

Pregnancy if You Have Diabetes

On this page:

- [How can diabetes affect my baby?](#)
- [How can my diabetes affect me during pregnancy?](#)
- [What health problems could I develop during pregnancy because of my diabetes?](#)
- [How can I prepare for pregnancy if I have diabetes?](#)
- [What do I need to know about blood glucose testing before and during pregnancy?](#)
- [What tests will check my baby's health during pregnancy?](#)
- [Clinical Trials](#)

If you have diabetes and plan to have a baby, you should try to get your [blood glucose](#) levels close to your target range *before* you get pregnant.

Staying in your target range during pregnancy, which may be different than when you aren't pregnant, is also important. High blood glucose, also called blood sugar, can harm your baby during the first weeks of pregnancy, even before you know you are pregnant. If you have diabetes and are already pregnant, see your doctor as soon as possible to make a plan to manage your diabetes. Working with your health care team and following your diabetes management plan can help you have a healthy pregnancy and a healthy baby.

Source: National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK); Use of this document does not constitute endorsement or recommendation by the U.S. Government, HHS, NIH, or NIDDK.

Plan to manage your blood glucose before you get pregnant.

If you develop diabetes for the first time while you are pregnant, you have [gestational diabetes](#).

How can diabetes affect my baby?

A baby's organs, such as the brain, heart, kidneys, and lungs, start forming during the first 8 weeks of pregnancy. High blood glucose levels can be harmful during this early stage and can increase the chance that your baby will have birth defects, such as heart defects or defects of the brain or spine.

High blood glucose levels during pregnancy can also increase the chance that your baby will be born too early, weigh too much, or have breathing problems or low blood glucose right after birth.

High blood glucose also can increase the chance that you will have a [miscarriage](#) [NIH](#) or a stillborn baby.¹ Stillborn means the baby dies in the womb during the second half of pregnancy.

How can my diabetes affect me during pregnancy?


[Hormonal](#) and other changes in your body during pregnancy affect your blood glucose

Source: National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK); Use of this document does not constitute endorsement or recommendation by the U.S. Government, HHS, NIH, or NIDDK.

levels, so you might need to change how you manage your diabetes. Even if you've had diabetes for years, you may need to change your meal plan, physical activity routine, and medicines. If you have been taking an oral diabetes medicine, you may need to switch to [insulin](#). As you get closer to your due date, your management plan might change again.

What health problems could I develop during pregnancy because of my diabetes?

Pregnancy can worsen certain long-term diabetes problems, such as [eye problems](#) and [kidney disease](#), especially if your blood glucose levels are too high.

You also have a greater chance of developing preeclampsia, sometimes called toxemia, which is when you develop [high blood pressure](#) and too much [protein](#) in your [urine](#) during the second half of pregnancy. [Preeclampsia](#)  can cause serious or life-threatening problems for you and your baby. The only cure for preeclampsia is to give birth. If you have preeclampsia and have reached 37 weeks of pregnancy, your doctor may want to deliver your baby early. Before 37 weeks, you and your doctor may consider other options to help your baby develop as much as possible before he or she is born.

How can I prepare for pregnancy if I have diabetes?



If you have diabetes, keeping your blood glucose as close to normal as possible before and during your pregnancy is important to stay healthy and have a healthy baby. Getting checkups before and during pregnancy, following your diabetes meal plan, being physically active as your health care team advises, and taking diabetes medicines if you need to will help you [manage your diabetes](#). Stopping smoking and taking vitamins as your doctor advises also can help you and your baby stay healthy.

Work with your health care team

Regular visits with members of a health care team who are experts in diabetes and pregnancy will ensure that you and your baby get the best care. Your health care team may include

- a medical doctor who specializes in diabetes care, such as an [endocrinologist](#) or a

[diabetologist](#)

- an [obstetrician](#) with experience treating women with diabetes
- a [diabetes educator](#) who can help you manage your diabetes
- a [nurse practitioner](#) [NIH](#)  who provides [prenatal care](#) [NIH](#)  during your pregnancy
- a [registered dietitian](#) to help with meal planning
- specialists who diagnose and treat diabetes-related problems, such as vision problems, kidney disease, and heart disease
- a social worker or psychologist to help you cope with stress, worry, and the extra demands of pregnancy

You are the most important member of the team. Your health care team can give you expert advice, but you are the one who must manage your diabetes every day.

Talk with your health care team before you get pregnant.

