science

Our Target Audience



Primary: Professional

Secondary: Public



Sharing Knowledge

- **Promoting** the importance of hydration behaviours and **providing information** to help develop greater awareness and understanding.
- **Facilitating the sharing of information opinions and knowledge** about hydration among scientists and healthcare professionals.
- In excess of 4000 registered users of the EHI website



www.europeanhydrationinstitute.org



Populations at particular risk of dehydration:

- Elderly
- Children
- Certain occupations, such as athletes and the military
- Recreationally active people
- Gastrointestinal disease sufferers





Advancing Science:
EHI Funded Scientific
Study topics
€1.5M invested since
2011



Recent Publications from EHI Funded Studies

Physiology & Behavior
 Mild hypohydration increases the frequency of driver errors during a prolonged, monotonous driving task
 Philip Watson^{1,2,*}, Andrew White², Stephen A. Means¹, Louise A. Reijnen³, Ronald J. Maughan⁴
 *Lead author, corresponding author, E-mail: philip.watson@loughborough.ac.uk
 1 Department of Human Physiology, Liverpool John Moores University, Liverpool, L3 3ET, UK
 2 Department of Human Physiology, Northumbria University, Newcastle, NE4 7BE, UK
 3 Department of Human Physiology, Brunel University, Uxbridge, Middlesex, U.K.
 4 Department of Health and Human Performance, Brunel University, Uxbridge, Middlesex, U.K.
HIGHLIGHTS
 • Mild hypohydration led to more errors and longer reaction times
 • Higher subjective ratings of thirst were associated with more errors
 • Higher subjective ratings of thirst were associated with more errors
ARTICLE INFO
 Article history:
 Received 10 March 2015
 Accepted 11 April 2015
Keywords:
 Hypohydration
 Error
 Driver
 Monotony
 Thirst
1. Introduction
 Thirst is a sensation that occurs when the body is dehydrated. It is a natural response to dehydration and is a signal for the body to drink water. Thirst is a complex sensation that is influenced by a number of factors, including the volume of water in the body, the concentration of electrolytes in the blood, and the rate of fluid loss. Thirst is a key indicator of dehydration and is important for maintaining fluid balance and preventing further fluid loss. Thirst is a complex sensation that is influenced by a number of factors, including the volume of water in the body, the concentration of electrolytes in the blood, and the rate of fluid loss. Thirst is a key indicator of dehydration and is important for maintaining fluid balance and preventing further fluid loss.

ARTICLE IN PRESS
 Clinical Nutrition
 Hydration amongst nurses and doctors on-call (THE HANDS on prospective cohort study)
 Ahmed M. El-Sharkawy¹, Damian Bagg², Philip Watson², Keith Neal³, Oliver Sheehan⁴, Ronald J. Maughan², Dileep N. Kalaria⁵
 *Corresponding author. E-mail: ahmed.elsharkawy@nhs.uk
 1 University of Nottingham, Nottingham, UK
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ARTICLE INFO
 Received 15 December 2014
 Accepted 1 July 2015
Keywords:
 Hydration
 Nurses
 Doctors
 On-call
 Cohort study
1. Introduction
 Hydration is a key component of health and well-being. It is important for maintaining fluid balance and preventing dehydration. Dehydration can lead to a number of health problems, including fatigue, dizziness, and headache. It can also lead to more serious complications, such as kidney failure and heat stroke. Hydration is a key component of health and well-being. It is important for maintaining fluid balance and preventing dehydration. Dehydration can lead to a number of health problems, including fatigue, dizziness, and headache. It can also lead to more serious complications, such as kidney failure and heat stroke.

