

Mr Nabil Haddad M. OBSTET, GYNAEC, FRCOG  
Consultant Gynaecologist

Patient Information

# Intracytoplasmic sperm injection (ICSI)

## What is Intracytoplasmic sperm injection (ICSI)

Intracytoplasmic sperm injection (ICSI) is a modification of the IVF procedure. Whilst IVF involves the mixing of sperm with eggs under laboratory conditions, ICSI is a more sophisticated technique in that it involves the injection of 1 sperm into each egg. ICSI is carried out using a specialised piece of equipment known as a micro-manipulator by embryologists who hold a licence to perform this technique.

### Who is ICSI suitable for?

There are 2 main groups of patients who may be helped with ICSI. They are:-

- Those couples where the male partner has a low sperm count, reduced sperm motility, an increase in the number of sperm with an abnormal appearance or where there are anti-sperm antibodies that cause sperm to stick together
- Those couples who have had failed fertilisation at IVF treatment.  
ICSI can also be used following surgical sperm recovery techniques, such as PESA or TESE.

### What does ICSI involve?

ICSI follows normal IVF procedures up to the point of egg collection and sperm preparation.

With ICSI the eggs are then carefully separated from the surrounding cumulus cells to check their suitability for injection. Eggs must then be injected at the correct stage of maturity and therefore it is usually not possible to inject all the eggs collected. The embryologist will let you know how many eggs are suitable for injection.

The ICSI injection process involves holding a single egg by gentle suction at one end of a microscopic tube and then picking up and injecting a single sperm into the centre of this egg using an even finer glass pipette. The eggs are then left overnight in the incubator for fertilisation to hopefully proceed. The next day the embryologist assesses the eggs for fertilisation. Between 2-5 days after the egg collection and ICSI, the fertilised eggs (embryos) are assessed again for signs of continued division and the best are selected for transfer into the womb. To allow monitoring of this technique, all the embryos replaced must be from either injected eggs (ICSI) or straightforward IVF, the two cannot be mixed. Embryos not used can be frozen for later use providing they are suitable (your embryologist will advise you at the time of transfer).

### What are the risks associated with ICSI?

Since ICSI involves placing a glass needle into your egg and injecting the sperm directly into its centre, you may have concerns about the risk of damage to the embryos or of any other abnormalities in the babies born from this technique. As this technique is relatively new (it was pioneered in the early 1990s), all the risk factors cannot be determined accurately and the long term risks will not be known for a number of years. However, data from Brussels where this technique was first performed showed that the incidents of major birth defects in children born as a result of ICSI may be twice that of normal, although this is still an extremely rare occurrence. Minor birth defects may also be 50% more likely. Abnormalities involving sex chromosome abnormalities occur quite frequently naturally (around 1:200-300 births) and are likely to be increased slightly in ICSI babies. Although this means the problems are still very rare, we do offer a blood test to the male partner to check his chromosomes.

It has been found that some men with low sperm counts may have a fault on their Y chromosome that cannot be detected by the standard chromosome tests. These men who achieve a pregnancy with ICSI may pass this fault on to their male children, who as a result may have a low sperm count later in life.

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### Further Information

If you would like further information on ICSI then please contact us using the information below or using the 'Ask a Question' form on our website.

### Contacting Mr Haddad

General Queries and Appointments	Mr Haddad's Private Secretary
Freephone: 0800 804 7640	Anne Bailey
Tel: 01244 677797	Tel: 01244 677797
Fax: 01244 674222	Fax: 01244 674222
Email: <a href="mailto:enquiries@nabilhaddad.co.uk">enquiries@nabilhaddad.co.uk</a>	Mob: 07765 004984
	Email: <a href="mailto:a.bailey@nabilhaddad.co.uk">a.bailey@nabilhaddad.co.uk</a>

### About Mr Haddad

Nabil Haddad qualified in medicine in Cairo in 1976. He trained in London, Southampton, Liverpool and Edinburgh. In 1989, Nabil was appointed as a Consultant Gynaecologist in Chester. Here he developed the Fertility and Assisted Conception Service and has led the service ever since.

Nabil was instrumental in pioneering **Transport IVF** and had the first ever successful baby from that technique in 1990.

Nabil is committed to the provision of total fertility services and advocates a **Fitness for Fertility** approach in order to prepare couples for treatment and improve successful outcomes.

Nabil serves on many local and national fertility committees. His research is clinically orientated and he has published on many aspects of fertility care.

Nabil is an expert in Gynaecological Management of:

- Endometriosis
- Fibroids
- Menopause
- Menstrual disorders
- Pelvic pain
- Polycystic Ovarian Syndrome and abnormal cervical smears.
- Recurrent Miscarriage

Nabil takes great pride in offering the highest standard of individualised 'Patient Care' in comfortable and professional surroundings and believes wholly in evidence-based medicine.

Furthermore, the decision making process does not only involve Mr Haddad and his multi-disciplinary team, but involves you the patient, which means you fully understand what treatment is being prescribed and for what reasons.



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**Our Clinics**

<b>Our Clinics</b>		
<b>Grosvenor Nuffield Hospital</b> Wrexham Road Chester CH4 7QP	<b>Chester Wellness Centre</b> Wrexham Road Chester CH4 7QP	<b>Spire Abergele Consulting Rooms</b> Ground Floor, Priory House North Wales Business Park Abergele, Conwy LL 22 8LJ
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