

PGT-A (Preimplantation Genetic Testing for Aneuploidy)

Preimplantation Genetic involves the removal (biopsy) of a few cells from the embryo and subsequent genetic analysis of those cells to determine the genetic status of the embryo. This analysis allows the detection of any anomalies in chromosomal make-up and therefore the potential selection of a genetically normal (euploid) embryo for transfer. We routinely biopsy embryos at the blastocyst stage (5-6 days old) when the embryo contains hundreds of cells and biopsy results are more accurate due to more than one cell being used for analysis.

PGT-A does not guarantee a pregnancy, nor does it guarantee a baby without any genetic disease, since some embryos carry abnormalities which are not detectable by PGT-A. Transferring a genetically normal embryo into the uterus can improve the likelihood of a pregnancy occurring and lower the risk of miscarriage, for this reason we advise the use of this screening in cases of recurrent miscarriage and advanced maternal age.

There is a conflicting body of evidence for this technology and further research is required to show its efficacy. Before deciding to have a PGT-A cycle it is important to understand some key points:

- 1. The biopsied cells will only be tested for chromosomal abnormalities
- 2. Although the biopsy procedure happens at FGA the testing will be performed at an approved and highly specialised diagnostic laboratory working alongside FGA
- 3. The diagnosis may show that all the embryos have chromosomal abnormalities
- 4. Not all embryos biopsied may yield a result
- 5. There may be no suitable embryos for transfer
- 6. There may be no embryos suitable for biopsy
- 7. Embryos that are biopsied are routinely frozen whilst results are obtained
- 8. There is a small risk of damage or loss of the embryo during the biopsy procedure
- 9. The transfer of chromosomally normal embryo(s) does not eliminate the risk of miscarriage or guarantee the birth of a healthy baby
- 10. You must not have unprotected sex during the PGT-A cycle
- 11. There is a small risk (1-2%) of misdiagnosis

For further information on PGT-A please refer to the HFEA website:

https://www.hfea.gov.uk/treatments/treatment-add-ons/pre-implantation-genetic-testin g-for-aneuploidy-pgt-a/

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