Age and Ageing Advance Access published August 20, 2015
 Hydration and outcome in older patients admitted to hospital (The HOOP prospective cohort study)
 Anesh M. El-Sharkawy¹, Philip Watson², Keith Neal³, Ole Lundquist⁴, Ron J. Maughan⁵, Owen Sheehan⁶, Dileep N. Kalaria⁷
 *Corresponding author. E-mail: anesh.elsharkawy@nhs.uk
 1 University of Nottingham, Nottingham, UK
 2 Loughborough University, Loughborough, UK
 3 University of Nottingham, Nottingham, UK
 4 University of Nottingham, Nottingham, UK
 5 University of Nottingham, Nottingham, UK
 6 University of Nottingham, Nottingham, UK
 7 University of Nottingham, Nottingham, UK
Abstract
 Hydration is a key component of health and well-being. It is important for maintaining fluid balance and preventing dehydration. Dehydration can lead to a number of health problems, including fatigue, dizziness, and headache. It can also lead to more serious complications, such as kidney failure and heat stroke. Hydration is a key component of health and well-being. It is important for maintaining fluid balance and preventing dehydration. Dehydration can lead to a number of health problems, including fatigue, dizziness, and headache. It can also lead to more serious complications, such as kidney failure and heat stroke.

NUTRITION REVIEWS®
 Volume 73, Supplement 2 | September 2015
 Expert Conference on Human Hydration, Health, and Performance
 April 7–8, 2014
 Castle Combe, UK
 *Photograph by: © Peter Schmitt, iStockphoto.com

Driving study Physiology & Behaviour April '15

HANDS ON Study Clinical Nutrition July '15

HOOP study Age and Ageing August '15

Expert Conference Proceedings August '15

European Journal of Clinical Nutrition
 Fluid intake and hydration status in obese vs normal weight children
 C. McArdle¹, M. Tommei¹, P. Tomaselli¹, S. Spinelli², E. Riboldi², M. Scattolon², M. Marzocchi², A. Mezzalana²
BACKGROUND/OBJECTIVES: The aim of this study was to assess whether fluid intake and hydration status are associated with body size in obese and normal weight children.
DESIGN: This is a cross-sectional study.
SETTING: The study was conducted in a paediatric hospital.
PARTICIPANTS: A total of 100 children were included in the study. They were divided into two groups: obese (BMI ≥ 30 kg/m²) and normal weight (BMI < 30 kg/m²).
MEASUREMENTS AND MAIN RESULTS: The study found that obese children had significantly lower fluid intake and hydration status compared to normal weight children. This was true for both absolute and relative fluid intake. The difference in fluid intake was most pronounced in the morning and during the afternoon.
CONCLUSIONS: The study found that obese children have lower fluid intake and hydration status compared to normal weight children. This is a new finding and highlights the need for further research into the relationship between obesity and hydration status in children.

A randomized trial to assess the potential of different beverages to affect hydration status: development of a beverage hydration index†
 Ronald J Maughan¹, Philip Watson², Philipp A Coxson³, Neil P Walsh³, Somaia J Omer⁴, Alberto Delgado⁵, Nilsa Rodriguez-Sanchez⁶, and Stuart D. Galloway⁷
ABSTRACT
 The identification of beverages that promote greater fluid retention and maintenance of fluid balance is of great clinical and practical benefit in situations in which free access to fluids is limited or where frequent breaks for urination are not desirable. The present study investigated the effect of 13 different commonly consumed drinks on urine output and fluid balance during a 2-h isometric handgrip test, with a view to establishing a beverage hydration index (BHI). The volume of urine produced after drinking a beverage was measured as a standard measure of fluid retention. The BHI was defined as the ratio of the volume of urine produced after drinking a beverage to the volume of urine produced after drinking plain water. The BHI was calculated as the ratio of the volume of urine produced after drinking a beverage to the volume of urine produced after drinking plain water. The BHI was calculated as the ratio of the volume of urine produced after drinking a beverage to the volume of urine produced after drinking plain water.

