

Infants of Diabetic Mothers

Diabetes during pregnancy can have harmful effects on your baby. Infants of diabetic mothers may be large in size. During the first few days after birth, they are at risk of low blood sugar (hypoglycemia) and other complications. Good prenatal care and careful monitoring and treatment of the baby after birth are essential. Keeping your diabetes under control during pregnancy also is important to your baby's health.

How does diabetes affect your baby?

Diabetes is a disease in which the body does not produce or becomes resistant to the effects of the hormone insulin, which it needs in order to use glucose (sugar) for energy. Without treatment to prevent high blood glucose levels (hyperglycemia), diabetes causes serious complications.

Pregnant women with diabetes need special care to avoid harmful effects on the developing baby. This includes women with gestational diabetes, a form that occurs during pregnancy only. Babies of diabetic mothers are often large, although some are normal-sized or smaller than expected, depending on how severe the diabetes is. These infants may have low blood sugar levels (hypoglycemia), which can cause restless or jumpy behavior among other symptoms.

Infants of diabetic mothers are at risk of other complications as well, including low calcium levels, heart problems, and certain birth defects. Treatment to keep diabetes under control during pregnancy can greatly reduce the risk of harmful effects for mother and baby alike.

What kinds of problems can occur?

Appearance.

- Infants of diabetic mothers tend to be larger than normal. They may have more than the normal amount of body fat; sometimes they look “puffy-faced.”
- In some situations, the baby may be of normal size or even smaller. This is more likely if the baby is born prematurely or if the mother has diabetes-related blood vessel disease.
- Your baby may seem restless or jumpy during the first few days after birth. Trembling may occur. Other infants of diabetic mothers appear limp and inactive and show poor sucking ability. All of these may be signs of hypoglycemia (low blood sugar). Later on, similar symptoms may result from low calcium levels (hypocalcemia).

Hypoglycemia.

- Many infants of diabetic mothers are born with low blood sugar, or hypoglycemia. This can cause many different symptoms, including restlessness/jumpiness, limpness/inactivity, blue color of the skin (cyanosis), convulsions (uncontrolled muscle movements), feeding problems, and others.
- Hypoglycemia can occur with no symptoms at all. Testing and treatment for hypoglycemia are important parts of your baby's initial care.

Other complications. Diabetes can cause many harmful complications for the newborn, some of which are serious. These include:

- Premature birth.
- Breathing problems.
- Heart problems, such as enlargement of the heart (cardiomegaly).
- Low calcium levels.
- Increased hematocrit level, reflecting a higher than normal amount of blood in the body (polycythemia). This may lead to blood clots and contribute to jaundice (yellow color of the skin).
- An increased risk of birth defects, including heart, spinal cord, and kidney abnormalities.
- An increased risk of miscarriage or stillbirth. Keeping diabetes under control during pregnancy will help to reduce the risk of pregnancy loss as well as of other complications. 

How can I reduce the risk of complications for my infant?

If you have diabetes and become pregnant, or if you develop diabetes during pregnancy, you'll need careful medical care. Frequent tests and follow-up examinations are needed, focusing on:

- *Keeping your diabetes under control.* Treatments are needed to keep your blood glucose level as close to normal as possible. This may include insulin shots, oral medications, diet, exercise, and education, including how to monitor your blood glucose level. With “tight” control of blood glucose levels, pregnancy outcomes in diabetic mothers are similar to those in nondiabetic mothers.
- *Monitoring your baby's development in the womb.* Ultrasound and other tests are done frequently to keep track of your baby's development and maturation.

- *Preparing for birth.* Plans will be made to ensure that specialized care is available for you and your baby at the time of delivery and after birth.

How will my baby be treated?

Specific treatments depend on your baby's situation at birth. All infants of diabetic mothers receive intensive monitoring and treatment, if needed.

- Your baby's blood glucose level will be measured frequently after birth. Hypoglycemia (low blood sugar) may be present without any symptoms. If your baby's blood sugar is too low, glucose solution may be given through a vein (intravenously).
- If your baby is healthy, frequent feedings should start as soon as possible. If there are any feeding problems, including poor sucking, your baby may receive intravenous glucose solution.
- Your baby will receive continued close follow-up examinations, as there is a risk that hypoglycemia may develop later or recur.



- *It is essential to avoid long and/or severe periods of hypoglycemia!* Serious complications may result, including brain damage resulting in reduced intelligence.

What's my baby's long-term outlook?

- Your baby should have few problems, especially if you kept your diabetes under good control during pregnancy, and there are no serious medical problems at birth. Your child will receive close medical follow-up examinations to monitor his or her physical and intellectual development, especially if there were problems with low blood sugar.
- Your child may be at increased risk of developing diabetes later in life. Infants who are large at birth also may be at greater risk of obesity.



When should I call your office?

Women with diabetes during pregnancy need regular prenatal care throughout their pregnancies. Testing for possible gestational (pregnancy-related) diabetes should be part of prenatal care for every woman.

After your baby goes home, call our office if any of the following occurs:

- Jitteriness.
- Poor feeding.
- Jaundice (yellow color of the skin).