



Welcome.....

.....to the sixth NUTRIMENTHE project newsletter

NUTRIMENTHE is a large scale integrated project funded through the Cooperation Programme's Theme Two; Food, Agriculture and Fisheries, and Biotechnology of the European Union's Seventh Framework Programme. The project has been running since March 2008 and has been set up to address the evidence that early nutrition can affect later mental performance, cognitive development and behaviour in children. This newsletter serves as a gateway to the NUTRIMENTHE project for partners, the wider scientific community and the public in general.



In this newsletter:

- Feedback from NUTRIMENTHE's symposium at the 11th European Nutrition conference.
- The First 1000 days: A legacy for life. Could adult health be determined by our environment and nutrition in the first thousand days of life, or even earlier?
- The role of diet in the mental performance of children - what do parents think? Feedback from NUTRIMENTHE's Consumer Surveys of parents.

NUTRIMENTHE news

NUTRIMENTHE at the 11th European Nutrition Conference, Madrid 28th October 2011

The 11th European Nutrition Conference took place in Madrid between 26th-29th October 2011.

It attracted over 2000 nutrition experts from around the world under the banner "Diversity versus Globalisation: A Nutritional Challenge for a Changing Europe" The NUTRIMENTHE consortium hosted a symposium "Nutrition and Cognitive Function" that attracted 250



Symposium speakers from left: Dr Henning Tiemeier, Professor Elliot Berry, Professor Cristina Campoy and Dr Eva Lattka.

delegates. NUTRIMENTHE Coordinator, Cristina Campoy provided an overview of the work of the project which was followed by a more in-depth look at some key results regarding pre-natal nutrition and mental performance outcomes in children from NUTRIMENTHE researchers Dr Henning Tiemeier and Dr Eva Lattka.

Key results emerging from the presentations included:

- Low levels of folate supplementation during early pregnancy are associated with a higher risk of emotional problems in early childhood.
- Maternal hypothyroxinemia was related to a higher likelihood of expressive language delay at 30 months.
- Fish eating in pregnancy is related to verbal intelligence when measured at age 8 but outcomes are not related to the level of maternal docosahexaenoic acid.
- Fatty acid desaturase genotypes - there is more contribution to omega-6 fatty acids by foetal metabolism than previously realised. DHA levels are dependent on both child and maternal metabolism.
- *FADS* genotypes in the child can influence verbal and performance IQ in children at age 8 to the extent that children carrying a particular 'minor' variant in *FADS* genes, that are never breastfed, demonstrated the lowest performance in the IQ test.

For a more complete review of the results presented at NUTRIMENTHE's symposium, [click here:](#)

Nutrition news

The First 1000 Days: A Legacy for Life.

Could adult health be determined by our environment and nutrition in the first thousand days of life, or even many years earlier?

In August 2011 the UK's BBC Radio 4 broadcast three podcasts, **The First 1000 Days: A Legacy for Life**. In this three part podcast, Dr Mark Porter examines the increasingly strong body of scientific evidence that supports the theory that adult health is partly determined by the nutrition and environment experienced in the first 1000 days of life. He talks to scientists who believe that this 'lifecourse' approach will find the cause of many adult diseases especially chronic diseases such as obesity, heart disease and diabetes.



Each podcast is 30 minutes long and involves scientists including Kent Thornburg, University of Oregon; David Barker and John Holloway, University of Southampton and Alex Richardson, University of Oxford.

These extremely informative podcasts can be accessed on BBC iPlayer here:

Episode 1 [“In the Womb”](#)

Episode 2 [“Infancy - from birth to two”](#)

Episode 3 [“Future Generations”](#)

Policies for a healthier European diet: are the effective?

The EATWELL Project is an FP7 funded initiative that aims to tackle one of the greatest challenges of the 21st century, unhealthy diets. European Union Member States have initiated various national policy campaigns to encourage physical activity and healthier diets. Ensuring the success of such interventions requires systematic evaluation of their impact to find out what works and what doesn't. The EATWELL project was devised to identify the successes, failures and uncertainties of these campaigns and use the results to provide advice for policy makers on creating more successful healthy eating policy interventions. According to EATWELL scientist Professor Shankar “when impacts on the public's behaviour or consumption are actually realised, healthy-eating policies are often highly cost-effective interventions”

The project results were announced at the 11th European Nutrition Conference in Madrid. For more regarding the results of the EATWELL project, please [click here](#).

