

Summary

- *Amniocentesis is an optional procedure, typically offered when a pregnancy is at higher risk for certain conditions.*
- *Amniocentesis is a procedure performed during a pregnancy to collect amniotic fluid which surrounds the baby.*
- *Amniocentesis is performed at approximately 15 weeks or later, after the woman's last menstrual period.*
- *Amniocentesis is performed in conjunction with ultrasound to provide additional information to physicians and laboratories.*
- *Laboratory tests such as Chromosome Analysis and FISH testing are often performed on amniotic fluid. These are diagnostic tests which can detect Down syndrome, Trisomy 18, or other genetic conditions.*
- *No test can identify all birth defects or genetic conditions, or ease all concerns.*
- *The probability that a routine amniocentesis will lead to serious complications such as miscarriage is approximately 1 in 300 to 1 in 600.*

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Amniocentesis



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What is Amniocentesis?

Amniocentesis is a procedure performed by a physician to obtain a small amount of the fluid (amniotic fluid) surrounding the baby as he/she develops. This fluid contains cells shed from the skin of the fetus.

These cells can be cultured (grown) and analyzed in the laboratory and appropriate tests can be run including examining the chromosomes (for conditions such as Down syndrome) and specialized biochemical and DNA tests in families with a history of certain genetic disorders (such as Tay Sachs or Cystic Fibrosis). The fluid itself can also be analyzed for the amount of specific chemicals such as AFP. Results of chromosome analysis are generally available in 7-10 days while the time to receive results of other tests may vary. In some situations preliminary results may be available in 1-2 days after the testing is done.

An amniocentesis can be performed at approximately 15 weeks or later, after the woman's last menstrual period. It can be done later in pregnancy, in certain situations.

An ultrasound scan of the fetus is done prior to amniocentesis to assure the baby is living, confirm the correct gestational age, determine the number of babies, and locate the optimal site for the needle insertion.

A full bladder is required for the procedure. The mother's abdomen is cleansed with antiseptic. Using sterile technique, ultrasound guidance is used to direct a thin needle through the mother's abdomen into the uterus where a small amount of fluid is withdrawn. In most cases this fluid is replaced by the fetus within 24 hours. Great care is taken to avoid touching the baby with the needle.

If twins are present, a sample must be taken from the sac surrounding each baby. Although the ultrasound exam may take some time, the procedure itself takes only a few minutes. When asked, most women mention minimal discomfort during the procedure, thus anesthesia is not necessary. In the event the first attempt is unsuccessful, a second attempt may be made. In the unlikely event that a fluid sample is not obtained, the procedure will be rescheduled, if desired, usually within a week.

Most mothers and babies experience no complications beyond a mild cramping sensation. In a few instances, however, the mother may have some complications including cramping, bleeding, or leaking of amniotic fluid. Any of these events should be reported to a physician. Strenuous physical activity and sexual intercourse

should be avoided for 24-48 hours. The probability that a routine amniocentesis will lead to serious complications such as miscarriage is approximately 1 in 600 (0.16%).

Mothers with Rh(-) blood type will be given a shot of Rhogam within 72 hours after the procedure to prevent the formation of antibodies against the baby's blood. Antibodies can be formed in the blood of the Rh(-) mother as a response to Rh(+) cells from the baby. Rhogam destroys Rh(+) cells that may have leaked into the maternal circulation, thus preventing sensitization to the Rh factor. If Rhogam is not given, the mother's body may form antibodies which can cross the placenta and attack the fetus' blood cells. This can produce reactions in the developing baby ranging from mild jaundice and anemia to brain damage and stillbirth.

Amniocentesis is an optional procedure typically offered when a pregnancy is at higher risk for certain concerns. This procedure does not test for all birth defects or genetic conditions. If you have questions about this test, the advantages and limitations, risk for complications, or test results, please ask your healthcare provider or a genetics counselor.