Your Pregnancy

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In this paper we will describe various aspects of your pregnancy, as described in the table of contents below. If you have a question which is not covered here, don't hesitate to ask at the time of your visit, or call anytime if it is an important matter. It is our goal that this information will help to make your pregnancy a successful one!

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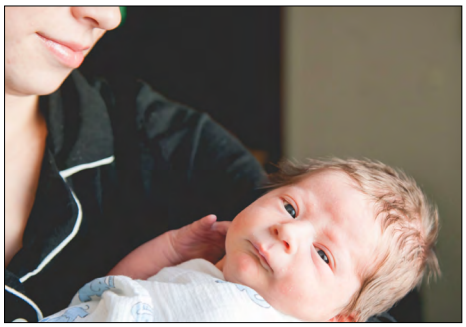

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Chapter 1. Planning Your Pregnancy

A Preconception Visit

You may wish to schedule a visit with us to discuss your plans for pregnancy. As part of your preconception visit, you will be asked questions about your medical history, any past pregnancies, and your life style. The answers to our questions should be honest and open. They will let us know whether you may need special care during pregnancy, and they will be treated as confidential information.

Some women have medical conditions that require special care during pregnancy. This can be an illness that was present before pregnancy or it may arise during it. Because pregnancy puts special demands on a woman's body, a health problem will often arise for the first time when a woman is pregnant. Certain medical conditions, such as hypertension and diabetes, should be brought under control before you become pregnant. Changes in your life style may also be in order. We may make suggestions to have you stop smoking, drink less alcohol, exercise more, or try to lose some weight before becoming pregnant.

If you are on medications, we will have to consider whether or not you should be taking them during early pregnancy. In each case we have to evaluate the safety of a particular medicine, its need, and the risks and benefits of taking it. Some medications, such as birth control pills, should be stopped some months before attempting pregnancy. Other medications, such as for asthma, hypertension, heart or thyroid problems should be continued all throughout pregnancy. If you are taking a medicine please tell us about it. We will discuss the safety of this medicine, and whether or not you should continue to take it if you are planning to become pregnant or if you already are in early pregnancy.

If you've had a problem in a previous pregnancy, that doesn't mean that the problem will recur or that you shouldn't try again. If you are concerned about a possible problem that occurred last time, or one that runs in your family, tell us about it. If you have a family history of birth defects, we may suggest that you see a genetics counselor. Sometimes tests may be helpful to detect genetic problems in the fetus, or to reassure you that no genetic problems are present.

Your preconception visit is a time for you to ask questions. Don't hesitate to ask us for advice or discuss any concerns you might have. We are there for you, and if we don't know the answer to a question we can often find a source of information or guide you in the right direction.

Diet and Weight

A balanced diet is a basic part of good health at all times in your life. The foods you eat are the main source of the nutrients for your fetus (the term used to refer to the baby while it is growing inside you during the pregnancy). Your body functions best when it is well fueled with a balanced diet. To choose that diet, you should be aware of what nutrients your body requires, how much of each nutrient you need, and which foods are good sources.

Every woman would like to maintain an ideal weight for her height. If you're planning to have a baby, however, it's important that you not be excessively underweight or overweight before pregnancy. Underweight women tend to have smaller babies. This is not an advantage, however, because smaller babies have more problems during labor and in the nursery. In general being overweight is linked to having high blood pressure or diabetes. Extreme obesity puts a strain on the heart that becomes an added burden during pregnancy.

Exercise

Good health at any time in your life depends not only on proper diet but also on getting enough exercise. What you can do in sports and exercise during pregnancy depends on your health and your general level of activity before you become pregnant. When beginning a program, decide whether you want to improve your heart and lung function, the tone of your body muscles, or both. Then select exercises which will meet your goals.

Exercise to improve your heart and lung function can

be measured by keeping track of your heart rate. When you know how your heart rate responds to exercise, you can find out how hard to exercise. To find your target heart rate, look for the age category closest to your age and read across. These figures are averages to be used as general guidelines.

YOUR TARGET HEART RATE

(for nonpregnant Women)

Age	Average Maximum Heart Rate (beats per minute)	Target Heart Rate
20	120-150	200
25	117-146	195
30	114-142	190
35	111-138	185
40	108-135	180
45	105-131	175

Every time you exercise, you should begin with a short period of light activity before each session. Once your body is warmed up, exercise for 20-30 minutes at your target heart rate. Afterwards, there should be a cooling-down period for 5-10 minutes, during which you should gradually reduce your activity, allowing your heart rate to return to normal.

Cigarettes, Alcohol, and Drugs

Tobacco, alcohol, and drugs are addictive and can harm both you and your fetus. They can have bad effects on the fetus at a time when organs are forming, causing damage that can last a lifetime or even result in death.

Used in combination, these substances are even more dangerous. For the sake of your own health and that of your baby, now is a good time to quit or at least cut down your use of tobacco, alcohol, and illegal drugs. It takes time and patience to quit a habit. Ask for help. Your decision to quit may be one of the most difficult things you've ever done, but it will be one of the most worthwhile. By quitting, a pregnant woman helps not only herself, but also her fetus.

Environment

Some substances found in the environment or at the work place can make it more difficult for a woman to get pregnant or can harm the fetus of a pregnant woman. Find out from your employer whether you might be exposed to toxic substances, chemicals, or radiation. Talk to the personnel office about maternity leave, medical benefits, and disability coverage. Radiation, an invisible form of energy transmitted in waves, is used in some jobs. Exposure to high levels of some kinds of radiation can affect the fetus of a pregnant woman. Women planning a pregnancy who are exposed to radiation should ask for monthly readings of the amount of radiation to which they have been exposed. While the amount of radiation in a chest X-ray, for instance, will not hurt a fetus, radiation used in much larger doses can be harmful.

Exposure to chemicals such as lead, certain solvents, or certain insecticides can reduce your partner's fertility by killing or damaging his sperm. Unless the damage to a man's reproductive system is very serious, he will probably be able to produce healthy sperm again a short time after his exposure to the dangerous material stops.

Sexually Transmitted Diseases

Diseases that are transmitted through sexual contact come in all types and forms. Sexually transmitted diseases not only can affect your ability to conceive, but also infect and harm your baby. If you think you may have a sexually transmitted disease, see us right away for the appropriate tests and treatments. Your partner should also be treated, and you both should abstain from any sexual intercourse until you have completed treatment.

Chlamydia, Gonorrhea, and Pelvic Inflammatory Disease

Chlamydial and Gonorrheal infections are the most common sexually transmitted diseases in the United States today. It is thought that about 20-40% of all sexually active women have probably been exposed to Chlamydia at some time. Chlamydial and gonorrheal infections can cause pelvic inflammatory disease, or PID. This is a severe infection that spreads from the vagina and cervix through the pelvic area

and may involve the uterus, Fallopian tubes, and ovaries. Gonorrhea and Chlamydia can infect the fetus as it passes through the vagina during delivery, causing eye infection and other complications. A newborn's eyes are very sensitive to gonorrhea, and blindness may result. To help prevent this, the eyes of a newborn are treated at birth. This is done for every baby, whether or not the mother has a history of gonorrhea.

Men with Chlamydial and gonorrheal infections may have the symptom of a drip from the penis. Many women have no symptoms and find out they have Chlamydia or gonorrhea only when their sexual partners are found to have the disease. If you have these diseases, you can be treated with drugs that are safe to take during pregnancy.

Herpes Simplex Virus

Genital Herpes is an infection caused by a virus. It produces sores and blisters on or around the sex organs. It is transmitted during sexual activity through direct contact with a person who has active sores. Although it is rare, the baby can become infected with the Herpes virus during birth. As a result, the baby may suffer severe skin infection, damage to the nervous system, blindness, mental retardation, or death. If you have had genital herpes or have had sexual intercourse with someone who has, tell us. If there are signs of active infection when you are in labor a cesarean birth may be needed. Cesarean birth reduces the chance that the baby will come in contact with the virus in the vagina. When there are no active herpes lesions, the baby can be delivered vaginally.

Human Papilloma Virus

Human papilloma virus (HPV) is a virus that causes genital warts (sometimes called condyloma). Warts in the genital area are easily passed from person to person during sexual intercourse, oral and anal sex. Although some warts disappear on their own, in most cases treatment is needed. Warts often can be successfully treated during pregnancy. If warts are extensive, though, it may be best to wait until after delivery to begin treatment. This virus may be prevented with Gardasil vaccine.

Syphilis

Syphilis remains a dangerous sexually transmitted disease. If untreated, it often spreads throughout the body and can cause blindness, heart disease, nervous disorders, insanity, tumors, and death. Syphilis can be passed from a pregnant woman's bloodstream to her fetus, sometimes causing miscarriage or stillbirth.

Syphilis can be very hard to detect in women. The sore or chancre that marks the site of infection may be in the vagina where it cannot be seen. In its early stages, when a chancre is present, syphilis may be diagnosed by examining the fluid from the sore. A blood test may or may not find the disease in the earliest stages. The chancre will disappear even without treatment, but the disease remains. After the chancre has disappeared, the only sure method of detection is by blood test.

Treating an infected pregnant woman will halt further damage to her fetus, but it will not reverse any harm already done. If treatment is completed during the first 3-4 months of pregnancy, it is unlikely that the infant will suffer any long-term damage.

HIV infection and AIDS

Human immune deficiency virus (HIV) infection and acquired immune deficiency syndrome (AIDS), the disease caused by HIV, are growing threats to women. Once in the bloodstream, HIV invades and destroys cells of the immune system, the body's natural defense against disease, leaving it open to harmful infections that can cause death. When a person infected with HIV comes down with one of these serious infections, he or she is said to have AIDS. Once established, the infection persists for life and is nearly always fatal. It may take more than 5 years for symptoms to appear. Meanwhile, the virus can spread, both to sexual partners and to a fetus.

