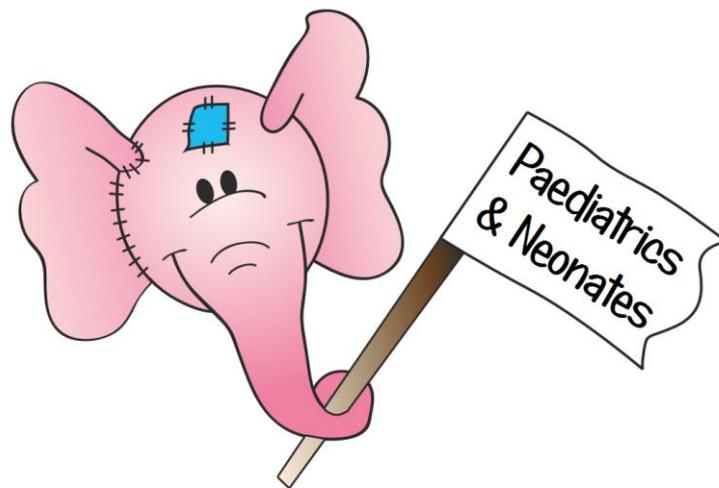


# Direct Coombs test (DCT)

## Maternity and Neonatal Unit

### Parent/Carer Information Leaflet



### Introduction

When you are pregnant and have routine antenatal screening blood tests, we check for your blood type and the presence of antibodies that may cause problems with your baby's red blood cells. If the tests find any rhesus (Rh) negative or other antibodies that could cause problems, when your baby is born a sample of the cord blood (from the umbilical cord) is taken. This is sent to the laboratory for a direct Coombs test (DCT).

The test is also carried out as a part of routine investigation in babies who develop jaundice.

## What is the DCT?

During pregnancy, it is possible for blood from the baby to cross the placenta to the mother. Where there is a mismatch between the mother and baby's blood types, it is possible for the mother to develop antibodies against the baby's red blood cells.

The antibodies (produced by the immune system in response to the mismatch) can cross via the placenta into the baby. On occasions, these can cause destruction of the baby's red blood cells.

This most commonly occurs when the mother has an RhD negative blood type and the baby is RhD positive. However, it can occur with other blood types, such as RhC, as well as other mismatches such as blood group ABO incompatibility.

If there is a mismatch, the DCT of the baby's cord blood will be positive. The test is looking for any 'foreign' antibodies that are already adhered (stuck to) your baby's red blood cells as this can cause the breakdown of the red cells (known as haemolysis).

We perform a full blood count test to check the number of red blood cells and haemoglobin (iron) level to see the effect of the antibodies in your child. For example, it may cause jaundice.

Nowadays, mothers who have an RhD negative blood type are routinely given anti-D immunoglobulin in pregnancy which helps remove RhD foetal red blood cells before they can cause problems. Due to anti-D immunoglobulin being given, the number of DCT positive babies has reduced but it can still occur.

### **Your baby has been identified as DCT positive**

As your blood type is Rh negative, we have checked your baby's blood for any antibodies. Your baby has been found to have antibodies on their red blood cells (DCT positive).

Therefore, it is important that we monitor your baby's blood count to ensure that the number of red blood cells and haemoglobin levels do not fall rapidly, or fall below what a baby doctor (paediatrician) considers as normal. The antibodies usually disappear fairly quickly so we will monitor the effect of these antibodies for the first two weeks of your baby's life.

## How do you monitor my baby?

For us to do this, you will need to bring your baby for blood tests on a Wednesday, once a week for two weeks, to the blood collection department in the main outpatient blood collection department at Russells Hall Hospital. If more tests are required, the midwifery or neonatal team will discuss this with you.

Your baby's blood results will be reviewed by a member of the Neonatal Unit staff. They will contact you if the blood result is abnormal or your baby requires treatment. Therefore, it is very important that you give **your correct telephone numbers** to the midwife before you go home as these are the numbers we will contact you on. You will need to give us both landline and mobile numbers.

## What happens now?

We will give your baby a medicine called folic acid which is a vitamin that helps the body to make red cells in the bone marrow. They will need to take the folic acid every day for one month or as directed by your baby's consultant. There is no alternative to this medication.

It is important that your baby receives each dose of the folic acid as it is important for red blood cell development. If your baby does not receive treatment, or misses too many doses, their red blood cell levels may drop which will result in your baby being admitted to the hospital.

It is important that your baby does not run out of folic acid. If you run out, you can either get a prescription from your GP or speak to a member of the Neonatal Unit.

If you have any questions or if there is anything you do not understand about this leaflet, please contact:

Neonatal Community Team on 01384 456111 ext. 3120 (8am to 4pm, Monday to Friday)

Out of these hours, contact the Neonatal Unit on 01384 244364

Community midwives who visit you when you go home:

01384 456111 ext. 3358 (9am to 5pm, Monday to Friday)

Out of these hours, call the Maternity Unit on 01384 456111 ext. 3360

Russells Hall Hospital switchboard number: 01384 456111

**This leaflet can be downloaded or printed from:**

<http://dudleygroup.nhs.uk/services-and-wards/paediatrics-and-neonatology/>

If you have any feedback on this patient information leaflet, please email [dgft.patient.information@nhs.net](mailto:dgft.patient.information@nhs.net)

**This leaflet can be made available in large print, audio version and in other languages, please call 0800 073 0510.**

للحصول على هذه النشرة بحجم أكبر، وعلى شكل إصدار صوتي و بلغات أخرى، الرجاء الاتصال بالرقم 08000730510.

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Ulotka dostępna jest również w dużym druku, wersji audio lub w innym języku. W tym celu zadzwoń pod numer 0800 073 0510.

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Aceasta broșura poate fi pusă la dispoziție tipărită cu caractere mari, versiune audio sau în alte limbi, pentru acest lucru vă rugăm sunați la 0800 073 0510.

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