# Chapter Two: Prenatal Care

## Client Rights

- To obtain complete, current information from your healthcare provider about your diagnosis, treatment and prognosis in ways you can understand.
- To have your requests courteously received and properly considered as quickly as circumstances permit.
- To privacy. You should not be unnecessarily subjected to the view of other clients, visitors and employees in the course of your examination and treatment.
- To care and treatment in a safe environment.
- To have communications and records concerning your case kept confidential.
- To examine your bill and have it explained to you, regardless of who pays it.
- To be informed of the procedures and treatments, risks, benefits, and alternatives to be rendered, and give consent to have them performed.
- To authorize another individual to make decisions on your behalf.
- To refuse treatment and be informed of the consequences of such a decision.
- To complete information as to the reason for a transfer to another institution if necessary and the knowledge that the other institution has accepted you for transfer.
- To participate in research projects in association with your care or treatment only with your permission.

## Client Responsibilities

The most important part of prenatal care is the job <u>you</u> do. By attending all visits, eating well, living a healthy lifestyle, exercising appropriately, reading, asking questions, choosing a pediatrician and attending childbirth classes with your partner, you enhance your pregnancy and feel prepared for your birth. You will be continuously evaluated and guided by the nurse-midwives. By working together, client and midwife can achieve the best possible pregnancy and birth. The following lists client's responsibilities applicable to most pregnancies. Additional items may be unique for your individual situation.

- Medical records for the current pregnancy should be transferred to our office.
- Out of respect for others, please do not bring a contagious child to the office with you.
- Bring your insurance card to each office visit. If you have questions regarding insurance, call our insurance representative.
- Complete and sign Informed Consents, Insurance and Financial agreements/releases.
- Arrange to have a general practitioner or family doctor in case you become ill and

the nurse-midwife advises you to see a physician.

- As during any pregnancy, you may be asked to have special tests and consultations to be sure everything is normal. This may cause you extra time and expense.
- All clients are encouraged to obtain training in prepared childbirth techniques.
- Post important phone numbers next to your phone: The MCA number, answering service, hospital, pediatrician, 24-hour pharmacy, and any others you may need in a hurry.
- You will need to choose a pediatrician to provide newborn care after discharge from the hospital. We have a list of physicians who have been recommended by other clients, but, of course, you are free to choose anyone you wish. The hospital pediatrician will check the baby in the hospital if your pediatrician does not have privileges at Shady Grove.
- You are welcome to borrow books from our library in the waiting room. Clients are requested to return all library books, DVDs and videos so that others may also use them.
- Attend the tour for expectant parents at the hospital. All clients should obtain registration forms in our office to pre-register and send the completed forms to the hospital. You may also pre-register online. Call the cashier's office to find out what kind of financial arrangement may be necessary.
- Pack a suitcase that will be used when hospitalization is necessary.
- By law you must have a car seat in order to go home with the baby.
- Arrange for a babysitter for your other children, ideally someone who can be available on short notice.

## Grievance Procedure

We try hard to meet all of your needs and would appreciate your feedback when your expectations have not been met. In the event you have a grievance with any member of the staff or a concern with MCA policy, please let us know. The grievance will be addressed promptly and an appropriate resolution sought.

## Student Caregiver Policy

MCA has made a commitment to provide clinical practice experience for selected nurse-midwifery students and medical students. We feel that exposure to alternative, family-centered care is a valuable learning experience. Students provide fresh academic ideas as they evaluate and re-evaluate our service. Thus, they contribute to our continued efforts to improve our service. The students will be supervised at all times by our own nurse-midwives. You have the right to refuse to be cared for a student; please let us know if you would prefer not to participate.

**Prenatal Visit Schedule**

Visits are scheduled on a monthly basis until 28 weeks, then every two weeks until 36 weeks. From 36 weeks until delivery, we want to see you every week. If complications arise during your pregnancy, we may ask you to schedule visit more freque ntly.

We ask you to set aside one to two hours for your first visit. Each subsequent visit is scheduled for 15 minutes including time for questions, discussion of reports as well as recommendations and treatments. You are always encouraged to bring family and friends to visits as you wish.

**First Visit***:* Since we will set up a permanent record with a family medical history, we encourage you to ask the baby's father for his input. If you have been seeing another care provider for this pregnancy, please bring your records with you or arrange to have your records transferred to us. We also encourage you to write down all your questions before your visit so that we can cover your concerns.

