

Risks of IVF to Infants

Summary Information

Multiple births is the single biggest risk to the health and welfare of children born following fertility treatment. The purpose of the resolution of the Maltese Paediatric Association recommending that a maximum of two embryos may be transferred into the uterus is intended to minimize this risk to children.

Hereunder is a summary of the risks of IVF to infants.

Risks for Twins and Triplets

The health risks for twins and triplets are greatly increased compared with those for singletons, mostly because multiples tend to be born prematurely and underweight. Premature and underweight babies account for half of all neonatal deaths. The risk of early and late miscarriage is also higher for twins than for singleton pregnancies.

A recent study estimated that if all IVF babies born in the UK in 2003 had been singletons, the deaths of 126 babies could have been avoided.

Premature Birth

Singleton babies are usually carried for about 40 weeks and tend to have normal birth weights. But many twins and triplets are born prematurely, before the normal time for healthy singletons. Prematurity can cause many problems and may even result in the death of the baby.

The problems caused by prematurity can range from those that, although serious, affect only the early stages of the child's life, to those that have a devastating and lifelong impact.

- At least half of twins are born before 37 weeks and with low birth weights, making them at high risk of serious health problems and death.
- Over 90% of triplets are born before 37 weeks and many are born so early that they have long-lasting, serious health problems or die soon after birth.
- If a multiple pregnancy is thought to be a serious health threat to mother or babies, the clinician may suggest a fetal reduction. This involves aborting one or more of the fetuses.

Early Stage Problems

- Between 40–60% of IVF twins need to be transferred to the intensive care unit when they are born. Only 20% of singleton IVF babies need the same level of care.

- 8% require assisted ventilation and 6% suffer from respiratory distress syndrome (breathing difficulties) compared with 1.5% and 0.8% for singletons respectively.
- The risk of death around the time of birth is 3-6 times higher for twins and 9 times higher for triplets.

Longer Term Problems

Problems that may affect twins and multiples after the early stages of life are:

- A small percentage of twins have severe health problems that will affect their entire lives. Cerebral palsy, for example, affects about 1 in 80 twins compared with singleton babies (1 in 434 singleton babies).
- Prematurity and low birth weight carry the risks of lower IQ and are linked with Attention Deficit Hyperactivity Disorder and long-lasting behavioural difficulties.
- Problems with language development is more common with twins. Twice as many twins need speech therapy compared with singletons.
- According to a Japanese study, in 7.4% of twin pregnancies, at least one child had a disability, such as cerebral palsy, impaired sight, or congenital heart disease.

<http://www.oneatatime.org.uk/126.htm>

Mortality of Triplets and Quadruplets in Malta

Between 1990 and 2011, of the 176 premature triplets and quadruplets that were admitted to SCBU and NPICU, 45 of them died. This represents a mortality of 25%.

IVF Practice in the UK

Around half of all twins and 90% of triplets are born prematurely or with a low birth weight. The risk of your baby dying in the first week of life is five times higher for twins than for a single baby. For triplets, the risk is nine times higher.

The Human Fertilisation and Embryology Authority (HFEA) recommends that a maximum of two embryos may be replaced in the womb, and that consideration be given to the transfer of a single embryo during treatment in women under the age of 40.

<http://www.nhs.uk/Conditions/IVF/Pages/Risks.aspx>