

Birth Complications

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Complications during childbirth can pose a serious threat to both infant and maternal health. Birth complications can lead to a variety of different health risks, ranging from minor to severe in nature. The following common labor complications can happen even after a standard pregnancy with no difficulties or high risk variables.

Pre-term labor and subsequent pre-term delivery is perhaps one of the most dangerous birth complications a child can face. Full-term pregnancies are about 40 weeks in duration. Uterine contractions before 37 weeks is considered pre-term labor, and infants born before 37 weeks are considered pre-term births. Infants born between 34 and 36 weeks are considered late pre-term, whereas infants born at less than 32 weeks are considered very pre-term, and children born at or before 25 weeks are considered extremely pre-term.

Infants born pre-term are at risk for various health complications, including the following: Respiratory Distress Syndrome, Bronchopulmonary Dysplasia, Pneumonia, Apnea and Bradycardia, Intraventricular Hemorrhage (may lead to cerebral palsy and intellectual disabilities), underdeveloped lungs or digestive system, Anemia, Patent Ductus Arteriosus, Retinopathy of Prematurity, Sepsis, and Necrotizing Enterocolitis. Because of the multitude of health risks posed to pre-term infants, newborns will normally be placed in the Neonatal Intensive Care Unit (NICU), which may be associated with abnormal attachment and communication outcomes.

In contrast to pre-term labor, post-term pregnancy includes pregnancies that go beyond 41 weeks. Post-term pregnancy is not typically associated with any risks, but after 42 weeks the

placenta begins to age, eventually failing. Consequently, risk of health complications for post-term pregnancies increases after 42 weeks.

Premature rupture of membranes is characterized by the rupture of the membranes surrounding the infant in the uterus more than one hour prior to the onset of labor. Infants who are exposed to premature rupture of membranes are at a high risk of perinatal infection. If the premature rupture occurs after 37 weeks, there is little risk to the fetus and labor normally begins soon after.

Prolonged labor (failure to progress) is a period of extended labor that does not result in childbirth. The approximate duration of prolonged labor is approximately 20 hours for first-time mothers and 14 hours for mothers who have previously given birth. Prolonged labor may lead to arrhythmia, hypoxia, or uterine infection.

Abnormal presentations of infants occur when infants are not positioned in the birth canal with their head down facing the mother's back. Breech presentation occurs when the infant's feet or buttocks are pointed toward the birth canal. Specific types of breech include the following: frank breech, complete breech, and incomplete breech. The most dangerous abnormal presentation is a transverse lie, in which the infants lie horizontally in the uterus. All abnormal presentations increase maternal risk for abnormal labor, as well as increase risk of prolapsed umbilical cord.

Umbilical cord prolapse occurs when the umbilical cord protrudes from the uterus prior to or alongside the fetus. During umbilical cord prolapse, the umbilical cord is susceptible to compression, umbilical vein occlusion, and umbilical artery vasospasm. Umbilical cord compression is characterized by the stretching and compression of the umbilical cord. Umbilical vein occlusion occurs when a blockage in the umbilical cord prevents blood from reaching the

fetus. Umbilical artery vasospasm occurs when an arterial spasm in the umbilical cord results in vasoconstriction. These umbilical cord movements often lead to perinatal hypoxia, which may result in neurodevelopmental deficits.

Amniotic fluid embolism is considered one of the most dangerous maternal health risks in the labor and delivery process. In amniotic fluid embolisms, small amounts of amniotic fluid enters the mother's bloodstream and travels to the lungs, which may cause the arteries in the lungs to constrict. Such arterial constriction may result in abrupt cardiac arrest, excessive blood loss, respiratory distress, and fetal distress with possible nervous system impairment.

Preeclampsia is a maternal condition characterized by high blood pressure in women with no history of high blood pressure. Signs of preeclampsia in mothers include rapid weight gain, abdominal pain, severe headaches, vision changes, and nausea. Preeclampsia can sometimes lead to more serious health complications such as stroke, heart failure, seizure, pulmonary edema, and postpartum hemorrhage. Preeclampsia is also a leading cause of pre-term births.

Postpartum hemorrhage is excessive bleeding from the uterus, cervix, or vagina after birth. After delivery of the placenta, if the uterus does not contract strongly enough, the blood vessels in the uterus will bleed freely, resulting in uterine hemorrhage, or postpartum hemorrhage. Conditions that may increase risk for postpartum hemorrhage include prolonged labor, preeclampsia, general anesthesia, early detachment of placenta from the uterus, or multiple previous births.

Further Reading

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