

National Centre for Inherited Metabolic Disorders



Lactate:Pyruvate Ratio.

Lactate:Pyruvate Ratio

This leaflet will help to explain what to expect when your child attends Temple Street Children's University Hospital for a Lactate:Pyruvate ratio.

Why does my child need a Lactate:Pyruvate ratio?

A Lactate:Pyruvate ratio is one of the investigations used by metabolic doctors to diagnose a mitochondrial condition. The test is performed if your doctor thinks the energy producing structures of your child's cells (mitochondria) are not functioning properly. Food, especially glucose, is a fuel needed by the mitochondria to make energy. If the mitochondria are not working properly, sometimes they will find it difficult to breakdown glucose. By measuring blood samples before and after meals the doctor can see how the body reacts to eating food.

What is involved in the test?

A date for the test will be arranged and will be sent to you by post. Your child will be admitted to St. Brigid's Ward to have the test and may be admitted the night before, or the morning of the test. This depends on whether or not your child is for other tests during their admission. When you arrive you will meet your child's doctor who will explain the test and ask you to sign a consent form. It is important to tell the doctor all the medication your child maybe taking and any allergies they may have.

If your child's doctor has asked for a glucose and lactate profile your child will be admitted the day before the Lactate:Pyruvate test. Your child's nurse will provide you with information on this test. The Lactate:Pyruvate ratio test usually starts in the morning time. Your child will have a cannula (straw) put into a vein which will allow blood samples to be taken easily.

The test involves taking bloods before a normal meal and half an hour after that meal is eaten. However, the meal should take no longer than 20 minutes. If your child eats for longer than this time it may affect the result of the test. Your child will fast 3-4 hours before the first meal and 3 hours in-between meals. The nurse will also need to collect a urine sample from your child during or after the test.

What happens after the test?

After the test is finished your child's nurse will remove the cannula, unless your child is for other tests during their admission.

When your child is discharged home you will be given an appointment for the Outpatients Department.

It is always a good idea to write down any questions you may have so that you are clear about the testing.

If have any questions when you go home you can contact the Metabolic Outpatients Department to speak to a specialised doctor, nurses or dietitian

Monday – Friday 8.30am- 4.30pm
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