Twin pregnancy is a variation of normal and has every potential to be a very uneventful experience for both mother and babies. It is however, associated with higher rates of almost every potential complication of pregnancy, with the exceptions of post-date pregnancy and large babies. These risks and various management options are detailed below, but it should be understood that little evidence exists to guide clinical care for twin pregnancies and recommendations offered by professional organizations are not made on “best evidence” but rather on “best opinion.”

The most serious risk related to twin pregnancy is spontaneous preterm delivery, which plays a major role in the increased perinatal mortality and short-term and long-term morbidity observed in these infants. Higher rates of fetal growth restriction and congenital birth defects also contribute to adverse outcomes in twin births. In addition, mono-chorionic twins (twins in the same chorionic sac) are at risk for complications unique to these pregnancies, such as twin-twin transfusion syndrome (TTTS), which can be lethal or associated with serious morbidity. Genetic anomalies are of greater incidence than singleton pregnancies, so early screening is a prominent component of management of the twin pregnancy. This contributes somewhat to the growth restriction seen in some twin pregnancies, in addition to twin-to-twin transfusion, and congenital abnormalities (birth defects).

Pregnancy management requires closer observation than the singleton pregnancy due to the previously mentioned concerns, but once the pregnancy reaches term, the risk focuses more on management of the second twin during the birthing event. This will be discussed further below. Homebirth and twins will also be discussed.

What screenings are recommended?
Ultrasound examination is the only safe and reliable method for definitive diagnosis of twin gestation. Early ultrasound assessment also provides accurate estimation of twin gestational age, which is important in all pregnancies, but particularly important in management of twin pregnancies because of the higher risks for preterm delivery and growth restriction. In addition, it is paramount to safe management of twin pregnancies that chronicity and amnionicity be determined and this can only be determined by ultrasound.

Amnionicity and chronicity in very basic terms, identifies whether your babies have their own sac within the womb, or if they share. Monochorionic twins (single chorion) share the blood that circulates from the placenta, which puts them at risk for unequal blood volume contribution. Twin-to-Twin Transfusion for example, is a possibility in which one baby will get lots of nourishing blood while the other will receive the remaining and less nourished blood. One baby suffers from having too concentrated blood, while the other suffers anemia. This can increase their risk of poor neurologic development and significantly increase their risk for a multitude of issues, including death. Mono-mono twins are also at risk of having their cords entangle and being born conjoined.

Routine ultrasound in the healthy, normal and singleton pregnancies is not currently recommended by obstetrical or midwifery professional groups because it has not reduced perinatal morbidity or mortality. This has led to a significant number of twin pregnancies not being recognized until the third trimester. Some have delivered without the clinician having recognized a twin pregnancy. One study with more than 15,000 pregnant women found that 38% of all twin pregnancies remained unrecognized until after the 26th week of gestation.
when ultrasound was not routinely performed, and 13% were not diagnosed until delivery (Ewigman, Crane, Frigoletto, et al., 1993). A second study found more than 25% of twin pregnancies were not recognized until 21 weeks of pregnancy (Saari-Kemppainen, Karjalainen, Ylostalo, & Heinonen, 1990). In both trials, no twin pregnancies were missed on ultrasound examination; however, in Dr. Lane’s clinical experience, she has known a triplet pregnancy to go undiagnosed as a twin pregnancy in spite of numerous ultrasounds. If twins are suspected, ultrasound is recommended.

The Society of Obstetrics and Gynecologists of Canada (SOGC) recommends nuchal translucency in the first trimester of pregnancy as the best method of diagnosing chorionicity. This screening is helpful for identifying twins with aneuploidy which would indicate need for further investigation. Fetal anomaly is of three times greater incidence in twin pregnancy, and is best assessed between 16 and 20 weeks. In the second and third trimesters, fetal growth will be reliably assessed by serial ultrasounds.

**What should I know about Preterm Birth?**

As mentioned previously, this is the greatest risk to twin pregnancy. The rate of preterm birth prior to 33 weeks of pregnancy is approximately 13.94 percent, and 50.74 percent between 33 and 37 weeks of pregnancy. This compares to 1.7 and 9.43 percent respectively with singleton pregnancies (SOGC, 2000).

