ACOG
The American College of Obstetricians and Gynecologists

Routine Tests During Pregnancy

Certain lab tests are recommended during every pregnancy. Although most women have healthy pregnancies and healthy babies, routine tests can help detect possible problems. ***Your obstetrician–gynecologist (ob-gyn)*** might recommend additional tests depending on your medical history, family history, ethnic background, or previous test results. The sooner a problem is found, the sooner it can be managed.

You Need to Know

- why testing during pregnancy is done
- which tests are done early in pregnancy
- which tests are done later in pregnancy
- what testing for birth detects can tell you

Why Tests Are Done During Pregnancy

Certain lab tests are part of routine care during pregnancy. Some of these tests are done with a blood sample. Others use a urine sample or a sample of fluid taken from your ***vagina***, ***cervix***, or ***rectum***. These tests can help find conditions that may increase the risk of ***complications*** for you and your ***fetus***. Many problems found by these tests can be treated during pregnancy.

Tests Done Early in Pregnancy

Several routine lab tests are done early in pregnancy, including

- complete blood count (CBC)
- blood type and ***Rh factor***
- urinalysis
- urine culture

Also, pregnant women typically are tested for specific diseases and infections early in pregnancy, including

- ***rubella***
- ***hepatitis B*** and ***hepatitis C***
- ***human immunodeficiency virus (HIV)***
- other ***sexually transmitted infections (STIs)***
- ***tuberculosis (TB)***

What does a complete blood count test for?

A CBC counts the number of different types of ***cells*** that make up your blood. The number of red blood cells can show whether you have a certain type of ***anemia***. The number of white blood cells can show how many disease-fighting cells are in your blood. The number of platelets can reveal whether you have a problem with blood clotting.

Will I be tested for blood type?

Yes, during the first ***trimester*** of pregnancy you will have a blood test to find out your blood type, such as type A or type B. Also, your blood will be tested for the Rh factor.

What is the Rh factor?

The Rh factor is a protein that can be found on the surface of red blood cells. If your blood cells have this protein, you are Rh positive. If your blood cells do not have this protein, you are Rh negative. The "positive" or "negative" part of your blood type, such as O positive or A negative, refers to your Rh status.

Why is it important to know your Rh status?

If you are Rh negative and your fetus is Rh positive, your body can make ***antibodies*** against the Rh factor. These antibodies can damage the fetus's red blood cells. This usually does not cause problems in a first pregnancy, when your body makes only a small number of antibodies. But it can cause serious issues in a later pregnancy, including ***stillbirth***.

What will happen if I am Rh negative?

If you are Rh negative, you may be given medication during pregnancy to help prevent the development of Rh antibodies. If you are Rh negative and have already made a certain number of Rh antibodies, you might need special tests and monitoring throughout pregnancy. Your baby also may need treatment after birth.

What is a urinalysis?

A urinalysis is a quick test of your urine for

- red blood cells, a possible sign of a urinary tract disease
- white blood cells, a possible sign of a ***urinary tract infection (UTI)***
- ***glucose***, because high levels of blood sugar can be a sign of ***diabetes mellitus***

This test also measures the amount of protein in your blood, which can be compared to levels later in pregnancy. High protein levels may signal kidney disease or ***preeclampsia***, a serious complication that can occur later in pregnancy or after the baby is born.

What is a urine culture?

This test looks for ***bacteria*** in your urine, which can be a sign of a UTI. This test is done because sometimes UTIs do not cause symptoms. It can take several days to get the results of this test.

If the test shows bacteria in your urine, you should be treated with ***antibiotics***. After you finish treatment, you may have a repeat test to see if the bacteria are gone.

Why is testing for rubella done?

Rubella (sometimes called German measles) can cause ***birth defects*** if you are infected during pregnancy. Your blood can show whether you have been infected with rubella or if you have been vaccinated against this disease. If you had this infection before or you have been vaccinated against rubella, you are ***immune*** to the disease.

What if I'm not immune to rubella?

Rubella is easily spread. If your blood test shows you are not immune, avoid anyone who has the disease while you are pregnant. There is a ***vaccine***, but it contains a live virus and is not recommended during pregnancy. If you have not been vaccinated, you can get the ***measles–mumps–rubella (MMR) vaccine*** after the baby is born.

What is hepatitis?

Hepatitis is a virus that infects the liver. If you are pregnant and have hepatitis B or hepatitis C, you can pass the virus to your fetus. Everyone should be tested for hepatitis B and hepatitis C infection during pregnancy.

What if I have hepatitis during pregnancy?

If you have hepatitis B or hepatitis C, you might need special care during pregnancy. Your baby also may need special care after birth. You can breastfeed if you have either infection. A vaccine is available to protect the baby against hepatitis B. The vaccine is given as a series of three shots, with the first dose given to the baby within a few hours of birth.