The nurse-midwife will discuss with you your past health, present status, and such things as nutrition, exercise in pregnancy, your family and/or support system. We will then do a complete physical to assess your health status. Usually we can hear the baby's heartbeat 12 weeks from the first day of your last period. We allow extra time for the first visit so that we can get to know you, answer all your questions and explain various options to you. Together we will formulate a plan of care for your pregnancy that could include special testing, if needed or desired, such as a sonogram, genetic testing, etc.

***Usual Labs:***

Prenatal Profile (blood and urine tests):

- HIV Screening Test
- Complete Blood Count-done to determine iron level to check for anemia and blood signs of infection.
- Syphilis – (state law)
- Blood type, RH factor, antibody screen
- Rubella titer - to determine whether client is immune to German measles
- Hepatitis B Surface Antigen - can cause liver infection in baby
- Urine Culture- to identify infection which can lead to preterm labor
- Chlamydia and Gonorrhea - diseases that can cause pneumonia & blindness in newborns

Optional Tests:

- Pap – not needed if done in past year
- Toxoplasmosis – available for lab workers or people who eat raw meat or have indoor-outdoor or sick cats.
- Cytomegalovirus – recommended for nursery nurses, day care workers, and caretakers of mentally-handicapped children.
- Sickle Cell Screen – tests people of Mediterranean and African heritage.
- Herpes Culture done if suspicious lesions are noted
- Genetic testing options will be reviewed

**11-14 Weeks:** Optional blood test/sonogram: First Trimester Screen

**15-18 Weeks:** Optional blood test: AFP4/AFP

**18-22 Weeks:** This is the best time for the "routine" screening sonogram if desired. Depending on insurance coverage, this can be done and billed off premises or in our office. Please note: in many cases, this sonogram is not considered medically necessary. It is your responsibility to check with your insurance provider to determine coverage eligibility prior to having the sonogram. If you plan to attend Childbirth Education Classes, it is time to register.

**28th Week**: Routine labs:

- Screening Test for Gestational Diabetes (if indicated, the diagnostic test will be ordered)
- Hemoglobin and Hematocrit
- Syphilis (repeat test mandated by state law)
- Antibody Screen and Rhogam Injection if RH Negative

**36th Week:** Vaginal/Rectal culture for Group B Beta Strep (GBS) is collected, along with a vaginal exam to assess the cervix and verify the position of the baby. We will review several forms and handouts with you to prepare for labor, including your birth plan.

**40 Weeks**: Please review the section in this book titled "Postdates and Postmaturity." We will make a plan for the next two weeks, including a discussion of labor induction methods.

**41-42 Weeks**: Non-stress tests (in office) and a Biophysical Profile (off site) evaluate the well-being of the baby in anticipation of birth. If our natural methods of stimulating labor are not successful, a medical induction of labor is scheduled by 42 weeks.

## Genetic Testing

The MCA staff can arrange for all forms of genetic testing (CVS, amniocentesis, nuchal fold translucency screening, AFP quad screen, etc.) and sonograms. Several conditions may indicate that genetic counseling and/or testing are appropriate. These include, among others, advanced maternal age (35 years old or more), family history of a known or suspected genetic disorder, unexplained stillbirth or recurrent miscarriages, and certain instances of unexplained infertility. We would like to give you some basic facts and make you aware that a referral for genetic counseling and/or testing is available.

The general risk of having a child with a major birth defect is about 2 to 3%. The risk of having a live born child with a chromosomal abnormality (including Down syndrome) increases with advancing maternal age. The approximate risks are:

Age 20 = 1 in 525
Age 25 = 1 in 475
Age 30 = 1 in 380
Age 35 = 1 in 178 (approx. 0.5%)
Age 38 = 1 in 104 (approx. 1%)
Age 40 = 1 in 62 (approx. 1.5%)
Age 42 = 1 in 38 (approx. 2.5%)
Age 45 = 1 in 18 (approx. 5%)

Many chromosomal anomalies are associated with major birth defects and mental retardation. Most can be reliably detected either with chorionic villi sampling or with amniocentesis. Genetic testing is a

very personal decision which can affect the management of the pregnancy.

***Diagnostic Tests***

**Chorionic villi sampling (CVS):** CVS is done from the 9th through the 11th week of pregnancy. Approximately 1 in 50 times the CVS sampling will be unsuccessful. A repeat try one week later usually then succeeds. The risk of miscarriage due to chorionic sampling is probably about 1 in 100 (approximately 1%). There have been some reports of a possible increase in limb abnormalities in children following CVS. This risk, if present at all, is more likely to apply in CVS done before 9 weeks gestation. Chorionic sampling has been done in the United States since 1983. The advantage of CVS is early diagnosis. The disadvantage is slightly increased risk of miscarriage.

