**AFP (ALPHA FETOPROTEIN), PREGNANCY, SERUM (CMIA)**

**Interpretation**

<table>
<thead>
<tr>
<th>Weeks of Gestation</th>
<th>AFP medians in ng/ml</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>27.20</td>
</tr>
<tr>
<td>15</td>
<td>32.01</td>
</tr>
<tr>
<td>16</td>
<td>37.67</td>
</tr>
<tr>
<td>17</td>
<td>44.33</td>
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<tr>
<td>18</td>
<td>52.16</td>
</tr>
<tr>
<td>19</td>
<td>61.38</td>
</tr>
<tr>
<td>20</td>
<td>72.33</td>
</tr>
<tr>
<td>21</td>
<td>85.00</td>
</tr>
<tr>
<td>22</td>
<td>100.02</td>
</tr>
</tbody>
</table>

**Note:**

1. Valid measurements of AFP in maternal serum/plasma cannot be made after amniocentesis

2. All abnormal AFP values require followup which includes genetic counseling, Level II or III ultrasound examination and consideration of amniocentesis. Obstetrical complications to be ruled out for all unexplained elevated AFP levels

3. Recommended test is Maternal Serum Screen 3/4 for prenatal screening

**Comments**

Clinical factors that affect AFP levels during pregnancy are:

- Maternal weight – AFP concentration decreases with increase in maternal weight
- Race – African American women have 10-15% higher AFP levels as compared with Caucasian women
- Insulin Dependent Diabetes Mellitus (IDDM) – AFP levels are approximately 20% lower in women with IDDM as compared to general population
- Multiple gestation – AFP level is directly proportional to the number of fetuses

**INCREASED LEVELS**
- Neural tube defects
- Placental malformations
- Ventral abdominal wall defects
- Fetal kidney abnormalities
- Threatened / imminent abortion
- Premature delivery
- Low birth weight
- Multiple pregnancies

**DECREASED LEVELS**
- Down Syndrome
- Fetal loss
- Hydatidiform mole
- Other fetal chromosomal abnormalities like Trisomy 18