What else is there to consider?

• The success of PGS varies considerably based on an individual's circumstances such as age and the number of embryos available for testing

• There is a risk that all embryos tested will be aneuploid 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 PGS have prenatal testing using chorionic villous sampling (CVS) or amniocentesis

• PGS aims to identify chromosomally normal embryos; it does not identify conditions caused by single gene defects e.g cystic fibrosis

• There is no guarantee that a miscarriage will not occur, even though PGS has been carried out before embryo transfer

• There are risks associated with having IVF treatment, such as Ovarian Hyperstimulation Syndrome (OHSS), pelvic infection, multiple pregnancy

• PGS 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 PGS 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**

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CORK FERTILITY CENTRE

Pre-implantation Genetic Screening (PGS)

Information for Couples

www.corkfertilitycentre.com

What is PGS?

Pre-implantation Genetic Screening (PGS) is a technically challenging IVF treatment that involves screening embryos for chromosome abnormalities before transferring them to a woman's womb. PGS significantly increases the chance of having a successful pregnancy after embryo transfer. It also decreases the chance of miscarriage and, considerably reduces the chance of having a baby with a chromosome anomaly.

Chromosomes carry the genes necessary to guide the growth of an embryo into a baby. Aneuploidy is the term used when there are extra or missing chromosomes. An embryo with the correct number of chromosomes is euploid.

• Most embryos with aneuploidy will not implant or will miscarry during the first trimester

• Some aneuploid embryos result in the birth of a baby with a genetic abnormality – one of the most common is Down Syndrome, resulting from an extra copy of chromosome 21

• The risk of aneuploidy increases with advancing maternal age and this is one of the reasons why women in their late 30s and 40s have a higher risk of miscarriage and a reduced chance of getting pregnant naturally

Who might benefit from PGS?

Chromosomal screening of embryos may be recommended for:

• Recurrent miscarriage
• Repeated unsuccessful cycles of IVF where good quality embryos have been transferred
• Advanced female age (the risk of aneuploidy with increasing maternal age is well recognised)
• Family history of chromosome problems

What does PGS 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 to check their chromosome number and arrangement. At this consultation, the PGS treatment process will be explained in detail.

2. Obtaining Consent

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

3. 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 PGS embryo biopsy and chromosome analysis. Full details on IVF treatment can be found on our website 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 the number of chromosomes in the cells is determined. The biopsied embryos are immediately cryopreserved to allow time for genetic analysis. The results are reported to Cork Fertility Centre prior to embryo transfer.

Typically one euploid embryo (an embryo interpreted to have the correct number of chromosomes) will be transferred into the female partner's uterus using a fine tube or catheter. Any additional unaffected embryos 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 PGS?

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

Data collected by the European Society of Human Reproduction and Embryology (ESHRE) on 13 years of PGS has shown that almost 20,000 PGS treatment cycles were started between 1997 and 2009 with a clinical pregnancy rate of 31.7%* and a delivery rate of 23%*. (*2009 figures)