Prenatal Health
Understanding Prenatal Risk Factors for You and Your Baby
n all likelihood, your pregnancy will be uncomplicated and you will deliver a healthy baby. However, because prenatal risk factors may represent challenges to you or your baby, understanding these factors will allow you and your provider to work together to minimize any harm. Environmental conditions, your overall health, and choices that you make during your pregnancy can all contribute to prenatal risk factors. While you can decrease the incidence of some risk factors, others are not in your control. Also, not all risk factors will have an effect on outcomes in all pregnant women and babies. Therefore, it is important to understand the information in this brochure to help you identify and minimize your prenatal risk factors.
Common prenatal risk factors

Many factors may adversely affect your unborn baby’s health. The most common factor are:

- Age
- Smoking
- Alcohol
- Obesity
- Excessive weight loss or gain during pregnancy
- Drugs and medications, including pain medication, seizure medication, diet pills, street or recreational drugs (such as marijuana, cocaine, and amphetamines), and potentially any drug or herb, whether prescribed by a doctor or not
- Medical conditions such as diabetes and high blood pressure
- Autoimmune disorders such as lupus
- Infectious diseases such as rubella (German measles), HIV/AIDS, Hepatitis B or C, and herpes
- Complications in prior pregnancies such as preeclampsia, preterm delivery, and Cesarean section
- Poisons or exposure to toxic fumes
- Radiation exposure during X-rays, CT scans, and occupational exposures

The following conditions may also be prenatal risk factors, and your exposure to these should be discussed with your provider:

- Viral illness accompanied by a fever (cold, flu, and urinary tract infections)
- Poor diet
- Vitamin deficiency
- Anxiety or emotional distress
- Blood transfusions in the past
- Trauma such as a car accident or fall
- Hot tubs or saunas hotter than 101°F
Your prenatal visits

Tell your provider about diseases, drugs, or toxic substances to which you have been exposed prior to becoming pregnant. Also report to your provider any major illnesses, birth defects, or pregnancy problems that you or any immediate family member has experienced. It is important to tell your provider about your family history as well as the baby's father's family history.

In addition to discussing risk factors, you should also advise your provider of any bleeding, spotting, abnormal vaginal discharge, or cramping should they occur during your pregnancy. Also, pregnancy complications such as gestational diabetes, high blood pressure, or infection may occur, and your provider will discuss those conditions with you.

During each prenatal visit, it is your obligation to tell your doctor whether you have ingested any drugs, come into contact with a toxic substance, experienced any trauma, or had any experience that you feel might affect your baby. The prenatal risk factors discussed in this brochure are not all-inclusive, so you should always feel comfortable asking your provider about any other possible risk factors or complications during your pregnancy.
Tests available

Your provider can help you decide whether to utilize special tests, procedures, and counseling to explore the potential of birth defects or other issues. Some of these are performed prior to becoming pregnant and others are performed during your pregnancy. It is important to remember that no procedure can detect with 100% certainty all birth defects or other factors that may affect your baby's health.

Some of the tests available are:

**GENETIC COUNSELING**

Genetic counselors can help determine whether you or your baby's father has any hereditary or genetic factors that may put your baby at risk. This is performed by collecting and analyzing an extensive medical history of you and your family and the baby's father and his family.

**GENETIC SCREENING**

An inexpensive carrier screen for over 100 gene disorders can be performed using either saliva or blood samples.

**ULTRASOUND SCREENING**

Ultrasound uses sound waves to determine fetal size, age, and position and is capable of identifying some abnormalities. Generally, an ultrasound cannot help determine the sex of the baby. Ultrasound screening tests include the following:

- **First Trimester Nuchal Translucency Testing:**
  In the first trimester, usually between 11 and 14 weeks of pregnancy, a nuchal translucency (NT) test can determine if your baby has a congenital heart disease or a higher risk for a chromosomal abnormality such as Down syndrome.

- **Second Targeted Ultrasound:**
  Usually done at about 18 to 20 weeks of pregnancy, this test can help identify some serious physical defects with the fetus as well as evaluate the placenta’s position.
Even the best ultrasound equipment and the most experienced operators may not detect all birth defects.