Why is it important to have a test for human immunodeficiency virus?

HIV attacks cells of the body's immune system and causes ***acquired immunodeficiency syndrome (AIDS)*** if not treated. If you have HIV, there is a chance you could pass it to your fetus.

What if I have human immunodeficiency virus?

While you are pregnant, you can take medication that can greatly reduce the risk of passing HIV to your fetus. You also can get specialized care to ensure that you stay as healthy as possible throughout your pregnancy.

What other tests for sexually transmitted infections are done?

Everyone is tested for ***syphilis*** early in pregnancy. You should also be tested for ***chlamydia*** and ***gonorrhea*** if you are under age 25 or if you are at increased risk for getting STIs.

These tests are done early in pregnancy because these infections can cause complications for you and your fetus. Tests for these infections may be repeated later in pregnancy based on your age and risk factors.

What if I have syphilis, chlamydia, or gonorrhea?

You should be treated during pregnancy and tested again to see if the treatment has worked. Your sex partner or partners also should be treated to prevent you from getting infected again.

Who should be tested for tuberculosis?

People at high risk of TB should be tested for it. Those at high risk include people who have HIV, live in close contact with someone who has TB, or are from a country with high rates of TB.

Tests Done Later in Pregnancy

The tests done later in pregnancy include glucose screening and ***group B streptococcus (GBS)*** screening.

What is a glucose screening test?

This tests measures the level of glucose, or sugar, in your blood. A high blood sugar level may be a sign of ***gestational diabetes***, which can cause problems during pregnancy. For this test, you drink a special sugar mixture. An hour later, a blood sample is taken and sent to a lab. If your blood sugar level is high, you should have another type of glucose test to confirm the results.

When is a glucose screening done?

This test usually is done between 24 and 28 weeks of pregnancy. This test might be done in the first trimester of pregnancy if you have risk factors for diabetes or had gestational diabetes in a past pregnancy.

What is group B streptococcus?

GBS is one of the many bacteria that live in the body. It usually does not cause serious illness in adults, and it is not an STI.

Why is group B streptococcus a concern for pregnant women?

In women, GBS most often is found in the vagina and rectum. This means that GBS can pass from you to your fetus during labor. This is rare. It happens to 1 or 2 babies out of 100 when the mother does not receive treatment with antibiotics during labor. The chance of a newborn getting sick is much lower when the mother receives treatment.

How can group B streptococcus affect a newborn?

Even though it is rare for a baby to get GBS, it can be very serious when it happens. A small number of babies with GBS die even with immediate treatment.

How is the test for group B streptococcus done?

The test for GBS is called a culture. It is done between 36 and 38 weeks of pregnancy. For this test, a swab is used to take a sample from the vagina and rectum. If the results show that GBS is present, antibiotics should be given through an ***intravenous (IV) line*** once labor has started. This is done to help protect the fetus from being infected. The best time for treatment is during labor.

Genetic Testing for Birth Defects

Most babies with birth defects are born to couples without risk factors. But the risk of birth defects is higher when certain factors are present. Risk factors include

- having a personal or family history of birth defects
- belonging to certain ethnic groups
- being 35 or older
- having diabetes before pregnancy

What is the first step to screen for birth defects during pregnancy?

Screening for birth defects begins by assessing your risk factors. Early in your pregnancy, your ob-gyn may give you a list of questions to find out whether you have risk factors. If you do have risk factors, you might want to see a ***genetic counselor*** for more detailed information about your risks.

What is the difference between screening and diagnostic testing for birth defects?

- When done during pregnancy, screening tests can tell you the chances that that the fetus may be at risk for certain common birth defects. A screening test cannot tell whether the fetus actually has a birth defect. There is no risk to the fetus from screening tests.
- Diagnostic tests can detect many, but not all, birth defects caused by defects in a ***gene*** or ***chromosomes***. You can choose to have diagnostic tests instead of or in addition to screening tests. Some diagnostic tests carry risks, including a small risk of pregnancy loss.

Am I required to have screening or testing for birth defects?

No, screening and testing are a personal choice. Some people would rather not know if they are at risk of having a child with a birth defect or whether their child will have a birth defect. Others want to know in advance.

Why would I want to know in advance?

Knowing beforehand allows the option of deciding not to continue the pregnancy. If you choose to continue the pregnancy, knowing beforehand gives you time to prepare for having a child with a disorder. This means you can organize the medical care your child may need. Talk with your ob-gyn or genetic counselor about your test results.

