

## What else is there to consider?

- There is a risk that all embryos tested will be affected and no embryos will be transferred or that the embryos fail to develop as expected
- Couples are advised that pre-implantation analysis is not yet considered to be a standard technique and we highly recommend that patients who have successfully undergone PGD have prenatal testing using CVS or amniocentesis



- PGD is aimed at reducing your chances of having a child with a specific genetic disease; however it does not test for other genetic conditions
- There are risks associated with having IVF treatment, such as Ovarian Hyperstimulation Syndrome (OHSS), pelvic infection, multiple pregnancy
- PGD can be a very emotionally and financially demanding process. We recommend availing of our complimentary counselling service throughout your treatment process

## How to arrange a PGD consultation

Routine fertility blood tests and a semen analysis should be performed prior to your initial consultation.

For further information please contact our team on 021 4624436 or email [advice@corkfertilitycentre.com](mailto:advice@corkfertilitycentre.com)



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# Pre-implantation Genetic Diagnosis (PGD)

Information for Couples



[www.corkfertilitycentre.com](http://www.corkfertilitycentre.com)

## What is PGD?

Pre-implantation genetic diagnosis (PGD) is a specialised technique offered by Cork Fertility Centre to couples who are known to be at risk of having a child with a specific genetic condition. PGD involves using IVF to create embryos in the laboratory from the eggs and sperm of the couple. The resulting embryos may then be tested for the known condition prior to embryo transfer. Performing PGD prior to transfer of embryos will reduce and almost completely remove the risk of having an affected pregnancy for that condition.



## Who might benefit from PGD?

Genetic testing of embryos may be recommended where:

- Couples already have a child with a serious genetic condition
- Couples have a family history of a serious genetic condition or have the condition themselves
- Couples have found out that they are both carriers for the condition

Over the past 19 years, more than 3,500 unaffected babies have been born following IVF with PGD for chromosomal and single gene disorders. PGD is carried out at Cork Fertility Centre for a number of genetic disorders with an identifiable gene/mutation including Cystic fibrosis, Fragile X Syndrome, Duchenne Muscular Dystrophy, Myotonic Dystrophy, Tay-Sach's Disease, Hemophilia A and also for chromosome rearrangements.

## What does PGD involve?

### 1. First Consultation

At the initial consultation the couple will meet with one of the medical staff. A general medical and reproductive history will be taken. Women will be asked specific questions about their menstrual cycle, previous pregnancies or pregnancy loss and their ovarian reserve will be assessed by means of hormone blood tests and an ultrasound scan. Results of the man's semen analysis will be reviewed. A blood test will be taken from the couple for DNA sampling in preparation for PGD.

At this consultation, the PGD treatment process will be explained in detail and the couple will be given the opportunity to have their questions answered.

### 2. Genetic Consultation

A consultation with a genetic counsellor will be required, if this has not already taken place.

### 3. Obtaining Consent

An appointment will be arranged at Cork Fertility Centre with the PGD team for final consultation and to complete consent forms.

### 4. The Treatment Cycle:

#### IVF Treatment

In an IVF cycle, the female partner is given medications to stimulate her ovaries into producing a number of mature eggs simultaneously. The eggs are then collected and fertilised with her partner's sperm to produce embryos.



These embryos are cultured and monitored for progression. After five/six days (Blastocyst stage), embryos that appear to be developing normally are suitable for PGD embryo biopsy. Full details on IVF treatment can be found on our website [www.corkfertilitycentre.com](http://www.corkfertilitycentre.com)

### Embryo Biopsy & Embryo Transfer

An embryo biopsy involves making a small opening in the zona (shell), which surrounds the pre-implantation embryo. The biopsied cells are then sent for analysis to Reprogenetics UK (the genetic screening centre) where genetic testing for the specific condition is carried out. The biopsied embryos are immediately cryopreserved to allow time for genetic analysis.



Typically one embryo deemed suitable will be transferred into the female partner's uterus using a fine tube or catheter. Any additional unaffected embryos will remain in storage for future use in another treatment cycle.

### Pregnancy Test

Twelve days after embryo transfer, a pregnancy test is carried out to see if the embryo transfer has been successful.

### What are the chances of success with PGD?

Approximately 1 in 3 couples who reach the stage of embryo transfer will be successful