

Conditions That May Increase The Probability of Preterm Birth

Some medical conditions or situations have been found to appear associated with Preterm Birth; although usually we do not know for certain why some babies arrive before 37 completed weeks. Below is some information about these conditions. Please note that this is not a complete list nor does this suggest that if you have one or more of these conditions, or none of them, your babies will arrive prematurely. This is simply a source of information for those interested. Should you have any concerns whatsoever about your pregnancy, please consult with your doctor immediately.

Cervical Incompetence (also called Incompetent Cervix): An incompetent cervix is generally categorized as the premature opening of the cervix without contractions or labour. If the cervix begins to shorten and/or thin (efface) by 22 weeks gestation, it can be expected that the babies will deliver earlier than 38 weeks. A thinning cervix can be identified either manually or through ultrasound. If this is your experience, your doctor may recommend performing a cerclage (cervix is sewn closed) until just before the babies are to be delivered.¹ Discuss with your doctor the benefits of a cerclage as research investigating the benefits shows very mixed results.

Discordant fetal growth: Discordant growth occurs when one of the babies is growing larger than the other while in utero. When there becomes a 20% difference between babies' sizes, the doctor will choose to monitor their growth with more frequency and attention. If the difference becomes too large and one baby is deemed to be at risk of complications, then preterm birth may be considered. You may be referred for further assessment by an obstetrician specializing in your babies' condition.⁸

Gestational Diabetes (GD): Gestational diabetes is diabetes that develops for the first time during pregnancy. Diabetes happens when the body cannot produce enough of a hormone called insulin. Insulin is made by the pancreas and does two jobs: a) regulates the amount of sugar available in the blood for energy; and b) enables any sugar that isn't needed to be stored. During pregnancy the body has to produce extra insulin to meet the babies' needs, and these needs intensify as the babies grow in utero (e.g., as the pregnancy progresses). If the body cannot manage this insulin need, there will be too much sugar in the blood and GD develops.² Delivery is the cure for GD, while the other diabetes is a life-long condition. Signs of GD are: hypertension, swelling or edema, protein in the urine, dizziness, lightheadedness, and sudden weight gain or loss. Some women may also have pre-existing diabetes that was undiagnosed prior to their pregnancy. In this case delivery will not cure the diabetes and they may need to alter their diet and/or start medications to manage their blood sugars.

Gestational Hypertension: High blood pressure, which develops after 20 weeks of pregnancy and goes away after delivery.³

Pre-eclampsia: Pre-eclampsia is characterized by a rapid rise in blood pressure, and the presence of protein in the urine.⁴ This rapidly progressing condition can have detrimental effects on both mother and babies.⁴ Mothers and their fetuses who experience pre-eclampsia will be monitored closely by their specialist. Pre-eclampsia can also occur after the babies' births.

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HELLP Syndrome: This life-threatening obstetric complication is usually considered to be a variant or complication of pre-eclampsia. Both conditions usually occur during the later stages of pregnancy, or sometimes after childbirth. "HELLP" is an abbreviation of the three main features of the syndrome: Hemolysis, Elevated Liver enzymes, and Low Platelet count⁵

Treatment may vary. At times, prompt delivery of the babies is recommended. In other circumstances, doctors will work to keep your babies in utero as long as possible without affecting the mother's health. But you, with your doctors, will make a joint decision regarding how to proceed at the necessary time.

Placental Abruption: Placental abruption occurs when the placenta detaches from the uterine wall before delivery, which is more likely when you're carrying more than one baby. It can happen any time in the second half of pregnancy and can possibly lead to growth problems, preterm delivery, or other complications including fetal death. In multiple pregnancies, abruption is especially common just after the first baby has been delivered vaginally. Once abruption has occurred, the other baby or babies may have to be delivered by cesarean section.⁶ Doctors work hard to ensure this happens quickly to minimize complications.

Twin-to-Twin Transfusion Syndrome (TTTS): This rare condition only occurs between monozygotic babies. TTTS is a condition in which blood from one monozygotic fetus transfuses into the other fetus via blood vessels in the placenta. TTTS can also occur between monozygotic multiples in a triplet or more pregnancy.⁷ TTTS needs to be identified as early as possible in the pregnancy. It can become an issue for the babies as early as 18 gestational weeks (unfortunately it can be problematic even earlier but this is very rare). There is a spectrum of mild to severe, and in some cases laser treatment can close some blood vessels giving the babies a chance at staying longer in utero. In a select few cases TTTS can be fatal for one or both babies as major organs can be affected.

Monoamniotic Monochorionic twins: Monoamniotic-mono chorionic or MoMo twins share a placenta and an amniotic sac, and they only represent 1% of twin pregnancies. The risk of complications is higher in this type of twin pregnancy because the babies are growing in the same space. These pregnancies are delivered by Cesarean section to reduce the risk of entanglement with the umbilical cords. The C-section may be scheduled between 32 and 33 weeks.⁹

References

1. Weis, R. E. (n.d). *The Incompetent Cervix*. Retrieved from www.pregnancy.about.com/cs/incompetentcervix/a/aaincomp.htm
2. Weis, R. E. (n.d). *Gestational Diabetes (GD) in Pregnancy*. Retrieved from <http://pregnancy.about.com/od/diabetes/a/gestdiabetes.htm>
3. American Pregnancy Association. (2012). *Gestational Hypertension: Pregnancy Induced Hypertension (PIH)*. Retrieved from www.americanpregnancy.org/pregnancycomplications/pih.htm

4. Preeclampsia Foundation. (2013). *Welcome to the Preeclampsia Foundation*. Retrieved from www.preeclampsia.org
5. ADAM Medical Encyclopedia. (2012). *HELLP Syndrome*. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0001892/>
6. Storck, S. (2012). *Placenta Abruptio*. Retrieved from <http://pubmedcentralcanada.ca/pmcc/articles/PMC2984417/>
7. Multiple Births Canada. (n.d.) *Multiple Birth Terminology*. Retrieved from http://multiplebirthscanada.org/mbc_documents/AT_Multiple_Birth_Terminology.pdf
8. Cooperstock, M. S., Tummarub, R., Bakewell, J., & Schramm, W. (1999). Twin Birth Weight discordance and risk of preterm birth. *American Journal of Obstetrics & Gynecology*, 183(1), 63-67. Retrieved from [http://www.ajog.org/article/S0002-9378\(00\)55604-X/abstract](http://www.ajog.org/article/S0002-9378(00)55604-X/abstract)
9. Barrett, J. & Bocking, A. (2000). *Management of twin pregnancies (Part 1)*. Retrieved from <http://sogc.org/wp-content/uploads/2013/01/91E-CONS1-July2000.pdf>

Recommended Sources of Information:

Multiple Births Canada
www.multiplebirthscanada.org
Toll-Free (in Canada): 1-866-228-8824

Telephone: 613-834-TWIN(8946)
Email: office@multiplebirthscanada.org

MBC Preterm Birth Network

multiplebirthscanada.org/index.php/parents/support/preterm-birth-support-network

Ottawa Coalition for the Prevention of
Low Birth Weight

www.lbwinfo.ca

Documents and Articles:

Multiple Births Canada Fact Sheets on various topics related to multiple pregnancy, births and parenting multiples.
<http://multiplebirthscanada.org/index.php/education/publications/fact-sheets>.

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