

Clinic's are held at:

Addenbrookes Hospital, Cambridge

Institute of Metabolic Science, Level 3:

- Monday (All Day)
 - Tuesday (All Day)
 - Friday (All Day)
- Telephone: 01223 769222 (if urgent)

Princess of Wales Hospital, Ely

MRC Epidemiology Unit:

- First Thursday of each month
- Telephone: 01353 652082

The Cambridge Baby Growth Study



Office Telephone: 01223 336888

E-mail babygrowthstudy@medschl.cam.ac.uk

www.medschl.cam.ac.uk/paediatrics/pages/growthstudy.htm

Paediatric Research Nurse Team:

Ann-Marie Wardell

Suzanne Smith

Karen Forbes

*Head of Department
Professor of Paediatrics
University Lecturer
MRC Programme Leader
(Growth & Development)*

*Professor Ieuan Hughes 01223 336885
Professor David Dunger 01223 336886
Dr Carlo Acerini 01223 336865
Dr Ken Ong 01223 740003*



**Department of
Paediatrics**



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We would be grateful if you would consider taking part in this study. Please note that you are not obliged to take part and that non-participation will not affect your care or treatment in any way.

What is the purpose of our study?

We wish to study a group of mothers and their babies to find out whether specific environmental and inherited factors (or “genes”) are important in regulating the growth and development of babies during pregnancy and in the first two years of life.

In recent years it has been shown that the size of a baby at birth and the rate of growth, in terms of weight and length, during in the first couple of years may be important in predicting whether we develop certain health problems in later adult life, such as high blood pressure, diabetes and heart disease. Furthermore, it seems that more boys are being born with disorders of their genitals (e.g. undescended testicles), although overall this is still a very rare occurrence. These effects could be explained by subtle changes occurring to the environment a baby is exposed to while in the womb, particularly to levels of glucose and to certain hormones. These changes may be occurring because of our increased exposure to certain hormone-like substances present in our surrounding environment, or possibly to the inheritance of certain genes which are known to regulate glucose and hormone levels. Genes are the coded messages in our cells that are made up from DNA. They tell the growing body how to develop and are sometimes important in determining whether we develop certain illnesses or not.

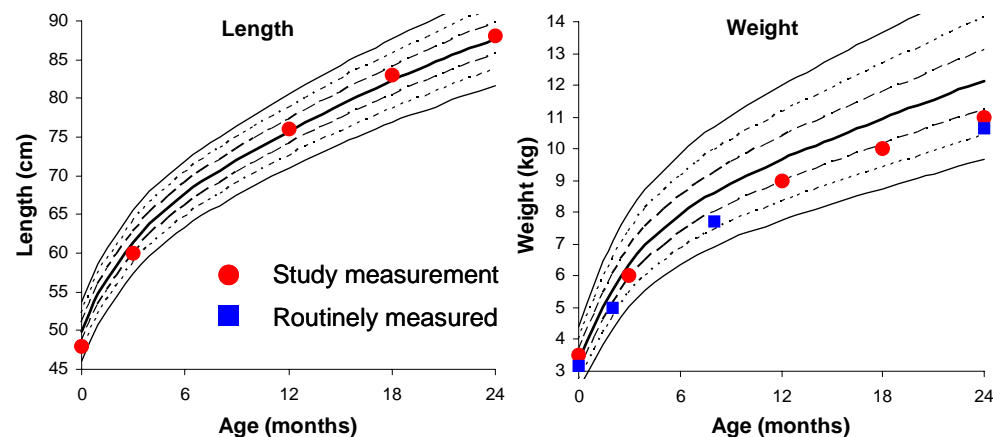
Why have you been chosen?

You have been approached as we wish to study a group of mothers at Addenbrookes during their pregnancy and then their children after they are born.

What are the possible benefits of taking part in this study?

Although there will be no direct benefits to either you or child from participating in this study, the information obtained will hopefully contribute to a better understanding of factors that regulate human health and disease.

Your child’s growth measurements will be plotted in their Child Development book (Red Book) at each visit for you to see how they are growing.



Confidentiality & access to data.

