WHAT IS AFP?

AFP or alpha-fetoprotein is a protein made by the baby in its liver. Some of this protein normally passes from the baby into the amniotic fluid. From there, it crosses through the placenta into the mother’s blood.

Why is my AFP high?

Further testing is usually needed to find out why an MSAFP test is elevated. There can be several reasons for a high MSAFP. The most common reasons are:

- A twin pregnancy
- An error in dates (pregnancy is further along than originally thought)
- Normal variation in amount of MSAFP from person to person
- Bleeding from the placenta

In a few cases, a birth defect in the fetus causes a high MSAFP.

How high is my result?

Alpha-fetoprotein is measured in multiples of the median, or MoM. A MoM of 2.0 means that there is twice the amount of AFP than expected, and an AFP of 0.5 means there is half the expected amount of AFP. Results above 2.2 MoM are considered “high.” Your doctor may be able to tell you your specific MoM value.

What birth defects can cause a high MSAFP?

The most common birth defects that result in a high MSAFP are open neural tube defects and abdominal wall defects.

There are two main kinds of open neural tube defects: spina bifida and anencephaly.

**Spina Bifida** is an opening in the spine that exposes and potentially damages the nerves of the spine. Symptoms can vary depending upon the size and location of the defect. Problems caused by spina bifida can include one or more of the following:

- Weakness of the feet and ankles
- Problems with bowel and bladder control
- Paralysis of the legs and lower body
- Deformities of the spine or legs
- Hydrocephalus (water on the brain)

Most cases of spina bifida can be treated with surgery and physical therapy.

**Anencephaly** is an opening in the top of the neural tube that prevents the brain and the skull from forming completely. Infants with anencephaly die before or soon after birth.

**An abdominal wall defect** is an opening in the fetus’ abdomen. The bowel and other organs can protrude through this opening into the amniotic fluid or umbilical cord. Most abdominal wall defects can be corrected with surgery after birth.

What is the chance that my baby has a birth defect?

Of every 1,000 women screened, about 50 will have a high result. Of those 50, only one or two have a baby with a birth defect. So, even though the risk for a birth defect is increased, it is still quite small.
What Now?

Now that your MSAFP result has come back “high,” you should have further testing to find out why.

**Ultrasound** uses sound waves to create a picture of the fetus. In some cases, the ultrasound shows that the fetus is larger than expected and the pregnancy further along originally thought. If so, the first MSAFP test result is recalculated to account for the change. This often results in a normal outcome.

**Comprehensive ultrasound** can be used to look at the fetus for evidence of an open neural tube or abdominal wall defect. Most of these abnormalities can be identified in this way. If there are still questions, an amniocentesis may be offered.

**Amniocentesis** is a test which the physician withdraws a small amount of fluid from around the fetus in the womb. This fluid (amniotic fluid) can then be tested for the amount of AFP. If the level of amniotic fluid AFP is also elevated, it can then be tested for a chemical called ACHE that would be present only in the case of a neural tube defect. Ninety-eight percent of cases of spina bifida will be detected in this manner.

**WHAT IF I HAVE MORE QUESTIONS?**

If you still have questions, please feel free to contact our genetic counselor at (515) 643-6888 or toll free at (877) 415-7447.