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# Prematurity, changes in glucose metabolism and its inheritance

## PARENTS INFORMATION SHEET (version 5)

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### Introduction

You are invited to take part in a study investigating glucose and insulin metabolism and body composition in you and /or your child. We wish to study how being born preterm might change how insulin is produced and works in later life, and therefore whether people who were born preterm might be at greater risk of diabetes and heart

disease than those born at term. We also wish to study if any of these effects are passed on to their children.

We are inviting you to take part in this study because you took part in our earlier study of the effects of antenatal steroids on health in adulthood (The Steroid Follow-Up Study). As we told you then, this makes you part of a group of people who are unique around the world, because you were at risk of being born preterm (whether you were actually born preterm or at term), and you now have children of your own who are old enough to study in this way.

Participation in this study is entirely voluntary and it is your decision whether you wish to take part.

### **About the study**

Recent research has shown that babies born preterm are often less sensitive to insulin as they grow up. This means that they need more insulin than other people to maintain a normal blood glucose level. This extra insulin may later on cause high blood pressure and coronary heart disease. However if they are not able to produce extra insulin, this might lead to an increased risk of diabetes as they get older.

This risk would be increased if those born preterm also had a greater tendency to gain fat around their waist (truncal fat). Some people are born with this tendency.

However we do not know whether being born preterm also alters fat and muscle distribution in adult life.

Recent research in animals suggests that changes in insulin and glucose metabolism might be passed on from parents to their children. This might mean that the children are also at increased risk of diabetes, high blood pressure and heart disease as they grow up. We do not know if this might apply to parents who were born preterm and their children.

The aim of this study is to find out if adults who were born preterm are different from those born at term in their:

1. Capacity to produce and respond to insulin
2. Body fat and muscle distribution
3. Blood pressure

We also wish to find out if any of these things are changed in their children.

Studies of glucose metabolism will include hyperglycaemic clamps in adults and insulin modified frequently sampled intravenous glucose tolerance tests in children. Hyperglycaemic clamp techniques assess both insulin resistance as well as insulin secretion. These assessments are very safe and well tolerated and we have extensive experience using these methodologies. DEXA scan and peripheral QCT will be used to measure body composition and bone density. These methods use minimal radiation exposure and are very safe. The combined radiation exposure involved with DEXA scan and Peripheral QCT is less than from a chest X-ray.

## **Controls**

Arguably the most important part of any clinical study is having 'normal' groups to compare against the premature groups. This allows us to determine whether the results are different from the normal population. Thus we also need to ask healthy adults and children born at term to participate in this study.

## **What is Involved?**

### **1. Glucose and insulin testing**

**Adults** will be asked to eat a diet containing at least 200 gram of carbohydrate each day for 3 days before the test. You will be asked to eat and drink nothing overnight and then come in to the Liggins Institute in Grafton first thing in the morning. You will be weighed and measured, and asked to fill in a questionnaire similar to but shorter than the one you completed as part of the Steroid Follow-Up Study.

You will have an intravenous cannula (a drip) placed in each arm. Glucose will be infused into one cannula to raise your blood glucose level, and blood samples will be taken from the cannula in the other arm every few minutes to measure insulin and glucose levels. The test takes about 2 hours to complete. At the end of the test we will ask you to provide a urine sample.

**Children** will also be asked to fast overnight and come in to the Liggins Institute in the morning. They will be weighed and measured, and a questionnaire will be completed by their parents. They will have one intravenous cannula (drip) put in an arm vein after applying local anaesthetic to minimise any distress. A dose of glucose will be given, and frequent blood samples will be taken. After 20 minutes a small dose of insulin will be given and the blood sampling will continue for 70 minutes. The blood sampling is painless and very well tolerated. The total volume of blood taken is small

(approximately 10 teaspoons). During the test the child watches a video of his or her choice and at the end of the test, breakfast/ brunch will be provided.

Petrol voucher for the travel cost and free parking will be made available at The Liggins Institute.

## **2) Body Composition Testing**

Each child and adult participant will be asked to undergo DEXA scan for body composition and a scan of an arm (peripheral QCT) for bone density. These tests are completely painless, take 10 to 20 minutes each and involve very small amounts of X-ray exposure (less than the equivalent of a chest X-ray).

