Part 1 - Risks for the Mother

A multiple pregnancy increases the possibility that certain problems may occur for both the mother and her babies. *Multiple Births: The Possible Risks* is a fact sheet series on the topic of risks associated with Multiple Births. The goal of this information series is to inform both future parents and expectant parents of multiples about these risks and to provide them with information about ways to reduce the risks related to multiple pregnancies and birth. If you haven't already done so please also read *Part 2 - Risks to the Children* and *Part 3 – Reducing the Risks* for more information on this topic.

Introduction

A multiple pregnancy is a pregnancy in which a woman is expecting more than one baby. A multiple birth refers to the birth of twins, triplets or more. Of the 12,000 multiple-birth babies born across Canada each year, a high percentage are born healthy. While babies are a special gift to a family, parents expecting multiples face very specific challenges during pregnancy, when giving birth and when parenting two, three or more children of the same age. Expectant mothers of twins, triplets or more have a very different prenatal (before birth) experience from women expecting a single baby.

Because of the complexities of a multiple pregnancy, twins, triplets and more have a greater likelihood of health problems or even death during the prenatal period and in the months following birth. Multiple-birth infants tend to be born earlier and smaller than a single born baby, thus making multiples more vulnerable to health and developmental difficulties.

It is most important for women who may become pregnant with more than one baby and for expectant parents of multiples to receive timely information and support to help them feel prepared and at ease with the challenges they may face. Being prepared means knowing the uniqueness of a multiple pregnancy, birthing and parenting and what can be done to improve the possibility of a healthier birth outcome and a positive parenting experience. In addition, well informed parents make good partners with their health care providers in reducing the risks related to a multiple pregnancy and birth.

What are some of the risks of a multiple pregnancy and birth to the mother?

A multiple pregnancy is nearly always labelled by health care providers as "high risk". The term *risk* is used to indicate that there is a chance that particular events or situations may occur. The term does not mean that the mother or her babies will develop these complications. Both mother and babies will be closely watched as the pregnancy progresses.

The potential for complications increases greatly with each additional baby in a multiple pregnancy. For example, a triplet pregnancy is considered a higher risk than a twin pregnancy.

Women expecting twins or more require special health care during their pregnancy to prevent or manage any problems. Compared to singleton pregnancies, expectant mothers of multiples will have different nutritional needs and can anticipate having more ultrasounds, blood tests, fetal monitoring, and a greater number of visits with their health care providers.

Multiple Births

The Possible Risks

Women pregnant with multiples need to be referred to an obstetrician (a doctor specializing in delivering babies) for prenatal screening and care, and for delivery of the babies. This is critical in order to detect complications and to create a multiples-specific care plan to support as healthy as possible pregnancy and birth outcomes. Some expectant mothers of twins, and most expectant mothers of triplets or more, are referred to a perinatologist also known as a maternal-fetal medicine specialist -- an obstetrician who specializes in managing higher than normal risk pregnancies. If possible, referral to a hospital program that specializes in multiple pregnancy and birth is ideal.

What are some of the risks during pregnancy?

Miscarriage

Miscarriage, which is the loss of the fetus(es) before the 20th week of pregnancy, is a concern for all pregnant women. However, with a multiple pregnancy the risk of miscarriage is greater than with a singleton pregnancy. Approximately 70% of pregnancies containing two sacs or embryos will continue on as twin pregnancies. The remainder may go on to be a single pregnancy or miscarry.

About 1 in 10 singleton pregnancies conceived through assisted human reproduction techniques started out as a multiple pregnancy. This is partly due to *Vanishing Twin Syndrome*. *Vanishing Twin Syndrome* refers to the situation when one or more of the fetuses die before 12 weeks gestation while the remaining baby or babies continue to grow normally. It can also occur in spontaneous multiple pregnancies.

Bleeding During Pregnancy

While some women may experience slight bleeding or spotting within the first few days after a fertilized egg has implanted, it can be heavier in a multiple pregnancy. Most often, this bleeding is completely normal and is often mistaken for a light period before the pregnancy is confirmed. More serious bleeding, referred to as hemorrhaging, later in the pregnancy may signal an impending miscarriage.

Placental Problems

Abruptio placenta is a complication of pregnancy which occurs when the placenta partially detaches from the uterus before delivery resulting in some bleeding and abdominal pain. Due to the increased number of, and/or size of the placentas, this condition is more common in multiple pregnancies. It is the most common reason for complications and bleeding after the 20th week of pregnancy.

