



The Shrewsbury and  
Telford Hospital  
NHS Trust

## Patient Information

The Shropshire and Mid Wales Fertility Centre

# Multiple Pregnancy Patient Information

### **Shropshire and Mid Wales Fertility Centre**

Address: Severn Fields Health Village, Sundorne Road,  
Shrewsbury SY1 4RQ.

Tel:01743 261202

## **Multiple births - what are the risks?**

Multiple pregnancy and birth is the most serious risk of in vitro fertilisation (IVF) to the health and wellbeing of both patients and babies. For twins and triplets, the health risks are mainly associated with the increased rate of premature birth.

There is an increased risk that the babies may die around the time of birth (increased perinatal mortality) or have health problems as a baby (neonatal morbidity). There is also an increased risk of long-term health problems for twins and triplets. Multiple pregnancy and birth also has increased health risks for mothers which could result in hospitalisation and even death in severe cases.

The psychosocial impact of the birth of multiples can affect many areas of life: emotional, practical and financial. Some evidence suggests that parents of IVF multiples experience greater difficulties in parenting and more problems with child behaviour than parents of naturally conceived children.

In the 2022 HFEA report into multiple births indicated that black patients had a typically higher rate of multiple pregnancy compared to other ethnic groups, privately funded patients, older patients and those using eggs from younger donors.

As a clinic our target is for less than 10% of successful treatments to be multiple pregnancies and we have a single embryo transfer policy in place for those who are most at risk of multiple pregnancy.

### **Risks to the mother**

The risks arising from multiple pregnancies for mothers range from those that are less serious to those that are life-threatening.

#### **Pregnancy complications**

Complications associated with multiple pregnancy including hypertension (high blood pressure), gestational diabetes (diabetes that occurs during pregnancy) and pre-eclampsia (a potentially life threatening condition for mother and baby). All of these conditions may require admission to hospital for the last weeks of pregnancy, and that the birth may have to be induced early.

The following complications, whilst they can occur in singleton pregnancies, are much more common in multiple pregnancies:

- Higher rates of miscarriage.
- Higher chance of pregnancy induced hypertension (20% in women pregnant with twins compared with 1–5% in women pregnant with a singleton).
- Higher risk of pre-eclampsia (up to 30% for twin pregnancies compared with 2–10% in singleton pregnancies).
- Higher risk of gestational diabetes (up to 12% in twin pregnancies compared with around 4% for singleton pregnancies).
- Higher chance of intervention in delivery (elective and emergency caesarean section rates are higher for mothers of twins).

## **Maternal mortality**

The chance of the mother dying during pregnancy or child birth is 2.5 times greater for those carrying multiples than with those carrying singletons.

## **Risks to the child**

- For children, the highest risk from being one of a number of multiples is prematurity, with all its associated problems.
- Twins are 4 times more likely to die in pregnancy than singletons

## **Premature birth**

The greatest risk associated with multiple pregnancies is premature birth:

- The average gestation for twins is 37 weeks, compared to 40 weeks for singletons. An HFEA report into multiple births published in 2022 states that around 60% of twin births from IVF pregnancies were pre-term (before 37 weeks) compared to just 9% of singletons.
- 10% of IVF twin births take place before 32 weeks of gestation compared to just 2% of singleton births. The risk of delivery before 28 weeks of gestation is 6 times higher for twins than for singletons.
- Guidelines from NICE show that the risk of preterm birth is considerably higher in multiple pregnancies than in singleton pregnancies, occurring in 50% of twin pregnancies.
- Studies have shown that almost 50% of twins have low or very low birth weight compared with 8% of singletons.

Research has estimated that on average IVF twins are born three weeks earlier, and weigh between 800g and 1000g less, than IVF singletons.

## **Perinatal mortality**

- Twins are six times more likely to die in the first year of life than singletons (24 babies out of 1000 compared with 4 in 1000 for singletons).
- In 2013 the rate of neonatal mortality (death shortly after birth) for twins was almost five times higher than for singletons.

## **Neonatal care**

- Twins are ten times more likely to be admitted to neonatal specialist care units than singletons. Between 40 to 60% of IVF twins are transferred to neonatal care units when they are born, compared with 20% of IVF singletons. In addition, research has shown that 12% of IVF twins require neonatal intensive care for more than four weeks compared with only 1.6% of IVF singletons.
- Of babies born before 26 weeks, 75% die very soon after birth and before admission to neonatal care. Those who are admitted have a 39% chance of survival, and 62% of those that survive have significant brain damage, retinopathy of prematurity (an eye condition), and/or on-going oxygen dependence at their predicted due date.