## **3) Blood Pressure Monitoring**

We will ask you and your child to wear a blood pressure cuff on an arm for 24 hours. The cuff is attached to a small device worn on the belt. This inflates the cuff automatically every 30 minutes during the day and every 60 minutes at night, giving a profile of blood pressure measurements that can later be downloaded and analysed. This form of monitoring is much more sensitive than a single measurement of blood pressure, and gives important information about the possible development of high blood pressure in the future.

## **Blood Specimen**

Blood specimens will be frozen and stored in a freezer in The Liggins Institute until the study is completed. All specimens will be anonymous and no information that could identify you will be stored with these samples. A unique study number will be used to identify each participant's specimens and recorded details. If there is any blood left over at the end of the study these specimens will be destroyed when all tests are completed. Due to the complexity of ensuring participant confidentiality, it is not possible to return any specimens.

## **Benefits , Risks and Safety**

### **Benefits:**

If we identify changes in insulin production and action, or in body composition or blood pressure, then interventions like life style modifications (for example diet and exercise) might be helpful in reducing the risk of later disease. There is a long period before

diseases like diabetes, high blood pressure and heart disease appear in which these interventions may be helpful.

### **Risks and safety:**

The tests of insulin and glucose metabolism are standard, safe tests. We have performed over 500 of these tests on children. We have found that they are almost universally well tolerated by the children and we do not anticipate any risks during the test. There is a small risk of bruising or distress while the intravenous cannulae are placed, but this is rare, and any distress is minimised by using local anaesthetic cream.

Both the DEXA scan and peripheral QCT scan have minimal radiation and their combined dose is less than that from a chest X-ray. These are completely painless tests well tolerated by children and adults.

The blood pressure monitoring device is also very well tolerated and completely safe.

### **Participation**

If you do agree to take part you are free to withdraw from the study at any time, without having to give a reason and this will in no way affect your future health care. You can withdraw your blood samples from the study at any time prior to them being measured in the laboratory.

### **General**

More information about the study can be obtained from Dr. Paul Hofman or Dr Sarah Abraham. If you have queries or concerns about your rights as a participant in this study you may wish to contact a Health and Disability Advocate, telephone 0800-555-050.

### **For Maori Health Support please contact**

**Auckland District Health Board:** Mata Forbes, RGON, Coordinator/Advisor, Maori Health Services Auckland Hospital, mobile 021 348 432, telephone 307 4949 extension 7292.

**Waitemata District Health Board:** Jane West, Maori Research Advisor, Nga Kai Taataki, mobile 021 106 1691, telephone 489 0553

## **Confidentiality**

No material, which could personally identify you or your child, will be used in any reports on this study. A unique study number will be used to identify each participant's specimens and recorded details. This unique number will ensure the confidentiality of any records we keep.

## **Results**

You will be individually informed of the results of your tests, and the overall study findings. These may not be available for several years. The results will be presented at scientific meetings and published in international medical journals.

## **Compensation**

In the unlikely event of a physical injury as a result of your or your child's participation in this study, you may be covered by ACC under the Injury Prevention, Rehabilitation and Compensation Act. ACC cover is not automatic and your case will need to be assessed by ACC according to the provisions of the 2002 Injury Prevention Rehabilitation and Compensation Act. If your claim is accepted by ACC, you still might not get any compensation. This depends on a number of factors such as whether you are an earner or non-earner. ACC usually provides only partial reimbursement of costs and expenses and there may be no lump sum compensation payable. There is no cover for mental injury unless it is a result of physical injury. If you have ACC cover, generally this will affect your right to sue the investigators.

If you have any questions about ACC, contact your nearest ACC office or the investigator.

Paul Hofman

Date:16/03/2007.

ID number:

Initials:

# **Prematurity and Glucose and Insulin**

## **Metabolism**

### **Adult study- Questionnaire**

## How to complete this questionnaire

- Thank you for agreeing to participate in this study. This questionnaire takes about 30 minutes to complete. Please make time to complete the questionnaire when you are relaxed and unlikely to be disturbed.
- Details of your usual GP are collected should you wish any clinical information from this study to be sent to them. We have asked for details of an additional contact person in case we lose touch with you and need to locate you again in future.
- Please try to answer ALL questions. If you have difficulty with a question, please feel free to ask us.
- When you have completed the questionnaire please post it in the envelope provided.
- Please use a black or blue pen to complete the questionnaire. Do not use pencil.