Placenta previa is another complication that occurs when the placenta implants low in the uterus, partially or completely covering the cervix. This condition shows as painless bleeding and because the placenta is covering the cervix, a cesarean section may be necessary.

Cervical Insufficiency

The cervix is the narrow lower part or neck of the uterus. Cervical insufficiency (old term *incompetent cervix*) is a possible reason for bleeding early in the pregnancy. It is a condition in which the cervix spontaneously and painlessly opens early in the pregnancy. This is believed to be one of the main causes of pregnancy loss between 13 and 27 weeks gestation. Experts do not recommend routine use of cervical cerclage (suturing of the cervix) to prevent preterm birth in multiple pregnancies.

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Multiple Births

The Possible Risks

A mother pregnant with multiples will experience increased pressure in her uterus as her babies grow. The higher the number of babies she is carrying, the greater, and earlier, the pressure on the cervix. Early detection of an insufficient cervix is very important because there may be measures that can be taken to help the mother retain the pregnancy. These actions may include bedrest, time in a tilted bed to relieve the pressure on the cervix, and/or cerclage (suturing the cervix closed). Expectant mothers of multiples with an insufficient cervix can nearly always expect that the babies will be delivered early (i.e. before 36 weeks gestation).

Gestational Hypertension also known as Pregnancy-Associated-Hypertension and Pregnancy-Induced-Hypertension

Gestational Hypertension is the medical term for high blood pressure that develops during pregnancy. About 20% of mothers carrying multiples will develop high blood pressure during their pregnancy.

Pre-eclampsia

If Pregnancy Associated Hypertension progresses with an increase in blood pressure and protein is present in the mother's urine, it is called *pre-eclampsia.* Pre-eclampsia (also known as toxemia) is a complex condition characterized by a rapid rise in blood pressure and the presence of protein in the mother's urine. Often, there is a sudden and extreme weight gain and swelling of the hands and face from fluid retention. While this condition happens in about one out of ten singleton pregnancies, it affects nearly one in three multiple pregnancies. It typically occurs in the second half of pregnancy. Bed rest is usually the recommended treatment to lessen the condition. It may require hospitalization if the condition becomes severe and medication will be given to lower blood pressure. The only way to cure pre-eclampsia is to deliver the babies. In some cases pre-eclampsia can occur during or right after the babies' birth.

Gestational Diabetes

Gestational diabetes is a type of diabetes that only occurs during pregnancy. This condition is more common in women who are over the age of 30, overweight, have a family history of diabetes or are expecting multiples. Expectant mothers of multiples are about two to three times more likely than mothers expecting singletons to develop gestational diabetes. Gestational diabetes usually disappears after the birth. However, some women will continue to have glucose (sugar) levels that are higher than normal in the few weeks after the birth requiring ongoing testing. More than 30% of women who had gestational diabetes will develop it in a later pregnancy and about 50% of women who had gestational diabetes will develop diabetes at some point in their future.

Hyperemesis Gravidarum

Hyperemesis gravidarum is the medical term for extreme and prolonged nausea and vomiting during pregnancy. Its cause is unknown. For mothers carrying multiples it is more common during the first few months, possibly because of their rapidly increasing levels of hormones. Early treatment of nausea and vomiting may lessen its progression. If this condition persists, treatment is usually required through nutritional and dietary support, medication, rest and antacids.

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Iron Deficiency Anaemia

Iron Deficiency Anemia is a common condition during pregnancy due to low levels of iron in the red blood cells. Red blood cells carry oxygen to the babies and their mother. The majority of women pregnant with multiples eventually develop this condition but the risk increases with each additional baby that is carried, and particularly if the mother had low or borderline iron reserves before becoming pregnant.

Symptoms include fatigue, light-headedness, pallor and shortness of breath. If untreated, anemia can adversely affect the babies' growth, as well as increase the mother's risk for complications both during pregnancy and after the birth. Because of the risk of iron and/or folic acid deficiency, supplements may be prescribed.

Preterm Labour

Preterm labour (or premature labour) is onset of labour prior to 37 weeks gestation. It is probably the most common concern for women pregnant with multiples. Approximately half of twins and nearly all triplets (or more) are delivered early and are smaller than average (less than 2,500 grams or 5.5 pounds). Among infants born prematurely, nearly one in ten do not survive. Although the majority of premature babies do very well, they are at a somewhat higher risk of a variety of medical and other problems, some of which will be lifelong. *Please refer to Part 2: Risks to the Children*.

