

Avoiding multiple births

Deciding how many embryos to transfer

Introduction

Women receiving fertility treatment face an increased risk of having more than one baby at the same time. This is something that every couple undergoing fertility treatment should consider seriously. There are a number of major health risks associated with multiple pregnancy both for the mother and for the unborn children. In addition the reality of raising twins, triplets or more can be stressful and fraught with practical difficulties. Patients should discuss with their doctor the chance of having a multiple pregnancy and what the implications of this would be. This leaflet sets out some of the issues relating to this discussion.

What is a multiple pregnancy?

A multiple pregnancy is a pregnancy where two or more fetuses develop at one time in the uterus (womb). A multiple pregnancy will usually be detected during an ultrasound scan. Women undergoing IVF (*in vitro* fertilisation) treatment will generally have a scan soon after pregnancy is confirmed. Those having treatment with fertility drugs alone may not always be offered an early ultrasound scan. If this is the case it is advisable for the woman to talk to her doctor and request a scan as soon as possible.

What is a multiple birth?

A multiple birth is the term used when a multiple pregnancy actually results in the birth of two or more babies. A singleton birth is the term used for the birth of one baby.

How does a multiple pregnancy occur?

- ***Monozygotic twins (identical twins)***
A single egg is fertilised and then the fertilised egg (embryo) splits into two. This creates twins who have the same genes
- ***Dizygotic twins (non identical twins)***
Two eggs are fertilised and implant in the woman's uterus. These non identical twins are no more alike

genetically than ordinary brothers and sisters

- ***Higher order pregnancies (triplets or more)***

May arise from one, two or more fertilised eggs (embryos) implanting and developing into babies

What is the likelihood of having a multiple pregnancy following fertility treatment?

As fertility treatment has become more effective and widely available there has been a steady increase in the number of twin births and a much greater increase in the number of triplet births in the UK.

During ovulation induction (also known as superovulation) fertility drugs, such as clomiphene tablets or FSH injections, are used to stimulate the ovaries to produce several eggs. When such drugs are used there is a greater risk of multiple pregnancy because more eggs are available to become fertilised.

There is an increased chance of multiple pregnancy if more than one embryo is transferred during IVF, or if more than one egg is replaced during GIFT (gamete intra fallopian transfer).

A single embryo may also divide to give a monozygotic (identical) pair in a set of twins or triplets.

What is the HFEA's policy for the number of eggs/embryos transferred during treatment?

Research has shown that limiting the number of eggs or embryos transferred during treatment to two reduces the number of multiple pregnancies without causing a significant decrease in overall pregnancy rate. For this reason the HFEA *Code of Practice* states that

Where women are using their own fresh or frozen eggs or embryos

- Women aged under 40 at the time of transfer should receive no more than either two eggs or embryos in any one cycle, regardless of the procedure used
- Women aged 40 or over at the time of transfer should receive no more than either three eggs or embryos in any one cycle, regardless of the procedure used

Where women are using donated fresh or frozen eggs or embryos, no more than two eggs or embryos may be placed in a woman regardless of her age at the time of transfer and

regardless of the procedure used. (The number of donated eggs or embryos transferred is limited to two since egg donors are fertile women who are under the age of 36.)

Patients should discuss with their doctor the number of eggs or embryos to be transferred during treatment and the reasons for this.

What are the risks of multiple pregnancy?

- The rate of early and late miscarriage is higher as is the risk of pre-eclampsia (high blood pressure during pregnancy)
- Babies are more likely to be born early. Approximately half of all twins are delivered pre-term (before 37 weeks gestation). Twins are more likely to be delivered by Caesarean section and many may need to be admitted to a special neonatal unit for intensive care
- Babies are more likely to be below normal birth weight. 50% of twins and 90% of triplets are of low birth weight (less than 2500gms) compared with 6% of singletons
- Children born pre-term and of low birth weight are at increased risk of physical disability and learning

difficulties. The rate of cerebral palsy is approximately **five times** higher for twins and **18 times** higher for triplets than for singletons

- Any pre-term baby is more likely to die than one who is born at full term, so twins and triplets are at much greater risk of death than singletons. The risk of perinatal death (death before birth or in the first week of life) is more than **four times** greater for twins and almost **seven times** greater for triplets compared to singletons

Fetal reduction

Where there is a multiple pregnancy the doctor may suggest that patients consider a fetal reduction. This involves ending the life of one or more fetuses in the early weeks of pregnancy with the remaining fetuses left to develop normally. This procedure is carried out to give the remaining fetuses a better chance to develop into healthy babies. However, some doctors may not carry out fetal reduction following fertility treatment as long as the patient and the fetuses are healthy. This is due in part to the risk of miscarriage of all of the fetuses following this procedure.

Fetal reduction can be both an emotionally and ethically difficult option for patients and their partners and should be discussed carefully with a consultant in a fetal medicine unit. The Multiple Births Foundation produces a leaflet on fetal reduction which provides further information on this issue.

What are the implications of having a multiple birth?

Caring for more than one baby at the same time can cause emotional, practical and financial stresses for families, and this may place additional strain on relationships. The everyday costs of bringing up multiples are substantial and mothers who had hoped to return to work after the birth may find that the costs of childcare make this impractical.

Following birth, parents of multiples often become exhausted due to the demands associated with looking after more than one baby. They may also suffer anxiety over sick or pre-term babies and feelings of isolation due to the practical difficulties of getting out. For these reasons depression in the early years following birth is more common in mothers of multiples.

Further information

Multiple Births Foundation

Professionals provide support and information about all aspects of multiple births.

Tel: 020 8383 3519 Website: www.multiplebirths.org.uk

Twins and Multiple Births Association (TAMBA)

A parent support network for families with twins, triplets or more and for professionals involved with their care. TAMBA runs a network of local Twins Clubs and specialist support groups.

Tel: 0870 770 3305 Website: www.tamba.org.uk

HFEA leaflets

*About The Human Fertilisation And Embryology Authority
Storage And Use Of Frozen Eggs*

Egg Donation

Welfare Of The Child: Information For Patients

Welfare Of The Child: Information For GPs

Embryo Storage

Embryo Research

Intra-Cytoplasmic Sperm Injection (ICSI)

Sperm And Egg Donors And The Law

Consent To The Use And Storage Of Gametes And Embryos

Avoiding Multiple Births

Egg Freezing Centres

Centres Which Carry Out IVF With Donor Eggs

Centres Which Recruit Sperm Donors

Contact

Human Fertilisation and Embryology Authority

Paxton House, 30 Artillery Lane, London E1 7LS

Tel: 020 7377 5077 Fax: 020 7377 1871

Email: admin@hfea.gov.uk Website: www.hfea.gov.uk