All information you provide is strictly confidential and only the investigators concerned with this study will have access to it.



## Your contact details

1. Title: First name(s): Last name:  
2. Address:

3. Home phone number: Work phone number:  
4. Fax number: Mobile phone number:

5. Email address:

## Contact details of your usual GP

1. Title: First name(s): Last name:  
2. Address:

3. Phone number:

## Additional contact person not living at your address (eg. mother, father, brother, sister, aunt, uncle etc)

1. Title: First name(s): Last name:  
2. Address:

3. Phone number:

4. Relationship to you (eg. mother, father, brother, sister, aunt, uncle etc):

## Demographic details

1. What is your date of birth?
2. How old are you?
3. Sex :M/ F
4. Which ethnic groups do you belong to?
  - 4.1 New Zealand European
  - 4.2 Māori
  - 4.3 Samoan
  - 4.4 Cook Island Maori
  - 4.5 Tongan
  - 4.6 Niuean
  - 4.7 Chinese
  - 4.8 Indian
  - 4.9 Other (such as Dutch, Japanese, Tokelauan)

If Yes, please specify: \_\_\_\_\_

5. What is your marital status? (tick one only)

- Married or living with partner
- Divorced
- Separated
- Widowed
- Never married (single)

6. What is the highest level of education that you have received? (tick one only)

If you are currently attending one of these institutions, please tick that box.

- Primary school / intermediate school
- High school / secondary school
- Polytechnic or similar
- University

7. Do you or your family own or rent the home you live in? If you have a mortgage on the home in which you live, please answer "Own". (tick one only)

- Own
- Rent

8. Do you own a car, van, truck or similar vehicle? (please do not include motorcycles) (tick one only)

- Yes
- No

9. Which of the following categories best describes your current work situation? Please answer all questions. Please be as specific as possible (eg. fitter and turner, secretary, primary school teacher, lawyer)

9a. A worker for pay

What is your main job? \_\_\_\_\_

How many hours per week do you work in this job?

9b. Self-employed

What is your main job? \_\_\_\_\_

How many hours per week do you work in this job?

9c. A homemaker

What was your main job before becoming a homemaker?

\_\_\_\_\_

How many hours per week do you work in this job?

9d. What is your spouse or partner's main job now?

\_\_\_\_\_

How many hours per week do they work in this job?

9e. Unemployed

What was your main job before becoming unemployed?

\_\_\_\_\_

How many hours per week did you work in this job?

9f. Other

Please specify \_\_\_\_\_

How many hours per week?

10. What type of living arrangements do you currently have? (tick one only)

10.1. Living on your own or in a flatting situation (where your income is not shared with the rest of the household)

10.2 In a family situation or living with your partner (where, if you are working, your income is shared with the rest of the household)

11. What was your total personal income and your household's total income before tax, during the past 12 months? (please tick one for yourself and one for your household) Include income from all sources: spouse (if appropriate), children or boarders; wages, salary, commission, business or farming income (less expenses), income support and accident compensation regular payments; Interest, dividends, rent, inheritance; Child support payments

Yourself	Household
	<u>No income</u>
	<u>\$10,000 or less per year (less than \$192 per week)</u>
	<u>\$10,001 - \$20,000 per year (\$144 to \$384 per week)</u>
	<u>\$20,001 - \$30,000 per year (\$385 to \$576 per week)</u>
	<u>\$30,001 - \$40,000 per year (\$577 to \$768 per week)</u>
	<u>\$40,001 - \$50,000 per year (\$769 to \$961 per week)</u>
	<u>\$50,001 - \$70,000 per year (\$962 to \$1,345 per week)</u>
	<u>\$70,001 and over per year (\$1,346 and over per week)</u>
	<u>Don't know</u>
	<u>Decline to answer</u>

## Smoking

12. Have you ever smoked cigarettes (not cigars/pipes) once a week or more? Cigarettes includes both manufactured and "roll your own". (tick one only)

Yes (continue to Q13)

No (go to Q21)

13. How old were you when you started smoking once a week or more?

Years

14. Do you smoke cigarettes (not cigars/pipes) now? (tick one only)

Yes (go to Q16)

No (continue to Q15)

15. How old were you when you stopped smoking cigarettes?

Years - please go to Q17

16. What kind of cigarettes do you smoke? (answer all questions)

16.1 Manufactured

16.2 Hand-made (roll your own)

17. During the years that you have smoked (or did smoke), on average, how many manufactured cigarettes would you have smoked each day?

