

## HIGH-RISK PREGNANCY

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### *Abstract*

*High-risk pregnancies require close monitoring and sometimes referral to a perinatal center, especially if women have complex high-risk conditions. However, sometimes it can be complicated by illnesses or medical conditions. Some five to ten percent of pregnancies are termed "high risk." Certain conditions or characteristics, called risk factors, make a pregnancy high risk. Identifying high-risk pregnancies ensures that women who most need medical care receive it in a specialized centre. Several factors can make a pregnancy high risk, including existing health conditions, the mother's age, lifestyle, and health issues that happen before or during pregnancy. A high-risk pregnancy diagnosis shouldn't automatically have a negative connotation. With proper care, 90 to 95 percent of high-risk pregnancies produce healthy and viable babies. The earlier a problem is detected, the better the chances that both mother and neonate will stay healthy. With the development of medical technology, pregnant women can be carefully monitored for signs and symptoms.*

**Keywords:** Birth weight, gestation, high-risk pregnancy, neonate, perinatal

### **INTRODUCTION**

There is no formal or universally accepted definition a "high-risk" pregnancy is any pregnancy that carries increased health risks for the pregnant person, fetus or both. People with high-risk pregnancies may need extra care before, during and after they give birth a pregnancy is considered high-risk when maternal or fetal complications are present that could affect the health or safety of either the mother or baby. All pregnancies should be evaluated to know whether there are or will be risk factors. Risk factors present before pregnancy, problems in a previous pregnancy, disorders present before pregnancy and risk factors that develop during pregnancy can make a pregnancy high risk. Identifying a pregnancy as high risk helps ensure that it receives extra attention and proper care, thereby significantly decreasing maternal and neonatal morbidity and mortality rates.

### **RISK FACTORS PRESENT BEFORE PREGNANCY**

If you have a high-risk pregnancy, you or your baby might be at increased risk of health problems before; during or after delivery special monitoring or care throughout pregnancy is needed. Understand the risk factors for a high-risk pregnancy, and what you can do to take care of yourself and your baby. Some physical and social characteristics of women, problems that have occurred in previous pregnancies and certain disorders in women may complicate pregnancy.

#### ***Physical Characteristics***

The age, weight and height of women affect risk during pregnancy. Maternal age is one factor that contributes to pregnancy risks. Girls aged 15 and younger are at increased risk of preeclampsia/eclampsia. Adolescents are also at increased risk of having low-birth-weight babies. The chances of pregnancy-induced hypertension or diabetes in the mother and risk of fetal chromosomal abnormalities increase with the mother's age. Women aged 35 and older are at increased risk of problems such as high blood pressure, gestational diabetes, and complications during labor

Women weighing less than 100 pounds (< 45 kg) before becoming pregnant are more likely to deliver low-birth-weight babies. Obese women are more likely to have macrosomic babies. Also, overweight women put themselves at risk for gestational diabetes and hypertension. For women < 5 ft tall, the risk of fetal-pelvic disproportion, preterm labor, and intrauterine growth retardation is increased

### ***Social Characteristics***

Being unmarried or in a lower socioeconomic group increases the risk of problems during pregnancy. For example, these women are more likely to smoke and less likely to consume a healthy diet and to obtain appropriate medical care.

### **ADVANCED MATERNAL AGE**

Pregnancy risks are higher for mothers older than age 35.

### **LIFESTYLE CHOICES**

Smoking cigarettes, drinking alcohol and using illegal drugs can put a pregnancy at risk.

### **MATERNAL HEALTH PROBLEMS**

High blood pressure, obesity, diabetes, epilepsy, thyroid disease, heart or blood disorders, poorly controlled asthma, and infections can increase pregnancy risks.

### **PREGNANCY COMPLICATIONS**

Various complications that develop during pregnancy can pose risks. Examples include an unusual placenta position, fetal growth less than the 10th percentile for gestational age (fetal growth restriction) and rhesus (Rh) sensitization — a potentially serious condition that can occur when your blood group is Rh negative and your baby's blood group is Rh positive.