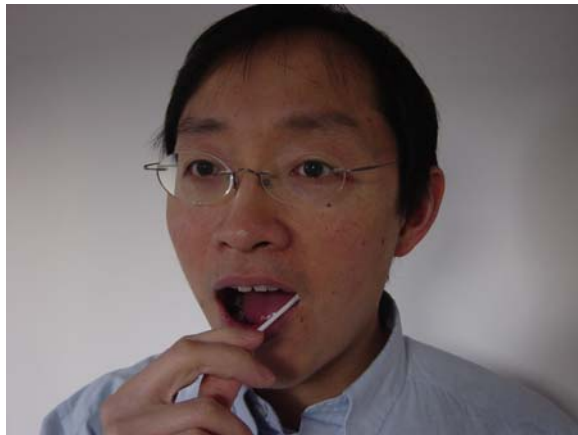
All information about you and your child will be strictly confidential and will not be identified in any documents related to the research.

You and your child are under no obligation to take part in this study, and if you choose to participate you will be able to withdraw from the study at any time without having to explain why. If you have any questions please don't hesitate to contact us.

Thank you for taking the time to consider this study.

One of the blood specimens from you and your child will also be used to analyse the DNA (that is the substance in all the cells of our bodies which determine colour of hair, colour of eyes and other characteristics). This will be looked to identify common patterns in certain genes that are felt to be important in the regulation of hormone and glucose levels in pregnant women and children.

If possible we would also like to get DNA samples from the child's father and from your parents. This is taken by a mouth swab sample. It is now becoming increasingly evident that it is not only the genes that we inherit from our parents but also in some cases whether we inherit them from our fathers or mothers which determine their influence on factors such as blood sugar or size at birth. A letter of invitation will be sent out for the child's father and your parents and we would be grateful if you could pass these on.



Parent having mouth swabs taken

What will happen if you take part?

- We will obtain a blood sample from you on two occasions during the pregnancy. The first will be 1 to 2 weeks after your booking visit, and which could be taken by your practice nurse. The second will coincide with your mid pregnancy routine glucose challenge / tolerance test.
- After the birth of your baby and just after the cord has been cut, we will take a sample of blood from the umbilical cord (from the end which is not attached to the baby) and a piece of the placenta.
- For those mums who are breast-feeding we may also invite them to collect some small samples of their breast milk during the first 3 months after the birth.
- For your baby our study will involve performing a general examination and a check on their weight and length just after birth.



Weighing your child
(without wearing a nappy)

Measuring your child's length



- In both boys and girls we will also examine the genital area to look for any unusual appearances and will measure the distance between baby's anus and the vaginal opening (girls) / or base of penis (boys) – the so called 'anogenital distance' (AGD). We wish to measure the AGD as it is thought to be one way of assessing the type of hormone environment baby has been exposed to in the womb. The AGD is measured by gently spreading baby's legs and by placing a ruler against the skin. This only takes a few moments to do and should not cause baby any discomfort. Baby boys will be checked in particular to make sure that there are no signs of an undescended testicle.
- We will repeat these growth measurements at 3, 12, 18 and 24 months of age.
- At 3 months we will also take a small sample of blood (less than a teaspoonful in amount) from baby. We can do this from a small vein from the back of baby's hand using a standard "butterfly" needle or by doing a heel prick.
- At the 12, 18 and 24 month examinations we will take a blood sample by doing a heel prick. The samples (blood, placenta and breast milk) collected from you and your baby will be analysed to measure levels of certain hormones and hormone like substances that may have come from the environment.

- At 3, 12 and 24 months of age we also ask whether we could measure baby's abdominal (tummy) fat by using an ultrasound device – similar to that used during pregnancy.



Abdominal Ultrasound being performed

During the study we will also ask you to complete some questionnaires.

- The first will be provided during your pregnancy and will ask you about your general health and life style factors.
- We will also ask you to complete another questionnaire concerning your child's health and their eating and diet habits at 3, 12 and 24 months of age respectively.
- You will receive assistance from one of our research nurses with this if needed.

Please note that the arrangements for following up you and your child are quite flexible and we can arrange this in our unit (free car parking tickets are given) although if we miss you in hospital we will come to see you at home after the birth of your child,