Get a checkup

Have a complete checkup before you get pregnant or as soon as you know you are pregnant. Your doctor should check for

- high blood pressure
- eye disease
- heart and blood vessel disease
- nerve damage
- kidney disease


Source: National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK); Use of this document does not constitute endorsement or recommendation by the U.S. Government, HHS, NIH, or NIDDK.

- thyroid disease

Pregnancy can make some [diabetes health problems](#) worse. To help prevent this, your health care team may recommend adjusting your treatment before you get pregnant.

Don't smoke

Smoking can increase your chance of having a stillborn baby or a baby born too early.² Smoking is especially harmful for people with diabetes. Smoking can increase diabetes-related health problems such as eye disease, heart disease, and kidney disease.

If you smoke or use other tobacco products, stop. Ask for help so you don't have to do it alone. You can start by calling the national quitline at 1-800-QUITNOW or 1-800-784-8669. For tips on quitting, go to [Smokefree.gov](https://www.smokefree.gov) .

See a registered dietitian nutritionist

If you don't already see a dietitian, you should start seeing one before you get pregnant. Your dietitian can help you learn what to eat, how much to eat, and when to eat to reach or stay at a [healthy weight](#) before you get pregnant. Together, you and your dietitian will create a meal plan to fit your needs, schedule, food preferences, medical conditions, medicines, and physical activity routine.

During pregnancy, some women need to make changes in their meal plan, such as adding extra calories, protein, and other nutrients. You will need to see your dietitian every few months during pregnancy as your dietary needs change.

Be physically active

Physical activity can help you reach your target blood glucose numbers. Being physically active can also help keep your blood pressure and [cholesterol](#) levels in a healthy range, relieve stress, strengthen your heart and bones, improve muscle strength, and keep your joints flexible.

Before getting pregnant, make physical activity a regular part of your life. Aim for 30 minutes of activity 5 days of the week.

Talk with your health care team about what activities are best for you during your

pregnancy.

Physical activity can help you reach your target blood glucose numbers.

[Read tips on how to eat better and be more active while you are pregnant and after your baby is born.](#)

Avoid alcohol

You should avoid drinking alcoholic beverages while you're trying to get pregnant and throughout pregnancy. When you drink, the alcohol also affects your baby. Alcohol can lead to serious, lifelong health problems for your baby.

Adjust your medicines

Some medicines are not safe during pregnancy and you should stop taking them before you get pregnant. Tell your doctor about all the medicines you take, such as those for high cholesterol and high blood pressure. Your doctor can tell you which medicines to stop taking, and may prescribe a different medicine that is safe to use during pregnancy.

Doctors most often prescribe insulin for both type 1 and type 2 diabetes during pregnancy.³ If you're already taking insulin, you might need to change the kind, the amount, or how and when you take it. You may need less insulin during your first trimester but probably will need more as you go through pregnancy. Your insulin needs may double or even triple as you get closer to your due date. Your health care team will work with you to create an insulin routine to meet your changing needs.

Source: National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK); Use of this document does not constitute endorsement or recommendation by the U.S. Government, HHS, NIH, or NIDDK.

Take vitamin and mineral supplements

Folic acid [NIH](#) is an important vitamin for you to take before and during pregnancy to protect your baby's health. You'll need to start taking folic acid at least 1 month before you get pregnant. You should take a multivitamin or supplement that contains at least 400 micrograms (mcg) of folic acid. Once you become pregnant, you should take 600 mcg daily.⁴ Ask your doctor if you should take other vitamins or minerals, such as iron or calcium supplements, or a multivitamin.

What do I need to know about blood glucose testing before and during pregnancy?

How often you check your blood glucose levels may change during pregnancy. You may need to check them more often than you do now. If you didn't need to check your blood glucose before pregnancy, you will probably need to start. Ask your health care team how often and at what times you should check your blood glucose levels. Your blood glucose targets will change during pregnancy. Your health care team also may want you to check your [ketone](#) levels if your blood glucose is too high.


During your pregnancy, you may need to check your blood glucose levels more often.

Target blood glucose levels before pregnancy

When you're planning to become pregnant, your daily blood glucose targets may be different than your previous targets. Ask your health care team which targets are right for

Source: National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK); Use of this document does not constitute endorsement or recommendation by the U.S. Government, HHS, NIH, or NIDDK.

you.

