



The Risks of Multiple Pregnancy in IVF

For many couples who have spent years trying to start a family, the prospect of having twins through in vitro fertilization (IVF) may seem like a desirable option. However, most couples are not fully informed regarding the significant medical risks and complications that are associated with multiple gestational pregnancies, as well as the economic, psychological and social implications.

At the Kelowna Regional Fertility Centre, **our goal is to support couples in their IVF journey towards a healthy full term baby.** With advancements in technology, single embryo transfer (SET) can dramatically reduce the risks for both mother and baby while maintaining high pregnancy rates in select patients. After a fresh IVF cycle, extra embryos can be frozen giving couples additional chances to become pregnant. **While SET is not right for everyone, it should be considered through consultation with your physician for women that are under the age of 38, who have not previously had an unsuccessful IVF cycle, and have good quality embryos.**

According to Assisted Human Reproduction Canada, 1 in 12 twin pregnancies results in at least one baby dying or having a significant disability. This compares to only 1 in 100 singletons. The reason is that multiples are often born premature and at a low birth weight. Problems with growth leading to low birth weight (< 2500 grams) affects 1% of natural pregnancies versus 57% of twins and 97% of triplets.

- Preterm babies have a higher chance of developing respiratory distress impacting the ability to adequately circulate oxygen from the lungs throughout the body.
- Preterm babies are at risk for having bleeding into the brain which can lead to brain damage, seizures and lifelong developmental delays.
- Prematurity may result in visual impairment or blindness.
- 25% of twins spend at least 18 days in the neonatal intensive-care unit (NICU) and 75% of triplets spend 30 days or more in the NICU.
- The risks of cerebral palsy are 4 times higher for twins and 17 times higher for triplets.

Healthy women carrying a multiple pregnancy are at higher risk of complications including:

- Increased risk of pregnancy related high blood pressure which affects 6% of singleton pregnancies, 10-12% of twins, 25% of triplets. In extreme forms, this can lead to seizures in pregnant women.
- Increased risk of premature dilation of the cervix (2/1000 singletons, 9/1000 twins, 11/1000 triplets).
- Increased risk of gestational diabetes which affects 3% of singleton pregnancies versus 5% of twins, 7% of triplets.
- Increased risk of miscarriage.
- Increased risk of bleeding before or after birth.
- Increased chance of Cesarean delivery.

The economic, psychological and social implications include:

- The possible need for bed rest starting between 20-24 weeks gestation for the duration of the pregnancy.
- The need to be transferred to a tertiary care center where there are qualified professionals and a neonatal intensive care nursery.
- Additional costs associated with caring for children with lifelong disabilities.
- Higher levels of depression, lower quality of life and marital stress.
- Financial strain due to the inability of one or both parents to return to work, need for medications or supports not covered by provincial care plans, and need for a larger home and vehicle.

SET is not about saving money to the healthcare system, **it's about saving lives**. When it comes to multiples, many twins are fine, but a great many others are not. Since multiple pregnancies and their complications are an inevitable risk of fertility therapies, education about these risks is crucial prior to treatment. Your health care team at the Kelowna Regional Fertility Centre is here to support you. Don't hesitate to discuss this further with your physician and health care team.

Summary of Complications to Fetus and Newborn

Complications to the fetus and newborn

	Twins	Triplets	Quadruplets
Birthweight (g)	2,347	1,687	1,309
Gestational age at delivery (weeks)	35	32	30
Delivered at <32 weeks gestation (%)	12	36	60
Growth restriction (%)	14–25	50–60	50–60
NICU (%)	25	75	100
Duration in NICU (days)	18	30	58
Major handicap (%)	NG	20	50
Risk of cerebral palsy (versus singletons)	4x	17x	NG
Risk of death by 1 year (versus singletons)	7x	20x	NG

NG = not given; NICU = neonatal intensive care unit
Adapted from: ACOG Practice Bulletin No. 56. Multiple gestation: Complicated twin, triplet, and high-order multifetal pregnancy. Obstet Gynecol 2004.