Cigarettes each day

18. Do you currently smoke cigars once a week or more? (tick one only)  
Yes (continue to Q19)  
No (go to Q21)
19. How many cigars do you usually smoke each week?  
Cigars each week
20. How many years have you smoked cigars?  
Years
21. Do you currently smoke a pipe once a week or more? (tick one only)  
Yes (continue to Q22)  
No (go to Q24)
22. How many times a week do you usually smoke a pipe?  
Times per week
23. How many years have you smoked a pipe?  
Years
24. Does your husband/wife/partner smoke? (tick one only)  
Yes  
No  
Not applicable
25. How many hours each week do you usually spend near someone who is smoking?  
(please include exposure at work, home and all other places. Put 0 if none)  
Hours per week

## Alcohol

26. Have you ever drunk alcohol once a month or more? (tick one only)  
Yes (continue to Q27)  
No (go to Q31)
27. Do you currently drink alcohol once a month or more? (tick one only)  
Yes (continue to Q28)  
No (go to Q31)
28. About how often do you currently drink alcohol? (tick one only)  
6-7 days a week  
4-5 days a week  
2-3 days a week  
once a week  
once every 2 weeks  
once a month

For the next two questions please refer to the following guide:

Drink equivalents:

1 drink = 1 can, small bottle or handle of beer or home brew

2 drinks = 1 quart/750ml bottle of beer

3 drinks = 1 jug of beer

- 6 drinks = 1 flagon/peter of beer
- 1 drink = 1 glass of wine or sherry
- 6 drinks = 1 bottle of wine
- 1 drink = 1 double nip of spirits
- 1 drink = 1 premixed spirit-based drink (such as alcopops, ready to go drinks)

29. On an average day when you drink alcohol, how many drinks would you usually have in total?

Drinks

30. In the past 3 months, what is the largest number of drinks that you had on any one day?

Drinks

## Recreational drug use

31. During the past 12 months, how often did you use marijuana (also known as grass, pot, cannabis, hashish, hash oil)? (tick one only)

- Not at all
- Less than once a month
- Once a month
- Once every 2 weeks
- Once a week or more often

32. During the past 12 months, how often did you use other illegal drugs (that is, those not prescribed by your doctor or bought from a chemist, such as cocaine, LSD, amphetamines or speed, heroin, morphine, ecstasy etc)? (tick one only)

- Not at all
- Less than once a month
- Once a month
- Once every 2 weeks
- Once a week or more often
- Exercise

## Physical activity

33. In a normal week would you usually do any vigorous activity or exercise, either at work or away from work, that makes you breathe hard or sweat? (tick one only)

- Yes (continue to Q34)
- No (go to Q39)

34. On how many days a week would you usually do this activity?

Day(s) out of 7

35. On the days you do this activity, about how long would you do it for?:

hrs mins

36. In a normal week would you usually do any moderate activity or exercise, either at work or away from work, such as brisk walking, cycling or mowing the lawn? (tick one only)

- Yes (continue to Q37)
- No (go to Q39)

37. On how many days a week would you usually do this activity?

Day(s) out of 7

38. On the days you do this activity, about how long would you do it for?:

hrs mins

## Medical history

39. Has a doctor ever told you that you have high blood pressure? (tick one only)

Yes (continue to Q40)

No (go to Q42)

Don't know (go to Q42)

40. Do you currently have high blood pressure? (tick one only)

Yes (continue to Q41)

No (go to Q42)

Don't know (go to Q42)

