

***The Centre for Reproductive Medicine***  
***PO Box 20559***  
***Nimbin NSW 2480***  
***Australia***

**Maxwell Brinsmead MB BS PhD**  
***Retired Obstetrician & Gynaecologist***

**Phone +61 409 870 346**  
E-mail [max@brinsmead.net.au](mailto:max@brinsmead.net.au)  
Website [www.brinsmead.net.au](http://www.brinsmead.net.au)

## **Twins – and Other Multiple Pregnancies**

Multiple pregnancy is a pregnancy with two or more babies. The most common is twins but more rarely there can be triplets (3 babies), quadruplets (4 babies) or more!

While multiples account for only a small percentage of all births (about 3 percent), the multiple birth rate is rising. The principle reason for this is the increased use of assisted conception e.g. in vitro fertilization when more than one embryo is transferred to the uterus in order to increase the chance of a success. In recent years the success rate with IVF has improved substantially and it is no longer necessary to transfer more than one embryo. This is fortunate indeed because, as will soon become evident in this Information Sheet, the risk of pregnancy loss or fetal damage with multiple pregnancy is a worry.

### **What causes Multiple Pregnancy?**

There are naturally occurring factors that increase the chance of a multiple pregnancy. These include:

- Heredity*      A family history of multiple pregnancy increases the chances of having twins.
- Older age*      Women over 30 have a greater chance of multiple conception. Many women today are delaying childbearing until later in life, and may have twins as a result.
- High parity*      Having one or more previous pregnancies, especially a multiple pregnancy, increases the chances of having multiples.
- Race*            African women are more likely to have twins than any other race. Asians have the lowest twinning rates.

### **How does Multiple Pregnancy Occur?**

Multiple pregnancy usually occurs when more than one egg is released from the ovaries, fertilizes and implants in the uterus. This is called dizygotic (two embryo) twinning and can produce boys, girls, or a combination of both. Dizygotic twins are simply siblings conceived at the same time. However, just as siblings often look alike, dizygotic twins may look very similar. Dizygotic twins usually each have a separate placenta and grow and develop within their own amniotic sac.

Sometimes, one egg is fertilized and then divides into two or more embryos. This is called monozygotic or identical twinning and produces all boys, or all girls. These twins are genetically identical, with the same chromosomes and similar physical characteristics. They are indeed clones with the same blood type, hair, and eye colour that usually look so much alike that even parents have a hard time telling them apart. Identical multiples may have individual placentas and amniotic sacs. However, many share a placenta but with separate amniotic sacs. Rarely, identical twins share one placenta and a single amniotic sac.



Because of risks that can arise when twins share a placenta or a single amniotic sac, it is important to make an early ultrasound assessment of the membranes when a multiple pregnancy is identified. The best option is to see a dichorionic (two placenta) and diamniotic (two sacs) twin pregnancy. These are usually dizygotic or non identical twins. The most worrying form of twins occurs when there is a single placenta (monochorionic) and the twins are growing and developing within a single sac (monoamniotic).

### **Why is Multiple Pregnancy a Concern?**

The most common risk involved with multiple births is preterm labour resulting in premature birth. A typical, single pregnancy lasts about 40 weeks, but a twin pregnancy often lasts between 35 to 37 weeks. Nearly half of all twins are born prematurely (before 37 weeks), and the risk of having a premature delivery increases with higher-order multiples.

Premature babies can have numerous health challenges. These can include jaundice, apnoea, anaemia, propensity to infections, respiratory distress due to underdeveloped lungs, and gastrointestinal, visual, and neurological problems.

Because the care of premature babies is so different from that of full-term infants, they are usually placed in a neonatal intensive care unit (NICU) after delivery. Such units are available only in major metropolitan areas. This means that a mother with a multiple pregnancy that is likely to deliver preterm may need to be transferred to a hospital that is a long way from her family, friends and the obstetric carers that have steered her through the pregnancy up to that point.

The second greatest challenge for twins and other multiples involve problems of growth. This is more likely to occur if they share a placenta (monochorionic) because there can be sharing of a common blood supply from that placenta. This may result in one twin growing at the expense of the other. Twin-to-twin syndrome is a condition of the placenta that develops only with identical twins that share a placenta. This can result in a marked inequality of the amount of amniotic fluid around each twin. It occurs in about 15 percent of twins with a shared placenta.

Problems of growth is the reason that ultrasound measures of fetal growth are required more frequently for multiple pregnancies.

Some of the other medical conditions that are more likely to occur in a multiple pregnancy include preeclampsia, gestational diabetes and placental problems. In all, this results in increased risks of long-term health problems that include developmental delay and cerebral palsy. It is for this reason that multiple pregnancies often require specialist care in specialist perinatal centres.

Multiple birth babies have about twice the risk of congenital (present at birth) abnormalities including neural tube defects (such as spina bifida), gastrointestinal, and heart abnormalities. This increased risk is limited to identical twins.

Miscarriage is more common in multiple than in singleton pregnancies. A phenomenon called the vanishing twin syndrome occurs when more than one fetus is diagnosed, but vanishes usually before the 12<sup>th</sup> week of pregnancy. This may or may not be accompanied by bleeding. This risk of pregnancy loss is increased in later trimesters as well.



