Your child is having a cornstarch load test: information for families

A cornstarch load test is used to measure the changes in your child's blood sugar level after eating uncooked cornstarch. Cornstarch is a starch which is slowly digested to release glucose. This information sheet from Great Ormond Street Hospital (GOSH) explains about cornstarch load tests and what to expect when your child has one. An Easy Read information sheet is also included for your child.

Children with glycogen storage diseases tend to have this test. These children need feeding constantly to maintain their blood sugar at a safe level. This test shows how long it takes for the blood sugar level to reduce, which can influence the number of daytime feeds needed.

What happens before the test?

You will already have received information about how to prepare your child for the test in your admission letter.

Your child will be admitted to the ward on the afternoon before the test is due. This is so the doctors and nurses can prepare your child for the test, which starts in the early morning.

The person bringing your child to the test should have 'Parental Responsibility' for them. Parental Responsibility refers to the individual who has legal rights, responsibilities, duties, power and authority to make decisions for a child. If the person bringing your child does not have Parental Responsibility, we may have to cancel the test.

The doctors will explain about the test in more detail, discuss any worries you may have and ask for your consent for the test. If your child has any medical problems, particularly allergies, please

tell the doctors about these. Please also bring in any medications your child is currently taking.

Your child will need to have a cannula (a thin plastic tube) inserted into a vein so blood samples can be taken more easily. A nurse will apply some local anaesthetic cream first so that the skin is numb. If your child is over five years old, they may like to have a cold numbing spray before the needle instead of the cream.

During the night, your child will have their usual overnight feed, but this will be stopped at 8.30am so the test can start.

What does the test involve?

Within 15 minutes of stopping the night feed, a nurse will take a small sample of blood from the cannula. Your child will also be given a small amount of water with the cornstarch mixed into it. Sometimes the cornstarch is mixed with milk.

Your child will not be allowed to eat anything during the test, and will only be allowed to drink water. Your child's blood sugar level will be checked every hour by taking a small sample of blood from the cannula. This will continue for the duration of the test until your child's blood sugar level drops to the low level decided previously. This could take up to eight hours and during this

time your child will need to stay on the ward so the nurses can keep a close eye on them for side effects.

Once the test has been stopped, your child will be given a sugary drink to return their blood sugar to normal levels. Once their blood sugar level is back to normal it will be safe to remove the cannula.

Are there any risks?

There is a very small risk that your child's blood sugar level could drop to a dangerously low point, but as they will be closely watched on the ward, this is unlikely to happen. The nurses will stop the test if they are at all concerned about your child and give appropriate treatment for the low blood sugar.

Your child will probably feel tired and miserable during the test because he or she will not be allowed to eat as usual. It is important to continue the test so we can get accurate results. However tempting it is, giving your child food or drink other than water will mean the test will need to be stopped and rescheduled for a later date.

While your child is not drinking, it is easy for you to forget to drink too. There is a kitchen on the ward and also the coffee shop and restaurant in the hospital so please try not to forget your own needs.

What happens afterwards?

Once the test has finished, your child will be able to eat and drink as normal. After they have been checked by a doctor, you and your child will be able to return home.

When you go home, you should call the ward or your GP if your child:

- becomes generally unwell
- refuses to eat or drink
- starts to vomit
- is unduly sleepy or difficult to wake

How long will it take to get the results?

Your child's test results will be given to you at your next outpatient appointment at the hospital. However, if there is a need to start on new treatment before the appointment, the hospital will contact your family doctor (GP).

If you have any questions, please call Kingfisher ward on 020 7813 8221. At weekends, please call the switchboard on 020 7405 9200 and ask for endocrine doctor on-call, stating your child has had a cornstarch load test.

Having a cornstarch load test



You are coming to hospital for a cornstarch load test. This measures the amount of sugar in your blood. Children with some illnesses can get low blood sugar very quickly if they do not eat. This test shows how quickly this happens.



Cornstarch releases sugar slowly when you eat it. This lets us measure how quickly the sugar in your blood drops. Having low blood sugar can be dangerous.



The nurses will put a cannula (thin, plastic tube) into a vein in your hand.



You will have to stop eating in the morning of the test.



You will only be allowed to drink water.



The test will start after you have stopped eating. The nurses will take a small bit of blood to test.



Next they will give you food with cornstarch in it. You will only be allowed to drink water during the test.



The nurses will take a small bit of blood from your cannula every hour. They will check the amount of sugar in your blood each time.



The test will last for most of the day. The nurses will stop the test when your blood sugar is low. You may get grumpy, tired or cross as the test goes on. This is because you are hungry.



The nurses will check you regularly during the test and afterwards too.



They will give you a sweet drink to make your blood sugar level get back to normal.



When your blood sugar level is normal, you will be able to go home.



Please ask us if you have any questions.