Rh(D) (rhesus) negative blood & pregnancy

Everyone belongs to one of four blood groups: A, B, AB, or O. These groups are defined by the types of protein on your red blood cells.

But your blood type is also classified by another protein called Rh(D) (formerly known as the rhesus factor). Most people have this protein on their red blood cells and are called Rh(D) positive. If you don't have this protein, you're Rh(D) negative.

Being Rh(D) negative isn't a bad thing – it doesn't usually cause any health problems.

But if you're pregnant, there are some things you need to know about.

**Being Rh(D) negative during pregnancy**

You and your baby have separate blood supplies. Usually, only nutrients and waste products move across the placenta between you and your baby, while blood doesn't. But problems can occasionally happen if you have Rh(D) negative blood and your baby has Rh(D) positive blood, and some of your baby's red blood cells cross the placenta to come into contact with your blood.

If this happens, your immune system can make antibodies, which attack and destroy your baby's red blood cells because they're different. As a result, your baby gets anaemia (meaning they have low numbers of red blood cells). They then release a substance called bilirubin, which causes jaundice. This doesn't happen if you're Rh(D) positive and your baby is Rh(D) negative.

We can stop this happening by giving you a medication called anti-D within 72 hours (three days) of your baby's blood crossing the placenta. But if you start making antibodies, nothing can stop it and it will continue happening in the future. This may affect future pregnancies.

**Jaundice**

Jaundice is yellowing of the skin. Usually it's mild but in severe cases it can lead to brain damage in a baby. You can read more about it in *Jaundice in babies* on [www.healthinfo.org.nz](http://www.healthinfo.org.nz).
Sensitising events
There are several situations in which your baby's blood could cross the placenta:
- as you give birth
- if you have any vaginal bleeding during pregnancy
- if you have a miscarriage (after 12 weeks gestation) or an abortion
- if you have an injury to your tummy during pregnancy (for example a car accident or a fall).
These are called sensitising events because there's a risk your baby's blood has crossed the placenta and your body has started making antibodies. If any of these things happen, contact your midwife. You need to have anti-D within 72 hours to stop it from happening.

Preventing this from happening
If you have a sensitising event, your midwife or doctor will offer you an injection of anti-D. Anti-D is a blood product made from donated blood. It helps to remove your baby's red blood cells from your body, so you stop you making antibodies against them. This prevents harm to your baby and any babies you have in the future and has a 90% chance of working.

After your baby is born, blood from the umbilical cord or placenta will be tested to check your baby's blood group. If your baby has Rh(D) positive blood, your midwife will offer to give you an injection of anti-D. If your baby has Rh(D) negative blood, you won't need to have anti-D because there's no risk of making antibodies.

Side effects of anti-D
In very rare cases, anti-D may cause a severe allergic reaction. For this reason, it's best to have it at a hospital or GP surgery.

Beyond that, anti-D is very safe. You may get soreness at the injection site, and there's a small chance you may get a fever, headache or rash after the injection.

As with any blood product in New Zealand, anti-D is checked for infections before you receive it to keep you as safe as possible.

HealthInfo recommends the following pages
- NZ Blood – Your guide to blood transfusion – Anti-D Immunoglobulin (go to www.nzblood.co.nz and search for “anti-D leaflet”)
  Information from the New Zealand Blood Service about Anti-D Immunoglobulin.