## **Staying Healthy During a Multiple Pregnancy**

Eating properly, getting enough rest, and making regular trips to your obstetric carers are important measures for the optimal outcome for any expectant mother but they are even more important when a multiple pregnancy is involved.

### **Your Nutrition**

If you're pregnant with multiples, you should follow general pregnancy nutrition guidelines, including increasing your calcium and folic acid intake. Pregnant women need additional calcium, so extra milk or fortified orange juice, broccoli, sardines, or other calcium-rich foods should be added to your diet. Mothers expecting multiples need approximately 1,600 to 2,000 milligrams of calcium each day.

As with all expectant mothers, folic acid is extremely important. Taking folic acid one month prior to and throughout the first 3 months of pregnancy will decrease the risk of neural tube defects (such as spina bifida).

Another dietary requirement that needs to be increased if you're expecting more than one baby is protein, which has several important functions. First, proteins serve as the building materials of body tissue. Another function they have is to act as enzymes that regulate chemical reactions to keep a body growing and functioning.

During pregnancy, an increased supply of iron is also needed for haemoglobin, the substance in red blood cells that binds oxygen for delivery to the tissues. In multiple pregnancies, anaemia is relatively common so an iron and folate supplement is often recommended. Iron is absorbed more easily when combined with foods high in acid, such as yoghurt, and those with high amounts of vitamin C, like orange juice.

### **Your Weight**

Mothers who are carrying multiples are expected to gain more weight during the course of the pregnancy than mothers carrying a single fetus. But exactly how much weight you should gain depends on your pre pregnancy weight and the number of fetuses. It can help to eat smaller, more frequent meals.

### **Your Comfort**

Of course, expecting twins usually means that you're probably experiencing the typical discomforts of pregnancy more intensely. Nurturing yourself can help ease the stress of pregnancy. Some women with a multiple pregnancy experience significant swelling and immobility from backache and pelvic instability. You may need to plan ahead for such eventualities.

Expectant partners can help, too. It helps if your partner understands that your body is going through tremendous hormonal changes. Communication and understanding can be the keys to truly enjoying this special time in your lives.

### **Your Rest**

Because of the risk of premature labour and birth and because of the greater physical demands associated with multiple pregnancy you need to plan to reduce your work plans and rest more. Whilst hospitalisation and bed rest are no longer routinely used a low threshold for admission and observation is employed by many obstetric carers of multiple pregnancies, particularly during times of increased physical or emotional stress.

You may need to plan to leave work earlier than you had planned when a multiple pregnancy is diagnosed.



## **Preparing for Multiple Birth**

Getting ready for a multiple birth may seem overwhelming, and concerns about preterm labour can be additional burdens for you to bear. The best reassurance is knowing that you have a network of support around you: capable doctors, a caring hospital staff, and hopefully a supportive partner, family members, and/or friends.

Current evidence supports the view that twins whose pregnancy exceeds 37 completed weeks are at increased risk. You may therefore be offered induction of labour or Caesarean birth at this time or even earlier if the twins are monochorionic.

To help you be more comfortable with the birth process as it unfolds, you should also discuss the options of vaginal delivery versus Caesarean section with your doctor well before your due date. There are several factors that affect the safety of each approach. Even if you and your doctor agree to attempt a vaginal delivery, there may be circumstances that arise during labour or delivery that will make a Caesarean necessary.

As labour begins some monitoring of the babies may be required. The interval between the birth of each baby delivered vaginally is usually less than 30 minutes. And here's one piece of good news: Because multiple-birth babies tend to be smaller than single ones, it's easier to push each baby out.

A vaginal birth may not always be possible. Positioning of the babies can also affect the safety of a vaginal delivery. It's common for the first baby to be born head first, whereas the subsequent baby may be breech (buttocks or feet first), transverse (sideways), or head first when entering the birth canal. A Caesarean is usually recommended if the first baby is not head first. And most triplets and other higher-order multiples are born by Caesarean.

If you go into labour prematurely then you and your unborn babies will be closely monitored for signs of distress. It may be necessary to give drugs to suppress the labour whilst you are transferred to a major centre. Corticosteroids may be given to the mother by injection to help the babies to prepare for a premature arrival. These drugs have been used since the early 1970's and there is overwhelming evidence that they reduce the risk of harm arising from immaturity of the lungs as well as many other body organs.

## **And After the Birth**

Breastfeeding multiples is difficult but certainly possible. Many mothers of twins and even triplets are successful in breastfeeding all of their babies. Lactation specialists can help mothers of multiples learn techniques for breastfeeding their babies separately and together, and to increase their milk supply. Mothers whose babies are unable to breastfeed because they are sick or premature can pump their breast milk and store the milk for later feedings.

The first days, weeks, and months are often the most difficult for parents of multiples, as everyone learns to get used to the frequent feedings, lack of sleep, and little personal time involved in parenting multiples. Enlist whatever help you can get - from neighbours, family members, and friends - for household chores and daily tasks. Having extra hands around can not only make feedings easier and help you rest and recover from delivery, it can also give you the precious time you need to get to know your babies.

Joining a support group of parents of other multiples is strongly recommended. Only those who have been there or who are on the same path can relate to what it is really like to be the mother (and father) of more than one at a time!

Reviewed February 2019

