

# INTRAUTERINE GROWTH RESTRICTION (IUGR)

(Small-for-Gestational-Age [SGA] Pregnancy)



## BASIC INFORMATION

### DESCRIPTION

Intrauterine growth restriction (IUGR) occurs when the fetus is much smaller than expected for the length of the pregnancy. IUGR occurs in 1 in 10 pregnancies.

### FREQUENT SIGNS AND SYMPTOMS

Usually, there are no signs or symptoms. Diagnosis is based on prenatal physical examinations and ultrasound studies.

### CAUSES

Chromosome abnormalities and/or infections of the fetus are often the cause of IUGR. In other cases, the placenta fails to provide adequate nutrients to the fetus. Most often, the placenta is normal, but is functioning abnormally. Abnormal placenta anatomy, such as placenta previa or placental abruption, can result in IUGR.

### RISK INCREASES WITH

- Multiple fetuses (twins or greater).
- Poor maternal nutrition.
- Placental problems.
- Maternal illness, such as cyanotic heart disease, hypertension, anemia, kidney disease, diabetes mellitus with vascular involvement, antiphospholipid syndrome, or sickle cell disease.
- Smoking.
- Fetal infections.
- Maternal drug addiction or alcohol abuse.
- Fetal congenital abnormalities; chromosomal abnormalities.
- Maternal low prepregnant weight and low weight gain with pregnancy.
- Previous pregnancy with an intrauterine growth restriction (IUGR) baby.
- Exposure to certain environmental agents or medications.
- Living at a high altitude.

### PREVENTIVE MEASURES

- Avoidance of any of the risk factors that are within the control of the mother, such as smoking or alcohol abuse.
- Genetic counseling prior to pregnancy.
- Good medical care and management of any maternal chronic disorder listed in risk factors.
- Good prenatal care.
- If pregnant, avoid people with infections.

### EXPECTED OUTCOME

- For the mother without an underlying condition, the outcome is equivalent to a mother who delivers an average-for-gestational-age (AGA) baby. A cesarean section delivery may be necessary in cases of fetal distress.
- For the infant without anomalies (a deviation from what is considered normal) or infection, the outlook is generally good for subsequent normal physical development and neurological outcome.

### POSSIBLE COMPLICATIONS

- Increased risk for fetal problems prior to, and at birth, such as lack of oxygen, low birth weight, prematurity, low blood sugar and temperature instabilities.
- Higher risk exists for congenital defects.
- Risk of SIDS (sudden infant death syndrome).
- Long-term, the child may develop physical or neurological handicaps.



## TREATMENT

### GENERAL MEASURES

- Using ultrasound to measure the fetus' head circumference, biparietal diameter (the skull-to-skull distance between the ears), abdominal circumference and femur length, the fetus' weight can be estimated. The estimated weight is then compared to standardized growth tables and the fetal growth percentile is determined. If the fetal weight falls at less than the 10th percentile, the fetus has IUGR. Amniocentesis may be recommended for further testing for chromosome abnormalities or viral infections.
- Any substances being abused by the mother need to be discontinued (cigarettes, alcohol, drugs).
- Any maternal illness should be stabilized if possible.
- Ongoing testing will be done once or twice weekly to assess the condition of the fetus.
- Hospitalization may be required if outpatient steps are unsuccessful.
- Labor may need to be induced or a cesarean section performed if fetal compromise is diagnosed, or it is determined that the optimal time for delivery has been reached (the point at which the baby will do as well outside as inside the uterus).

### MEDICATION

- Low-dose aspirin may be prescribed for some selected cases.
- Medications may be prescribed for any maternal medical problem such as high blood pressure, anemia and others.

### ACTIVITY

Following diagnosis, complete bed rest is often recommended, while others may be on a limited activity routine. If bed rest is prescribed, lying on the left side helps promote blood flow and nutrition for the fetus.

### DIET

If nutrition is a problem, a special diet will be prescribed.



## NOTIFY OUR OFFICE IF

- You are pregnant and have any concerns about the development of your baby.
- During treatment, any new signs or symptoms develop.