The virus is passed from person to person through body fluids: blood, semen, breast milk, and possibly vaginal fluid. The most common ways these fluids are exchanged are through contact with infected blood during intravenous drug use, sexual contact, and to a fetus from its infected mother's blood.
About one-third of the time the virus is passed to

the fetus during pregnancy. Most infected babies die within 3 years after birth. Because the virus can be passed across the placenta before birth, it makes no difference whether the baby is born through the vagina or by cesarean delivery, the infection may already have occurred.

If you think that you may have been exposed to the AIDS virus, tell us about it. There is much research going on in this area, and it may be possible for the disease to be successfully treated.

A test called the enzyme-linked immunosorbent assay (ELISA) is used to detect HIV. It will show whether your blood contains antibodies—a sign that you have been infected. A positive test does not mean that you have AIDS: it means that you have been infected with HIV and that you run a high risk of getting AIDS and passing it on to others.

Sometimes the tests for HIV can be falsely positive or falsely negative. After exposure to the virus, several weeks to several months are usually required before enough antibodies show up in the blood to produce a positive test result. This means that if you were exposed to the virus and had a test done for it right away, the test will probably be negative.
You are at risk of being infected with HIV and getting AIDS if you: use intravenous drugs, have sex with someone who has multiple partners, uses drugs, or is bisexual, or if you had a blood transfusion before 1983.

Pregnancy at 35 and Older
If you are in your mid-30's or older and are planning to have a baby, you're not alone. The trend toward delaying parenthood is a growing one.

Most women who have children in their 30's or 40's have uncomplicated pregnancies and bear healthy children. Women who want to delay parenthood often have concerns about their ability to become pregnant, the effects on their health, and the health of their baby. In general, women retain their good health and their ability to have healthy children into their 40's, although it may be more difficult to become pregnant.

Women age physically over time, not all at once. The potential for problems does increase slightly each year beyond a woman's early 30's, but there is no year at which there is a sudden increase in risk.

The risk of infant death within the first year of life is almost the same for babies born to mothers 25-29 years of age as to 30-34 years of age. The risk increases slightly at 35-39 and then again once a woman reaches her 40's. Genetic problems also can occur. Women age 35 and older are usually tested for genetic disorders such as Down syndrome, a disease that is linked to mental retardation and other medical problems.

By taking care of yourself, staying in good health, and having the tests done which can detect problems in your pregnancy, you are well on your way to a successful result.

Chapter 2. Prenatal Care

A program of prenatal care allows us to monitor your health and that of your fetus throughout pregnancy. Although most pregnancies proceed normally, every pregnancy poses some degree of risk. Assessing the risk on an ongoing basis is a central part of prenatal care. At each visit we will examine you and chart the course of your pregnancy.

Even if you previously had a problem-free pregnancy, you should still come in to see us early. No two pregnancies are alike, and complications can arise without warning.

OFFICE VISITS
Regular visits to see us are central to your prenatal care. Your first prenatal visit will be longer and more involved than other visits. It will include a history of your health, laboratory tests, a physical examination, and confirmation of the estimated date of delivery. Your personal history and family history are both important in helping us identify special problems. You will be asked about any previous pregnancies, including previous miscarriages, abortions, and deliveries.

If you have had a baby before, we will want to know what the baby weighed at birth, how long your labor lasted, and what type of delivery it was. If you have previous medical records pertaining to this pregnancy, you should make arrangements to have these records sent in or bring them with you.

During the Physical Exam your weight, blood pressure, pelvic organs, and other parts of your body will be assessed. A schedule will be set up for subsequent visits and any special tests or instructions you may need. After the first visit, we will see you as often as you need to be seen. Usually this requires visits every four weeks until the seventh month, then every two weeks until the last month, then every week. At these visits the growth and development of your pregnancy will be evaluated, and all of your questions will be answered. If you have more than a few questions we suggest that you write them down. Your partner is encouraged to attend the office visits and to hear the heartbeat of your baby. You may bring your children with you. During the last month pelvic examinations will be performed to check the position of the baby and to assess changes of the cervix. You are encouraged to attend prepared childbirth classes. These usually are taken during the seventh month of the pregnancy, but early enrollment is advised. Please inquire with the receptionist about the various classes which are available.

Throughout this process you should discuss all facets of care with us, and feel free to ask us any questions.

Bleeding in Pregnancy

Many women have bleeding in pregnancy. It is a common event, and often can be present during a normal pregnancy. In some cases, however, it can be an early sign of an impending miscarriage. Miscarriage is the loss of a pregnancy, most often early on. About 20% of women who know they are pregnant will have a miscarriage. Common signs of miscarriage are vaginal bleeding and cramping. Pain often comes and goes. Sometimes tissue passes through the vagina. If you bleed in early pregnancy, call us. We often will perform a pelvic exam or ultrasound to further assess this problem.

Most miscarriages cannot be prevented. It is the body's way of dealing with a pregnancy that was not normal. It doesn't mean that a woman cannot become pregnant and have a normal pregnancy the next time. Nor does it mean there is anything wrong with her health. There is no proof that stress or physical or sexual activity causes miscarriage.

Estimated Date of Delivery

Based on the information obtained at your first visit, we will calculate your due date. The method used most often is based on the estimated time of conception. Since it can be difficult to predict the exact date, we may use more than one method:

- If the date of ovulation is known, it is the most reliable method of determining the age of the fetus.
- Throughout pregnancy a clinical exam which shows the size of the uterus can provide useful information.
- In a normal pregnancy fetal heart tones can usually be heard by a Doppler device at 12-14 weeks.
- Ultrasound can be used to estimate the age of a fetus. It is most accurate if done in early pregnancy.

Calculating the due date based on your last menstrual period is not always exact. Menstrual cycles differ from one woman to another, and can vary from month to month. Keeping track of the dates of your periods can aid us in making this determination.

Routine Tests

Laboratory tests will be taken at the time of your first visit including a pap smear, cervical and urine cultures, urine tests for glucose and protein, and blood tests such as a complete blood count, serology, blood type and screen, rubella and hepatitis antibody titers. If you have any specific additional tests that you would like done such as toxoplasmosis, cholesterol, lipid profile, etc., please inform us.

First Trimester Genetic Screening

We usually perform 1st trimester genetic screening near 12 weeks of pregnancy. These tests include the NT ultrasound test and, if appropriate, cell free DNA (Harmony) test. These tests look for pregnancies where there is an increased risk of Down Syndrome. Down Syndrome is a chromosome disorder which can cause mental retardation and other serious prob-

lems. Further testing such as amniocentesis may be required for a definite result. If you have any specific additional tests that you would like done such as toxoplasmosis, cholesterol, lipid profile, etc., please inform us.

Later during the pregnancy other routine laboratory tests will be performed. A test called Alpha-fetoprotein (AFP) will be done at around 15 to 19 weeks of pregnancy. This is a test for open neural tube defects. Neural tube defects are birth defects that result when the structure which forms the brain and spinal cord does not completely fuse in the embryo during the first weeks of pregnancy. These defects occur in about 1-2 per 1000 births. 95% of all neural tube defects occur in families with no previous history of similar problems. There are two common forms of neural tube defects. (1.) Anencephaly is a disorder where the brain does not develop normally. It is usually not compatible with life. (2.) Spina bifida is a disorder with an opening in the spine of the fetus. Children with this disorder are often paralyzed from the waist down and need a great deal of medical and surgical care. More than 9 out of 10 babies with spina bifida or anencephaly can be recognized by this test.

A diabetes screening test is done at around 25 to 27 weeks of pregnancy. This test involves drinking 5 oz. of a sweet beverage and having a blood glucose determination 1 hour later. No special preparation is needed for this test, although it is suggested not to have a large or sweet meal immediately prior to it. The test involves having a sweet drink before you come to the office. One hour after finishing the drink a blood glucose level is drawn. If the result is in the right range you pass the test. If you have a high value, then further testing is arranged with a regular three hour glucose tolerance test. Approximately 15% of people will fail the first screening test, and about 15% of that group will fail the second test as well and be considered to have gestational diabetes.

At around 26 weeks of pregnancy a blood Rh antibody titer will be obtained if your blood type is Rh negative. About 15% of people have Rh negative blood. Sometimes there can be fetal red blood cells which can get into the mother's circulation and lead to the production of harmful antibodies, which can cross the placenta and affect the fetal red blood cells. This problem, called Rh sensitization, can be prevented with the administration of the medicine RhoGAM. If the result of your test is normal it is advisable to receive RhoGAM during your pregnancy to help prevent Rh sensitization. The RhoGAM is usually given as an injection the following week after the normal test result is obtained. RhoGAM can prevent this problem, and may be administered one or two times during the pregnancy if you have a Rh negative blood type.

SPECIAL PROCEDURES

Fetal Activity

Fetal movement is one of the first signs of fetal life. You first becomes aware of your baby's movement (quickening) between the 16th and 20th weeks of gestation. Daily fetal movement increases in vigor and frequency with maximum values detected between the 29th and 38th weeks of pregnancy. Two weeks before labor there is a slight decrease in the weekly average of fetal movement. The reason for this decrease remains unresolved. It has been suggested that the decrease in amniotic fluid volume along with the increased fetal size may be responsible. Normal fetal activity is an indication of fetal health, and an absence or decrease in fetal movement may indicate an impending problem.