Focus On

The role of diet in the mental performance of children, what do parents think?

Feedback from NUTRIMENTHE's Consumer Surveys of parents

NUTRIMENTHE is researching the effect of diet on the mental performance of children. Of particular interest are a child's perception, memory, attention, language, executive functions and emotions. Diet is one of many factors that will influence these domains and families, specifically parents, will play a pivotal role in the establishment of food choices and eating habits.



To date there is little published research on parent's perceptions of the relationship between children's diet and their mental performance. NUTRIMENTHE is assessing this

by conducting Consumer Surveys. The objective of these is to assess the attitudes and beliefs of parents with regard to the effect of food and nutrition on children's mental performance. The work is being led by NUTRIMENTHE partner, University of Surrey (UK) and involves three other partners; University of Munich (Germany), University of Granada (Spain) and University of Pecs (Hungary).

The surveys involved interviews and card-sorting tasks with parents from four European countries, UK, Spain, Germany and Hungary. Questions asked included; what do parents understand by the term mental performance? and, what is the effect of food on a child's ability to learn? Results emerging from the surveys reveal that parents talk of mental performance in terms of attention and concentration and that this can be affected by particular foods. For example, a healthy balanced diet has a positive effect on mental performance whereas foods with high sugar and/or fat content have negative effects. Parents also spoke of the conflict in trying to balance the provision of a healthy nutritious diet and satisfying their children's food preferences. The importance of developing good eating habits emerged as a concern of parents, as these habits could have long term implications for health ¹.

With respect to the effect of food on a child's ability to learn, many parents thought that this was very much or extremely dependent on diet but smaller proportions reported that they actually considered this when providing food for their child. Parents do seem to believe that diet affects mental performance but other factors such as providing variety and overall 'healthiness' seem to be more important when making food choices for their children ².

Looking in more detail and comparing food (regular meals, nutrition as a baby) with other possible determinants of learning including, education (class size, school discipline, teaching quality), physical (sleep and activity) and psychological (mood and behaviour), food ranked low as a determinant of learning, especially nutrition as a baby ³.

The work of NUTRIMENTHE's Consumer Surveys are ongoing and to date have been presented as posters and presentations at conferences worldwide. The surveys are of particular importance as they complement the work of the nutritional intervention and epidemiological studies running within NUTRIMENTHE and will be key in the development of messages that can translate the research of NUTRIMENTHE into practical and usable guidelines for both health professionals and parents alike.

For a pdf version of this article, [click here](#).

International conference on Nutrition and Growth - Paris, March 1st -3rd 2012



The International Conference on Growth and Nutrition follows the success of the paediatric workshop on nutrition and growth held in Prague in March 2010 and will take place in Paris from March 1st to March 3rd, 2012. The purpose of the meeting in Paris is to bring together nutritionists, neonatologists, paediatricians, experts in child development and other specialists to discuss the challenges of the interplay between nutrition and growth in youth. The meeting will enable the exchange of ideas and knowledge to facilitate research and clinical interdisciplinary collaborations focussing on paediatric endocrinology and gastroenterology.

For further information regarding the conference, please visit the [website](#).

References

- 1: The role of diet in the mental performance of children- what do parents think? B. Egan *et al.*, 2010. Abstract presented at the York Open Forum, 6th October 2010.
- 2: Diet and mental performance of children: A questionnaire survey of parents in four European countries. B. Egan *et al.*, (2011). Abstract 27/850, presented at the 11th European Nutrition Conference, Madrid, 26th-29th October 2011.
- 3: Effect of food on learning: views of parents in four European countries. E. Györei *et al.*, (2011). Abstract 27/33, presented at the 11th European Nutrition Conference 26th-29th, Madrid, October 2011.

Contact details

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