

Multiple Pregnancies and Births

Considering the risks

When someone really wants to have a child, the idea of becoming pregnant with more than one baby may sound ideal, especially if she has been waiting a long time. However, there are some significant risks associated with multiple pregnancies which need to be considered before treatment.

What causes a multiple pregnancy?

There are different types of multiple pregnancies:

- **non-identical/fraternal (dizygotic) twins:** two different eggs are fertilised and implant into the woman's uterus. These non-identical twins are no more alike than 'ordinary' brothers or sisters. The vast majority of IVF twins are non-identical
- **identical (monozygotic) twins:** a single egg (zygote) is fertilised. This divides into two, creating twins who have the same genes as each other
- **higher order pregnancies (triplets or more):** these can arise from one, two or more fertilised eggs implanting into the uterus and developing into babies. An embryo can also divide and develop into two - or sometimes more - identical babies and one non-identical baby

After natural conception, about one in 80 births in the UK is a multiple compared with one in four after IVF. However, since the restriction of only transferring three embryos to women over 40 years old, the incidence of triplets - or higher order multiples - following IVF is very low. The elective single embryo transfer policy (eSET), adopted by all the fertility clinics in the West Midlands, will further reduce the incidence of IVF multiples.

What are the risks to the mother?

Multiple births are the single biggest risk to mothers and babies during IVF treatment and they are six times at risk of complications compared to a singleton pregnancy, including:

- miscarriage, hypertension/pre-eclampsia (high blood pressure with subsequent risks of kidney and heart problems), anaemia (iron deficiency), haemorrhage (bleeding), early labour and delivery with forceps or caesarean section
- although the risk of mortality is still small, it is doubled for women expecting twins, compared to women who are pregnant with a single baby (known as a singleton)
- up to 25% of multiple pregnancies are complicated by pregnancy-induced high blood pressure and the incidence of diabetes during pregnancy is two to three times more than in singleton pregnancies
- the risk of pre-eclampsia increases and is nine times higher for women pregnant with triplets

What are the risks to the babies?

The chances of illness, disability and death are highly increased for multiple pregnancies, because the babies are premature:

- 50% of twins are born prematurely (before 37 weeks of pregnancy) and have a low birth weight (less than 2,500 gms or 5½ lbs)
- triplets have a 90% chance of being born before 37 weeks and of having a low birth weight

- the risk of death for premature babies around the week of birth is five times higher for twins and nine times higher for triplets compared to singletons. Some effects of prematurity can affect a child well into their childhood
- identical twins have a significantly increased risk of congenital abnormalities (birth defects)
- twins are five times more likely to have cerebral palsy than singleton babies and triplets are 18 times more likely to have this condition

Why does IVF increase the chance of a multiple pregnancy?

Multiple pregnancies after fertility treatment are most likely to be non-identical twins because, in most cases, more than one embryo is transferred during treatment. Research has shown that women receiving fertility treatment are also more likely to have identical twins.

Why is there a limit to the number of embryos that may be transferred?

Like all licensed clinics, MFS can transfer a maximum of two embryos per IVF cycle if the woman patient is 39 or under, or three if she is 40 or over and using her own eggs. If she is using donor eggs, these will have come from a woman who is less than 36 years old, so one or two embryos only may be transferred.

Limiting the number of transferred embryos means there is a much smaller chance of having a multiple pregnancy, and so reduces the risks involved to both the patients and their babies. Research has shown that for a woman under 40, transferring only two embryos does not reduce her chances of getting pregnant, but substantially reduces the risk of a triplet pregnancy.

In 2007 the HFEA announced its commitment to reducing the incidence of twins in the UK from an average of 24% to 10% over the next few years, by identifying those patients who have a high chance of pregnancy and are most at risk of a multiple pregnancy. These patients will be offered single embryo transfers only, in accordance with the West Midlands' eSET policy, introduced at MFS in early 2009. (See the MFS leaflet: 'Embryo Transfer Policy'.)

The decision about how many embryos are transferred during treatment is important because it affects both the patient's chance of conceiving and also the chance of a multiple pregnancy. It is important for patients to discuss these issues, and any other concerns, with their MFS nurse, doctor or embryologist.

Does reducing the number of transferred embryos reduce the chance of getting pregnant?

MFS will suggest transferring only one embryo if it is the best option for the patient and if the team is confident that her embryos are good quality. MFS will discuss the most suitable options and may suggest transferring a single embryo and freezing any remaining ones for future use. The latest research shows that in appropriate patients, putting back only one embryo does not significantly reduce the chance of pregnancy.

Clinic statistics and multiple births

The statistics on the HFEA website not only set out the overall birth rate for each licensed clinic, but show the number of births that were twins or triplets. At MFS, the percentage of multiple births from fresh IVF and ICSI cycles for women of all ages was 29.8% (2007). Current multiple birth rates for more

specific parameters, such as age, treatment type and number of previous IVF attempts, are available upon request.

What's wrong with wanting twins or triplets?

Apart from the risks during pregnancy and birth, caring for more than one baby at the same time can cause considerable emotional, practical and financial stress on a family. It's understandable that having more than one child after fertility treatment could seem like a very positive result, but every woman should take time to consider the implications for her, her partner, any existing children and her wider family.

Further information:

- UK-wide single embryo transfer initiative
www.oneatatime.org.uk
- Multiple Births Foundation
www.multiplebirths.org.uk
T: 020 8383 3519
- Twins & Multiples Births Association (TAMBA)
www.tamba.org.uk
T: 0870 138 0509

Kindly adapted from the *HFEA Multiple Pregnancies and Births* leaflet.

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