**Amniocentesis (amnio):** Amnio is usually performed about 15 1/2 - 16 weeks after the last menstrual period, although it can be done several weeks later. The excess risk of harming the baby or causing a miscarriage is about 1 in 200 (approximately 0.5%), although highly experienced institutions report a 1 in 400 risk (0.25%). Results are usually available within two weeks. This is the most commonly used genetic test and it the most accurate.

***Screening Tests***

**First Trimester Screen (Nuchal Fold):** This is a noninvasive test including a blood test and a sonogram. It is done between 10 weeks, 4 days and 13 weeks, 6 days. The test screens for Downs Syndrome, Trisomy 18 and other defects. The detection rate is better than the Quad screen (90% vs 75%) for Downs Syndrome and Trisomy 18. CVS or amniocentesis is required to determine an exact diagnosis. The detection rate for heart defects is approximately 40%. The test may not be covered by all insurance plans. You are encouraged to verify covered services with your insurance company including the number of sonograms covered. The testing is done by a perinatologist or a radiology office.

**AFP-4/Quad Screen:** This is a maternal blood test offered at approximately 15-18 weeks to screen for two types of birth defects. This test measures 4 factors in the mother's blood: maternal serum alpha-fetoprotein (MSAFP), unconjugated estriol, human chorionic gonadotropin, and Inhibin A. It is referred to as the quad screen or sometimes simply AFP. The purpose of the test is to identify those babies who may be at risk for one of the following:

- Open neural tube defects (ONTD). The most common form of ONTD is spina bifida, a condition in which the spinal column does not close properly, allowing part of the spinal cord and nerves to protrude through the back. Depending on the size and location of the defect, it can cause varying degrees of paralysis and possibly mental retardation. The other form of open neural tube defect, anencephaly, involves the brain and skull. Anencephaly is incompatible with life. Both of these problems may sometimes be detected by an in-depth sonogram. The rate of NTDs in the US was approximately 0.6 per 1000 in 1990.
- Down's Syndrome, also called Trisomy 21 because those affected have three #21 chromosomes instead of two. Features of Down's Syndrome include certain physical characteristics and mild to moderately severe mental retardation. Other problems, such as heart defects, are sometimes associated with this condition. Ninety-five percent of women will have a normal screening result (AFP-4/QS). Most women who have a positive or abnormal test will also have a normal pregnancy outcome. An abnormal test indicates that

there is a higher risk for certain birth defects and additional genetic counseling/testing should be considered.

Because the results of AFP-4/Quad Screen tests are calculated using several factors, including gestational age, a sonogram (if one hasn't already been done) is usually advised to see if the gestational age used in the calculation was correct. Changing the weeks of gestation frequently moves the test results into the normal range. However, if the results are still abnormal, an amniocentesis is the only way to rule out or confirm a genetic disorder.

It is important to keep in mind that the AFP-4/Quad screen is a screening test. It does not diagnose problems; it only indicates a need for further evaluation. In fact, there are some false negatives (test results are normal even when there is a problem) and even more false positives (a problem is suggested when none exists).

Choosing to have this test is not a simple decision. Those who would absolutely refuse to undergo an amniocentesis might be well advised to decline the AFP-4/QS. If an abnormal result is not resolved by a sonogram, the parents have to live through the rest of the pregnancy with the worry that the baby may have a birth defect, or proceed with an amniocentesis.

If the baby does have one of these problems, it can be beneficial to have knowledge of it in advance. Emotionally, it allows time for the parents to adjust to the situation, as much as possible, before the baby is born. From a practical standpoint, the parents can become more educated about the disorder and locate the resources and support systems that can help them cope. Medically, there are advantages for affected babies to be born in the hospital with a pediatric specialist in attendance to take care of certain complications right away. Your options can be discussed with the nurse-midwife.

The decision to have the AFP-4/QS is entirely the parents' choice. For most it will provide reassurance, but for a few it can cause undue stress and worry during the time required for a diagnosis to be made. For the very few who learn that their baby has one of these specific birth defects, the information will, of course, be extremely distressing. Ultimately, you must decide if you really want the information the test provides and, if so, how would you proceed if the results were not within the normal range. Whatever you choose, MCA will support your decision.

Tests for other genetic disorders may include:

***Fragile X Syndrome***

- Most common inherited cause of mental retardation.
- Affects males and females.
- Physical signs are not always apparent.
- It involves a blood test done after genetic counseling at the genetic specialist's office.

