

Patient Handout

Managing Type 1 Diabetes for Pregnancy

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If you have type 1 diabetes and are thinking about becoming pregnant, there are important steps you should take now to make sure you will have a healthy baby. Even if you have good control of your blood glucose when you become pregnant, pregnancy is a high-risk situation for both you and your baby.

The good news is that regular care gives you an excellent chance for a successful pregnancy. Your diabetes care team—your endocrinologist, obstetrician, family physician, dietitian, diabetes nurses and educators, and pediatrician—will help you with your medical needs before you become pregnant, throughout your pregnancy, during delivery, and after your baby is born.

What Are the Risks?

In general, the risks for pregnant women with diabetes are higher than those for pregnant women without diabetes. Women with type 1 diabetes have more problems with high blood pressure during pregnancy, miscarriages and stillbirths, premature and cesarean deliveries, and birth injuries to both the mother and the baby. Women with type 1 diabetes also are more likely to have babies with high birth weights and serious birth defects such as heart and spinal cord problems. However, you can reduce these risks by receiving regular care before conception and throughout your pregnancy. The American Diabetes Association recommends planning your pregnancy ahead of time and discussing your plan with your health care team.

What Is Preconception Care, and Why Is It Important?

Preconception care is the diabetes care and education that a woman receives before she becomes pregnant. This includes learning about the effects of diabetes on pregnancy, improving diabetes self-management skills, and understanding the importance of adhering to prescribed diabetes treatment plans. You should begin preconception care at least 6 months before you become pregnant. This will help you achieve good glucose control before your pregnancy begins and allow your doctors to detect problems early. Your diabetes care team will:

- Teach you how to achieve ideal glucose control through self-monitoring of blood glucose (the finger-stick test).
- Provide counseling about family planning.
- Evaluate your risk for diabetic complications (such as kidney and eye problems, heart disease, high blood pressure, thyroid problems, and high cholesterol) and any other preexisting medical problems you may have, using special tests.
- Review your use of insulin and other medications, and make necessary changes before you become pregnant.
- Recommend diet and nutritional therapy, and give you advice about vitamins (such as folic acid), minerals, and other important supplements that prevent birth defects.
- Establish your best prepregnancy weight and determine your targeted weight gain during pregnancy.
- Provide advice on exercise and other physical activity.
- Make arrangements for your delivery in a hospital that is equipped with up-to-date testing and monitoring facilities.

Diabetes Management in Early Pregnancy

The fetus begins to form important structures, including the heart, eyes, brain, and spinal cord, during the first 6 weeks of pregnancy. High blood glucose levels during those 6 weeks are especially dangerous to the fetus and can lead to major birth defects. Good glucose control that begins before conception and continues during the first trimester is the best way to reduce the risk of birth defects and other complications.

For most women, pregnancy is usually confirmed during this critical period. By participating in regular preconception care and early pregnancy care, your diabetes care team will know when you have reached this point.

Diabetes Management Throughout Pregnancy

Even if you have good blood glucose control before you become pregnant, pregnancy will change the way you manage your type 1 diabetes. For example:

- The hormones produced in pregnancy will affect the way your insulin works.
- Pregnancy will change your food intake and activity levels.
- Your blood glucose and insulin sensitivity will vary more during pregnancy than before you were pregnant; your insulin needs may go down in early pregnancy and then increase in mid- to late pregnancy.

- Morning sickness may cause you to eat less and need lower doses of insulin.
- You may have problems with both high and low blood glucose levels, depending on the stage of your pregnancy; high blood glucose is harmful to both you and your unborn child, and low blood glucose can occur more rapidly than before you were pregnant, especially if you don't know the symptoms.
- Your doctor will need to make frequent adjustments to your insulin dose.
- You will probably need to check your blood glucose more often. Your doctor is likely to recommend self-monitoring of blood glucose before and after meals, at bedtime, and occasionally at night (2 AM–4 AM); access to one of the new glucose monitoring systems can be especially helpful.
- Your doctor may want you to perform occasional urine dipstick tests if you become sick and do not eat normally, or if your blood glucose is too high (>200 mg/dL); urine tests can help determine whether you have ketones in your urine, which can affect you and your baby.
- Your doctor will determine your glycosylated hemoglobin (A1C) level early in your pregnancy, repeat it every month until your level is acceptable, and then repeat it every 2 to 3 months.
- Your doctor will advise you on what to do when your blood glucose is too high or too low, and how to recognize the symptoms.

Maintaining good glucose control throughout your pregnancy is the only way to protect yourself and your baby.

Diabetes Management After Delivery

Within a few hours after delivery, your insulin needs will probably go down again, and you will require a lower dose of insulin. Taking care of a newborn may also lower your insulin needs for a while.

You should be able to breastfeed your baby. However, some women with type 1 diabetes may have problems initiating breastfeeding, and they may experience episodes of high and low blood glucose during lactation. You will need to maintain your fluid and calorie intake, and you may need more frequent snacks if you breastfeed your baby. Your diabetes care team can help you get started during this period, and they will make sure your baby does not have any complications before going home.

Things to Remember

- Planning your pregnancy and receiving 6 months of regular preconception care will give your baby the best possible start in life.
- You will need to have your diabetes care team in place early so your pregnancy can be confirmed as soon as possible in the first trimester, when most problems occur.
- Your insulin needs will change a lot during pregnancy. Your blood glucose level can drop more rapidly during pregnancy than before you became pregnant. Your doctor will advise you on the best way to prevent low blood glucose levels and what you should do if that happens. High blood glucose levels can harm your baby.
- Your diabetes care team will want to talk to you—and see you often—during your pregnancy to prevent complications.
- Each woman with type 1 diabetes is different. Only your diabetes care team can determine your individual needs before you become pregnant, throughout your pregnancy, during delivery, and afterward.
- Regular care gives you an *excellent* chance for a successful pregnancy.

ADDITIONAL READING

American Diabetes Association. Preconception care of women with diabetes. *Diabetes Care*. 2003;26(Suppl 1):S91–S93.