41. What treatment are you currently having for your high blood pressure? (answer all questions)

44.1 None

44.2 Pills/other medication

44.3 Diet change

44.4 Change in lifestyle (eg. reduced alcohol consumption, more exercise)

42. Has a doctor ever told you that you have high cholesterol? (tick one only)

Yes

No

Don't know

43. Has a doctor ever told you that you have had a heart attack or angina? (tick one only)

Yes

No

Don't know

44. Has a doctor ever told you that you have had a stroke? (tick one only)

Yes

No

Don't know

45. Has a doctor ever told you that you have diabetes? (tick one only)

Yes (continue to Q49)

No (go to Q52)

Don't know (go to Q52)

46. Do you have (or have you had) any other medical conditions not mentioned above?

Please write any condition down using block letters and be as specific as possible (eg. cancer of

the breast, epilepsy, etc)

Yes (please complete below)

No (go to Q53)

Name of condition

Condition code

(Office use only)

1	_____
2	_____
3	_____
4	_____
5	_____

6 \_\_\_\_\_  
7 \_\_\_\_\_  
8 \_\_\_\_\_

47. Do you regularly take (once a week or more) any prescription or non-prescription medicine, pill or tablets? Include injections, sprays (such as those used for asthma), patches, creams and oral contraceptives, and non-prescription treatments such as Disprin, Panadol and Quickeeze. Do not include vitamins or other food supplements. (tick one only)

Yes (continue to Q48)

No (go to Q49)

48. Please list all medications using block letters. Where possible copy names directly off packaging and include dosage) Include injections, sprays (such as those used for asthma), patches, creams and oral contraceptives, and non-prescription treatments such as Disprin, Panadol and Quickeeze. Do not include vitamins or other food supplements.

Name	How often do you take it? (eg. daily, weekly, when needed, etc.)	Dose units	Was it prescribed (circle answer)	Medication code (Office use only)
1 _____	_____	_____	Yes / No	
2 _____	_____	_____	Yes / No	
3 _____	_____	_____	Yes / No	
4 _____	_____	_____	Yes / No	
5 _____	_____	_____	Yes / No	
6 _____	_____	_____	Yes / No	

### Background of mother

49. What was your mother's date of birth (or age now, if you don't know her date of birth)?

Date of birth

or

Age (years)

50. Is your mother still alive? (tick one only)

Yes (go to Q53)

No (continue to Q51)

51. At what age did she die?

Years

52. What did she die of?

Please specify: \_\_\_\_\_

53. Was your mother ever told by a doctor that she had high blood pressure? (tick one only)

Yes, but she only had it during pregnancy

Yes, but it was unrelated to any pregnancies

Yes, but I'm not sure if it was related to any pregnancies or not

No

Don't know

54. Was your mother ever told by a doctor that she had had a stroke? (tick one only)
- Yes
  - No
  - Don't know
55. Was your mother ever told by a doctor that she had had a heart attack or angina? (tick one only)
- Yes
  - No
  - Don't know
56. Was your mother ever told by a doctor that she had high cholesterol? (tick one only)
- Yes
  - No
  - Don't know
57. Was your mother ever told by a doctor that she had diabetes? (tick one only)
- Yes, but she only had it during pregnancy (continue to Q61)
  - Yes, but it was unrelated to any pregnancies (continue to Q58)
  - Yes, but I'm not sure if it was related to any pregnancies or not (continue to Q58)
  - No (go to Q61)
  - Don't know (go to Q61)
58. How many years did she have diabetes? (answer one only)
- Years
  - Don't know
59. What type of diabetes did she have? (tick one only)
- Type 1 (Child onset)
  - Type 2 (Adult onset)
  - Don't know
60. What treatment did she have for her diabetes? (answer all questions)
- 60.1 Pills
  - 60.2 Diet
  - 60.3 Insulin injections
  - 60.4 Don't know

## Background of father

61. What was your father's date of birth (or age now, if you don't know his date of birth)?
- Date of birth
  - or
  - Age (years)
62. Is your father still alive? (tick one only)
- Yes (go to Q65)
  - No (continue to Q63)
63. At what age did he die?
- Years



64. What did he die of?

Please specify: \_\_\_\_\_

65. Was your father ever told by a doctor that he had high blood pressure? (tick one only)

Yes

No

Don't know

-

66. Was your father ever told by a doctor that he had had a stroke? (tick one only)

Yes

No

Don't know

67. Was your father ever told by a doctor that he had had a heart attack or angina?  
(tick one only)

Yes

No

Don't know

68. Was your father ever told by a doctor that he had high cholesterol? (tick one only)

Yes

No

69. Was your father ever told by a doctor that he had diabetes? (tick one only)

Yes (continue to Q70)