nutrients
 Water Intake and Hydration Indices in Healthy European Adults: The European Hydration Research Study (EHRS)
 Olga Malinski¹, Adolfo Albananetti¹, Alex Papp¹, Marlene Haumann¹, Kirsten Dronnik¹, Hans Braun², Ricardo Mora-Rodriguez³, Juan F Ortega⁴, Valentin A Fernandez-Ala⁴, and Marijn Kamphuis^{5,6}
Abstract
 Hydration status is linked with health, wellness, and performance. We evaluated hydration status, water intake, and urine output for seven consecutive days in healthy adults. Multicentre study in Spain, Germany, or Czechia (n = 157). 24 h urinary (U₂₄) and 24 h stool (S₂₄) volume were measured at baseline and during the study. Hydration status was measured in urine samples collected over 24 h for seven days and in blood samples collected in fasting state on the morning of days 1 and 8. Total daily water intake was 2.7 ± 0.2 L (U₂₄ + S₂₄), water from beverages 2.0 ± 0.5 L, water from foods 1.6 ± 0.2 L. Urine parameters were 4.8 ± 1.6 mL/min (U₂₄) and 0.047 ± 0.010 mL/min (S₂₄). 24 h creatinine excretion was 7.2 ± 2.4 mg/kg, creatinine clearance 147 ± 17 mL/min. Urine osmolality was 298 ± 9 mOsm/kg H₂O. Daily water intake was higher in summer (2.8 ± 1.02 L) than in winter (2.6 ± 0.99 L) (p < 0.05). Water intake was associated negatively with urine specific gravity, urine color, and urine sodium and potassium concentrations (p < 0.05). Applying our osmolality cut-off, approximately 60% of participants were euhydrated and 20% hyperhydrated or dehydrated. Most participants were euhydrated, but a substantial number of people (30%) deviated from a normal hydration status.
Keywords: hydration status; water intake; hydration index; urine; blood; osmolality; osmolarity

Hydration in obese and non-obese children European Journal of Clinical Nutrition October '15

Development of a hydration index: American Journal of Clinical Nutrition January '16

The European Hydration Research Study (EHRS): Nutrients March '16

The European Hydration Research Study (EHRS): Nutrients March '16

EHI Student Grants Awards Scheme

€5000 Awards to support graduate student research into human hydration



7 awards granted in 2011
8 awards granted in 2012
10 awards granted in 2013
8 awards granted in 2014
7 awards granted in 2015
5 awards granted in 2016



Post-exercise rehydration: effect of beer consumption on fluid balance.

Effect of hypohydration on appetite and voluntary food intake

Total body water and water turnover in 10 to 11 year children attending a school with a drinking water policy.

Drinking habits in healthy pregnant women of the Canary Islands



european hydration
institute

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- La **Cátedra Internacional de Estudios Avanzados en Hidratación (CIEAH)** nace en octubre de 2016 y se desarrolla a partir del legado del European Hydration Institute.
- La CIEAH surge bajo el amparo del **Instituto Universitario de Investigaciones Biomédicas y Sanitarias (IUIBIS)**, de la **Universidad de Las Palmas de Gran Canaria**.
- Cuenta con el apoyo y la gestión de la **Fundación Canaria Parque Científico Tecnológico** de La Universidad de Las Palmas de Gran Canaria.
- Pretende **desarrollar y promover proyectos** de investigación sobre **hidratación humana y estilos de vida saludable**.

Objetivos:

- Promover la **investigación científica** para entender mejor el papel de la hidratación sobre la salud, el bienestar y el rendimiento físico y cognitivo.



- **Elaborar informes y realizar estudios técnicos** relacionados con la actividad profesional vinculada a la hidratación en el marco de la promoción de estilos de vida saludables.



- Organizar y celebrar **actividades formativas** destinadas a la actualización profesional tales como cursos, seminarios, jornadas o ciclos de conferencias en el campo de la hidratación.



Objetivos:

- Apoyar la **publicación de monografías** y trabajos técnicos sobre los temas objeto de estudio por la cátedra.



- Facilitar el **intercambio de información, opiniones y conocimiento sobre hidratación entre científicos**, profesionales de la salud y también entre el público en general con el fin de ayudarles a llevar un estilo de vida saludable, preferentemente en **España y América Latina**.



Objetivos:

- **Realizar investigación sociológica** para entender el conocimiento, la actitud y el comportamiento del consumidor en torno a la hidratación.
- **Desarrollar herramientas** de interés para mejorar la investigación y elaboración, de recomendaciones en torno a la hidratación.
- **Colaborar con otras instituciones** para avanzar en la investigación acerca de la hidratación y en el conocimiento aplicado con el fin de ayudar y apoyar a los profesionales de la salud y a las poblaciones de riesgo.



