Each summer, millions of expectant parents celebrate the imminent arrival of their new family members with baby showers and parties. In fact, nearly 4 million babies were born in the United States in 2017, the most recent year for which the CDC has published data. Unfortunately, the joy that expectant parents feel is often tampered by medical complications and concerns.

**Pregnancy complications**
The leading causes of high risk pregnancies include preeclampsia, gestational diabetes, and fetal syndromes. More than 800,000 pregnancies are affected by a fetal syndrome each year. The majority of fetal syndromes have no known cause.

**Fetal health syndromes**
There are 4,000 known birth defects and the causes are largely unknown. Some of the most common fetal syndromes include:

- **Congenital Diaphragmatic Hernia** - babies need to be monitored and delivered at a specialized treatment center; often unable to breathe on their own when born.
- **Fetal Hydrops** - treatment varies, as fetal hydrops is associated with several underlying causes; between 60 and 90% of babies diagnosed die before birth.
- **Hypoplastic Left Heart Syndrome (HLHS)** - left untreated, babies born with this disorder die in the first few weeks of life.
- **Lower Urinary Tract Obstruction (LUTO)** - depending on the severity, the mortality rate for babies with LUTO who do not receive treatment can be as high as 77%.
- **Sacrococcygeal Teratomas** - requires complete surgical resection before/after birth, and generally shows positive outcomes. Large teratomas can cause life-threatening complications for both the fetus and the mother.
- **Selective Intrauterine Growth Restriction (SIUGR)** - without intervention, the mortality rate of at least one twin prior to birth is 40%.
- **Twin Reversed Arterial Perfusion Sequence (TRAPS)** - left untreated, one twin will most likely die prior to birth and the second twin has a 50% chance of survival.
- **Twin-to-Twin Transfusion Syndrome (TTTS)** - left untreated, the survival rate is 10-15%.
Maternal Fetal Care Centers
While most babies are delivered and receive the necessary care in the maternity ward at a local hospital, babies that are diagnosed with a fetal health syndrome require special care. Maternal Fetal Care Centers provide specialized and coordinated care for both mother and baby before, during and after complicated pregnancies. Typically, these centers are staffed by a team of specialists including:

- Neonatologists: doctors with expertise caring for newborns with birth defects or complications associated with prematurity
- Maternal-fetal medicine (MFM) specialists: obstetrician/gynecologists with additional training in maternal and fetal complications of pregnancy
- Board-certified pediatric medical and surgical sub-specialists

Additionally, Maternal Fetal Care Centers have specialized equipment and tools that allow them to treat fetal health syndromes in a variety of ways, depending on the diagnosis and severity of the individual case, including but not limited to:

- Expectant Management (frequent ultrasound assessments)
- Interventional medications
- Amniocentesis
- Open fetal and minimally invasive surgery

Fetal Surgery
Fetal surgery is a highly complex surgical intervention to repair birth defects while babies are still in the womb. It allows doctors to treat serious and life-threatening conditions and stop progressive damage, while also keeping the baby in utero long enough to grow and develop.

The first successful human fetal surgery case was performed in 1981 at the University of California, San Francisco. Since then, more than 5,000 fetal surgeries have been performed worldwide and new procedures are being developed annually. Today, fetal therapy is recognized as one of the most promising fields in pediatric medicine, and prenatal surgery is becoming an option for a growing number of babies with birth defects.