SCREENING TESTS

These tests help to estimate the chance that your baby may have genetic or chromosomal abnormalities and determine if further diagnostic tests are indicated. Three common screening tests include the following:

- **Cystic Fibrosis Screening (Genetic):**
  Cystic fibrosis (CF) screening determines if you are a carrier of the CF gene. You should discuss CF screening with your caregiver, especially if you are Caucasian or Jewish or have a family history of cystic fibrosis.

- **Down Syndrome Screening:**
  A number of screening tests use either ultrasound or blood samples to provide additional information about your risk of having a baby with chromosomal abnormalities such as Down syndrome. You should discuss available testing with your own provider since there are variations between laboratories in the names, sensitivities, and false-positive rates of these tests.

- **Neural Tube Defects (NTD) including Spina Bifida:**
  An alpha fetoprotein (AFP) blood test is available for screening for NTDs; however, in many facilities, second-trimester ultrasound is the most sensitive screen. A fetal survey (second-trimester or level 2 ultrasound) will detect 50% of babies with neural tube defects and most major structural abnormalities.

- **Noninvasive prenatal testing:**
  This technology analyzes fetal DNA fragments circulating in the mother’s blood. It is a new option for prenatal screening and testing for Down syndrome and a few other chromosomal abnormalities. This testing can be done any time after 9 to 10 weeks of pregnancy and requires only blood samples from you.
DIAGNOSTIC TESTS

These tests can determine with relative certainty whether a fetus has Down syndrome or another chromosomal problem. Although diagnostic tests are considered safe, they carry a small risk for miscarriage and other complications. Your provider can discuss these tests with you and help you decide which test is better suited for your situation. The available diagnostic tests include the following:

- **Chorionic Villus Sampling (CVS):**
  
  This test can be performed in the first trimester, usually between 11 and 12½ weeks of pregnancy, to detect a chromosomal abnormality. For this test, a fine needle is passed through the mother’s abdomen or cervix and into the uterus, under ultrasound guidance, to obtain a sample of the placenta.

- **Amniocentesis:**
  
  This test is usually performed between 15 and 22 weeks. It involves passing a fine needle though the mother’s abdomen and into the uterus, under ultrasound guidance, to obtain some fluid from around the baby. The fluid collected can be tested to detect 98% of spinal defects and evaluate cells in the fluid for genetic and chromosomal abnormalities.
Specialized care available

If prenatal risks are present during your pregnancy, obstetricians specializing in high-risk pregnancies, known as perinatologists, are available in most areas to provide consultation and guidance. You and your provider will determine if you need specialized care during your pregnancy and where you should receive the care.

Your options

If you are concerned that your baby will be born with abnormal chromosomes or birth defects, you should discuss the medical tests and screening described in this brochure. Appropriate prenatal testing will provide information that can assist you in making an informed choice about whether to continue your pregnancy. Pregnancy termination may be legally available to you. However, if you are considering terminating your pregnancy for any reason, it is important that the procedure be done as early in your pregnancy as possible to minimize any risk to your health. Test results from procedures such as an amniocentesis may take up to two weeks to obtain; therefore, it is important that you establish prenatal care as early as possible to discuss any concerns with your provider and undergo testing as early as possible.
Understanding this brochure

This brochure is not meant to alarm you. Most pregnancies proceed without complications and most babies are healthy at birth. However, you should be aware that risk factors do exist and it is important to review these with your provider and determine what testing is most appropriate for you. Despite all this testing, unanticipated birth outcomes, such as birth defects, may still occur. Your provider wants to give you the best chance possible of having a healthy pregnancy and a healthy baby. It is important that you ask questions and give complete information so that your provider can provide the best possible care for you and your baby.

Please take this brochure home and read it carefully. Discuss it with the baby’s father, other family members, or anyone you wish, including other providers. During your next office visit, ask questions about any of the topics discussed in this brochure. If you would like additional information about any of the subjects discussed in this brochure, your provider can refer you to additional resources.

After you fully understand the contents of this brochure, you and the baby’s father should sign the Risk Factor Acknowledgment Form on the last page and return it to your provider. It will then be placed in your medical record.
Risk Factor Acknowledgment Form

I have read and understand the information contained in the brochure *Prenatal Health: Understanding Prenatal Risk Factors for You and Your Baby*

_________________________________________
Mother’s Signature

_________________________________________
Father’s Signature