Studies have shown that keeping track of your baby's activity during the day can help alert us if there should be an unexpected problem with the baby or your pregnancy. In some circumstances we may ask your cooperation in keeping track of this by using a chart and recording the activity of your baby for a few hours each morning.

Ultrasound

Ultrasound which creates pictures of the baby from sound waves, is available today. This new technology is especially valuable during pregnancy. In a way, ultrasound serves as a limited physical examination of a fetus. It can provide valuable information about the fetus's health and well-being, such as:

- Age of the fetus
- Rate of growth of the fetus
- Placement of the placenta

•Fetal position, movement, breathing, and heart rate
•Amount of amniotic fluid present in the uterus
•Number of fetuses
•Some birth defects.

Under certain circumstances ultrasound (sonogram) tests will be performed during your office visit. These tests can be very useful for a number of reasons. They are commonly used to evaluate bleeding in pregnancy, unusual abdominal pain, a possible miscarriage or ectopic pregnancy, confirmation of estimated due date in the case of genetic testing or a previous cesarean birth, to establish an estimated due date, evaluate an abnormal or unknown fetal position, and to look for gross congenital defects. Ultrasound has its limitations is this regard, and cannot determine all or even the majority of birth defects. Some patients believe ultrasound can detect everything, but there are definite limitations.

A recent advance in ultrasound, vaginal ultrasound, is also available. This is particularly useful for evaluation of early pregnancy. It does not require a full bladder, and so is more comfortable to have done. The fetal heartbeat can be identified as early as 6 to 7 weeks of gestation with this new technique.

Electronic Fetal Monitoring

Another test that sometimes may be employed is the Non Stress Test (NST). This test involves the use of a fetal monitor so that the baby's heart rate can be recorded for approximately 20 minutes. Movement of the fetus, fetal heart rate changes, and maternal contractions are recorded on the monitor strip. The nonstress test measures the response of the fetus's heart rate to each of its movements. The interpretation of these parameters is important in evaluating the well-being of higher risk or overdue pregnancies. It is helpful if you have some food or a sweet drink before coming in for the test, so the baby will be more active.

Fetal Biophysical Profile

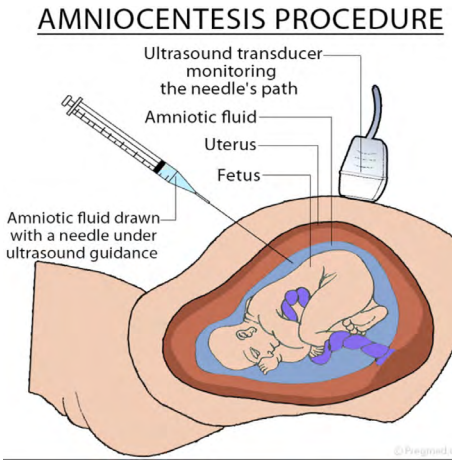
When more information is needed regarding the well-being of the fetus, a special kind of ultrasound examination, called a Biophysical Profile (BPP), may be performed. This test involves the use of ultrasound to assess fetal well-being by focusing on such parameters as fetal tone and activity, fetal breathing, and amniotic fluid volume. Each of these different parameters are evaluated, given a numerical score, and the total is added. We use this test to identify whether you need special care, or if it would be safer to deliver the baby early. As with electronic fetal monitoring, this test does no harm to the fetus and may be repeated weekly if further evaluation of the fetus is necessary.

Genetic Testing

Certain couples have a higher risk of having a baby with a birth defect. These include couples who already have a child with a birth defect, or who have a history of genetic disorders in their family. Women aged 35 and older are also at risk, as are couples of certain ethnic and racial backgrounds. Approximately 3% of all babies are born with a birth defect. Some defects are more likely if it has already occurred previously in your family history.

If you are at increased risk of having a genetic disorder, genetic counseling is recommended. This may be done at a genetics center, and involves an analysis of the risk for various diseases or defects based upon your family history. The results of exams, tests, and histories will be explained, and the risk of a birth defect will be calculated. Recently more tests have become available for enhanced genetic testing in our office, including testing of you and of the baby. No test is 100% accurate, however. Your fetus may have a birth defect even if the test for it is negative, or may be free of that defect even if the test is positive. For many women today the typical reason for referral for testing is being age 35 or older, as this is associated with an increased risk of Down syndrome.

If you decide to have further testing of the pregnancy, two different genetic tests are available, amniocentesis and chorionic villus sampling (CVS). The first test, **amniocentesis**, involves obtaining a small amount of amniotic fluid at approximately 16 weeks of pregnancy. This fluid is analyzed, and a genetic report is issued 2 to 3 weeks later. This test is very safe, but a miscarriage may result from it approximately 1 in 400 attempts. A recently developed test is the chorionic villus sampling (CVS). This test has the advantage of being performed at only 9 weeks of pregnancy, with the results being obtained soon afterwards. It is not as safe as amnio-



centesis and can have a 3% to 5% chance of a miscarriage from the procedure.

If you decide that you are interested in having genetic testing, we will help you make arrangements for it. Usually an ultrasound is done first in order to confirm that the due date is accurate. You then make an appointment for counseling at the genetics center. Sometimes it may be difficult for you to decide whether genetic testing is the answer for you. This is <u>your</u> decision to make. If you have any questions about this testing, please feel free to ask us about it. In general genetic tests are accurate, safe and reliable, but are not necessary for the majority of pregnancies.
For all test results, do not assume if you don't hear the results that they are normal. Occasionally a test result may be lost, and we may have to call the laboratory or radiology facility to get the result for you.

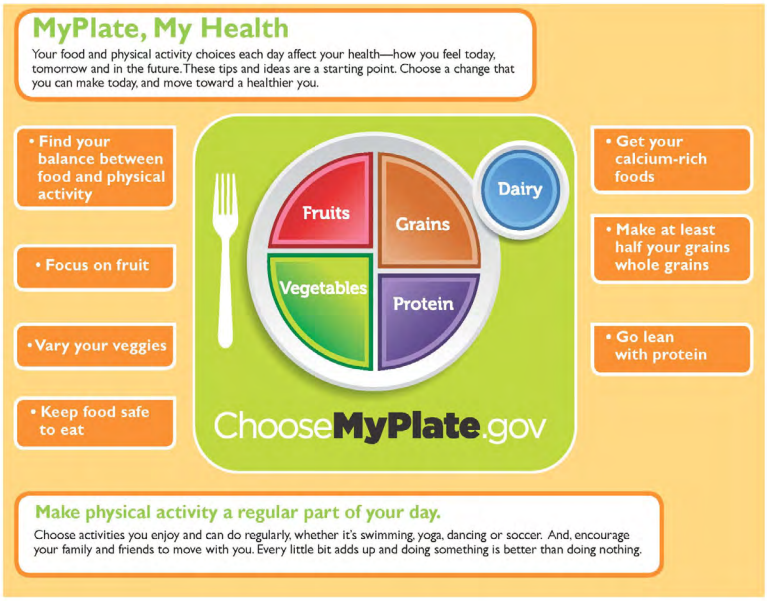
Chapter 3. Normal Pregnancy

You probably have questions about how your pregnancy may affect normal physical activities such as eating, sleeping, exercise, sports, work, travel, and sexual activity. Will certain activity be harmful? Do you need to make changes or limit your activities? What should you avoid? Since each woman is different, each pregnancy is special. We will therefore talk about some general guidelines to help you adjust to your new life style.

As your pregnancy progresses your body goes through a number of changes. With weight gain your abdomen becomes heavier leading to a change in posture. You may feel greater strain on your back and leg muscles. Swelling of your ankles is common, as are varicose veins of your legs, or hemorrhoids. Changes in body functions can be expected, such as morning sickness, constipation, and frequent urination. You may find that your emotions are changing now too, and may feel depressed or irritable at times.

Good eating habits combined with adequate rest and exercise help you look and feel better. When you become pregnant you need about 2200 calories a day (about 300 more calories each day than before pregnancy) to help take care of the new life growing inside you. Since the fetus gets all its food from you, it is important to be selective about what you choose. Choose a diet that gives you needed calories and nutrients. Eat protein rich foods, especially meat, fish, eggs, and skim or 2% milk.

The Food Plate was developed by the U.S. Department of Agriculture to help men and women choose foods



that will give them the nutrients they need.
Healthy snacks are a good way to get the nutrition and extra calories you need. Pick snacks that are not high in sugar or fat. Fruit, cereal, and low-fat yogurt are good choices. Avoid candy, soda and chips. You may feel better if you eat small meals six times a daespecially toward the end of pregnancy. To make these mini-meals, divide the number of servings of the basic foods needed each day into smaller portions. Milk and a sandwich made with meat, chicken, fish, peanut butter, or cheese with lettuce and tomato makes an excellent mini-meal. Other ideas are milk and fresh fruits, fruit juices, cheese and crackers, raw vegetables, and soup.
A woman of normal weight before pregnancy should gain 25-35 pounds. Women who are underweight should gain about 28-40 pounds. Women carrying

twins should gain as much as 45 pounds. Women who are very overweight should gain about 15 pounds.

Try to minimize your intake of caffeine. In general, the less, the better. Try to avoid sodas (Diet and Regular), artificial sweeteners, potato chips, pretzels, peanuts, french fries, etc. Do not over salt your foods. It is also important to take the daily prenatal vitamin pills that we prescribe for you.

Pregnant women often find they need more sleep and rest to function best. You may need to take rests or naps during the day. Sometimes it may be difficult to find a way of sleeping comfortably, or at all. A good idea is to try resting with several pillows for support and comfort. Toward the end of pregnancy you should not sleep flat on your back. It is better to sleep partially tilted up on several pillows , or on either side.