## **Additional health complications**

Numerous other health complications have been linked to multiple births, including:

**Respiratory distress:** 8% of twins require assisted ventilation and 6% suffer from respiratory distress syndrome compared to 1.5% and 0.8% for singletons respectively.

**Cerebral palsy:** Twins are six times more likely to suffer from cerebral palsy than singletons.

**Delay in language development:** 6.4% of IVF twins need speech therapy compared with 3.2% of IVF singletons.

**Disability:** Because twins are far more likely to be born preterm and of low birth weight, they are at much greater risk of disability. One study found that in 7.4% of twin pregnancies, at least one child has a disability.

**Congenital malformations:** One study found congenital malformations in 6.3% of twins compared with 4.7% of singletons.

## **Psychosocial impact**

Many people struggle with the emotional, practical and financial repercussions of a multiple birth, with parents far more likely to suffer from mental health problems such as extreme stress and depression.

Some evidence also suggests that parents of IVF multiples experience greater difficulties with parenting and more problems with child behaviour than parents of naturally conceived children.

Parents of multiples have often gone through a lengthy and difficult process addressing and treating their fertility problems, and research suggests that this impacts on their longer-term experience of parenthood.

Research shows that:

- Mothers and families with twins are more likely to:
  - experience severe parenting stress
  - have increased maternal depression
  - have a reduced ability to work outside the home; and
  - have an increased rate of divorce
- Almost 20% of mothers of twins experience depression and marital difficulties, with first-time parents of twins and those who have had fertility treatment at even greater risk.
- Twins demonstrate significantly lower levels of cognitive development than their singleton counterparts.
- Parents of twins experience greater difficulties in parenting and more problems with child behaviour.
- For first time parents with a history of infertility, these factors add to parenting stress and have an adverse effect on psychosocial wellbeing.
- Mothers of low birth weight infants who require prolonged neonatal care experience greater levels of anxiety, and feel lower levels of attachment to their babies, than mothers of full-term, healthy infants.

## **Impact on children's services**

Twin and triplet births result in increased pressure on neonatal, paediatric and social services:

- Because they are born early, 40–60% of twins are admitted to neonatal intensive care when they are born, with over 10% requiring more than 4 weeks care. This is almost a ten-fold increase over the incidence in singletons.
- Assisted conception units have a responsibility to minimise the number of multiple births as a result of fertility treatment. Neonatal units in hospitals only have sufficient staff and resources to care for a given number of babies who need special, high dependency or intensive care. If resources are stretched mothers and babies may be required to be transferred to different hospitals which may be some distance apart. The NHS expenditure on one set of IVF triplets in the first year of their lives would equate to the cost of almost 2000 cycles of IVF treatment.

## **Higher order multiple pregnancy**

If a woman becomes pregnant with more than 3 babies at the same time it is called a higher order multiple pregnancy. These pregnancies are extremely risky for both mother and babies so much so that clinicians sometimes recommend a selective termination of some of the foetuses to give the others the best chance of survival. This is a risky procedure for the pregnancy and a distressing decision to have to make. The avoidance of higher order multiple pregnancy is one of the reasons why patients are told to abstain from intercourse around the time of IVF treatment.

## **References**

**HFEA - Human Fertilisation and Embryology Authority**

[www.hfea.gov.uk](http://www.hfea.gov.uk)

## Contact details for more information

### Useful telephone numbers

Fertility nursing team **01743 261202** or call the hospital switchboard on **01743 261000** and ask to be put through to the Fertility unit. Please note the department accepts calls from 9am to 5pm Monday to Friday. **Further information is available from;**

### Patient Advise and Liaison Service (PALS)

We act on your behalf when handling patient and family concerns, liaising with staff, managers and where appropriate, relevant organisations to negotiate immediate or prompt solutions. We can also help you get support from other local or national agencies.

Royal Shrewsbury Hospital, Tel: 0800 783 0057 or 01743 261691

Princess Royal Hospital, Tel: 01952 282888

## Other Sources of Information

### NHS 111

A fast and easy way to get the right help, whatever the time. NHS 111 is available 24 hours a day, 365 days of the year.

Telephone: 111 (free from a landline or mobile)

Website: [www.nhs.uk](http://www.nhs.uk)

### Patient UK

Provides leaflets on health and disease translated into 11 other languages as well as links to national support/self-help groups and a directory of UK health websites.

Website: [www.patient.info](http://www.patient.info)

## Special Needs Information

Please contact the Fertility Unit to discuss if you need this information in another format.

Website: [www.sath.nhs.uk](http://www.sath.nhs.uk)

[www.shropshireivf.nhs.uk](http://www.shropshireivf.nhs.uk)

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