

Preimplantation Genetic Screening (PGS)

What is PGS?

PGS, as offered by Department of O& G (CUHK), is a screening test performed on embryos to identify chromosomal abnormalities. PGS is performed using array comparative genomic hybridization (aCGH) technology, all of the chromosomes in a single cell will be checked to determine any gain or loss of each arm of all chromosomes. It is suggested that the prevalence of aneuploidy rose steadily with age (Fertility and Sterility; 2014: vol 101:656-663), which will result in implantation failure, recurrent miscarriage and abnormal pregnancy.

Who is suitable for PGS?

You are eligible if you have:

- Advanced reproductive age (≥ 38 years old)
- Recurrent miscarriage
- Previous repeated abnormal pregnancies
- Repeated failure in IVF cycles
- Severe male factor infertility

How is PGS carried out?

- In vitro fertilization
- Embryo culture
- Embryo biopsy: removal of single cells from embryos on day-3 of development
- Array CGH will be performed on the single cell

The test result will be available on day 5 when embryos reach the blastocyst stage. Normal embryos can be transferred, if available.

Advantages of PGS

PGS identifies chromosomally normal embryos for intrauterine transfer and its potential advantages include:

- Improved implantation and pregnancy rates
- Reduced risk of early miscarriage
- Reduced risk of birth defects
- The transfer of fewer embryos
- Reduced risk of multiple pregnancies
- Increased chance of delivering a healthy baby

How much PGS alone costs?

1. Laboratory administrative fee (once PGS is requested): \$2,000
2. Biopsy fee: \$5,000
3. PGS fee: \$2,800 per embryo

**For more details, call us at 2632 1455 or
visit our website at www.ivfhk.com**

植入前基因篩查(PGS)

甚麼是胚胎植入前染色體篩查(PGS)?

PGS 是中文大學婦產科最新的臨床檢測服務，為植入前的胚胎作染色體異常篩查。植入前基因篩查 (PGS) 是利用晶片式全基因體定量分析術 (array comparative genomic hybridization, 即 arrayCGH)，檢查單一個細胞內的染色體數目有否增多或缺少。有文獻結果表示，懷有異常的胚胎的機會率會隨著年齡增高 (Fertility and Sterility; 2014: vol 101:656-663)，從而導致著床失敗、慣性流產以及異常妊娠。

誰適合選用 PGS?

我們建議選用 PGS 的病人包括：

- 高齡女性（38 歲或以上）
- 慣性流產的女性
- 有多次異常妊娠的女性
- 有多次人工受孕失敗的女性
- 嚴重男性不育症

PGS 的流程

- 安排病人以及其配偶做體外受精
- 胚胎培養
- 胚胎活檢：我們會在第三天的胚胎中抽單一細胞作分析
- 所抽取的單一細胞會利用 arrayCGH 做檢測

一般而言，在胚胎形成的第 5 天（囊胚階段）會有測檢結果。檢測報告出來以後，正常的胚胎(如有的話)就可以植入子宮。

PGS 的好處

PGS 篩選染色體數目正常的胚胎植入子宮內，其潛在效益包括：

- 提高著床／懷孕率
- 減低早期流產的機會
- 減低嬰孩生理缺陷
- 減低植入多胚胎的需要
- 減低因植入多個胚胎而引起的多胞胎妊娠
- 提高健康嬰孩活產的機會

PGS 的費用

1. 化驗室行政費用：港幣\$2,000
2. 胚胎活檢費用：港幣\$5,000
3. 植入前基因篩查(PGS) 費用：港幣\$2,800 （每個胚胎計）

如欲知道更多資料，請電 2632 1455

或請瀏覽我們的網頁 www.ivfhk.com