No (go to Q73)

Don't know (go to Q73)

70. How many years did he have diabetes? (answer one only)

Years

Don't know

71. What type of diabetes did he have? (tick one only)

Type 1 (Child onset)

Type 2 (Adult onset)

Don't know

72. What treatment did he have for his diabetes? (answer all questions)

72.1 Pills

72.2 Diet

72.3 Insulin injections

72.4 Don't know

## Reproductive history (women only - men go to Q94)

73. How old were you when you first began to have menstrual periods? (answer one only)

Years

Don't know

74. Have you had a menstrual period in the last year? (tick one only)

Yes (go to Q77)

No (go to Q75)

75. How old were you when you had your last natural period?

Years

76. Why did your periods end? (tick one only)
- Because of early menopause (the change of life)
  - Because of a surgical operation
  - Because of another medical treatment (eg. Chemotherapy)
  - Breastfeeding
  - Pregnancy
  - Other (please specify): \_\_\_\_\_
  - Contraceptives
77. Have you ever used oral contraceptives (the pill)? (tick one only)
- Yes (continue to Q78)
  - No (go to Q82)
78. How old were you when you started taking oral contraceptives?
- Years
79. For how many years altogether have you used oral contraceptives?
- Years
80. Do you use oral contraceptives now? (tick one only)
- Yes (continue to Q81)
  - No (go to Q82)
81. What brand do you use?
- Please specify: \_\_\_\_\_
82. Have you ever had contraceptive injections (eg. Depo Provera)? (tick one only)
- Yes (continue to Q83)
  - No (go to Q86)
83. How old were you when you started receiving contraceptive injections?
- Years
84. For how many years altogether have you received contraceptive injections?
- Years
85. Do you receive contraceptive injections now? (tick one only)
- Yes
  - No
86. Have you ever been pregnant ? (tick one only)
- Yes (continue to Q87)
  - No (questionnaire is complete)
87. How many times have you been pregnant (include all pregnancies of 20 weeks duration or more)?
- Number of pregnancies

88. Please list the details of all babies you have given birth to (include stillbirths/ miscarriages of 20 weeks duration or more). (please list one child per row)

Child	Was the baby born alive?	Date of birth (day/month/year)	Sex	How many weeks gestation	Birthweight (lb / kg)
1	Yes / No		M / F		
2	Yes / No		M / F		
3	Yes / No		M / F		
4	Yes / No		M / F		
5	Yes / No		M / F		
6	Yes / No		M / F		

89. How many miscarriages (at less than 20 weeks pregnant) have you had?  
Number of miscarriages

90. During your pregnancy did a doctor ever tell you that your blood pressure was high?  
(tick one only)

- Yes (continue to Q91)
- No (go to Q92)
- Don't know (go to Q92)

91. What treatment did you receive for your high blood pressure you developed when you were pregnant? (answer all questions)

- 91.1 Admitted to hospital
- 91.2 Confined to bed rest at home
- 91.3 Pills
- 91.4 Can't remember
- 91.5 Other (please specify): \_\_\_\_\_

92. During your pregnancy did a doctor ever tell you that you had developed diabetes as a result of your pregnancy? (tick one only)

- Yes (continue to Q93)
- No (go to Q96)
- Don't know (go to Q96)

93. What treatment did you receive for the diabetes you developed when you were pregnant? (answer all questions)

- 93.1 Pills
- 93.2 Diet change
- 93.3 Insulin injections
- 93.4 Bed rest
- 93.5 Can't remember
- 93.6 Other (please specify): \_\_\_\_\_

## Reproductive history (men only)

94. How many babies have you fathered (include all pregnancies of 20 weeks duration or more)?

Number of babies

95. Please list the details of all babies you have fathered (include stillbirths/miscarriages of 20 weeks duration or more). (Please list one child per row)