***Cystic Fibrosis***

- Disease causes chronic health problems involving the digestive and respiratory systems and decreases life expectancy.
- Most prevalent in the Caucasian population (1 in 29 people are a carrier).
- Both parents must be carriers for their child to have the disease.
- Blood test determines carrier status in most cases.
- If both parents are a carrier then CVS or amnio is required for diagnosis of disease

in the child.

***Sickle Cell Anemia Testing***

- Increased in Mediterranean and African populations
- Chronic form of anemia
- Both parents must be carriers for the child to have the disease
- Usually covered by insurance

***Thalassimic Testing***

- Causes anemia
- Found in people of Mediterranean, Greek, Asian, African, African American and West Indian descent.

***Tay-Sachs Disease***

- Affects primarily those with Ashkenazi Jewish or French Canadian ancestry (1 person in 30).
- Metabolic disorder causing neurological deterioration or death in early childhood.
- Both parents must be carriers; CVS or amnio is needed to diagnose whether the child is affected.

***Other Genetic Disorders Affecting Ashkenazi Jews***

- Blood tests available to detect carrier status for Canavan disease (1 person in 40), Gaucher disease (1 person in 15), Familial Dysautonomia (1 person in 32)
- Testing for above conditions often done at the same time as Tay-Sachs
- Carrier testing may be done for other genetic disorders which are rare, such as Fanconi anemia (1 person in 89), Bloom syndrome (1 person in 100), and Niemann-Pick disorder (1 person in 90).
- Counseling and testing may be done at a genetics specialist's office
- Insurance coverage varies (Compendium of selected Publications 2006, ACOG)

If you have a higher than average risk for any of these or other genetic diseases, we can refer you to an appropriate agency for counseling and testing.

**RH Negative Mothers**

Depending upon your ethnic background, from 1 to 34% of pregnant women (13% White American, 7-8% Black American, 1% Chinese and American Indian and 34% French Basques) have an Rh Negative blood type. These women have special concerns during their pregnancies.

If the baby's father has Rh positive blood, the baby may also have Rh positive blood. If, during the course of pregnancy or birth some of the baby's Rh positive blood enters the mother's blood stream, the mother's immune system will form antibodies to eliminate these foreign (baby's) blood cells. This process is called isoimmunization. One to 2 percent of Rh-negative mothers become sensitized to RH (D) antigen during pregnancy by "silent bleeds". That is a transfer of baby's blood to maternal circulation with no sign or symptoms. Antibodies can then cross the placenta from mother to baby and begin to attack the baby's blood cells while the pregnancy continues. The baby will be mildly to severely affected depending on how many blood cells it loses. If isoimmunization occurs at birth, the next baby will be affected.

The elimination of Rh hemolytic disease of the newborn has been possible since the development of Rh-immune globulin (often called Rhogam). Timely administration of Rhogam to the unsensitized woman prevents her body from forming antibodies to Rh positive blood. In the uncomplicated pregnancy, two injections of Rhogam are given, one at approximately 28 weeks gestation, and the second within 72 hours after delivery if the baby is Rh positive. This protects the mother from developing antibodies during pregnancy and birth and also ensures protection for the next pregnancy.

**Diabetic Screening**

During your 28-week visit at MCA you will receive a lab order for a screening blood test for gestational diabetes. On the day of the test, avoid high sugar foods; eat protein-rich foods instead. You will drink 10 fluid ounces of a glucola beverage and wait one hour before your blood sample is taken. Please do not eat, chew gum, smoke or drink even water during this hour. We will call you if your glucose screen test is abnormally high.

20% of the pregnant women taking this test will have results high enough to require further testing in the form of a 3-hour glucose tolerance test. Of those women taking the 3-hour glucose tolerance test, six percent have results in the abnormal category. As you can see, your chances of having an abnormal glucose tolerance test are small, but it is important to identify those who do to prevent complications for the mother and the baby who may grow excessively large if the mother's blood sugar remains high. These babies have a higher risk of respiratory problems at birth as well as problems controlling their own blood sugar levels. With early diagnosis of gestational diabetes, a special diet and careful monitoring, the woman can have a healthy baby and a normal delivery. Gestational diabetes does not always occur in subsequent pregnancies. However, 60% of gestational diabetics do develop glucose intolerance (adult onset diabetes) within 16 years. Women with this history should also have periodic screening for diabetes when they are not pregnant.

