Prenatal Testing Options

Licensed Midwives in California are capable of ordering all of the routine labs that an obstetrical office performs. At Kaydee Welchons Midwifery Services, we prefer to save our clients the extra trip to the lab office and perform specimen collection for almost all of our testing needs in our clinic. If the setting for care is in your home, like in the case of the birth or postpartum, we come prepared with the necessary supplies to draw the appropriate labs there too. Not all of the testing we offer is required but it is extremely important to us that you understand your options.

In this post we share a comprehensive list of what is offered to every client. Each test will be described to our clients in person, preceding an opportunity to decline or accept each option. We feel that some of the most valuable cornerstones of Midwifery care are access to information, great communication and the respect of each mother's ability to determine the most appropriate level of care for her and her baby.

Early Pregnancy – 1st Trimester

The initial visit to our office in the first trimester will be loaded with testing options. We ask our clients to take a look at what we offer beforehand and become somewhat familiar with the testing they desire for themselves. Come prepared with any questions you may have, we will be sure to thoroughly explain each tests before performing it. One of the ways you can prepare for a blood draw is to drink plenty of fluids in the 12-24 hours leading up to your visit.

1. *Routine Prenatal Blood Testing* includes the Antibody Screen, Blood type (A,B,O) and Rh factor (positive or negative), and Complete Blood Count (CBC).
    - The CBC is a test used to detect a wide range of disorders by evaluating your overall health for signs of infection, anemia or leukemia. A CBC includes testing of your White Blood Cells (to check for infection or abnormalities), Red Blood Cells (red blood cells), Hemoglobin (the oxygen-carrying pigment in red blood cells; detects anemia), Hematocrit (determines proportion of red blood cells to plasma; detects anemia), Mean Corpuscular Volume (indicates average size of red blood cell), Mean Corpuscular Hemoglobin (indicates average amount of Hemoglobin per cell), Mean Corpuscular Hemoglobin Concentration (indicates amount of Hgb per cell relative to cell size), PLATELETS (determines ability of clotting; should be above 155x 10).
2. We also include testing for infections of Hepatitis B, Hepatitis C, HIV, Rubella, Syphilis, Chlamydia, and Gonorrhea.

3. You are offered a 1st Trimester Ultrasound for early pregnancy dating to obtain the most accurate EDD, Chorionic Villi Sampling (CVS) which screens for fetal abnormalities in early pregnancy, Cystic Fibrosis Carrier Screen and Ethnic Origin or other genetic screening, as requested by the client.

4. We find results of a Hemoglobin A1C useful in detecting issues with blood sugar intolerance over the previous 2-3 months. All clients are offered a Pap smear as indicated; ACOG-recommends this to screen for cancer and infection in or around the cervix.

Between 10 and 14 weeks

The State of California requires us by law to offer each client the California Prenatal Screening Program. All pregnant women have to opportunity to decline, as well as ask about the private testing options we offer. The window of time specific for acquiring these tests are narrow compared to other prenatal testing. Some expecting mothers must make a decision quickly about these options if there are coming into care around this time.

1. The following are the components of the California Prenatal Screening Program:

a. Serum Integrated Screening (1st blood draw between 10 – 13 weeks +6 days (2nd blood draw between 15 -20 weeks)
b. Full Integrated Screening (same as above plus nuchal translucency ultrasound between 11 weeks +2 days and 14 weeks +2 days)

2. Ultrasound for nuchal translucency (per client choice without integrated screening). Nuchal translucency measures the fluid collected in the fold at the back of the baby's neck via ultrasound. All babies have some fluid, but too much fluid can be a marker for Down's syndrome.

2nd Trimester – Between 15 and 22 weeks

1. Ultrasound between 18 and 22 weeks – this is considered the optimal time for visualizing your baby's organ development and other anatomical landmarks and is strongly advised.

2. The following are included in the California Prenatal Screening Program:
   a. Quad Marker Screen – (a single blood draw between 15 – 20 weeks).
   b. Second blood draw if integrated screening was selected (see tests between 10 – 14 weeks above).

Between 26 – 28 weeks

1. Blood Glucose Screening measures how well your body responds to a large load of sugar and helps determine if gestational diabetes is present during pregnancy. The screening includes an oral ingestion of 50 grams of sugar and finishes with a blood test taken exactly 1 hour later. If the initial value is too high (over 140) this indicates a need for further testing with a 3 hour test blood draw after ingesting 100 grams of glucose.
2. Repeat CBC to check for anemia, infection and blood clotting properties, see above in Early Pregnancy.
3. Repeat Antibody Screen in Rh negative women to ensure no antibodies are present from blood mixing with an Rh positive baby.
4. 28-week Rhogam injection given to all Rh negative women with Rh positive mates in preparation for blood mixing with an Rh positive baby at the birth.

3rd Trimester Between 35 – 37 weeks

1. Group Beta Strep Culture is offered as a test performed by swabbing both the vagina and rectum. Positive results indicate an asymptomatic infection that can be dangerous to the newborn.
2. Repeat Chlamydia and Gonorrhea Cultures are offered if the need is indicated. Possible indications could be a suspected exposure via sexual partner.
3. A repeat CBC in anemic women checks to be sure that the therapies being used to raise iron levels are working. All women will lose some blood at birth, although some more than others. We want mothers to enter into their birthing window with as much iron stored as possible, to aid in postpartum recovery.