Bedrest does not appear to improve outcomes; rather, it has caused increased risk of very preterm birth and maternal psychosocial stress. There is no evidence to support restriction of activity or early termination of work in twin pregnancies either, but there currently is only limited data. Ultrasound evaluation of the cervix may help discern preterm birth risk, but does impose additional cost. Digital exam could also be performed, but is somewhat less subjective. Neither cerclage or medications, either orally or intravenously, have demonstrated to be effective in preventing preterm birth (SOGC, 2000).

The reality is that no prenatal method has been shown to prevent preterm birth labor and birthing twin pregnancies (SOGC, 2000). Of course, our practice would recommend optimal nutrition, ongoing exercise, adequate sleep, fresh air, pure water, and laughter.

**How will the Growth of Each Baby be Monitored?**

There is good evidence that the diagnosis of twin gestation is improved by the routine use of ultrasound. Fetal growth in twin pregnancies parallels that of singletons until approximately 32-35 weeks. Thereafter, the rate of fetal growth is measurably slightly less, although the clinical significance of this is undetermined. The patterns of twin fetal growth vary by race and gender, with African-American mothers having lower median body weight values. Male twins have heavier median body weight for gestational age than female twins at every gestational age.

Patterns of growth are more important than absolute measurements. The goal is to rule out twin-to-twin transfusion and intra-uterine growth restriction (IUGR) of the smaller twin. True discordance is an indicator for increased risk of IUGR, mobility, and mortality. A risk for aneuploidy, anomaly, or viral syndrome affecting only one fetus must also be considered when discordant growth is identified.
There is consensus among experts that serial ultrasonographic evaluation every three to four weeks is indicated in twin gestations.

**How will labor and birth differ?**

In the event mono-mono twins are diagnosed, not only would close monitoring by a maternal fetal medicine provider be indicated, but so would cesarean section. The same indications that would apply for a singleton pregnancy for cesarean section also apply to twin pregnancies.

Labor will be closely monitored, as well as the well-being of the babies. At the onset of labor, the presentation of each fetus will be attempted, but it should be understood that currently the practice does not own an ultrasound machine. During labor, because the uterus has greater tone, discerning position can be challenging. Generally speaking, as labor advances it becomes clear if presentation is inhibiting the labor process and then options will be discussed with the client. However, it should also be understood that breech birth is of higher incidence in the twin pregnancy. A separate informed consent is specific to the unique nature of breech birth. Our concern primarily focuses on a baby in transverse position that does not allow for vaginal birth in most all circumstances.

The risk for hemorrhage is increased, as well as fetal distress, so intravenous access should be considered. This would allow for fluids and postpartum hemorrhagic medications if they prove necessary.

Admittedly, there is a great deal of trust between the client and/or couple, and the midwifery team, because management of the twin birth requires continued discernment. There should be convincing and compelling cause to intervene within the twin birth, but when indicated, these interventions may require immediate response with little prior warning. This is especially true for the second twin if fetal well-being is in question. In the hospital, vacuum and forceps are options; however, in the home setting, conversion to breech and delivery by breech extraction is preferred.

During labor, because it is important to discern between the two babies, the external fetal monitor will need to be utilized. Dopplers are not capable of discerning two distinct babies.

Finally, it may be recommended that a hotel birth would be advantageous over a home birth, depending on distance from hospital and community resources. This will be discussed on an individual basis.

Potentially the greatest risk however, is the social implication of birth when anyone chooses to birth at home, but most importantly when doing so when breech positioning or twins are known. Homebirth is not currently understood, nor the resources or expertise of your birthing team. It could be strongly argued that twins should not be managed outside the hospital setting. This is important for you to consider because even if every component of your care is managed with near perfection, in the event of a poor outcome, your providers will be criticized as reckless and your decision to birth at home will be determined to be of poor judgement.

References:

Updated January 2016
I have read and understand this information and have had an opportunity to ask questions. I am aware of the risks of twin pregnancy, and am responsible for and have freely chosen to take the following action:

- I would like to have an intravenous line placed for prophylactic reasons.
- I have chosen to birth my twins at home/hotel with the midwifery team of Believe Midwifery Services, LLC.

<table>
<thead>
<tr>
<th>Mother’s Signature</th>
<th>Date</th>
<th>Father’s Signatures</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurse-Midwife Signature</td>
<td>Date</td>
<td>Nurse-Midwifery Signature</td>
<td>Date</td>
</tr>
</tbody>
</table>