Remember, if we call you and ask you to make an early morning appointment at the lab for the 3-hour glucose tolerance test you have a 94% chance of **NOT** being a gestational diabetic. Before taking the 3-hour test please:

- No eating or drinking after midnight the night before the test.
- Bring a book and leave the children at home since the test lasts three hours.
- Be sure to tell the lab you are pregnant and do not need to do the urine or the 1/2-hour blood test. They will then draw a fasting sample, give you a bottle of glucola to drink and draw your blood at 1, 2 and 3 hours.
- Bring something to eat and drink as soon as the test is completed. A protein sandwich before driving home is best.

**Chlamydia/Gonorrhea Screening**

Chlamydia is the name of a type of bacteria that causes the most widespread sexually transmitted disease in the U.S.A. today. Public health officials estimate that three to five million Americans get Chlamydia infections each year making Chlamydia far more common than Gonorrhea, Genital Herpes and Syphilis combined.

Chlamydia can be passed from a woman to her child during birth. This can cause an eye infection

(called conjunctivitis) and pneumonia. Of the 155,000 babies born to women with Chlamydia each year, 75,000 develop conjunctivitis and 30,000 get pneumonia. Also, the risk of spontaneous abortion and stillbirth is much higher in women with Chlamydia infections during pregnancy.

Since 60 to 80% of women with Chlamydia have NO SYMPTOMS, we test everyone on their first prenatal visit. Remember the test is easy and painless and treatment of the disease with antibiotics is safe during pregnancy.

Gonorrhea is a bacterial sexually transmitted disease that, among other things, can cause newborn eye infections and pneumonia. In mothers, it can cause severe pelvic infections and infertility. It is diagnosed with a culture and is treated with an antibiotic.

**Group B Streptococcal Infections**

The information regarding GBS can be overwhelming. Please feel free to ask the CNMs any questions you have. We want to reassure you that GBS infection in the newborn can be averted due to detection and treatment.

Group B streptococcus (GBS) is a type of bacteria that is the most common cause of life-threatening infections in newborns, including sepsis (blood infection) and meningitis (infection of the fluid and lining surrounding the brain) and is a frequent cause of newborn pneumonia.

Approximately 8,000 babies in the United States get GBS disease each year; 5% - 15% of these babies die. Babies that survive, particularly those who have meningitis, may have long-term problems, such as hearing or vision loss or learning disabilities.

***Does everyone who has GBS get sick?***

Many people carry GBS in their bodies but do not become ill. These people are considered to be "colonized." Adults can be colonized in the bowel, genital tract, urinary tract, throat, or respiratory tract. **15% to 40% of pregnant women are colonized with GBS in the rectum or vagina.** A fetus may become colonized with GBS if the mother is colonized with GBS in the rectum or vagina. Colonization can occur during labor or birth.

***How does GBS disease affect newborns?***

Only 1% - 2% of babies who are colonized with GBS develop signs and symptoms of GBS disease. Three-fourths of the cases of GBS disease among newborns occur in the first week of life ("early-onset disease"), and **most of these cases are apparent a few hours after birth.**

***Can GBS disease among newborns be prevented?***

Most GBS disease in newborns can be prevented, by giving at-risk pregnant women an IV antibiotic during labor. Pregnant women colonized with GBS should be offered IV antibiotics at the time of labor or membrane rupture. Colonized women at highest risk are those with any of the following conditions:

- fever during labor
- rupture of membranes 18 hours or more before delivery
- rupture of membranes or labor before 37 weeks
- history of a previous baby with GBS disease

GBS is not always detectable by culture; therefore, even those women who have a negative

culture at 36 weeks are offered antibiotics if any of the above risk factors exist. Because women who are colonized with GBS, but do not develop any of the above complications, have a relatively low risk of delivering an infant with GBS disease, the decision to take antibiotics during labor should balance risks and benefits. Penicillin or its equivalent is very effective at preventing GBS disease in the newborn and is generally safe. A colonized woman with none of the conditions above has the following risks:

- 1 in 200 chance of delivering a baby with GBS disease if no antibiotics are given
- 1 in 10 chance, or lower, of experiencing a mild allergic reaction to penicillin (such as rash)
- 1 in 10,000 chance of developing a severe allergic reaction - anaphylaxis - to penicillin. Anaphylaxis requires emergency treatment and can be life threatening.

***How does MCA Treat GBS Positive mothers?***

Midwifery Care Associates will follow guidelines established by the Communicable Disease Center; United States Public Health Service, Atlanta, GA; which include:

- obtain a vaginal and rectal culture at 36 weeks
- treat GBS positive mothers during labor with IV antibiotics

Since no treatment will occur until labor begins, we will not notify you on the phone if your culture done at 36 weeks is positive. When you return for a prenatal visit in one week, we will review the treatment plan. (You are welcome to call for the results of the culture after 72 hours, if you prefer).