

Intra-Cytoplasmic Sperm Injection (ICSI) Patient Information Leaflet

Background

Intra-cytoplasmic sperm injection (ICSI) is a technique, introduced in 1992 to help certain types of infertility. Thousands of couples have become parents as a result of ICSI. It involves the injection of a single sperm directly into the centre of an egg to fertilise it. This procedure bypasses the natural process of the sperm travelling to the egg on its own.



What is the difference between IVF and ICSI?

ICSI is very similar to IVF, with the same process for egg collection. The difference is in the process of insemination. Instead of the sperm being mixed with the eggs as in IVF, with ICSI, a single sperm is injected directly into each egg, with a highly trained embryologist having selected the sperm that are most active and healthy. ICSI allows the use of sperm that may not otherwise have been able to fertilise an egg.

Are there any risks associated with ICSI?

Risks associated with ICSI include the potential for damage to a small number of eggs as they are prepared for the procedure, and also through the process of injection.

ICSI has previously been linked with certain genetic and developmental defects in a very small number of children born using this treatment. However, it is difficult to determine whether this is a result of the ICSI procedure or the underlying cause of infertility. Follow up studies from children born using this technique are still on-going. Another issue to consider is the possibility that if your child conceived as a result of ICSI is a boy, he may inherit his father's infertility. At this stage it is too early to know if this is the case.

It is important that you discuss possible risks with your doctor before going ahead with treatment. You may also find it helpful to discuss your concerns with a counsellor.

How could ICSI help me?

ICSI could be helpful if the male has:

- Low sperm count (oligozoospermia).
- Abnormal sperm shape (poor morphology).

- Sperm have poor swimming ability (poor asthenozoospermia).
- Sperm cannot bind or penetrate the eggs for an unknown reason.
- Tubes carrying sperm from the testicles to the penis (vas deferens) are damaged or missing.
- Previous failed or low fertilisation.
- Immune system adverse reaction to sperm (anti-sperm antibodies).
- Failed reversed vasectomy. Testicular sperm extraction (TESE) may be required to obtain sperm. For more information about TESE and what it involves, and whether these may be options for you, please speak to your doctor.
- Difficulty obtaining an erection or achieving ejaculation. This particularly affects men who have spinal cord injuries, Hodgkin's disease and numerous other disorders.

What are my chances of having a baby with ICSI?

The chances of having a baby using ICSI are similar to those for IVF. As with most fertility treatment, success depends on many factors including female age.

For up-to-date information and access to recent patient experiences using ICSI, please use the following link to access the HFEA website:

<https://www.hfea.gov.uk/treatments/explore-all-treatments/intracytoplasmic-sperm-injection-icsi/>

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This leaflet can be made available in different formats on request. If you would like to make any suggestions or comments about the content of this leaflet, then please contact the Patient Experience Team on 0151 702 4353 or by email at pals@lwh.nhs.uk

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