Child	Was the baby born alive?	Date of birth (day/month/year)	Sex	How many weeks gestation	Birthweight (lb / kg)
1	Yes / No		M / F		
2	Yes / No		M / F		
3	Yes / No		M / F		
4	Yes / No		M / F		
5	Yes / No		M / F		
6	Yes / No		M / F		

# 3 day diet record

The following record is to gauge a pattern of food intake for you over a typical 3 day period

Diet record – days 1-2

Time	Food and Drink	Amount	Food and Drink	Amount
6am				
7am				
8am				
9am				
10am				
11am				
12pm				
1pm				
2pm				
3pm				
4pm				
5pm				
6pm				
7pm				
8pm				
9pm				
10pm				

11pm				
12midnight				
1am				
2am				
3am				
4am				
5am				
End of day				

diet record – day 3

Time	Food and Drink	Amount
6am		
7am		
8am		
9am		
10am		
11am		
12pm		
1pm		
2pm		
3pm		
4pm		
5pm		
6pm		

7pm		
8pm		
9pm		
10pm		
11pm		
12midnight		
1am		
2am		
3am		
4am		
5am		
End of day		

**ID number:**  
**Initials:**  
**Parent/caregiver**

## **Prematurity and Glucose and Insulin Metabolism**

### **Children's study- Questionnaire**

(to be completed by the parent or caregiver)



## How to complete this questionnaire

- Thank you for agreeing to participate in this study. This questionnaire takes about 20 minutes to complete. Please make time to complete the questionnaire when you are relaxed and unlikely to be disturbed.
- Details of your usual GP are collected should you wish any clinical information from this study to be sent to them.
- Please try to answer ALL questions. If you have difficulty with a question, please feel free to ask us.
- When you have completed the questionnaire please post it in the envelope provided.
- Please use a black or blue pen to complete the questionnaire. Do **not** use pencil.

All information you provide is strictly confidential and only the investigators concerned with this study will have access to it.

## Participant's (child) contact details

1. First name(s): \_\_\_\_\_ Last name: \_\_\_\_\_  
2. Address: \_\_\_\_\_
3. Home phone number: \_\_\_\_\_ Parent's mobile phone number: \_\_\_\_\_  
4. Parent's email address: \_\_\_\_\_

## Contact details of your usual GP

1. Title: \_\_\_\_\_ First name(s): \_\_\_\_\_ Last name: \_\_\_\_\_  
2. Address: \_\_\_\_\_
3. Phone number: \_\_\_\_\_

## Participant's details

1. Which ethnic group does he/she belong to?  
1.1 New Zealand European  
1.2 Māori  
1.3 Samoan  
1.4 Cook Island Maori  
1.5 Tongan  
1.6 Niuean  
1.7 Chinese  
1.8 Indian  
1.9 Other (such as Dutch, Japanese, Tokelauan)  
If yes, please specify: \_\_\_\_\_
2. Annual income of the family  
\$<20,000      \$ 20-40000      \$40-60000      \$>60000
3. Does he/she regularly take (once a week or more) any prescription or non-prescription medicine, pill or tablets? Include injections and sprays (such as those used for asthma). Do not include vitamins or other food supplements.  
Yes (continue to Q4)  
No (go to Q5)
4. Please list all medications using block letters. Where possible copy names directly off packaging and include dosage) Include injections and sprays (such as those used for asthma). Do not include vitamins or other food supplements.





<b>3am</b>									
<b>4am</b>									
<b>5am</b>									
<b>End of day</b>									

hrs mins



**Medications**

<b>Drug</b>	<b>Dose</b>	<b>Dilution</b>	<b>Amount given</b>	<b>Given by</b>	<b>Checked</b>
<b><u>50% Dextrose</u> <u>(0.3g/kg)</u></b>	<b>0.6 ml/kg</b>	<b>Equal volume of water or saline to make 25%</b>			
<b><u>Insulin</u> <u>(0.015U/kg)</u> Add 10 U Actrapid to 100 ml 0.9% saline to make up solution 0.1U/ml</b>	<b>0.15 ml/kg</b>	<b>Dilute to equal volumes</b>			
<b><u>Heparin</u></b>	<b>500 u/500 ml normal saline</b>				

**DEXA scan : Y/N****peripheral QCT : Y/N****Questionnaire: Returned / Not returned****Ambulatory blood pressure Y/N**