

## Labwork during Pregnancy

### LABWORK DONE DURING PREGNANCY

**At every prenatal visit:** Urine Analysis for protein (preeclampsia), nitrites (infection), glucose (gestational diabetes) and ketones (gestational diabetes, inadequate nutrition)

#### **Blood tests are done at the Initial Visit for:**

Blood type, including ABO and Rh

Antibody screen

- Indirect Coombs' tests: done on the mother's blood to measure the number of Rh+ antibodies
- Direct Coomb's test: done on the infants blood (after birth) to detect antibody coated Rh+ red blood cells.

Complete Blood Count (CBC)

- Normal Hemoglobin values for women are 12-15 g./100ml. From 28 weeks to term the reading is usually 2 g. less than it was at 8 weeks.

Syphilis. There are several serologic tests for syphilis: The VDRL, RPR, or the ART.

Rubella titer: A presence of a 1:16 titer or greater is evidence of immunity to rubella. A titer of less than 1:8 indicates non-immunity and susceptibility to rubella.

Hepatitis B & C

HIV

### **16 Weeks**

Alpha-Fetoprotein (AFP) is a substance produced by the fetal liver. Certain disorders such as neural tube defects, Down's syndrome and gastrointestinal disorders are associated with altered AFP levels. There is also a very high false positive for this test. The test is done between 15 and 21 weeks, as close to 16 weeks as possible. Normal values less than 25ng./ml.

### **Between 24 and 28 Weeks**

Blood Glucose may be checked in several ways:

## Labwork during Pregnancy

1. Two-hour Postprandial Blood test: A high complex carbohydrate breakfast is eaten such as : pancakes with butter and natural syrup, sausage, eggs, and a large glass of juice, or a similar meal. Two hours after eating a blood sample is taken to check the blood glucose level. Results should be 140 mg./dl or below. If borderline or illness may have adversely influenced the results, the test should be redone in a few days. If results are still abnormal an Oral Glucose Tolerance test is required.

2. 50 gram 1-hour diabetes screening test: The woman ingests 50 grams of oral glucose solution and one hour later a blood sample is obtained. The plasma glucose level should be 140 mg/dl or below. If levels exceed this then a diagnostic glucose tolerance test is necessary. This test has an exceptionally high incidence of false-positive outcomes.

3. Oral Glucose Tolerance test (OGTT): The woman eats a high-carbohydrate diet for two days prior to her scheduled test. She then fasts from midnight on the day of the test. A fasting plasma glucose level is obtained and the woman ingests 100 grams of an oral glucose solution. Plasma glucose levels are obtained at one, two, and three hours. Gestational diabetes is diagnosed if two or more of the following values are exceeded:

Fasting 105 mg/dL

1 hour 190 mg/dL

2 hour 165 mg/dL

3 hour 145 mg/dL

### **Between 28 - 32 weeks**

Hemoglobin & Hematocrit

Antibody screen for Rh negative mothers at 28 weeks (Indirect Coombs' tests)

### **Between 35 and 37 weeks**

Culture for Group B Streptococci

## **LABWORK DONE AFTER PREGNANCY**

Umbilical cord blood sample is tested to determine blood type of the baby

If mother is Rh negative a Direct Coomb's test is done to detect antibody coated Rh+ red blood cells.

Metabolic Screen of infant within 3 days of birth.