The AFP Tetra is an elective test that screens for “open neural tube” defects. Open spina bifida (or “open spine”) and anencephaly are examples of open neural tube defects. Neural tube defects are malformations of the central nervous system, the spinal cord and / or the brain. These defects occur in about 2 out of every 1,000 pregnancies.

In addition to screening for neural tube defects, the AFP Tetra gives us information regarding what a woman’s risk is for carrying a baby with Down syndrome. Lower AFP readings suggest a woman may be at a higher risk for carrying a baby with Down syndrome. The test may detect about 75% of babies with Down syndrome. This aspect of the test can be useful in younger women who are not usually screened for Down syndrome but should not be relied on to rule this out. False-positive results are not uncommon and may necessitate further studies. The AFP Tetra may also give us information about other chromosomal abnormalities, such as trisomy 18.

This screening test is not for women who have had 1st Trimester Ultrascreen. The AFP Tetra involves minimal risk to the mother and the unborn baby. Here is how the screening works:

A blood sample is drawn from the vein in your arm. This will be done between 16-20 weeks after the start of your last menstrual period. The blood sample will be sent to the lab and analyzed.

Four proteins will be measured: AFP (alpha-fetoprotein), hCG (human chorionic gonadotropin), uE3 (unconjugated estriol), and dimeric inhibin A (DIA). Higher than normal levels of AFP indicate that the unborn baby may have a neural tube defect but there are other causes for having an elevated level. For instance:

1. if you are carrying twins or triplets;
2. if there is a small amount of bleeding from the unborn baby;
3. if your due date is incorrect;
4. if you may be at high risk for complication late in pregnancy such as fetal/perinatal death, oligohydramnios/abruption placentae;
5. if the baby may be affected by some other birth defect.

Please remember that the blood test alone, which is a screening tool, is not used as an indication for any diagnosis or any form of medical treatment. If the AFP Tetra result is abnormal, additional diagnostic tests may be offered.

In most cases the baby will not be abnormal just because the AFP levels are higher than normal. In only 2 per 1,000 pregnancies will the baby have a neural tube defect.

Diagnostic testing, which is determined by you and your provider, such as an ultrasound, may be recommended. After this, an even smaller percentage of women may be offered to have a sample of amniotic fluid drawn from the bag of water around the baby, a procedure known as amniocentesis. If diagnostic testing reveals that the fetus does have a neural tube defect, you will be counseled about the finding. All options will be discussed with you at this point and any decision will be yours.

In conclusion, we must stress that only a few types of defects can be screened with this test. Therefore, a normal result does not guarantee that your baby will be normal. Please feel free to contact your provider if you have any questions or concerns. Please check 1 of the following options:

_____________________________ I do want to have the AFP Tetra test done.

_____________________________ I do NOT want to have the AFP Tetra test done.

Patient signature ___________________________ Date ___________________________

Patient name ___________________________