### **MULTIPLE PREGNANCIES**

Pregnancy risks are higher for women carrying more than one fetus.

### **PREGNANCY HISTORY**

A history of pregnancy-related hypertension disorders, such as preeclampsia, increases the risk of having this diagnosis during the next pregnancy. If you gave birth prematurely in your last pregnancy or you've had multiple premature births, you're at increased risk of an early delivery in your next pregnancy. Talk to your health care provider about your complete obstetric history.

### **PREVIOUS LARGE NEWBORN**

A previous delivery of a newborn weighing > 4.5 kg (> 10 lb) may suggest maternal diabetes.

### **MULTIPARITY**

Having had five or more pregnancies increases the risks of rapid labor and postpartum hemorrhage due to uterine atony. Grand multipara is also at increased risk of a placenta previa.

### **PREVIOUS PREECLAMPSIA OR ECLAMPSIA**

A history of these complications increases the risk of hypertension in a subsequent pregnancy.

### **DISORDERS PRESENT BEFORE PREGNANCY**

After they become pregnant, they may need special care, often from an interdisciplinary team.

### **Heart Disease**

Most women who have heart disease—including valvular heart diseases —can safely give birth to healthy children, without any permanent ill effects. However, women who have heart failure before pregnancy are at considerable risk of problems.

### **Hypertension**

Hypertension is associated with increased risk of maternal and fetal morbidity and mortality. Common effects are cerebral, cardiac, and renal complications in the mother; stillbirths; abruption placenta; and, in the fetus, intrauterine growth retardation and hypoxia due to superimposed pregnancy-induced hypertension.

### **Kidney Disorders**

High blood pressure, which often accompanies a kidney disorder, may also worsen, and preeclampsia may develop.

### **Seizure Disorders**

Taking anticonvulsants increases the risk of birth defects. Some women may be able to safely discontinue anticonvulsants during pregnancy, but most women should continue to take the drugs. The risks resulting from not taking the drugs (resulting in more frequent seizures) usually outweigh the risks resulting from taking them during pregnancy.

### **Diabetes**

The risk of complications during pregnancy can be reduced by controlling the level of glucose in the blood. Measures to control the blood sugar level (such as diet, exercise, and insulin should be started before pregnancy). If diabetes is poorly controlled, the risks of early miscarriage, significant birth defects are increased, the fetus tends to be large and the risk of stillbirth is increased. The risk of preeclampsia is also increased for women with diabetes.

Newborns of women with diabetes are at increased risk of having hypoglycemia, low calcium, and high bilirubin levels in the blood.

### **Fibroids**

Fibroids in the uterus, which are relatively common noncancerous tumors, may increase the risk of preterm labor, dystocia, malpresentation, placenta previa, and habitual abortion. Rarely, carneous degeneration (infarction of the fibroid) may occur in pregnancy, resulting in an acute abdomen. Treatment consists of fluids, rest, and pain relief.

### **RISK FACTORS/DISORDERS THAT DEVELOP DURING PREGNANCY**

During pregnancy, a problem may occur or a condition may develop to make the pregnancy high risk. For example, pregnant women may be exposed to something that can produce birth defects (teratogens), such as radiation, certain chemicals, drugs, or infections. Infections that are teratogenic include rubella, varicella, syphilis, toxoplasmosis, and infections caused by cytomegalovirus

### **Drugs**

Some drugs taken during pregnancy cause birth defects Examples are alcohol, isotretinoin, some anticonvulsants, lithium, some antibiotics (such as streptomycin, kanamycin, and tetracycline), thalidomide, warfarin, and angiotensin-converting enzyme (ACE) inhibitors. Taking drugs that block the actions of folic acid (such as methotrexate or trimethoprim) can also cause birth defects. Using cocaine

may cause birth defects, placental abruption, and premature birth. Smoking cigarettes increases the risk of having a baby with a low birth weight

### **Fevers**

A disorder that causes a temperature greater than 103° F (39.5° C) during the first trimester increases the risk of a miscarriage and defects of the brain or spinal cord in the baby. Fever late in pregnancy increases the risk of preterm labor.