Exercise is an important part of good health. Staying active through exercise can lead to a better appearance and posture, can enhance your feeling of well-being, can reduce some of the discomforts during pregnancy, can help make your body better prepared for labor and delivery, and can help you get back into shape after birth. Exercise tolerance is lowest in the first 12 weeks and in the last 10 weeks of pregnancy. Unless there is a problem, you may pursue sports and other activities as normal between 12 and 30 weeks of pregnancy.

What you do in sports and exercise during pregnancy depends on your own health and on how active your were before you became pregnant. Here are some general guidelines for following a safe and healthy exercise program geared to the special needs of pregnancy:

• Regular exercise (at least three times per week) is better than spurts of heavy exercise followed by long periods of no activity.

• Brisk exercise should not be performed in hot, humid weather or when you have an illness with a fever.

• Always begin with a 5 minute period of slow walking or stationary cycling with low resistance to warm up your muscles. Intense exercise should not last longer than 15 minutes.

• Avoid jerky, bouncy, or high-impact motions. Activities that require jumping, jarring motions, or rapid changes in direction may cause pain. Exercise on a wooden floor or a tightly carpeted surface to reduce shock and provide a sure footing. Wear a good-fitting, supportive bra to help protect your breasts.

• Avoid deep knee bends, full sit-ups, double leg raises, and straight-leg toe touches. During pregnancy, these exercise may injure the tissue that connect your leg and back joints.

• Avoid exercise that require lying with your back on the floor for more than a few minutes after 20 weeks of pregnancy.

• The extra weight you are carrying will make you work harder as you exercise at a slower pace. Measure your heart rate at peak times of activity. Do not exceed your target heart rate.

• Get up slowly and gradually from the floor to avoid dizziness or fainting. Once you are standing, walk in place for a brief period.

• Stop your activity and consult with us if any unusual symptoms appear, such as: bleeding, pain, dizziness, shortness of breath, irregular heartbeat, or unusually rapid heartbeat.

Almost any form of exercise is safe if it is done in moderation. Some exercises offer aerobic conditioning of the heart and lungs, while others relieve stress and tone muscles.

Some types of exercise or sports may be too vigorous or involve movements that could be tiring or uncomfortable. Here are some guidelines regarding different types of exercise: Walking is always good exercise. Swimming is excellent for your body because it uses many different muscles, while the water supports your extra weight. Jogging can be done in moderation if you did it before pregnancy. Avoid becoming overheated or losing too much body fluid. Tennis is generally acceptable. Golf and bowling are fine for recreation but don't do much for conditioning the heart or lungs. Skiing involves risks and can lead to serious injuries. It should be limited to safe slopes, and high altitudes should be avoided. Water skiing and surfing should be avoided completely due to the risk of hitting the water with force.

If dental work is needed, it is preferable to wait until the baby's heartbeat is heard. Dental work is safest during the

second trimester. Sometimes, however, a problem can't wait, and a test or treatment needs to be given. X-rays of the teeth are safe with shielding of the abdomen. Novocaine used to numb the oral cavity is relatively safe during pregnancy. If general anesthesia or prescription medicines are needed please contact me.

Pregnancy is a time of emotional changes. Especially early on, the hormones in your body may cause mood swings. Being very tired in early and late pregnancy may also make you feel irritable or depressed. Regular rest, relaxation, and exercise will help your mental as well as physical well-being.

Abuse of women by their male partners is one of American's most common problems. This may be physical, sexual, or emotional abuse. Men who abuse their partners often abuse their children too.
Abuse often begins or increases during pregnancy, putting both the woman and the fetus at risk. During pregnancy, the abuser is more likely to aim his blows at the woman's breasts and abdomen. Dangers to the fetus include miscarriage, low birth weight, and direct injury from the blows. Sometimes, though, abuse decreases during pregnancy.
If you are being abused, tell your doctor. He or she can help you get in touch with support services, such as crisis hot lines, domestic, violence programs, legal aid services, or counseling. Shelters exist for abused women and children. A close friend, counselor, or clergy member may also be able to help.

Travel during pregnancy is generally safe if you make certain allowances. The most comfortable and the safest time to travel is during the second trimester, months four to six. If you travel by car be sure to use your seat belt. It will be better for your circulation to stop, get out, and walk a little every hour. Wear comfortable, loose fitting clothes. Flying is safe during pregnancy. Do not be carrying around heavy luggage. Travel should be completed by the 32nd week. **We do not advise any long trips in the last two months of pregnancy.** After this point, travel of greater than one hour away is not a good idea. Although travel is safe in most cases, it is not advisable for women with a "high risk" pregnancy. Please ask if you have a question about it.

A Guide to Sex During Pregnancy.

Many pregnant women want sex, and despite what you may have heard, you can enjoy sex right up through your ninth month, as long as you have clearance from us.

Before you run off to "oohhh,yesssss" land, keep in mind that there are sexual positions that are a lot more comfortable when you're pregnant. In other words, forget about attempting the missionary position after week 24 or so. Just think of your pregnancy as an opportunity to get creative with your sex life. Here are some of the most comfortable and enjoyable positions to try:

Sideways Shuffle: This is one of the best sex positions during pregnancy. Lay on your side while your partner kneels and positions his body behind you. You can use pillows to make yourself more comfortable. Because his body weight will not be bearing down on you, this position is very enjoyable.

Side-by-Side Slide: This positions is great in your third trimester. During these final months, the last thing you want is deep penetration, because it's just plain uncomfortable. So tell your honey that it's time to practice the "shallow" thrust. Make it easy by lying next to each other in the spoon position (his chest will be against your back). This position feels very comforting and close, plus it allows hubby to get a little "hands-on" action.

Titillating Topper: Women understand that having the woman on top is one of the best positions for mind-blowing orgasms, but it's also great for pregnant sex. Being on top allows you to control the depth of penetration, which makes your cervix and uterus happy, and of course puts you in control of your own, well... you know.

Sit and Swirl: What fun! For this position, enlist the help of a sturdy chair. Have your partner sit on the chair, then you sit on his lap. You can either face him (if your

belly allows) or face away from him. This is a very uterus-friendly position.

Bedtime Bumper: Using your bed as a support, lie on your back with your knees bent. Now slide down the mattress until you feel your bottom and feet at the edge and give your honey a big smile. If you have a low bed, he can kneel on the floor in front of you. If not, he can stand in front of you.

Before re-activating your sex life, please ask us if it's safe for you.

Keep your sense of humor. After all, sex is supposed to be fun! Remember, not all the positions are for everyone. You and your partner should let both comfort and pleasure be your guides. If something doesn't feel good, don't do it.

Other ways of expressing your sexuality can be equally satisfying. This is an area you may want to discuss with us.

Although the general guide to sex in pregnancy is your own comfort, there are some restrictions in certain cases. Women who have a history of miscarriage or premature birth, or who have bleeding from the vagina, rupture of the membranes surrounding the fetus, or unusual pain should consult with us. If you have bleeding after intercourse, contact us.

Things to Avoid!

About 60% of American women drink alcoholic beverages. There is a difference between alcohol use and alcohol abuse. Some people have one or two drinks on various occasions–this is alcohol use. Others may drink daily or in binges (drinking a large amount in a short time)–this is alcohol abuse. During the past few years there have been many reports about the harmful effects of alcohol taken during pregnancy. When a pregnant woman drinks alcohol, it quickly reaches the fetus through the bloodstream. The same level of alcohol that goes throughout the mother's bloodstream also goes through the fetus's. Studies have been done on infants born to women who drank heavily during pregnancy. Many of the infants were born with a strong pattern of physical, mental, and behavioral problems. This is called fetal alcohol syndrome. The safest recommendation we can make is to abstain from alcohol use totally during pregnancy. On the other hand, an occasional alcoholic beverage at a social event should not be a source of alarm. Moderation is the key. Reducing intake anytime during pregnancy can be beneficial.

Teratogens are agents which can cause birth defects if the fetus is exposed to them during pregnancy. These risks can be caused by drugs that are prescribed, drugs that are taken without prescription, tobacco and alcohol, infections (including rubella, CMV, toxoplasmosis, AIDS, syphilis, cytomegalovirus, herpes, and other viruses, even the common cold), heavy metals such as lead or mercury, radiation, and harmful conditions at work. These agents can sometimes interfere with the normal development of the fetus, resulting in physical and mental abnormalities. The effect of exposure is dependent upon the amount and time during the pregnancy when it occurred. Usually the first trimester is the most susceptible time, although some women do not yet know that they are pregnant Fortunately, in most cases exposure to a potential teratogen causes no effect.

Work-Related Hazards

Most of the time, a healthy woman with a pregnancy without problems can keep working if her job poses no more risk than daily life. Discuss with us the type of work you do both at your workplace and at home.
There could be hazards in your workplace:

- Do you work around chemicals, gas, dust, fumes, or radiation?
- Do you have to lift heavy loads, work at heights, or use high-speed machines?
- Do you stand for most of the day?

The risk of exposure to substances that occur in the work place is often unknown. For example, many questions exist regarding risks of exposure to video display terminals. While there is no proof regarding risk, it is a wise precaution to keep your body an arm's length away from the video display screen. A few of the substances that can be found in the work place are known to cause harm. Heavy metals, such as lead and mercury are teratogens. Ionizing radiation is used to take X-rays of internal organs to diagnose a problem, and can be dangerous. Some people work with bacterial agents such as bacteria and

Wear a seatbelt.

viruses, and are at risk of exposure.

Medications

Any type of medicine can affect the fetus, and some can cause severe birth defects or other problems for the baby. Don't stop taking any medication prescribed by a doctor–but do seek medical advice, and ask us whether it is better to continue with the medication or stop it.

