



## The Cambridge Baby Growth Study

### Welcome to our Summer 2009 newsletter

The study now comprises 2231 children (895 boys and 831 girls), including 22 sets of twins.

In this edition we highlight news of major research publications from the study, and also the results of an important systematic review that we have completed, which is shaping the future direction of our work (see box below).

**We have therefore decided to stop looking for new mothers to join this study. In future we will shift our focus to trials of new infant feeding programmes.**

Study Investigator Dr Ken Ong says "We still want to complete all the measurements of the babies who are currently in the study – this will allow us to continue to find more clues as to why some babies grow faster than others. However, it is time to start putting what we have now learnt into practise. Rather than simply watching how infants are fed and grow, we have an exciting opportunity to learn how to give parents better advice, training and support to feed their infants."

### New research papers:

**Regulation of infant body fat** – describes that some infants gain more in body fat than in length, and identifies the hormone *insulin-like growth factor-1* as a key regulator of whether an infant's energy intake is stored as body fat or used for growth.  
*Ong et al. (2009) American Journal of Clinical Nutrition*

**Numbers of undescended testis** – describes that the number of baby boys with undescended testis at birth appears to be rising, and also records for the first time how many boys develop this condition after birth.  
*Acerini et al. (2009) Archives of Disease in Childhood*

**A physical marker of hormone activity** – describes how the "Anogenital distance" varies between boys and girls during infancy and provides the first normal growth curves for this measurement.  
*Thankamony et al. (2009) Environmental Health Perspectives*

**REVIEW: Mother's experiences of bottle feeding** – describes how many mothers who bottle feed feel guilt and other negative emotions for doing so. Mothers often feel that their information and support is inadequate, and this may lead to errors and uncertainty in preparing bottle feeds and how much milk to give.  
*Lakshman et al. (2009) Archives of Disease in Childhood*

**All these publications can be found at the Study website (see below for details)**

### *A Christmas Day Birth!*

Éva started having contractions at about 1am on Christmas morning and by 10am Leo was born as a happy healthy, sleepy little boy. We arrived at the hospital's midwife-led birthing unit just before 7am and Sophie met us with a huge smile and sporting a Christmas hat! Leo's birth was in the water and was a beautiful experience for us all.



### **Call for volunteers!**

Do you have children aged between 9 and 18?

Would they be interested in helping us with research to develop new and more accurate ways of measuring fitness?

Researchers from the **MRC Epidemiology Unit** have developed a simple step test for estimating people's fitness and are looking to assess how accurate the test is and how it compares to other assessment methods for estimating people's fitness.

### **The Step Test Study**

will be running at the MRC Epidemiology research sites at Cambridge and Ely from July 2009. If you agree for your child to take part we will measure their body size and ask them to participate in various exercise tests (e.g. treadmill, step test).



If you would like further information about this study please call the Step Test Study Team on 0800 783 4611 or email them on [step-test@mrc-epid.cam.ac.uk](mailto:step-test@mrc-epid.cam.ac.uk)

## What Fiona did next



After 4 years working on the Cambridge Baby Growth Study team I decided that it was time to return to nursing. I had let my nursing registration lapse while my children were young. (Luckily for the patients!) I am attending a return to practice course to update me with the many, many changes that have happened in the NHS since I left. At present I'm working, under supervision, on a urology ward while writing essays and attending study days at Anglia Ruskin University.

I really enjoyed working on the study. It's a very valuable study which, thanks to all the volunteers, will help uncover new factors that influence children's early growth. I really appreciated all the effort that parents put into completing the food diaries. Thanks for all the hard work and *please keep filling them in!*

## First POPS Baby

Katy is the first baby to join the Cambridge Baby Growth Study from the POPS study (Pregnancy Outcome Prediction Study). She was born at home in November 2008. Her mummy writes:

"We were invited to join POPS and had a couple of extra ultrasounds and blood tests during the pregnancy and then allowing the team to take a sample of placenta after Katy's birth. We were attracted by the opportunity to see our little one a couple of extra times on the scans and it is brilliant to know that the data might help find new ways to predict problems during pregnancy and therefore help future babies. It's fascinating to see how quickly she is growing - time flies!"



**Good Luck!** to Ema De Lucia Rolfe, our Anthropometry Specialist, who is expecting her first child on 27<sup>th</sup> August. She has worked with us on the Cambridge Baby Growth Study since 2006.



## Report from a related study Body Fat and Glucose Levels during Pregnancy

Some of the mothers in the Cambridge Baby Growth Study will remember being asked by Dr Barbro Diderholm to help with this study. The aim was to find out whether different levels of glucose in the blood of pregnant women affect the amount of glucose and fat which is transferred to the developing baby, and weight and size of the baby at birth.

The study showed that the estimated size of the baby at 35 weeks of gestation was related to mother's production of nutrients, regardless of her own body size.

This means that the size of the baby is determined not only by the fetus itself and by mother's physical constraints, but mother's metabolism also influences how well the baby is provided with nutrients.

Preliminary results were presented at the annual scientific meeting of the American Diabetes Association in San Francisco, USA in June 2008.

**HAVE YOU MOVED?** Please let us know if your contact details change

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*Many thanks again to all those who are taking part or have completed the study*