UPMC

Amniocentesis

Information for Patients

What is amniocentesis?

Amniocentesis (AM-nee-oh-sen-TEE-sis) — or amnio for short — is a medical test for pregnant women. It is usually performed between the 16th and 18th weeks of pregnancy to see if the baby has certain conditions, such as Down syndrome.

Amniocentesis is a genetic test. Genetic tests are used to look for certain genetic diseases, chromosome problems, and birth defects. Your doctor and/or a genetic counselor can help to determine which test or tests are right for you. This depends on factors such as your age, your family and medical history, and environmental exposures. Genetic testing cannot answer all questions about the health of your developing baby, but it can provide information to help you and your partner make informed decisions.

Checking for chromosome problems

Each cell of your body has chromosomes that carry the blueprint for your whole body. The chromosomes carry the traits (such as eye or hair color) that you inherited from your mother and father. Normally, each cell contains 46 chromosomes. Having too much or too little chromosome material often results in health problems.

To find out if a baby has a chromosome problem before birth, we test the fluid around the baby. This fluid is called amniotic (am-nee-OT-ik) fluid.

The baby sheds some cells, with the baby's chromosomes in them, into this fluid. Careful testing of the fluid finds the cells and looks for problems in them.

Brain and spine problems, such as open skull (anencephaly) and open spine (spina bifida), also can be found by measuring the level of AFP (alpha-fetoprotein) in the fluid.

How is amniocentesis done?

A sample of the fluid is taken with a thin needle. The needle is guided by ultrasound (see the UPMC patient education sheet Ultrasound: Pelvic, Pregnancy, and Abdominal). Ultrasound uses sound waves to produce a "picture" of the baby. It appears as an image on a small TV screen (monitor). Ultrasound helps the doctor decide how far along the pregnancy is. It shows if more than one baby is present. It also shows where the placenta is.

For the ultrasound, you will lie on your back on a table in an exam room. A gel will be spread on your belly. The gel helps the sound waves pass through your belly. You will probably be able to see your baby's image on the screen.

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A thin needle is placed through your belly and through the wall of your uterus. The needle takes a small amount of amniotic fluid from the sac surrounding the developing baby. The ultrasound is used to show where the baby and placenta are. That way the needle can be placed so it won't touch the baby.

Amniocentesis, including ultrasound, takes less than 1 hour. You will not have to stay in the hospital overnight.

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After amnio

You should take it easy the rest of the day but may go back to your usual activity the next day. You will be told to watch for any unusual occurrence. If you have bleeding or loss of fluid through the vagina, severe cramping, or a fever, call your doctor.

How will I find out the results?

The fluid will be tested in a lab. Results from the test are usually available in 10 to 14 days. Ask your doctor when you should call his or her office for your results.

Who should consider having amniocentesis?

A woman should consider having amnio if she will be 35 or older at the time her baby is due to be born. Any woman could have a child with a chromosome disorder, but mothers who are older have a greater risk.

A younger woman should consider amniocentesis if she:

- already has a child with a chromosome disorder, such as Down syndrome
- knows that she or her partner has a chromosome disorder

Are there risks with amnio?

As with many medical procedures, there are risks with amniocentesis. Recent studies suggest that the risk of miscarriage is approximately 1 pregnancy loss in every 1,000 procedures performed. Before agreeing to have amniocentesis and genetic testing, you will be asked to sign a consent form that explains the risks involved.

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Does amniocentesis identify all birth defects?

No. It is important to remember that all couples have a 2 to 3 percent risk of having a child with a birth defect. This means that out of every 100 pregnancies, on average, 97 or 98 babies will have no birth defects, and 2 or 3 babies will have a birth defect. Many of these birth defects are not due to a chromosome disorder. So amniocentesis would not find them.

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If an abnormality is found, what are the options?

If a disorder is found, your doctor will explain your options. At UPMC, counseling and support are available to help the couple make an informed decision. Several medical options are available, including referral to experts who are familiar with the treatment and management of specific conditions.

For more information

If you have additional questions or think you may want amniocentesis, please call the UPMC Center for Medical Genetics at 412-641-4168 or 1-800-454-8155.

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This educational material was developed by a team of women's health care experts throughout UPMC, including Magee-Womens Hospital, a National Center of Excellence in Women's Health as designated by the U.S. Department of Health and Human Services.

For help in finding a doctor or health service that suits your needs, call the UPMC Referral Service at 412-647-UPMC (8762) or 800-533-UPMC (8762). Select option 1.

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