

Routine tests recommended during pregnancy at HBHS

In one of your first prenatal visits, your maternity provider will do a thorough gynecological exam. Your cervix will be checked, and a clinical pelvimetry exam performed, where your provider uses their hands to get an estimate of the size of the pelvic bones to determine if your anatomy is adequate for delivering a baby vaginally. Other areas to be checked will be the breasts, heart, and lungs. Your care provider probably won't recheck the cervix again until it is medically indicated, for example, if there is a concern for preterm labor or if a woman is actually in labor.



You'll find two types of tests ordered during your pregnancy: those that are considered routine and that everyone receives and those that are done for patients who are considered to be at risk.

Here are some of the more common tests that will be performed on most women. Obviously, all the tests that are ordered are up to your physician, so if you don't get a specific test, don't panic. Your doctor may not think it is necessary for you to have that particular one.

Pap Smear and STD Tests

A pap smear will be done if you haven't had one already in the previous year. Doctors are looking for precancerous changes in the cervix. If necessary, they might perform a colposcopy and a cervix biopsy for further diagnosis. They will also check for chlamydia and gonorrhea through a culture from the vagina. The treatment for both chlamydia and gonorrhea is antibiotics.

Why it's important (gonorrhea): Gonorrhea can cause potential blindness in a newborn. It can also cause chorioamnionitis, which is an infection of the membrane surrounding the bag of water that surrounds the baby. After the bag of water is ruptured, there is a higher incidence of premature births and subsequent infant complications.

Why it's important (chlamydia): If a mother has chlamydia, half of all babies who pass through her birth canal will get the infection, which could cause conjunctivitis or chronic pneumonia.

CBC

One of the first tests that you'll receive is a CBC (complete blood count). This test checks your hematocrit and hemoglobin, as well as platelet count. Translation for laypeople like us: Hemoglobin and hematocrit measure your potential for anemia.

Why it's important (hematocrit and hemoglobin): Those women who are anemic need to be identified well ahead of delivery so that therapy can improve their low blood count. Physiologic anemia can be problematic to the patient.

Why it's important (platelet count): Because a woman will lose half a liter of blood on average at delivery. The platelet count measures the blood's ability to clot. With a low platelet count, a patient is at risk for bleeding to death.

Blood Type, Rh Status and Antibody Screen

Blood tests will check your blood type, your Rh status, and an antibody screen. Your blood type needs to be checked so that a potential mix-up of bloods can be averted if there is a need for a transfusion. Rh negative

women need to be identified in advance so that they can be considered as candidates for RhoGam, an immunoglobulin that is given at 28 weeks of pregnancy and within 72 hours of delivery in order for the mother to keep from becoming Rh sensitized. Occasionally, RhoGam is also given when there is a potential risk for fetal blood to mix with the mother's blood, such as in a car accident or in amniocentesis.

Why it's important (RhoGam): Giving this medication prevents the mother's body from mounting an antibody response against an Rh positive baby in future pregnancies. An antibody screen detects antibodies, both Rh and less common types, that may occur in the fetus or newborn.

Why it's important (antibody screen): Antibodies have the potential for causing blood disease in the fetus and newborn.

Syphilis Screen

Although syphilis is more common in urban areas of the U.S., it can be found anywhere. If a syphilis test comes back positive, then an FTA (Free Treponemal Antibody) test is performed. If this test is positive, then syphilis is officially diagnosed.

When a woman is pregnant, the only medicine she can take for syphilis is penicillin. If she weren't pregnant, she could be treated with other medications.

Why it's important: Syphilis can lead to preterm labor or even death. Syphilis can also affect the baby's growth and cause congenital anomalies. In the early part of the 20th century (1900s), 40% of all baby's deaths were related to syphilis, but in recent times syphilis has rarely been identified as a cause of death. However, because of the increase in syphilis in the U.S., increased surveillance is recommended. In the past decade alone, maternal and congenital syphilis has increased several fold in the U.S. The infection can occur during any trimester of pregnancy. Overall, untreated syphilis can be transmitted to the fetus or embryo in at least 50% of all pregnancies, causing serious problems with the baby, not the least of which is death.

Rubella Screen

Due to the increased vaccination process of the past 25 years, rubella syndrome is now rare in the U.S.; however, approximately 10% of pregnant women may be susceptible to it (meaning they have no evidence of antibodies for it). If a screen test shows that you are not immune to rubella (in other words that you can contract it), then the hospital will immunize you after your baby is born. You can't be immunized while you're pregnant because it's a live-borne virus so the baby could be affected. If you know you are susceptible to rubella, you should limit your exposure to high-risk sources, such as children who might contract it. Definitely stay far away from anyone you know who has an outbreak of the virus.

Why it's important: If a woman gets the infection while pregnant, she could transmit the virus to her baby. The virus could increase the baby's risk of congenital anomalies, preterm labor issues, and severe medical complications.

Caution: Even if you had an MMR (measles, mumps, rubella) shot when you were a kid, it might not be effective anymore. Rubella is more commonly known as a type of measles.

Hepatitis B

Women who have hepatitis B or have been infected previously can transmit the disease to their infant during or after birth, so it's important to discuss in advance what the best way to deliver your baby should be.

Why it's important: Babies can become carriers and develop chronic hepatitis. Between 25-35% of those people infected eventually die from cirrhosis or liver cancer.

