

# FACTSHEET: Rhesus Negativity & Anti-D

There are several blood groups including A, B, AB, and O. Blood is either rhesus positive or rhesus negative, for example blood types like B<sup>+</sup> or O<sup>-</sup>.

The rhesus type you have is dependent on the blood group of both of your parents. For this reason, a child may have a different blood type to its mother. This is normal and usually not a problem. However, in some cases, these differences can be very important.



## What is Rhesus Negativity?

The Rhesus factor is the name given to a blood group protein, Rh (D), which is attached to red blood cells. Some people have this protein on their red blood cells and others do not.

When the maternal blood type is Rhesus negative and the foetus is Rhesus positive, complications can occur with future pregnancies if the blood cells from the foetus enter her blood stream.

This would normally only happen at the time of birth, or during an event such as a miscarriage or termination. Her immune system will treat the blood cells from the foetus as foreign and respond by making antibodies against them.

Antibodies are an important component of the body's natural defense system. If these antibodies develop, they will not normally affect the first pregnancy. However, our immune system has a good memory and in future pregnancies, if the foetus is again rhesus positive, antibodies can be made which may cross the placenta and destroy the foetus' blood cells, causing serious complications such as severe anaemia.

Rh (D) immunoglobulin, a special antibody injection, can avoid potential harm.

## What are Anti-D Injections?

By giving an injection of rhesus antibodies known as Anti-D, the woman's immune system is prevented from making antibodies against future pregnancies. The Anti-D injection "mops up" antibodies which the woman may have already produced. Women who are continuing with a pregnancy will have multiple injections of Anti-D throughout her antenatal journey.



# Do Women Undergoing a Termination Need to Have an Anti-D Injection?

Women who are undergoing surgical termination of pregnancy in Australia may be offered an injection of Anti-D. At Clinic 66 we stock Anti D on site, and if you are offered this treatment, we will ask you to sign a separate consent form, as it is a blood product.

For medical termination of early pregnancy, there is limited evidence to support the administration of Anti-D. Access to Anti-D may be limited and prescribing GPs may not have access to it. Several guidelines, including that produced by the Royal Australian and New Zealand College of Obstetricians and Gynaecologists, do NOT recommend Anti-D administration to women undergoing medical termination of pregnancy under 9 weeks.

## When Should Anti-D Be Given?

Only women who have a rhesus negative blood group will be offered an Anti-D injection. To be effective, this must be given as soon as possible, particularly within 72 hours of a sensitising event. These events include surgical termination of pregnancy, before the woman's immune system has the chance to make its own antibodies. Women who are continuing with a pregnancy will be advised by their obstetrician/ midwife as to the timing of Anti-D administration throughout the pregnancy.

## Are There Any Risks?

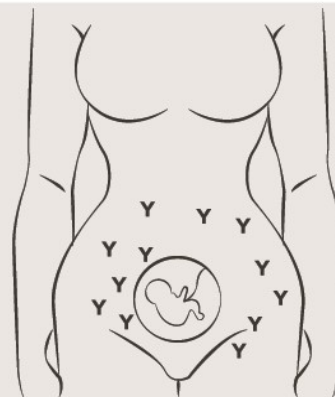
Anti-D is made from the plasma (liquid part of blood) of carefully selected blood donors. In Australia, there has never been a confirmed case of transmission of viruses such as hepatitis B or C, or HIV from Anti-D products supplied in Australia.

To reduce the risk of infection transmission, donors and donations are screened and virus removal procedures are implemented during the manufacturing process.

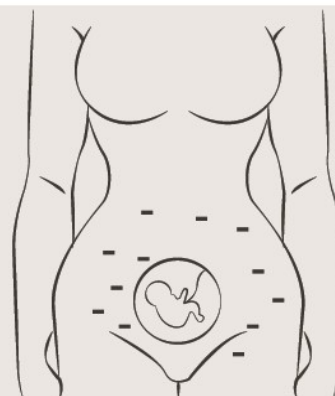
If you have any questions about the risks and benefits of Rh (D) immunoglobulin, or your treatment generally, consult your Clinic 66 physician.



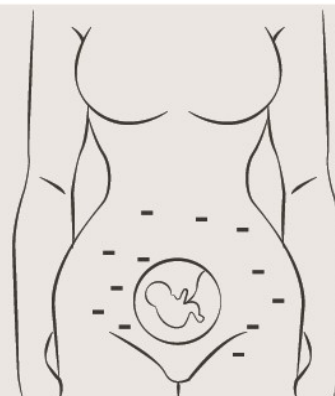
Rh (D) positive red blood cells from the foetus enter the woman's bloodstream (usually at the time of pregnancy).



Rh (D) immunoglobulin (Y) is injected within 72 hours of the end of the pregnancy to remove fetal Rh (D) positive red blood cells from the maternal bloodstream.



The Rh (D) immunoglobulin injection is given before the woman's immune system has the chance to make its own antibodies against the fetal Rh (D) positive blood.



Therefore in the next pregnancy with an Rh (D) positive foetus, the mother does not have pre-formed antibodies which can affect the red fetal blood cells.