Not all drugs require a prescription. Products such as pain medicines (aspirin, acetaminophen, or ibuprofen), cold and allergy medicine, and some skin treatments are drugs, even though you can buy them in a drug store without a prescription. Over -the-counter drugs should not be taken during pregnancy without first checking with us.

In general, we prefer that in early pregnancy as few medications be taken as possible, due to this critical time of fetal development when many fetal organs are forming.

Illicit Drugs

Marijuana is the illicit drug that is used most often. Women who are moderate or heavy users tend to deliver early, and their babies are often small.

Cocaine, the second most often used illicit drug, is especially dangerous during pregnancy. Cocaine abuse is more harmful than any other substance abuse in pregnancy. Pregnant women who use cocaine have a 25% higher risk of having a preterm birth. Cocaine can cause the mother to have a heart attack and can cause death of the fetus.

Addictions can be hard to quit. Pregnancy may give you extra incentive to try. If this is a problem for you, please tell us about it and we will try to help.

If you have questions regarding something to which you were exposed, please ask us about it. Unfortunately, birth defects are a possibility in any pregnancy, and they occur relatively frequently. Approximately 10% of all babies have a minor birth defect and approximately 3% have a major one. Often there may be no apparent cause or explanation for it.

If you desire additional specific information, a specialist is available who can inform you about the expected risk of teratogens, X-rays, alcohol, drugs, medications, viruses, or other possible agents which could affect your fetus.

Chapter 4. Taking Care of Minor Problems

Backache

- Backaches are common. They are usually causes by the strain put on your back by your growing uterus and by changes in your posture.
- Try doing some of these things to help your back feel more comfortable:
- Change position.
- Wear low-heeled shoes.
- Avoid lifting heavy things or children.
- Do not bend over at the waist to pick things up. Squat down, bend your knees, and keep your back straight.
- Place one foot on a stool or box when you have to stand for a long time.
- Sleep on your side with one knee bent. Support your upper leg on a pillow.
- Apply heat, cold, or pressure to your back.

Breast Changes

Early in pregnancy, your breasts begin to grow and change to prepare for breastfeeding your baby. They will feel firm and tender. As your breasts grow, wear a bra that fits well and provides support.

Your nipples may stick out more and get darker in color. This will help your baby to breastfeed. Some women's nipples do not stick out but sink inward (retracted nipple). If you have retracted nipples and you plan to breastfeed, we may suggest that you try massaging the nipples so they stick out.

Breathing Problems

As the fetus grows, the uterus takes up more room.

Your lungs do not have as much room to expand, so you may be short of breath.
A few weeks before you give birth, the fetal head will move down in the uterus, or "drop," and press against the cervix. This usually happens between 36-38 weeks of pregnancy in women who have not had a baby before, but may happen later. In women who have already had a baby, it may not occur until the start of labor.
If you are short of breath, here are some things to try:
- Sit up straight.
- Sleep propped up.
- Walk more slowly.
- Avoid strenuous exercises, walking up a lot of stairs.

Constipation
At least half of all women are constipated at some point during pregnancy. Changes in hormones slow food's passage through your body. During the last part of pregnancy, your uterus may press on your rectum. This may add to the problem.
Some things may help:
- Drink lots of liquids. Include fruit juices, such as prune juice.
- Eat foods high in fiber, such as raw fruits and vegetables and bran cereals.
- Exercise each day-just walking is fine.

Leg Cramps
In the last part of pregnancy, you may have leg cramps. Stretching your legs before going to bed can help ease cramps. Avoid pointing your toes when stretching or exercises. Sometimes it also may be a sign of a need for more calcium in your diet.

Frequent Urination
You will need to urinate often during the first 12-14 weeks of pregnancy. This feeling may go away in the middle of pregnancy. In the last few weeks, you may need to urinate more often again. If you also have urinary pressure or pain, you may have an infection. Contact us right away.

Hemorrhoids
Very often, pregnant women who are constipated also have hemorrhoids. Hemorrhoids are varicose (or swollen) veins in the rectum. They are often painful. Straining during bowel movements and having very hard stools may make hemorrhoids worse. Some products for treating pain from hemorrhoids (and the tips about constipation) may help.

Inability to Sleep
After the first few months, you may find it hard to sleep. This often happens in the last weeks of pregnancy. Your abdomen is large, and it is hard to get comfortable.
To get the rest you need:
- Take a warm bath at bedtime.
- Try the tips to relax that you learned in childbirth classes.
- Lie on your side with a pillow under your abdomen and another between your legs.
- Rest for short breaks during the day.

Indigestion
Indigestion is also called "heartburn," but it does not mean anything is wrong with your heart. It is a burning feeling in the stomach that seems to rise up into the throat.
Changes that take place in your body during pregnancy may make indigestion worse. Changes in your hormone levels slow digestion and relax the muscle that keeps the digested food and acids in your stomach. Also, your growing uterus presses up on your stomach. For relief:
- Eat five or six small meals a day instead of three large ones.
- Avoid foods that you know cause gas.
- Sit up while eating.
- Wait an hour after eating before lying down. Do not eat before going to bed.
- Wait 2 hours after eating before exercising.
- Do not take any medicines, including antacids and baking soda, unless you first check with your doctor.

Lower Abdominal Pain
As the uterus grows, the muscles that support it are pulled and stretched. You may feel this as sharp pains or a dull ache in your abdomen. This is also called "round ligament pain" and is made worse by increased general physical activity. Resting and changing your position seem to help the most. The pains are most often felt between 18-24 weeks and are

usually considered normal.

Nausea and Vomiting

Nausea and vomiting are common during the first 12-14 weeks of pregnancy, but sometimes happen throughout pregnancy. This is called "morning sickness," but it can occur any time during the day. It is common when the stomach is empty. Here are some tips to make you feel more comfortable:

- Eat dry toast or crackers before getting out of bed in the morning.
- Get up slowly and sit on the side of the bed for a few minutes.
- Eat five or six small meals each day. Try not to let your stomach get completely empty.
- Avoid unpleasant smells.
- Contact your doctor if nausea or vomiting is severe. Always check with us before taking any medicines.

Numbness and Tingling

As the uterus grows, it rests on some of your nerves. This may cause numbness or tingling in the legs, toes, and sometimes the arms. It is usually not serious. It will go away after the baby is born.

Skin Changes

The hormones in your body often cause some normal changes on your skin. Some women have brownish, uneven marks around their eyes and over the nose and cheeks. This is called chloasma. These marks usually disappear or fade after delivery, when hormone levels go back to normal. Being in the sun tends to make the marks darker.

In many women, a line running from the top to the bottom of the abdomen becomes dark. This is called the "linea nigra." In others, streaks or stretch marks may appear on the abdomen and breasts as they grow. This is caused by the skin tissue stretching to support the growing fetus. There is no way to prevent stretch marks, but applying a good moisturizing cream can be helpful. These marks will slowly fade after the pregnancy is over.

Swelling

Some swelling (called edema) is normal in pregnancy. It happens most often in the legs and usually in the last few months. It may happen more often in the summer. Swollen hands and face may mean there is a problem. Let us know if there is unusual swelling in your hands and face. You can help reduce the swelling in your legs if you:

- Put your legs up when you can.
- Rest in bed on your side. Your left side is best.
- Limit salty foods.
- Drink a lot of fluids.
- Wear support pantyhose or stockings.

Never take medicines (fluid pills) for the swelling unless your doctor has prescribed them.

Tiredness

You may often feel tired during pregnancy-especially in the beginning and at the end. If you get enough exercise and rest (including naps) and eat a healthy diet, you are likely to feel better. Some people also tell us that taking prenatal vitamins helps.

Varicose Veins

Varicose veins are swollen veins. They appear most often in the legs but can appear near the vulva and vagina. They are caused by pressure from your uterus on your veins. They often occur if you must stand or sit for a long time. They are usually not serious. They can be uncomfortable, though. You may have aching, sore legs. For some relief:

- Put your legs up when you can.
- Lie down with your legs raised.
- Try not to stand for a long time.
- Do not wear anything that binds your legs, such as tight bands around stockings or socks.
- Try wearing support stockings, or your doctor can r ecommend special stockings.
- If you must sit a lot on the job, stand up and move around from time to time.

Minor Ailments

There are various minor ailments which can be irritating and uncomfortable to the pregnant woman. Usually these problems are minor and are not harmful to your pregnancy. They are listed below with the recommended medication to be used. These medications are also safe for those who are breastfeeding after pregnancy. Try to avoid these medications during the first trimester of pregnancy, until you are in your fourth month, if possible. If you are not sure, call and ask us about it.

For this problem, it's safe to take:
allergic reaction, insect stings - Benadryl
backache - Tylenol
constipation - Colace, MOM
cough - Robitussin PE
diarrhea - Kaopectate
fever - Tylenol
headache - Tylenol
heartburn - Maalox, Mylanta, or Tums
hemorrhoids - Preparation H, Anusol
minor ankle swelling - Bedrest, elevation of legs
minor cuts, sunburn - First aid spray
minor urinary discomfort - Drink a lot of cranberry juice
runny nose, congestion- Sudafed or Afrin nasal spray
sore throat - Cepacol lozenges or spray, Tylenol

Please do not take other over-the-counter medications without first consulting our office. Note: pregnancy causes constipation, and Iron (an ingredient of prenatal vitamins) causes both constipation and dark stools. Drink plenty of water and eat fruits, salads, and vegetables to help regulate bowel habits. No vaginal medications at the very end of pregnancy or if you start to dilate or have bleeding.