Multifetal Pregnancy Reduction

Multifetal Pregnancy Reduction is a medical procedure that reduces the number of fetuses in a pregnancy. When there are serious health threats to the mother and/or her babies, clinicians sometimes recommend this procedure. Having fewer babies lowers the risks and increases a woman's chance of a nearer to term delivery of a singleton baby or twins instead of three or more babies. The majority of women undergoing this procedure have been through fertility treatment. The procedure and related decisions are not straight forward and making a decision of whether or not to undergo a reduction can be emotionally distressing. A number of women who have undergone the procedure report prolonged sadness after the births.

What are some of the risks to the mother during and following birth?

Cesarean Delivery

A Caesarean delivery (C-Section) is often necessary for multiple births, and is almost always required with the delivery of three or more babies and/or when there are complications with the birth. For example, it may be necessary when one or more babies are in a breech position. About half of twins are delivered by a Cesarean. Sometimes, it happens that a woman will deliver the first twin vaginally but complications arise and the second twin must be delivered via a Cesarean.

Risk of Mother Dying

A multiple pregnancy poses serious health risks to mothers during and after birth. As a result, they are more likely to require intervention. The risk of a mother dying as a result of a multiple pregnancy is extremely low but still about twice as likely as mothers pregnant with a single baby.

Postpartum Hemorrhage

Postpartum hemorrhage is severe bleeding after birth and is more common following a multiple birth, whether it be a vaginal or a Cesarean delivery. The increased possibility of severe bleeding following delivery is usually due to a condition called *Uterine Atony* where the muscles of the uterus were over distended during the pregnancy and fail to contract normally after the babies and placenta(s) are delivered.

Prolonged Hospital Stays

It is not uncommon for some mothers expecting and giving birth to multiples to have to spend a prolonged period of time in the hospital. This may be necessary if there is a danger that the mother may go into preterm labour. Hospital bed rest and monitoring may be prescribed by the physician due to health concerns with the mother, with the babies themselves, or both. If you are having triplets or more, expect to deliver the babies in a hospital that can care for several premature newborns all at once. (See Fact Sheet on Bedrest)

Fatigue, Sleep Deprivation and Breastfeeding

Caring for multiples is more difficult (emotionally, physically and financially) and demanding than caring for one child, especially during infancy and childhood; this issue increases with higher order multiples. One of the most common challenges for parents of multiples is securing enough sleep and overcoming the fatigue resulting from the constant care of multiple-birth infants. Multiple-birth parents are encouraged to budget for caregiving assistance, however for many families, finances are insufficient to hire caregivers on a regular basis. Breastfeeding multiples is strongly encouraged and is practiced by many multiple-birth mothers; breastfeeding two or more babies brings with it challenges that are not necessarily experienced by a woman breastfeeding one baby.

Stress and Depression

Without information and extra help, new parents of multiples are at higher risk of experiencing stress and postpartum mood disorders during the first weeks and months following the births. (See Fact Sheet on Parenting Multiples) Social isolation because of the increased child care demands is not uncommon.

First-time mothers of twins, triplets or more following fertility treatment face a higher possibility of developing post partum depression than first-time mothers of spontaneously conceived multiples.

As well, some fathers of multiples experience symptoms of post partum mood disorder.

Recommended Sources of Information:

The Multiple Births Foundation
www.multiplebirths.org.uk/
Telephone: 0208 383 3519 Fax: 0208 383 3041
E-mail: info@multiplebirths.org.uk

One At A Time - www.oneatatime.org.uk

Twin to Twin Transfusion Syndrome Foundation
www.tttsfoundation.org

International Society for Twin Studies
www.ists.qimr.edu.au

Multiple Births: Prenatal Education & Bereavement Support- www.multiplebirthsfamilies.com

Documents and Articles:

- International Council of Multiple Birth Organizations (2010). Declaration of Rights and Statement of Needs of Twins and Higher Order Multiples www.multiplebirthscanada.org/english/declarerightsmb.php
- Twins, Triplets or More: Resource Guide for Multiple Pregnancy and Parenthood (Updated every six months) by Linda G. Leonard, RN MSN www.nursing.ubc.ca/pdfs/twinstripletsandmore.pdf
- Information for Parents: When Twins Share One Placenta (2010) Multiple Births Foundation. www.multiplebirths.org.uk/MC%20Pregnancy%20%20Version%2012%2017%205%2010.pdf
- Multiple Births Canada Fact Sheets on various topics related to multiple pregnancy, births and parenting www.multiplebirthscanada.org/english/booklets.php#factsheets including:
  - *Biology of Multiples*
  - *Signs and Symptoms of Preterm Labour*
  - *Monochorionic Multiple Pregnancy and Twin to Twin Transfusion Syndrome*

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