



## The Cambridge Baby Growth Study

Welcome to our latest newsletter, it doesn't seem five minutes since we published the last one. At present we have over 900 children (500 boys and 441 girls) on the study, including 9 sets of twins, and we are still busy recruiting new mums. Between now and October we are expecting over 200 births.

For those of you who have been part of the study for sometime you may see items in this edition which look familiar. As we have recruited nearly 500 mum's in the last year we think this information is well worth repeating.



You may remember the mother featured in our last newsletter who was expecting her sixth child. She now has a healthy son who was born on 6<sup>th</sup> January (pictured above with his brother and sister, who have both taken part in our study), weighing 3.34kg (7lb 6oz.) Our warmest congratulations go to her and her family.

### Paediatric Research Nurse Team



*Anne-Marie Wardell, Petra Tucker, & Suzanne Smith  
Taken at Paediatric Endocrine Meeting 2006*



*A volunteer on the treadmill*

### Measuring Physical Activity in Young Children

In our first newsletter we featured a new study involving children aged 4 – 5 years, which recorded their heart rates while resting and exercising. By using a device called an Actiheart Sensor, information is collected which will allow us to work out how much energy children use every day.

Including the short calibration procedure to adjust the sensor to the individual, the assessment takes approximately 2 hours at one of our 'exercise laboratories' in Cambridge or Ely, and includes tests such as walking on a treadmill and having a special drink. The drink helps to accurately estimate the amount of energy the body uses up. Children will then wear the Actiheart sensor at home for up to 14 days, and have daily urine samples collected.

Currently 12 children from the baby growth study have taken part in this research. We are aiming to look at 30 children in total, therefore, if you have a son or daughter aged between 4 or 5 years old and are interested in taking part please contact us at the address shown overleaf. Parents will receive individual feedback of their child's results from this investigation.



*Child watching a video*

## 1000<sup>th</sup> BABY

We are very excited to see that we are heading towards our 1000<sup>th</sup> baby being born. The proud parents will be presented with a bottle of champagne and a voucher. We hope to feature our 1000<sup>th</sup> arrival in the next newsletter.



## SKINFOLD MEASUREMENT



The pictures above show a child on our study having measurements taken at his three month check. These include thigh, arm, shoulder and flank using a Holtain calliper. The skinfolds were measured using special callipers which are spring loaded and gently press against the skin.

Body fat is commonly assessed by skinfold thickness. This is an estimated measure of subcutaneous fat. There are various sites on the body where skinfold measurements are taken, and one or more are used to estimate body fat. Triceps skinfold is measured at the midpoint of the back of the left upper arm. Subscapular skinfold is taken below and lateral to the angle of the left shoulder blade.

**Please remember to inform us if any of your contact details have altered.**

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*Karen Forbes, one of our Paediatric Research Nurses is currently on sabbatical at the time of writing this newsletter.*

## FOOD DIARIES



We are very pleased with the way that the recent addition of food diaries to the CBGS is progressing. As children on the study reach 1 and 2 years of age we have been asking parents to help us by filling in food diaries. This involves filling in everything that their child eats and drinks over a period of 3 days. We already have over 100 completed sets of diaries. We really appreciate the effort that mothers and fathers are putting in to filling them in. When the diaries are ready they can be handed in at the 1 and 2 year visits to the ACCI Building at Addenbrooke's Hospital. When more time is needed to fill the diaries they can be posted back. If there are any diaries that parents still have at home please post them to us as they will always be very useful. (More diaries and envelopes can always be sent out if you phone Fiona King on 01223 437573).

The information about what 1 and 2 year olds are eating will complete the information that is already being collected on early growth. It will enable the study to draw together the many different factors that influence growth and devise clear guidelines to help future parents of young children.

## SUGGESTED READING

Suomi A, Main K, Kaleva M et al. Hormonal Changes in 3 month old cryptorchid boys. **Journal of Clinical Endocrinology and Metabolism** 91 (3): 953 – 958.

Hormonal dysregulation has been suggested to be one of many etiological factors of cryptorchidism. The study assesses the hypothalamic-pituitary-testicular axis in cryptorchid boys during the postnatal hormonal surge.

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Kaleva M, Virtanen H, Haavisto A et al (2005) Circannual rhythm in the incidence of cryptorchidism in Finland. **International Journal of Andrology** 28: (53 – 57).

A study of the seasonal variation of cryptorchidism in Finland, assessing risk factors to investigate previously reported conflicting data on circannual variation in birth rates of urogenital malformations.

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Ong K, Emmet P, Noble S, et al (2006). Dietary Energy Intake at the Age of 4 Months Predicts Postnatal Weight Gain and Childhood Body Mass Index. **Pediatrics** 117 (3): 503 – 508.

The object of the study was to determine whether different feeding patterns and energy intake that are provided to infants affect body weight and Body Mass Index later in childhood. This study was conducted in the United Kingdom and 881 infants took part.

**Thank you to all those who are taking part or have completed the Study**