Chapter 5. Special Care Pregnancies

Most pregnant women have normal pregnancies. Sometimes, though, a problem may come up that needs special care. If you start prenatal care early and visit us regularly, many of these problems can be prevented or easily treated. Always be sure to tell us about any changes that you have questions about.

Anemia

When you are anemic (have a low blood count), you often feel very tired. The most common cause of anemia is not getting enough iron in your diet. Women who are anemic in pregnancy are less able to cope with bleeding, infections, and other problems that may occur at the time of birth. The fetus may suffer because less oxygen is passed to the placenta. A change in diet or taking iron pills may be needed. Red meat, dried beans and peas, enriched cereals, and prune juice are some foods rich in iron.

Gestational Diabetes

Diabetes occurs when there is a problem with the way the body makes or uses insulin. Insulin is a hormone that helps the body use sugar, the body's main source of fuel. Women with diabetes have too much sugar in their blood.

Some women first have diabetes while they are pregnant. This is called gestational diabetes. It can occur without symptoms. Usually, it goes away after delivery. Women who have gestational diabetes have a higher risk of having diabetes again later in life. We will test you for diabetes during your pregnancy at about the seventh month.

Some women with diabetes have to take insulin. Others are able to control it with a special diet. If you are overweight, weight loss toward your ideal body weight after pregnancy may decrease your chance of having diabetes later in life.

High Blood Pressure

High blood pressure can occur for the first time during pregnancy. The cause is unknown. If it is not treated, it can be very serious. Many women do not have symptoms. Others, though, may have some or all of these signs:

- Headaches
- Swelling, especially of the hands and face
- Dizziness
- Blurred vision or spots in front of the eyes
- Sudden or uneven weight gain
- Stomach pain
- Protein in the urine

Treatment may range from bed rest at home to special care in the hospital. Sometimes the baby will need to be delivered early.

Infections

While you are pregnant, you can still get illnesses such as colds, upset stomach, flu, bladder infections, and sexually transmitted diseases (STDs). Do not try to treat yourself or take over-the-counter medicines without discussing your symptoms with us.

Most common viral infections, such as those that cause colds, have no effect on the fetus. Others can cause serious problems if you first get them during pregnancy. Rubella (German measles) can cause birth defects. Hepatitis can cause miscarriage, stillbirth, and preterm labor.

Multiple Pregnancy

When there is more than one fetus in the uterus, this is a multiple pregnancy. Most women who have multiple pregnancy have twins. Twins occur naturally about once in every 90 births.

In multiple pregnancy, the normal discomforts of pregnancy are worse because the uterus is much larger. High blood pressure and anemia are more likely. Preterm labor is the greatest risk. If twins share the same placenta, there is slightly greater risk of problems.

Preterm Labor

Labor that starts before 37 weeks of pregnancy is preterm. It is not known why some women go into labor early. If the fetus is not fully grown, its best chance for doing well is inside the woman's uterus. In this case, every effort will be made to stop labor. We may try a number of treatments-bed rest, intravenous (given by vein) fluids, or special medications that help to relax the uterine muscle. However, treatment does not always work. It is more successful if it is started early in labor.

Signs of Preterm Labor

Sometimes the signs that preterm labor might be starting are fairly easy to see. Other times, the signs are mild and harder to find. Call us right away if you have any of these signs:

- Vaginal discharge-change in type (watery, mucous, or bloody), or increase in amount.
- Pelvic or lower abdominal pressure.
- Low, dull backache.
- Abdominal cramps, with or without diarrhea
- Regular contractions or uterine tightening.

Chapter 6. Calls To Office Or Answering Service

PLEASE CALL during office hours for routine questions, and call nights and weekends for emergencies only, such as heavy bleeding, ruptured membranes, labor, miscarriage, severe pain, high fever, etc. If you call after office hours, call the usual number, 301-528-8444, and press "0" to reach our answering service. Give them your name and phone number, and they will contact the doctor who is on call that night. We will then call you back within 15 to 30 minutes. If your telephone call has not been returned within a reasonable amount of time, call the answering service again and alert them. State your telephone number clearly.

In the last months of pregnancy call the office or answering service if:

- This is your first baby and contractions are coming regularly every 4 to 5 minutes, lasting at least 30 seconds, are of good quality, and getting gradually stronger for 2 hours. If this is your second, third, or more baby call when contractions are coming regularly, lasting 30 seconds, are of good quality, and are as often as 10 minutes apart.

- There is any leakage of fluid from the bag of waters, whether large or small in amount.

- There is any bleeding which is similar in amount to a regular menstrual period. Do not call just for passage of the bloody mucus plug.

- There is any severe, constant pain in the abdomen.

- You have had a previous cesarean birth, call immediately if you think you are beginning labor.

- You have a fever over 101 degrees.

- You have become swollen or have a headache that does not get better.

- There is a significant decrease in fetal activity.

If you suspect that labor is starting, do not eat or drink anything. If you are instructed to go to the hospital, take your personal belongings with you.

Chapter 7. Normal Labor

Waiting for the birth of your child is an exciting but uncomfortable and anxious time. Most women give birth between 37 and 42 weeks of pregnancy. About 5% are earlier than this (premature labor), and about 5% are later (postterm). There is no way to know exactly when you'll go into labor.

There are quite a few things to think about and to plan before it is time to make the decision to go to the hospital. You don't want to be too far away from the hospital when labor begins, and you need someone available to take you there at any hour of the day or night. Bad weather or traffic may make the trip longer. There may be other children at home for which special arrangements must be made. You also need a suitcase for the hospital. It is often a good idea to pack one ahead of time. It should contain a comfortable gown and robe, slippers, several pairs of socks, hair brush, toothbrush and toothpaste, glasses, ties or barrettes for long hair, watch, pad and pen, change for vending machines, phone numbers of people whom you want to call after the birth, and clothes for both you and the baby to go home in.

The Beginning of Labor

It is not certain exactly what causes labor to begin. Most women can tell when they are in labor. Labor begins when the cervix begins to open, or dilate. The uterus, which is a muscle, contracts at regular intervals, causing the abdomen to become hard. Between contractions the uterus relaxes. Certain changes take place which can signal that it is the approach of labor, such as a passing of bloody mucus, increased pain, frequency, or duration of contractions, or even a leakage of fluid.

You may experience periods of "false" labor in the form of irregular contractions. These irregular contractions are called Braxton-Hicks contractions, and can be quite uncomfortable. They usually occur in the afternoon or evening, or when you are tired.

There are ways to distinguish between true and false labor. One good way is to time the contractions. Time how long it is from the start of one contraction to the start of the next one. Keep a record for an hour.

During true labor:

•The contractions last about 30-70 seconds.

•They occur at regular intervals (usually about 5 minutes apart or less)

•They don't go away when you move around.

•Walking usually makes them gradually stronger and more painful.

There are other signs that should lead you to call us and to think about going to the hospital:

•Your membranes rupture (your "water" breaks), even if you are not in labor.

•You are bleeding from the vagina (more than the normal "bloody show")

•You have constant severe pain with no relief between contractions.

•The contractions are severely painful.

You can be ready for labor when it occurs by knowing what to look for and what to expect. By being prepared you can know when the time has come and focus your mind on the birth of your baby.

Admission

Once it appears that you are in labor, call us. Please call us before you leave for the hospital. We will send you to the Labor and Delivery Suite at Shady Grove Hospital for evaluation. There you will have a pelvic exam in order to check whether you are in labor and will be staying for delivery. You also are placed on the fetal monitor to make check that the baby is doing well and there are not any unexpected problems. Sometimes it is not clear whether you are really in labor, and there may be a period of observation before a decision is made.

Once the decision is made to stay, there will be some paperwork to do, and the nurse will have questions to ask you about your pregnancy and any medical problems which you may have had. The person from the lab comes to draw your blood, and you are taken to the room where delivery will eventually be done. Here delivery is accomplished in the LDR (Labor, Delivery, Recovery) Room. This allows the woman to have her entire labor, delivery, and recovery all in the same comfortable room, rather than moving from one place to another. After the admission has been done, and you have been on the fetal monitor for about 20 to 30 minutes, you may be encouraged to get up and walk around to help your progress in labor. Sometimes it feels good to get up

and stretch your legs, and also gravity can aid in descent of the fetus further into the birth canal. If your labor is active, however, it may not be feasible or desirable to be up and about.

The Support Person's Role

Many fathers want to be an active partner in the birth of their child. The father can be involved during childbirth preparation, during labor, and after the delivery by assuming an active role in caring for you and the baby. Caring can take many forms, and you can decide with the father what is best in this family-centered approach to childbirth. The support person does not have to be the father. Any close relative or friend can be a big help.

Fetal Monitoring

Fetal heart rate monitoring is used to check on the condition of a fetus in the mother's uterus during labor. Certain changes in the heart rate of the fetus can signal a problem, so every woman receives some form of close monitoring while she is in labor.

Better knowledge about what happens to the fetus during labor, along with improvements in equipment, has allowed more accurate analysis of the results of fetal monitoring. Fetal monitoring cannot prevent a problem from occurring, and it is not an exact science, but it can help us be alert to warning signs.

Fetal monitoring, either external or internal, is used for almost every patient. Both methods are safe for you and your baby. External monitoring requires that two belts be placed around the mother's abdomen to hold two small instruments in place which record the fetal heart rate and the mother's contractions. Internal monitoring refers to a very small device (called an electrode) which is attached to the baby's scalp and directly records the fetal heart rate. This requires that the mother's membranes are ruptured. Internal monitoring is a more accurate way to get information about the fetal condition, but is not used usually unless more accurate information about the fetus is needed.

