Small for Gestational Age (SGA)

A baby who is smaller than average during pregnancy is called small for gestational age (SGA). An SGA baby will often have a birth weight below 9 out of 10 babies of the same age. An SGA baby may be equally small all over. Or the baby may be a normal length and size but have lower weight and body mass. The baby's brain and organs are usually fully mature, but small. After birth, SGA babies may have certain problems with breathing and feeding that mean they need more care.

Causes of SGA

Some babies are small because their parents are small. But most SGA babies are small because of growth problems that happen in pregnancy. One of these problems is intrauterine growth restriction (IUGR). IUGR happens when the baby doesn't get enough nutrients and oxygen for proper growth. IUGR can start at any time in pregnancy. Early IUGR is often caused by problems with chromosomes, a disease in the mother, or severe problems with the placenta. Late IUGR (after 32 weeks) is often caused by other problems.

Certain things may make SGA and IUGR more likely. These include health issues of the mother, such as:

- High blood pressure
- Chronic kidney disease
- Advanced diabetes
- Heart or respiratory disease
- Poor nutrition
- Anemia
- Infection
- Lupus
- Sickle cell disease
- Abnormal uterus

Other lifestyle choices and health history can make SGA and IUGR more likely. These include:

- Alcohol or drug abuse
- Cigarette smoking
- Conception using assisted reproductive technology
- Exposure to certain medicines like blood thinners or seizure medicines
- Advanced maternal age
- Low weight before becoming pregnant

They also include health issues with the baby or the uterus, such as:

- Infection
- Birth defects

- Chromosome problems
- Less blood flow in the uterus and placenta
- A placenta that detaches from the uterus (placental abruption)
- A placenta that grows too low in the uterus (placenta previa)

Being pregnant with twins, triplets, or other multiples can also make IUGR and SGA more likely.

Why does SGA matter?

SGA may show that the baby is getting less oxygen than normal. This increases the health risks for the baby during pregnancy, delivery, and afterward. Babies with SGA may have problems at birth, such as:

- Lower oxygen levels
- Low Apgar scores. This is an assessment that shows how a baby is doing right after delivery.
- Inhaling the first stools that are passed in utero (meconium aspiration). This can cause breathing problems.
- Low blood sugar (hypoglycemia)
- Trouble keeping normal body temperature
- Too many red blood cells (polycythemia)
- Feeding problems

Diagnosing SGA

During pregnancy, a baby's size can be estimated in different ways. The height of the top of the uterus (fundus) can be measured from the pubic bone. This height in centimeters often matches the number of weeks of pregnancy after the 20th week. If the number is lower than the number of weeks, the baby may be smaller than average.

These are other tools for diagnosing SGA:

- **Ultrasound.** This test uses sound waves and a computer to create pictures of the inside of the body. This is a more accurate way to estimate the size of a baby before birth. Measurements can be taken of the baby's head and abdomen. The numbers are then compared with a growth chart.
- **Doppler flow.** This test uses sound waves to measure blood flow. It can be done to look at blood flow through blood vessels in the baby's brain and the umbilical cord.
- **Mother's weight gain.** A mother's weight gain in pregnancy can also help indicate a baby's size. Small weight gain may mean a smaller baby.
- **Gestational assessment.** Babies are weighed in the first few hours after birth. The birth weight is compared with the expected weight for the baby's gestational age.

After delivery, SGA babies may have other signs, such as:

- A body that looks thin and pale
- Skin that is loose and dry
- An umbilical cord that is thin and dull-looking instead of shiny and fat

Treatment of SGA

The treatment of SGA is supportive care. A baby with SGA may be weak and less able to feed as well, or to stay warm. They may be put in a temperature-controlled bed or incubator to keep warm. Tube feedings may be done to make sure the baby has enough nutrition. Blood tests may be done to check blood sugar levels. And blood oxygen levels will be watched. If needed, extra oxygen or mechanical ventilation may be used to help the baby breathe.

Preventing SGA

Prenatal care is important in pregnancy. Regular visits to your healthcare provider can help spot problems such as SGA and IUGR. Stopping use of tobacco, alcohol, and drugs is important for a healthy pregnancy. It's also important to control any long-term (chronic) health conditions throughout your pregnancy. Discuss with your provider the risks and benefits if you have been prescribed any medicines. Talk with your healthcare provider if you need help.