Your Takeaways

1. Lab tests may be used during pregnancy to help find problems that could pose a risk to your health or the health of your fetus.
2. Some tests are done routinely for everyone. Other tests are done based on your age, risk factors, or other test results.
3. If test results reveal a possible problem, it may be possible to treat or manage the problem to reduce the risk of complications.
4. Screening and testing for birth defects also are available. It is your choice whether to have them.
5. Talk with your ob-gyn if you have questions about routine lab tests or testing for birth defects.

Terms You Should Know

Acquired Immunodeficiency Syndrome (AIDS): A group of signs and symptoms, usually of severe infections, in a person who has human immunodeficiency virus (HIV).

Anemia: Abnormally low levels of red blood cells in the bloodstream. Most cases are caused by iron deficiency (lack of iron).

Antibiotics: Drugs that treat certain types of infections.

Antibodies: Proteins in the blood that the body makes in reaction to foreign substances, such as bacteria and viruses.

Bacteria: One-celled organisms that can cause infections in the human body.

Birth Defects: Physical problems that are present at birth.

Cells: The smallest units of structures in the body.

Cervix: The lower, narrow end of the uterus at the top of the vagina.

Chlamydia: A sexually transmitted infection caused by bacteria. This infection can lead to pelvic inflammatory disease and infertility.

Chromosomes: Structures that are located inside each cell in the body. They contain the genes that determine a person's physical makeup.

Complications: Diseases or conditions that happen as a result of another disease or condition. An example is pneumonia that occurs as a result of the flu. A complication also can occur as a result of a condition, such as pregnancy. An example of a pregnancy complication is preterm labor.

Diabetes Mellitus: A condition in which the levels of sugar in the blood are too high.

Fetus: The stage of human development beyond 8 completed weeks after fertilization.

Gene: Segments of DNA that contain instructions for the development of a person's physical traits and control of the processes in the body. The gene is the basic unit of heredity and can be passed from parent to child.

Genetic Counselor: A health care professional with special training in genetics who can provide expert advice about genetic disorders and prenatal testing.

Gestational Diabetes: Diabetes that starts during pregnancy.

Glucose: A sugar in the blood that is the body's main source of fuel.

Gonorrhea: A sexually transmitted infection that can lead to pelvic inflammatory disease, infertility, and arthritis.

Group B Streptococcus (GBS): A type of bacteria that many people carry normally and can be passed to the fetus at the time of delivery. GBS can cause serious infection in some newborns. Antibiotics are given during labor to women who carry the bacteria to prevent newborn infection.

Hepatitis B: An infection caused by a virus that can be spread through blood, semen, or other body fluid infected with the virus.

Hepatitis C: An infection caused by a virus that can be spread through infected blood.

Human Immunodeficiency Virus (HIV): A virus that attacks certain cells of the body's immune system. If left untreated, HIV can cause acquired immunodeficiency syndrome (AIDS).

Immune: Protected against infectious disease.

Intravenous (IV) Line: A tube inserted into a vein and used to deliver medication or fluids.

Measles–Mumps–Rubella (MMR) Vaccine: A shot given to protect against measles, mumps, and rubella. The shot contains live viruses that have been changed to not cause disease. The shot is not recommended for pregnant women.

Obstetrician–Gynecologist (Ob-Gyn): A doctor with special training and education in women's health.

Preeclampsia: A disorder that can occur during pregnancy or after childbirth in which there is high blood pressure and other signs of organ injury. These signs include an abnormal amount of protein in the urine, a low number of platelets, abnormal kidney or liver function, pain over the upper abdomen, fluid in the lungs, or a severe headache or changes in vision.

Rectum: The last part of the digestive tract.

Rh Factor: A protein that can be found on the surface of red blood cells.

Rubella: A virus that can be passed to the fetus if a woman becomes infected during pregnancy. The virus can cause miscarriage or severe birth defects.

Sexually Transmitted Infections (STIs): Infections that are spread by sexual contact. Infections include chlamydia, gonorrhea, human papillomavirus (HPV), herpes, syphilis, and human immunodeficiency virus (HIV, the cause of acquired immunodeficiency syndrome [AIDS]).

Stillbirth: Birth of a dead fetus.

Syphilis: A sexually transmitted infection (STI) that is caused by an organism called Treponema pallidum. This infection may cause major health problems or death in its later stages.

Trimester: A 3-month time in pregnancy. It can be first, second, or third.

Tuberculosis (TB): A disease that affects the lungs and other organs in the body. TB is caused by bacteria.

Urinary Tract Infection (UTI): An infection in any part of the urinary system, including the kidneys, bladder, or urethra.

Vaccine: A substance that helps the body fight disease. Vaccines are made from very small amounts of weak or dead agents that cause disease (bacteria, toxins, and viruses).

Vagina: A tube-like structure surrounded by muscles. The vagina leads from the uterus to the outside of the body.

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