Pain Relief

Each labor is different, and it is impossible for you to know in advance how it will be for you. Some women have long labors, and some are short. Some may be painful, and some not bad at all. Although it is helpful to have an idea of what type of labor and delivery you would like, it is important to keep a flexible attitude if it turns out to be an unusually good or bad experience.

There are several effective, different types of medicines are available for relief of pain during labor. There are two main choices, natural childbirth or epidural anesthesia. Natural childbirth refers to a philosophy of minimizing pain medicine during labor so that the baby will be fully awake at birth. This generally include narcotics given during early labor (that wear off prior to delivery) and local anesthesia for the delivery and repair. This will provide some degree of pain relief, but not near as much as epidural anesthesia. An epidural is administered by an anesthesiologist during the active part of the labor. It is an injection into the epidural space located in your back. It takes approximately 30 minutes to be administered and to take effect. This tends to provide a more complete degree of pain relief, and can aid your progress in labor by helping you to relax, but sometimes can make it more difficult to push out the baby at the end. This is one of the decisions that you will make about your labor and delivery. You may find that your eventual decision to either get an epidural or have natural childbirth may not be made until you see how you are doing well into the labor and delivery experience. Your choice of epidural anesthesia or natural childbirth is respected unless a medical problem arises.

Helping Labor Along

Sometimes we may choose to induce or start labor. This is done when it is decided that it is safer to have the baby soon rather than wait for the spontaneous onset of labor. This can be either because of a problem with the mother or with the fetus. Conditions under which induction of labor may be recommended to you include:

- Rupture of the membranes not followed by labor.
- Postterm pregnancy (beyond 42 weeks).
- Pregnancy-induced hypertension.
- Maternal medical problems such as diabetes.
- Chorioamnionitis (infection of the membrane surrounding the fetus).

There are several ways to induce labor. One of these is breaking the membranes. This is done during a pelvic exam and is usually no more painful than a regular exam.

A small plastic hook is used for this purpose. You may also receive a drug called oxytocin (or Pitocin). This is given by a pump that accurately measures the amount you are given. It is started at a small amount and gradually increased over hours until a good labor pattern is established. As with any drug, there are some risks with oxytocin. Your fetus may not respond well to contractions produced by it. If fetal monitoring shows that your fetus may be having problems, you may be given oxygen to breathe and IV fluids may be administered, and the oxytocin infusion may be slowed or stopped. Some women do not respond well to oxytocin, and their labor cannot be induced. In these situations the decision must be made whether delivery by cesarean birth is advisable.

Sometimes labor may be progressing very slowly, and normal progress is just not made. Here rupture of the membranes or oxytocin can be used to strengthen the contractions and bring about better progress.

Delivery

As a result of the contractions that you have during labor your cervix begins to become more thin (this is called effacement) and dilate. Your progress is measured by the amount of cervical effacement and dilatation. As the cervix becomes thinner it dilates more easily. The cervix is usually thick and 2 to 3 centimeters dilated in early labor. It opens up at about one centimeter per hour then. The intensity of labor increases when you get past 4 centimeters of dilatation. The progress is faster until you reach 10 centimeters, which is considered fully dilated. At this point you begin to push the baby out. You may feel an urge to push, or bear down, or have a bowel movement. Generally you should try not to bear down with each contraction in early labor, and you should try to relax between contractions.

As you get closer to the birth, preparations are being made for it. The nurse will ready a table which has the sterile instruments which we use for the delivery. She will wash you with some soap and water, and the shape of the delivery bed is changed to allow room for the baby to come out. You will be encouraged to push strongly, and people will be there to coach you and give you support. Sometimes your husband (or support person) can help you by supporting one of your legs during the time of pushing and delivery.

We will give you instructions and help in the best technique for pushing. This part may be long and require much of your effort. You will see why it is called "labor." The baby will be born, some mucus is aspirated from its mouth and nose, and it is usually placed on your abdomen while the umbilical cord is clamped and cut. The baby's father can help in cutting the baby's cord if this is desired. Pictures or video may be taken if you like. In some cases the baby is given to the pediatrician for further evaluation and treatment. When the fetal head begins to emerge in most cases, depending on how much room is available, an episiotomy may be made. This may be done to help the fetal head emerge with as little trauma as possible to your perineum. It results is a straight cut directed downward, which is usually easier to repair and leads to a less painful recovery. If there is ample room and the tissues appear to be stretching rather than tearing an episiotomy may not be needed. This is more often the case if it is your second or third delivery. Sometimes we make this decision right at the moment of birth. After the delivery the placenta (afterbirth) comes out, and then a repair is done with the placement of stitches, using either local or epidural anesthesia. You may breast feed immediately in the delivery room. You stay in the same LDR room for recovery, and then will go to your room on the post-partum floor after observation for an hour or two.

Siblings are allowed to visit with you on the post-partum floor at Shady Grove Adventist Hospital. Visiting hours are between 7:00 p.m. to 8:00 p.m. for friends. Family may visit any time between 11:00 a.m. and 6:30 p.m. Husbands are welcome at any time.

Cesarean birth

If for some reason it may not be safe for the baby to be delivered through the vagina, a cesarean birth may be needed. This can be planned in advance, or it may be needed because of problems that arise unexpectedly. There are a variety of reasons why it might be chosen as the safest way to deliver a baby:

- Cephalopelvic disproportion, or CPD, in which the baby is too big to pass safely through the mother's pelvis.
- Breech presentation in which a baby has its head up instead of in the normal position.
- Fetal distress, a warning that the baby is having difficulty during labor, possibly due to a compression of the

umbilical cord.
•Heavy bleeding due to a problem with either the location or attachment of the placenta. This is called placenta previa or placental abruption, respectively.
•Sometimes a repeat cesarean is done if the mother has had one or more previous cesareans for problems which are still present.

If in your case a cesarean is considered, we will discuss this reasons and alternatives with you so that you can be involved in the decision making process. Feel free to ask us questions.

Before a cesarean birth is performed preparations will be made for it. You will talk with the anesthesiologist, a doctor who will help choose the best type of anesthesia for the birth, and explain to you how it is done. In most cases the choice is epidural anesthesia, which allows you to be awake and see the baby as soon as it is born, but not be having pain. An intravenous is started and you are taken into the delivery room. Your partner is usually allowed to be with you the whole time. The anesthesia is given, and takes effect. Then usually a transverse or "bikini" type incision is made in your lower abdomen. Different layers are cut until the uterus is entered and then the baby is born after only several minutes. Following delivery of the baby, the incisions are closed with sutures and the procedure is concluded. The entire operation is over in about 45 minutes. You and your baby are taken to the recovery room and observed for a while, and then you go to your room on the postpartum floor.

Because cesarean birth is a surgical procedure, it can involve certain risks:
•Infection of the uterus and nearby pelvic organs.
•Increased blood loss, sometimes enough to require a blood transfusion.
•Blood clots in the legs, pelvic organs, and sometimes the lungs.
•Decreased bowel function.
•Longer recovery time and hospital stay.

Vaginal Birth After Cesarean Delivery

At one time it was thought that once a woman had a cesarean birth, she would always have one in future pregnancies. Today we encourage women who have had cesarean births to attempt to give birth through the vagina. There are several advantages of a vaginal birth, including less risk to the mother, less time spent in the hospital, shorter recovery time at home, and being more involved in the birth process.

The main question which has to be answered here is how likely is a vaginal birth after cesarean to be successful. The chance of success largely depends on what the reason was for the first cesarean. If it is a temporary condition, such as a breech presentation, this is not likely to be present with the next pregnancy. If, however, it is due to the shape of the mother's pelvis, this is not likely to be any better the next time around.

Group B Strep (GBS) in Pregnancy
Recently more attention has been paid to type of bacteria that may be present during pregnancy which in rare circumstances causes the baby to become ill within hours after birth. About 15-30 % of women can have a bacteria known as group B streptococcus, or GBS, present in their reproductive tract. This bacteria is usually found in the cervix, vagina, rectum, or in urine and may be present in the mother without causing any symptoms of infection at all. In certain situations the germ is more likely to be present. These increased-risk situations include premature labor, premature rupture of the membranes, prolonged rupture of the membranes, fever during labor, previous affected child, or GBS urinary tract infection during pregnancy.
While the strep organism is present frequently in pregnant women, for some unknown reason about one child in a thousand becomes seriously ill after birth, requiring intensive treatment. Our policy to help prevent these rare infections is to identify anyone in labor who has an increased risk of having a group B strep infection, and recommend treatment with an antibiotic (usually a type of penicillin) to stop passage of the germ to a susceptible fetus during the birth process. If you are in labor and have one of the risk factors mentioned above we will inform you about it and recommend this treatment. The treatment is safe, and could help prevent this potential problem. Please feel free to ask us any questions about this subject.

Breastfeeding

Breastfeeding is the best way to feed newborns. It protects them, too. Mother's milk helps the baby resist disease and allergies. Breastfeeding is also more convenient and cheaper than bottle-feeding. It can help form a bond between mother and baby. Don't be upset if nursing is not easy right away. Both you and the baby need to get comfortable. If the baby calms down after nursing, makes urine, and is growing, he or she is getting enough milk.

Breastfeeding may not be for all women. Many factors are involved in each woman's decision: life style, desire, attitude, time, and support. Even breastfeeding only for a few weeks has health benefits for the baby.