HIV Test for AIDS

It's been well established that there is a perinatal transmission risk of AIDS from mother to baby. In fact, the rate of passage to the baby is about 30%. Women who test positive for AIDS on their initial screening will be given a more specialized test called a Western blot analysis. If that tests positive, then a diagnosis of HIV infection is made and there are medications that can be given to reduce the risk of transmission to the baby. At this point, women are counseled as to how the infection can be spread and how transmission can be halted. In general, doctors frequently advise women who have AIDS not to get pregnant. Sometimes, they will even advise them to terminate their pregnancy because the mother's life could be at stake due to her immune suppressed state (she is overly susceptible to infections), and the baby's life can be compromised as well. There is a much higher risk for the mother to transmit the disease to the baby if her disease is severe or in an advanced stage of progression.

Interestingly, the HIV infection appears to have very little effect on the pregnancy, although the pregnancy itself can affect the degree of the HIV infection (making it worse) as it suppresses the immune system. There appears to be no advantage for having a C-section over a vaginal birth; however, many OBs are careful to avoid performing any procedures during labor that may increase the chances of fetal blood mixing with the mother's blood.

Why it's important: The baby may have the HIV infection, but not full-blown AIDS. AIDS is a deadly disease for the mother and baby.

Urine Screen

A urine screen is primarily performed to check for urinary tract infections (no surprise there), more commonly known as UTIs. Occasionally, the urine screen may pick up other abnormalities of kidney function, such as excess sugar or protein. Pregnant women seem to be more prone to UTIs than they are normally. If the screening tests positive for an infection, often the doctor will order a culture to determine which organisms are responsible for the infection. That way the doctor can determine antibiotic sensitivity, finding out which antibiotic would be most effective against a specific organism.

Why it's important: Because UTIs can lead to kidney infections. If the infection is allowed to progress, this could lead to harmful effects on the pregnancy, as well as increase the risk for sepsis (a serious life-threatening infection involving the blood) in the mother.

Gestational Diabetes

Approximately 2-3% of women will develop gestational diabetes in their pregnancy (meaning that the pregnancy caused their diabetic condition). Generally, these are women who have no history or risk factor for diabetes. Because of this fact, a glucose screen is performed on most women in their third trimester between 24-28 weeks.

If you're having this test, you will drink a 50-gram oral glucose load (about a cup) and then have your blood sugar tested one hour later. There is no need to prepare for this test (although fasting can help make the test come out well). If the test comes back abnormal, then you will be a candidate for a three-hour glucose tolerance test (GTT). Generally, this means you'll need to fast before the test is given, and some doctors will have you adhere to a special diet before the test is given. If the three-hour GTT is abnormal, then you will have a diagnosis of gestational diabetes, and it will be managed accordingly. Usually, the doctor will start with diet control, but you may need to be placed on medication or possibly insulin therapy. Often, gestational diabetes will disappear after the baby is born; however, sometimes it uncovers the potential for developing diabetes

later in life. So, if you're diagnosed with this condition during pregnancy, it's a good idea to keep tabs on it with your doctor in the future.

Why it's important: Towards the beginning of the third trimester, the mother's body undergoes a good deal of stress and her ability to balance her sugars is tested to a greater extent. The maintenance of sugar balance affects her metabolism and her blood pressure, but it's a two-pronged effect, affecting both the mother and the fetus.

A mother with uncontrolled diabetes has the potential of causing a rapid growth rate in the fetus. This occurs because the elevated blood sugars in the mother are registered as elevated blood sugars in the baby. In a futile attempt to control the mother's blood sugar in the pancreas of the baby, the baby's pancreas increases insulin production. Insulin is a growth hormone, and one of its primary effects is to control elevated blood sugar levels. This fetal growth increases the likelihood that the baby won't fit through the mother's birth canal, due to its larger size. In addition, shortly after birth, the baby who has been programmed to crank out extra insulin is still producing extra insulin after the cord is cut, but it no longer needs it. So the baby could become hypoglycemic as its blood sugar plummets. This condition could lead to metabolic problems in the baby, affecting its future growth and development.

GBS (Group B Strep)

Group B streptococcus is a bacterial strain present in approximately 20-25% of women. GBS poses no threat to the mother, but to a baby it can be lethal. The GBS test is designed to screen for those mothers who may be carriers for this bacteria. Our providers routinely do a culture from the vaginal and rectal area at about 36 weeks of pregnancy. If the test is positive, antibiotics are given at the time of labor to reduce any possible infection to the newborn. Antibiotics will also be given to women in preterm labor or if their bag of water has been ruptured for a prolonged period of time.

Why it's important: GBS infection is a common contributor to sepsis of the newborn, and it can carry a high mortality and morbidity rate for the baby, especially if the baby is born prematurely. However, sepsis of newborns occurs in less than 1% of all births, so it is considered rare.

Optional Tests for Genetic Disorders

Screening testing may be offered at 11-12 weeks, especially if you are over 35 years old, which includes a blood test for PAPP-A and hCG and an ultrasound that screens for nuchal translucency, tests that estimate risk for Trisomy 21 (Down's syndrome) and Trisomy 18. This may be followed several weeks later by Quad Screen testing that measures the blood levels of hCG, AFP, inhibin A, and estriol and provides a statistical estimate of your risk for having an affected baby. The most accurate testing is invasive, which means that it involves either amniocentesis or chorionic villus sampling (CVS), procedures that draw samples from the amniotic fluid around the baby or from the placenta itself. Invasive testing carries a measurable risk of miscarriage. Expensive alternate genetic testing is becoming available, but is often not yet covered by insurance and potentially carries higher false positive results.

Note: If you have decided in advance that termination of pregnancy is not an option for you, then having genetic testing done may only increase the risk, expense, and anxiety associated with your pregnancy.

We are always happy to talk with you and answer any questions you may have about the testing we recommend – just ask.