

Lab and Diagnostic Tests During Pregnancy (1st Visit)

A standard panel of laboratory tests should be obtained for every pregnant woman during the first prenatal visit. This panel can be augmented if a woman is at risk for any particular specific condition. This panel may include a CBC, blood typing and Rh factor, infectious disease screening, urinalysis and a pap smear.



PLAY PICMONIC

Diagnosis

Complete Blood Count (CBC)

Blood Cell Count-dracula

A complete blood count (CBC) is performed, which checks hemoglobin, hematocrit, as well as red and white blood cell counts for the early detection of any systemic abnormalities. This also creates a baseline so that the patient can be monitored throughout the pregnancy.

Blood Typing and Rh

Blood-cell Typing and Recess-playground

A mother's blood type and the presence or absence of Rhesus (Rh) factor need to be determined at the initial visit. If a mother is Rh negative and her fetus is Rh positive, the mother can develop antibodies against the Rh factor on the fetal blood cells. If a mother becomes pregnant a second time with an Rh positive fetus, maternal anti-Rh antibodies will recognise the Rh positive fetal RBCs as invasive cells causing an immune reaction, resulting in a potentially fatal condition called hemolytic disease of the newborn. If indicated, Rh negative women without alloantibodies can receive anti (D)-immune globulin, which helps prevent development of anti-Rh antibodies against fetal RBCs, and thereby helping prevent hemolytic disease of the newborn in subsequent pregnancies.

Rubella

Red-bell

Rubella is an RNA virus that can cause one of the congenital TORCH infections. Also known as German measles or three-day measles, rubella is tested for during the first prenatal visit due to its potential for serious neonatal disease.

HIV

Band-AIDS

The CDC recommends that all pregnant women in the United States should be counseled about HIV early in their pregnancy and receive voluntary HIV testing to protect the child's health. This is because women who test positive for HIV and begin treatment early in their pregnancy reduce the risk of mother- to- child HIV transmission to 2% or less.

Hepatitis B

Happy-tie-liver Bee

Hepatitis B surface antigen (HBsAg) screening is recommended for all pregnant women to prevent perinatal transmission. Presence of HBsAg indicates high risk for vertical transmission of HBV from the mother to the fetus. Congenital infection with Hepatitis B increased the risk of premature delivery, intrauterine growth restriction (IUGR) and increase the risk of neonatal death if acute disease develops. Hepatitis B is an enveloped DNA virus

with a double stranded partial circular genome.

Tuberculosis Skin Mantoux Test (PPD)

[TB-tv with Mantis-toe Test-tubes](#)

A PPD test is a screening test to determine previous exposure to TB. The test is positive if induration is present, not erythema. Screening for tuberculosis (TB) is not routinely done during pregnancy, but is indicated in women who are immunocompromised, and those who have had close contact with individuals with active TB infection. Screening is performed with an intradermal skin test using purified protein derivative (PPD). If the PPD is negative, no further follow-up for TB is necessary. If the PPD is positive, a chest x-ray is indicated. A positive chest x-ray will necessitate a sputum culture. If the chest x-ray is negative, isoniazid (INH) and vitamin B6 is given for the duration of the pregnancy.

Sexually Transmitted Infections

[Sex-symbols on Infectious-bacteria](#)

Sexually transmitted infections, such as gonorrhea, chlamydia, and syphilis are common sexually transmitted diseases caused by bacterial infections, which are tested for during the first prenatal visit. In a pregnant woman, these diseases can lead to a miscarriage or infect the baby before or during delivery.

Chlamydia

[Chlamydia-clam](#)

Screening is recommended in all women less than 25 years old and at increased risk of infection (multiple sex partners, etc). Chlamydia is an STI caused by the bacteria *Chlamydia trachomatis*. Infants who pass through the vaginal canal of women with *Chlamydia trachomatis* infections can develop neonatal conjunctivitis, as well as neonatal pneumonia, which classically presents with a staccato cough. Erythromycin is the treatment of choice for neonatal chlamydial infections.

Neisseria gonorrhoeae

[Knives Gunner-ship](#)

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Neisseria gonorrhoeae is a gram-negative diplococci that causes the sexually transmitted infection gonorrhea. *N. gonorrhoeae* can cause neonatal conjunctivitis when the infant is exposed to the organism in the vaginal canal. This can lead to corneal scarring and perforation, which can result in blindness. Treatment for neonatal conjunctivitis is erythromycin and silver nitrate eye drops.

Syphilis

[Syphilis-Sisyphus](#)

Syphilis is another STD tested for during the first prenatal visit. Untreated syphilis during pregnancy is associated with stillbirth, neonatal death, bone deformities, and neurologic impairment, and is easily targeted with antibiotics.

Pap Smears

[Papa Smearf](#)

Cervical or Papanicolaou (PAP) smears are completed to identify possible cervical dysplasia. Smears are also a detection tool for sexually transmitted infections (STI) and inflammation or malformations of the cervix.

Urinalysis

[Urinal with Urinalysis-cup](#)

Urine is screened for ketones, glucose, protein, bacteria and casts. Screening establishes a baseline, and also allows for detection of metabolic abnormalities, renal impairment or gestational diabetes. Urine culture is also suggested for assessment of asymptomatic bacteriuria.

Sickle Cell Screening (If Indicated)

[Sickle Anemone and Screen-door](#)

Screening for sickle cell disease and other hemoglobinopathies is based on a comprehensive personal and family medical history, with a focus on anemia and other hematological disorders.