You can keep track of your blood glucose levels using [My Daily Blood Glucose Record](#) (PDF, 44 KB) . You can also use an electronic blood glucose tracking system on your computer or mobile device. Record the results every time you check your blood glucose. Your blood glucose records can help you and your health care team decide whether your diabetes care plan is working. You also can make notes about your insulin and ketones. Take your tracker with you when you visit your health care team.

Target blood glucose levels during pregnancy

Recommended daily target blood glucose numbers for most pregnant women with diabetes are

- Before meals, at bedtime, and overnight: 90 or less
- 1 hour after eating: 130 to 140 or less
- 2 hours after eating: 120 or less³

Ask your doctor what targets are right for you. If you have type 1 diabetes, your targets may be higher so you don't develop low blood glucose, also called [hypoglycemia](#).

A1C numbers

Another way to see whether you're meeting your targets is to have an [A1C blood test](#). Results of the A1C test reflect your average blood glucose levels during the past 3 months. Most women with diabetes should aim for an A1C as close to normal as possible—ideally below 6.5 percent—before getting pregnant.³ After the first 3 months of pregnancy, your target may be as low as 6 percent.³ These targets may be different than A1C goals you've had in the past. Your doctor can help you set A1C targets that are best for you.

Ketone levels



When your blood glucose is too high or if you're not eating enough, your body might make ketones. Ketones in your urine or blood mean your body is using fat for energy instead of glucose. Burning large amounts of fat instead of glucose can be harmful to your health and your baby's health.

You can prevent serious health problems by checking for ketones. Your doctor might



recommend you test your urine or blood daily for ketones or when your blood glucose is above a certain level, such as 200. If you use an [insulin pump](#), your doctor might advise you to test for ketones when your blood glucose level is higher than expected. Your health care team can teach you how and when to test your urine or blood for ketones.

Talk with your doctor about what to do if you have ketones. Your doctor might suggest making changes in the amount of insulin you take or when you take it. Your doctor also may recommend a change in meals or snacks if you need to consume more carbohydrates.

What tests will check my baby's health during pregnancy?

You will have tests throughout your pregnancy, such as blood tests and [ultrasounds](#) [NIH](#) , to check your baby's health. Talk with your health care team about what [prenatal tests](#) [NIH](#)  you'll have and when you might have them.


References

- [1] ACOG Committee on Practice Bulletins. ACOG Practice Bulletin. Clinical management guidelines for obstetrician–gynecologists. Number 60, March 2005. Pregestational diabetes mellitus. *Obstetrics and Gynecology*. 2005;105(3):675–685. Reaffirmed 2014: www.acog.org/Resources-And-Publications/Practice-Bulletins-List .
- [2] U.S. Department of Health and Human Services. The health consequences of smoking—50 years of progress. A report of the Surgeon General. www.surgeongeneral.gov/library/reports/50-years-of-progress/ . Published 2014. Accessed July 7, 2016.
- [3] Standards of Medical Care in Diabetes—2016. *Diabetes Care*. 2016;39(1)(suppl):S94–S98.
- [4] Correa A, Gilboa SM, Botto LD, et al. Lack of periconceptional vitamins or supplements that contain folic acid and diabetes mellitus-associated birth defects. *American Journal of Obstetrics and Gynecology*. 2012;206(3):218.e1–e13.


Clinical Trials

The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) and other components of the National Institutes of Health (NIH) conduct and support research into many diseases and conditions.

What are clinical trials, and are they right for you?

Clinical trials are part of clinical research and at the heart of all medical advances. Clinical trials look at new ways to prevent, detect, or treat disease. Researchers also use clinical trials to look at other aspects of care, such as improving the quality of life for people with chronic illnesses. [Find out if clinical trials are right for you](#) [NIH](#) .

What clinical trials are open?

Clinical trials that are currently open and are recruiting can be viewed at www.ClinicalTrials.gov [NIH](#) .

January 2017

Share     

This content is provided as a service of the [National Institute of Diabetes and Digestive and Kidney Diseases](#) (NIDDK), part of the National Institutes of Health. The NIDDK translates and disseminates research findings to increase knowledge and understanding about health and disease among patients, health professionals, and the public. Content produced by the NIDDK is carefully reviewed by NIDDK scientists and other experts.

The NIDDK would like to thank:

Boyd E. Metzger, MD, Northwestern University Feinberg School of Medicine

Contact Us

The National Institute of Diabetes and Digestive and Kidney Diseases
Health Information Center

Source: National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK); Use of this document does not constitute endorsement or recommendation by the U.S. Government, HHS, NIH, or NIDDK.