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Quad Screening

The Quad screen is a blood test that determines the levels of four different chemicals in your blood (alpha fetoprotein (AFP), beta hCG, inhibin A and estriol). These values, along with your age, are used to predict the odds, or the likelihood, that the fetus is affected by trisomy 18, Down's syndrome, or open spine defects. This test is NOT a diagnostic test. An abnormal value indicates the need for further testing.

This blood test is done between 15 and 19 weeks of your pregnancy. We will usually get the results of this test within 2 weeks of having the blood drawn. If this test returns with an abnormal result, then further tests may be ordered. **MOST BABIES THAT HAVE AN ABNORMAL FIRST TEST ARE NORMAL.** However, an abnormal screening test will signal us to do further testing to see if a problem truly exists. Sometimes all we need to do is repeat the first test. At other times we will suggest that you see a specialist for an extensive ultrasound or amniocentesis as part of the evaluation.

If the Quad screen is normal it does not guarantee that the baby is normal. Although the Quad screen is very useful (picking up approximately 85% of neural tube defects and 81 % of Down's Syndrome), **no test can guarantee that you are carrying a normal baby.** Although this test is not designed to screen for every type of birth defect, chromosomal defect or genetic problem, if you feel your pregnancy is at high risk for a particular condition, please discuss it with us.

Chromosomes are the physical carriers of the information that is passed from parents to their child. There are normally 46 chromosomes. Sometimes a baby will get too many chromosomes. This is associated with various syndromes. For example, if your baby receives an extra chromosome # 21, it will have Down's Syndrome. This syndrome includes mental retardation and some physical findings, such as a heart condition.

Trisomy 18 is a very severe chromosome abnormality resulting from an extra copy of chromosome 18 in each of the baby's cells. This problem is usually not inherited, but rather an accident that happens. Babies with this condition have major birth defects, such as heart defects, clubfeet, or spina bifida. This is a very serious condition: most babies born with this condition do not live more than one year.

Down's Syndrome and trisomy 18 are two chromosome abnormalities that can be detected with amniocentesis after 14 weeks of pregnancy. Amniocentesis involved inserting a needle, under ultrasound guidance, through the mother's abdomen and into the uterus. A small amount of amniotic fluid is then withdrawn for laboratory analysis.

A neural tube defect is a defect in the brain or part of the spinal cord in which the skin and bone covering is not fully formed. Neural tube defects are very rare. Only 1 to 2 pregnancies out of 1000 will be affected with this condition. Some babies with this problem may have medical problems of varying severity. They often require operations and braces, as well as therapy, to walk. Two common forms of neural tube defects are Spina Bifida and Anencephaly. Anencephaly is a severe disorder where much of the brain and skull have not formed. These babies usually die shortly after they are born, even with the best available therapy. Spina Bifida or "open spine" can cause varying degrees of paralysis. Most children require a brace to walk or may require a wheelchair. They may have problems with bowel or bladder control, as well as other medical problems.