### **Infections**

Rubella can cause birth defects, particularly of the heart and inner ear. Cytomegalovirus infection can cross the placenta and damage the fetus's liver and brain. Herpes simplex and chickenpox (varicella) may harm the fetus or cause birth defects. Toxoplasmosis may cause miscarriage, death of the fetus, and serious birth defects. Listeriosis can also harm the fetus. Bacterial vaginosis during pregnancy may lead to preterm labor or premature rupture of the membranes.

### **Anemia**

The need for iron doubles during pregnancy. Anemia may also develop during pregnancy because of a folic acid deficiency. Anemia can usually be prevented or treated by taking iron and folic acid supplements during pregnancy. The risk of preterm labor is increased. Women with anemia are more likely to develop infections after delivery.

### **PREGNANCY COMPLICATIONS**

They may affect the woman, the fetus, or both and may occur at different times during the pregnancy. However; most pregnancy complications can be effectively treated.

### **PRETERM LABOR**

A woman who has a medical condition complicating pregnancy may be more likely to have preterm labor and delivery. Smoking, poor nutritional habits, drug and alcohol abuse, etc also increase the risk of early delivery and birth of stillborn or low birth weight sick infants. Uterine anomalies, incompetent cervix, previous uterine surgery, maternal stress, multiple pregnancy, and ante partum bleeding are associated with preterm labor. Maternal infections (asymptomatic bacteriuria, appendicitis) can also cause preterm labor.

### **MULTIPLE PREGNANCIES**

The incidence of preterm labor, fetal malformation, and complications during labor and delivery is increased in all forms of multiple pregnancies.

### **POST-TERM PREGNANCY**

Neonatal mortality and stillbirth rates in post-term pregnancies (lasting > 42 wk) increase significantly. Non-stress testing and a biophysical profile obtained using Ultrasonography can identify the fetus at risk.

### **RH INCOMPATIBILITY**

Rh incompatibility occurs when a pregnant woman has Rh-negative blood and the fetus has Rh-positive blood, inherited from a father who has Rh-positive blood. Problems can occur if the fetus's Rh-positive blood enters the woman's bloodstream.

## POLYHYDRAMNIOS AND OLIGOHYDRAMNIOS

Polyhydramnios can lead to severe maternal dyspnea and preterm labor. It is associated with uncontrolled maternal diabetes, fetal anomalies (e.g., esophageal atresia, anencephaly, spina bifida), multiple pregnancy, and immunization. Oligohydramnios is associated with congenital anomaly of the fetal urinary tract, severe intrauterine growth retardation, and fetal death.

## THIRD-TRIMESTER BLEEDING

The most common causes of third-trimester bleeding are placenta previa, abruptio placenta, and lower genital tract disease. All patients who bleed in the 3rd trimester should be considered at risk and should have a full evaluation, including ultrasonography, inspection of the cervical area, etc.

**Placenta Previa** is implantation of the placenta over or near the cervix, in the lower rather than the upper part of the uterus. The placenta may completely or partially cover the opening of the cervix. Placenta previa occurs usually in women who have had more than one pregnancy or who have structural abnormalities of the uterus, such as fibroids.

## CONCLUSION

Specialized care should be given to women who are experiencing complications or problems during their pregnancies including: preterm labor; pregnancy-induced hypertension; bleeding; chronic hypertension; diabetes; or Hyperemesis, etc.

Women with chronic medical conditions, such as lupus, cancer, diabetes, or arthritis, are all at risk for complicated pregnancies. Likewise, women who have experienced miscarriages, pre-term deliveries, stillbirths, or neonatal deaths need specialized care to ensure a healthy pregnancy and birth. Cigarette smoking, alcohol abuse, and drug abuse put mother and child at risk, but are factors which can be controlled.

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