Other Tests, Treatments, or Consultations

1. Amniocentesis is a procedure done under a referral to obstetrical care that screens for fetal chromosomal and other abnormalities by taking a sampling of amniotic fluid through the abdomen or vagina with a needle.
2. Genetic counseling is offered as desired or indicated for chromosomal abnormalities and disorders.
3. Physician consultation is recommended for a disease or condition likely to significantly affect the course of pregnancy and birth.
4. Urinalysis may be indicated when sign and symptoms of maternal disease or infection are present.

Postpartum Testing Options

Our testing capabilities and recommendations span into postpartum for you and your baby. The midwife's role in her care for families after birth includes 2-4 hours immediately postpartum and several more visits throughout 6 weeks postpartum, and often beyond. Many of the decisions can be made before the birth in response to personal preference, and will be discussed during the prenatal visits. Some of the choices will be mentioned during pregnancy but the outcome of the birth will have to be determined before your midwife can make her final recommendation for the course of care.

Newborn

Almost all standard procedures offered in a hospital setting for a newborn are also offered under the care of your midwives at Kaydee Welchons Midwifery Services. All testing and procedures will be explained and discussed prior to the birth of your baby. Although we offer many options, you always reserve the right to refuse any procedure or test. Likewise, you are able to request an option after birth that you had planned in pregnancy to refuse.

1. Eye prophylactics are offered to reduce the risk of newborn infection or blindness, especially in the case of current chlamydia or gonorrhea infection. The State of California require us to offer this, you may decline. The medicine we carry is an ointment applied directly to the eyes called Erythromycin.
2. Vitamin K is an injection recommended by the Center for Disease Control for all newborns to aid clotting in the event of Hemorrhagic Disease in the newborn. An oral protocol can be followed as an alternative, although Kaydee Welchons Midwifery Services does not provide instructions or oral vitamin k drops.
3. Cord blood collection is recommended for parents who would like to determine their baby's blood type; this is routinely done for Rh negative moms.
4. Cord Blood Stem Cell Collection for banking is offered to all parents at the time of birth. It is the parents' responsibility to plan in advance, with the private cord blood bank of their choosing, to hire and obtain materials for the midwives present at the birth to follow collection instructions. Delayed cord clamming or a waterbirth do not exclude moms from participating in cord blood banking
5. A Glucose test may be given to babies whose mothers had blood sugar imbalances or who are less than 2500 grams or larger than 4000 grams or as appropriate to the circumstances present at birth.
6. The California Newborn Screening Test is a State public health program that screens for rare, serious, and treatable genetic disorders of the newborn. We are required to offer this test to you, although it can be refused. The newborn screen is a heel prick done 12-48 hours after the birth. We come to your home to perform this test after the birth. The screen test for the following:
    - *Metabolic Disorders*
        - *PKU*, an inability to digest a certain amino acid, phenylalanine, found in proteins; can lead to brain damage which is preventable through diet regulation; occurs in 1 in 10,000 babies.
        - *Galactosemia* is the absence of a certain enzyme that digests milk sugar; can also lead to brain damage which is preventable through diet regulation; occurs in 1 in 60,000 babies.
        - *Maple Syrup Urine Disease (MSUD)* is a rare fat- and protein-metabolizing problem in babies.
        - *MCADD* is the inability to convert fat into energy.
        - *Biotinidase Deficiency* is the inability to recycle Vitamin B from diet.
    - *Endocrine Diseases* are abnormalities in hormone production, including:
        - Congenital Adrenal Hyperplasia (CAH)
        - Primary Congenital Hypothyroidism
    - *Hemoglobin Disorders* (Red Blood Cell abnormalities)
        - Sickle Cell Anemia and other sickle cell diseases
        - Hemoglobin H Disease
    - *Other Genetic Diseases*
        - Cystic Fibrosis is a disease that affects many body organs and can cause poor milk absorption
        - Severe Combined Immunodeficiency (SCID)

7. Newborn Hearing Screening Test is available to you but not currently offered by the practice of Kaydee Welchons Midwifery Services. See your pediatrician or ask us for a referral for testing.
8. Vaccines are only available by a Medical Doctor. Ask your pediatrician for a current vaccine schedule.

Mother Postpartum

There are certainly many more testing options in the prenatal period than the postpartum period for mothers. Thankfully this allows for minimal interruptions of precious mother-baby and family bonding time with your new infant. There are a couple of situations in which we would recommend procedures and testing after the birth of your baby:

1. Postpartum Rhogam is necessary for the Rh negative mother whose baby is Rh positive. See Newborn Testing above.
2. Complete Blood Count is indicated if there was significant blood loss at the birth or if anemia is suspected anytime during the postpartum recovery period.
3. A Pap smear is recommended at the 6 weeks postpartum visit to screen for cancer and infection if a Pap smear was declined in early pregnancy, and it has been 3 years since the last Pap smear was performed with normal results.

This can be a overwhelming list for a pregnant mama to take in at once. Fortunately, these decisions can be made one at a time and with the assistance and knowledge of your midwife. Choosing an out of hospital birth comes with many liberties, including the responsibility and privilege of shared decision making. Kaydee Welchons Midwifery Services aims to provide you with all the options, helpful information and meaningful discussion to make the decisions that are most appropriate for you and your baby. We welcome all questions, alternate research, and feedback on the testing options we provide.