

# Pre-implantation genetic diagnosis (PGD)

**This leaflet is a brief overview about PGD. If you wish to pursue this, please ask your genetic counsellor or clinical geneticist to refer you to the PGD service at Guy's Hospital.**

Pre-implantation genetic diagnosis (PGD) is a technique designed to help couples, who are at risk of having a child with a serious genetic condition, have a healthy child without the familial genetic condition. Also PGD can sometimes help couples who have had recurrent miscarriages due to a genetic condition.

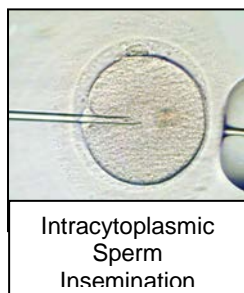
## **What is PGD?**

It is a technique used to create embryos and test them for the familial genetic condition. It involves contact with the genetics department for the genetic testing and the assisted conception unit (ACU) for the In vitro fertilisation (IVF) part of the treatment.

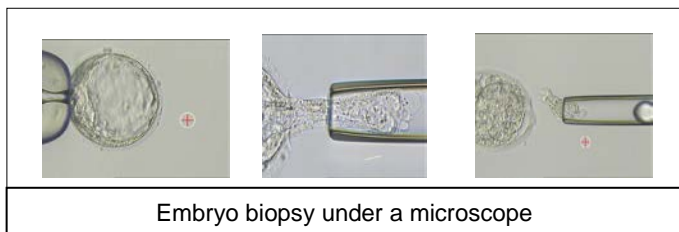
## **How does PGD work?**

1. Referrals for each couple, sent by their local genetics centre, are triaged by a member of the PGD team.
2. If it is agreed that PGD is possible, couples will be sent an appointment with the PGD genetics team. This appointment is an opportunity to ask questions and for the genetics team to agree the most appropriate type of PGD.
3. If the couple decide to proceed, relevant familial DNA samples and results are collected, family members may also need to have genetic testing. Once completed, the couple is referred to the ACU.

4. The fertility doctor will discuss the IVF process. The woman takes medication to stimulate her ovaries to produce eggs. When ready, the woman is sedated so the eggs can be collected. The eggs are fertilised with the male/sperm donor's sperm via a process known as ICSI and embryos are made.



5. Embryos are biopsied and a sample of cells from the embryo is tested for the genetic condition in the family.



6. Embryos that do not have the genetic condition are considered suitable and the woman is prepared for embryo transfer with the hope of establishing a pregnancy.

This process can take 8-18 months dependant on the condition and the complexities of the PGD process.

## How successful is it?

Approximately one in three cycles of PGD will result in a baby. If a couple proceeds through the process and has embryo(s) suitable for transfer, there is approximately a one in two or 50% chance of a pregnancy.

## Funding for PGD

PGD is funded nationally by the NHS for patients living in England. This is different to IVF which is often funded regionally.

If couples fit the below criteria, they are offered **up to** three cycles of PGD on the NHS. This funding ceases if they have a healthy child, are not responding to the treatment or no longer fit the eligibility criteria.

The funding criteria include:

- Treatment to start before the female partner is 40.
- Female partner must have a body mass index (BMI) of more than 19 and less than 30.
- Both partners must be non-smokers.
- Couples must not already have an unaffected child together.
- Couples must have been in relationship for a year.
- Couples must live at the same address.
- Couples must have had genetic counselling locally.
- Testing occurred in an accredited laboratory.

For patients living in Scotland, Wales and Northern Ireland, funding needs to be applied for. This is something that we, as well as your genetics centres, can arrange.

For couples who are not eligible for NHS funding, we offer self-funded treatment which costs about £12,000 including the cost of the fertility drugs. Each couple will be given a specific price.

In a few exceptional circumstances it may be possible to apply for funding for couples who have a health condition which prevents them from fulfilling funding criteria.

## **What else is there to consider?**

PGD can be a relatively complicated and lengthy procedure. There are times of uncertainty and many highs and lows throughout the process.

The timing of PGD will depend on a number of factors including the genetic condition PGD is being used for, the availability of DNA samples from family members and funding, among other things.

Couples will likely attend around four or five appointments at Guy's Hospital or four or five appointments split between their satellite centre and Guy's Hospital for each cycle.

There are some risks associated with PGD treatment for the woman, these can include the chance of multiple pregnancies as well as the small chance of ovarian hyperstimulation syndrome (OHSS). These risks will be discussed in your appointments in detail before proceeding with PGD.

## How do I get referred?

Please ask your geneticist or genetic counsellor to refer you to us or your local satellite centre. The first appointment will be with the PGD Genetics team to discuss the process in detail.

### Contact us

PGD Team, Clinical Genetics, 7th Floor,  
Borough Wing, Guy's Hospital, London  
SE1 9RT

**t:** 020 7188 1364

**e:** PGDGenetics@gstt.nhs.uk

**w:** [www.guysandstthomas.nhs.uk/our-services/pgd/](http://www.guysandstthomas.nhs.uk/our-services/pgd/)

For more leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit,  
**w:** [www.guysandstthomas.nhs.uk/leaflets](http://www.guysandstthomas.nhs.uk/leaflets)

### Your comments and concerns

For advice, support or to raise a concern, contact our Patient Advice and Liaison Service (PALS). To make a complaint, contact the complaints department.

**t:** 020 7188 8801 (PALS) **e:** [pals@gstt.nhs.uk](mailto:pals@gstt.nhs.uk)

**t:** 020 7188 3514 (complaints)

**e:** [complaints2@gstt.nhs.uk](mailto:complaints2@gstt.nhs.uk)

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