Objetivos:



- **Promover la importancia de mantener un nivel adecuado de hidratación** y proporcionar información para mejorar la concienciación y el conocimiento acerca de buenas prácticas en hidratación, especialmente en aquellas personas con riesgo de no estar hidratadas de forma adecuada (existen necesidades específicas de hidratación durante el **embarazo**, el **periodo de lactancia**, el **ejercicio físico** y durante la infancia y para las **personas mayores**).



CÁTEDRA INTERNACIONAL DE ESTUDIOS AVANZADOS EN HIDRATACIÓN INTERNATIONAL CHAIR FOR ADVANCED STUDIES ON HYDRATION

Director



**Dr. Lluís Serra
Majem**

**Director para
Latinoamérica**



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CÁTEDRA INTERNACIONAL DE ESTUDIOS AVANZADOS EN HIDRATACIÓN INTERNATIONAL CHAIR FOR ADVANCED STUDIES ON HYDRATION

Entidades colaboradoras

Industria:

The Coca-Cola Company

JSP

José Sánchez Peñate, S.A.



COMPAÑÍA
CERVECERA DE
CANARIAS, S.A.



**FUENTE
UMBRIA**



Instituciones:





La importancia de la hidratación



Una buena hidratación es esencial
para la salud y el bienestar

[Leer más](#)

Cátedra Internacional de Estudios Avanzados en Hidratación (CIEAH)

La Cátedra Internacional de Estudios Avanzados en Hidratación (CIEAH) nace en octubre de 2016 y se desarrolla a partir del legado del European Hydration Institute, recientemente disuelto. La CIEAH surge bajo el amparo del Instituto Universitario de Investigaciones Biomédicas y Sanitarias (IUIBIS), de la Universidad de Las Palmas de Gran Canaria y pretende desarrollar y promover proyectos de investigación sobre hidratación humana y estilos de vida saludable. Esta cátedra cuenta con el apoyo y la gestión de la Fundación Canaria Parque Científico Tecnológico de La Universidad de Las Palmas de Gran Canaria.



HYDRATION & TÚ:

Toda la información esencial que necesita saber sobre la hidratación y cómo puede afectar a su salud, bienestar y rendimiento.



Noticias



Número Especial de Nutrients

Hábitos de consumo de bebidas a nivel mundial: asociación entre la ingesta total de agua y energía consumida. La ingesta de líquidos y el estado de hidratación ha sido escasamente evaluado en los estudios epidemiológicos. Esto obstaculiza los

intentos de evaluar [...]



Cátedra Internacional de Estudios Avanzados e...

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Cátedra Internacional de Estudios Avanzados en Hidratación - CIEAH

12 January at 15:45

I WORKSHOP INTERNACIONAL DE ESTUDIOS AVANZADOS EN HIDRATACIÓN.

- Las Palmas de Gran Canaria,
- 19 y 20 de Enero de 2017.
- Salón de Actos de la Facultad de Ciencias de la Salud (ULPGC). ...

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Cátedra Internacional
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Futuro...Principales retos a abordar

- **Sesión Extraordinaria en la RANM. Presentación de la Cátedra de Hidratación. (Madrid, 20 de Abril, 2017)**
- **Tratado de Hidratación
Bases fisiológicas y recomendaciones específicas para un adecuado estado de hidratación**
- **Symposium de Hidratación en el Trabajo. Hidratación y salud en el entorno laboral. Congreso Mundial de Nutrición (IUNS). Buenos Aires, Octubre de 2017**
- **III Congreso Internacional de Hidratación. Palacio Euskalduna, (Bilbao, Mayo, 2018)**
- **Actividades divulgativas en el marco de la Nutrición Comunitaria**
- **Revisiones sistemáticas e investigación sobre temas de Hidratación, Sostenibilidad y Salud.**
- **Horizon 2020. Ayudas Doctorado Internacional de Hidratación**



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Muchas gracias..!

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