

Annex A Reproductive immunology patient fact sheet

<http://www.hfea.gov.uk/en/990.html>

Reproductive immunology and fertility treatment

You may have read about new tests and treatments relating to the immune system, referred to as '**reproductive immunology**', which a few fertility clinics now offer.

There has been much debate about the role of a natural part of the immune system in pregnancy, including some cells, known as 'NK cells', or 'natural killer cells' that help the body fight disease.

Some medical professionals believe that a woman's immune system can occasionally react against sperm, preventing fertilisation, or against an embryo, which either stops the embryo from implanting, or rejects the embryo early on in pregnancy, resulting in a miscarriage.

They may suggest carrying out tests to identify possible abnormalities in the immune system, and treatment which they believe can help a woman to get pregnant.

These tests, and any subsequent treatment, are in their very early days and there is no conclusive evidence to show that they are effective. They do not require a licence from the HFEA. We would advise anyone being offered such tests and treatment to discuss them fully with their clinic.

Frequently asked questions:

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Why have these treatments been suggested?

In some cases, a woman's fertility problems can be caused by the failure of an embryo to implant into the womb or by early miscarriages of an implanted embryo. Some doctors believe that women with repeated failed IVF treatments or a number of miscarriages may benefit from this treatment.

What is involved in these tests and treatments?

Immunological testing is designed to measure the number of antibodies in the blood of a woman and testing for a type of immune system cell called Natural Killer cells. Initially, a clinic may suggest a simple blood test. Based on the results, they may recommend further investigations or treatments. These could involve an endometrial biopsy (a procedure to remove a small sample of the lining of the uterus), drug treatments, or intravenous immunoglobulin.

As with all medical interventions, these carry with them risks and potential side effects. You should discuss these fully with your clinic before going ahead with further investigations and treatments.

What evidence is there to show these treatments work?

These tests and treatments have only recently been developed. To date (March 2005), there is no conclusive proof that these treatments are effective in helping improve a woman's chance of having a baby. Neither is there conclusive evidence that these treatments do not work at all.

Although increased levels of NK cells in the blood have been found in a limited number of women with a history of repeated miscarriages and failed IVF cycles, there is no conclusive evidence that this is linked to an increase in the number of NK cells in the womb or that these NK cells are responsible for the miscarriages.

The HFEA and the Royal College of Obstetricians and Gynaecologists (RCOG) Science Advisory Committee both agree that there is not enough evidence available at the moment to justify the blood tests, examinations (such as endometrial biopsies) and drugs that may be involved in testing and treatment.

The HFEA is continuing to monitor the situation and to gather any new evidence which would prove the value of these treatments one way or the other.

Should my clinic offer these treatments?

There is no conclusive evidence to show that these treatments are either beneficial or ineffective. However, some doctors genuinely believe that they offer benefits for their patients, and they are doing nothing wrong in providing such tests and treatments.

Unlike IVF itself, immunological tests and treatments do not require a licence from the HFEA. But fertility clinics licensed by the HFEA do have to provide appropriate information about any proposed tests or treatment, to make sure that you understand any risks and side effects, and are giving informed consent.

How much do they cost?

Costs are set by individual clinics. This is not something that the HFEA has the power to regulate and we advise you to discuss all the possible costs that may arise with your clinic before going ahead. These tests and treatments are paid for privately, and can be very expensive. You may wish to discuss this informally with other patients who have had them - see *Where can I find out more?* below.

What should I ask my doctor?

If you are recommended immunological treatments as part of your infertility treatment, we advise you to make sure you feel properly informed about the potential benefits, and risks, of the tests and treatment.

Your clinic should explain why they think that this may be beneficial to your particular circumstances, and what the risks and side effects may be, along with the costs you will incur.

It is important that you feel you have talked through all these areas with your clinic, and that you have had an opportunity to weigh up all the issues and feel happy with your decision before giving consent to any immunological treatment.

Questions you may want to ask include:

- Why do you think I need this treatment? Can you explain what you think is happening in my body?
- What will the treatment involve for me?
- How much difference do you think having this treatment will make for me?
- What are the side effects and risks of the treatment?
- How much will the tests and treatment cost me?

Where can I find out more?

For more detailed information about reproductive immunology treatment please visit the Royal College of Obstetricians and Gynaecologists website <http://www.rcog.org.uk/>

The latest research study in this area was published in the BMJ in November 2004. (Moffett et al, BMJ volume 329 pages 1283-1285)

Infertility Network UK. Provides practical support in factsheets and other literature, and has medical advisers with whom you can discuss your circumstances. Also offers a telephone counselling service and local support groups, putting patients in touch with one another. <http://www.infertilitynetworkuk.com/>. Tel: 08701 188088.

There are many websites and chatrooms set up by others undergoing fertility treatment, and these can be very useful sources of information. Some that patients have told us they find helpful include:

<http://www.fertilityfriends.co.uk/>;
<http://www.gettingpregnant.com/>; and
<http://www.fertilitystories.com/>

For further reading:

For the most recent information on the medical debate, please see the most recent journal article in Human Reproduction, entitled: [Natural killer cells and reproductive failure-theory, practice and prejudice](#) (Rai, Sacks & Trew). Hum. Reprod., May 2005; 20: 1123 - 1126.

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