Circumcision

One of the first decisions that you will make as a parent is whether or not to have your baby circumcised. The penis has a small amount of excess tissue at its end, known as the foreskin. It is customary to remove it or not, depending on several different factors. One such factor is whether or not the baby's father is circumcised, as it may be desireable for both to look the same. Also we consider a person's cultural upbringing. Here in the United States about 80% of male children are circumcised at birth, but this is different in cultures of South America, Japan, China, and India, to name a few. Finally, there is evidence that males who are circumcised have some hygiene benefits. Studies have shown that male circumcised children have a smaller chance of getting urinary tract infections, and it is suspected that circumcised men have a lower incidence of cancer of the penis and their spouse has a lower incidence of cancer of the cervix. These reasons lead us to recommend the procedure to you, but it is your decision to make.

If you decide to have your baby circumcised, it is usually done early in the second morning following delivery, as long as the baby has been cleared for the procedure by the pediatrician. The procedure takes only a few minutes to do and the baby tolerates it very well. He will be more irritable for about a day, but by the following day the site of surgery is almost completely back to normal. The procedure is safe and effective. Complications are rare. Aftercare of the circumcised penis involves placing petrolatum jelly on the glans of the penis for 2-3 days to help protect it while it is healing. If you see any signs of infection such as pus (this is rare), Neosporin ointment should be applied to it, and we should be notified for any unexpected problem.

If you are Jewish, then you may want to arrange for a ritual circumcision known as a Berit Milah. This is a religious ceremony performed by a person trained in the surgical technique as well as the proper blessings to say according to the Jewish faith. Mark Seigel, M.D. has received extra training and is certified to perform the rite of religious circumcision He is available to perform the service as a Mohel.

Car Safety Seats

Plan to bring your baby home from the hospital in a special safety seat. Child safety seats and belts decrease the chances of an injury in a car accident by over 80%. Because of this, these seats are required by law. Check with your doctor, hospital, car dealer, or local baby stores about buying or renting one before you go into the hospital. Be sure the seat is approved for use by newborns.

EARLY DISCHARGE

It is now customary that you will be allowed two days for a normal delivery and two to four days for a cesarean birth. We will be seeing you every day after delivery and if you feel up to going home early, just let us know.

To make your recovery more successful, it is best to plan for it. Make meals up in advance and freeze them. At your shower, when you have friends offer to help you with the baby, take them up on it! Arrange ahead of time to have someone be with you at home. This may be your parents or relatives, a good neighbor, or your husband. Many employers are now allowing “paternity leave” for spouses so that they can share the work of taking care of a new baby. It is good to have someone help with preparing meals, doing laundry, going shopping, or perhaps just taking your other child(ren) to the park so that you can rest. Get additional help at home. You will need it.

You should expect that your convalescence will be continuing at home. You will not be able to just jump in and resume all of your previous activities. Taking the time in advance to plan for your recovery will be well worth it.

Chapter 8. Postpartum Care

The following instructions are intended to make the weeks after your delivery more comfortable, help your body return to normal function more quickly, and give you guides to help you get over some of the common problems which arise:

1. Avoid lifting anything heavier than 25 pounds for 2 weeks. When lifting, do not bend from the waist. Bend from the knees and squat. Do not lift anything heavier than your baby for 2 weeks if you have had a cesarean birth.

2. It is safe to go up stairs with help when first arriving home from the hospital. During the first week you may go up and down stairs several times during the day. After the first week there is no limit, but avoid getting short of breath. Backache and increased bleeding may follow too much activity. Lie down and rest.

3. Do not drive an automobile for 10 days after delivery, or 2 to 4 weeks if you had a cesarean. This is because of the tendency to have episodes of dizziness that could occur while driving. Wear a seat belt.

4. Rest for 2 hours in the morning and afternoon during the first week at home. Rest for 1 hour in the morning and afternoon for the following four weeks. Try to get sleep at night or make up for it with naps the next day.

5. You are allowed to wash your hair and take showers if bleeding is not excessive. If there is any stitch discomfort a warm tub bath or sitz bath is soothing. (This is for patients with an episiotomy, not cesarean patients. Patients with a cesarean birth should not take tub baths for two weeks.)

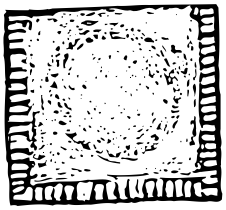
6. Do this exercise to help strengthen your abdominal muscles during the six weeks immediately following delivery: Lying on a firm padded surface, and with your legs straight, raise both legs slowly until the heels are 4 inches off the surface. At the same time bring your head forward until your chin touches your chest. Start by doing this exercise 4 times each a.m. and p.m. (You may wish to delay this by 10 days if you had a cesarean.) Other exercises can be gradually resumed as you feel up to it.

7. Call to make an appointment for a routine 6 week postpartum examination.

8. The prenatal vitamin mineral supplement should be taken for six weeks after you get home, and be continued for as long as you are breast feeding. Call us if you need a refill or new prescription.

9. It is advisable to wear a snug, but not too tight, bra day and night until the breasts have returned to normal. This may vary from 10 days to 3 weeks. It is advisable to continue wearing the bra as long as you nurse. Report any red or sore areas to us. If you are not nursing, you may notice fullness or swelling of the breasts several days after delivery. Do not try to empty the breasts. Some discharge from the nipple is common and may persist for 2 to 4 weeks.

10. Intercourse should not be resumed until after the bloody discharge has subsided and birth control is used. Usually this is after 4 to 6 weeks.



11. Laxatives may be taken as needed. Recommended laxatives are Milk of Magnesia, one or two tablespoons, or Senokat tablets, one or two at bedtime. Drinking large amounts of water (up to 3 quarts a day) is also beneficial in correcting constipation. Prune juice may also be helpful. If you still continue to be constipated you may temporarily discontinue your vitamins, for the iron that is in them may contribute to your constipation.

12. The tendency to have swelling of the ankles and fingers may be noticed. This will subside with time and rest, and may vary and can be controlled by reducing your salt intake and increasing your water intake. Avoid hot weather and do not drink less water.

Chapter 9. Financial Matters

Our basic fee for an uncomplicated vaginal delivery is $5200. This includes all uncomplicated prenatal consul-

tation and care, calls during the day or night, delivery, hospital post-partum visits, and one post-partum office visit. It does not include laboratory work, ultrasound, or additional charges arising because of complications during pregnancy, delivery, or post-partum. The fee for delivery by cesarean section is $6200. Your obstetric fee will appear on your bill after your initial obstetric visit. We request that you keep current on all laboratory charges incurred during the pregnancy. If your insurance is of the IPA or HMO type other special arrangements, co-payments, etc., may apply. If you have any questions please feel free to speak with our business staff. To simplify billing procedures, we ask that you obtain written information from your insurance company about your maternity benefits, and give the appropriate signed insurance forms to us.

Office Locations, Services, and Hours

The Germantown office is located at 19785 Crystal Rock Drive. This is our main office and is utilized for patient visits as well as business matters. Special services are also conducted here including pregnancy non-stress tests, abdominal and vaginal ultrasound, Biophysical profiles, colposcopy, insertion of birth control devices,and minor gynecological surgery. Regular hours are: Monday 9 a.m. to 5 p.m., Tuesday 9 a.m. to 5 p.m., Wednesday 9a.m. to 5 p.m. , Thursday 9 a.m. to 5 p.m., Friday 9 a.m. to 4 p.m. The phone number is 301-528-8444 and the fax is 301-540-3260.

The Rockville office is located at 11,500 Old Georgetown Road, at the intersection of Old Georgetown Road and Tilden Lane. This office is utilized for patient visits. Special services are also conducted here, including abdominal and vaginal ultrasound, non-stress testing, and minor gynecologic surgery. Regular patient hours are: Monday, Tuesday, and Wednesday, 9 a.m. to 5 p.m., and Friday, 9:00 p.m. to 4 p.m.

This office may be called for scheduling appointments at (301) 468-4900, and the fax number is 301-540-3260. Appointments for either office may be scheduled by calling from 9 a.m. to 5 p.m. Monday through Friday. If you need a consultation for a special problem or want an extra long appointment, please notify our receptionist for scheduling. You can also schedule an appointment on-line.
Our answering service phone number is (301) 251-8183.

Frequently Asked Questions

•Can I have a permanent or dye my hair? While this is a relatively safe thing to do, we advise that you avoid it during the first trimester.

•How do I know when labor starts? You should call us if your water breaks, if you are having heavy bleeding, or if you are having strong, regular contractions for at least 1 hour. Also call us if you are concerned something is wrong.

•Who is on call at night? Generally, Drs. Seigel, Gottlieb and Cannon take turns being on call at night and weekends.

•If I do not receive a laboratory test result or radiology report, should I assume it is normal? No. If you want to check on a test result, please ask us about it. Occasionally a test result may be lost, and we may have to call the laboratory or radiology facility to get the result for you.

•When is the best time to arrange for prepared childbirth classes? Usually the arrangements are made in the fourth month and the classes are taken in the seventh month. There is also a free maternity tour available.

•What is the chance of having a cesarean? For the average woman who has not had a cesarean before, the chance of having one is about 15%.

•Will I need an episiotomy? For a woman having the first baby an episiotomy may be done, depending on how much room there is. In the case of the second or third baby it may not be necessary.

•How long will you wait after the due date before inducing labor? It is considered normal to have the baby anywhere from 2 weeks early to 2 weeks late. Provided the baby is doing well, an induction of labor is not done until after 2 weeks late.

•Who does the circumcision? If you would like the baby circumcised we perform this service and will speak to you about it after the delivery. Dr. Seigel is also trained as a Mohel to perform Jewish ritual circumcisions known as Berit Milah or Bris.

•What happens when I arrive in labor early? Sometimes if you are not sure, we will have the nurse check you and call us. You are then admitted and walk about during early labor. We arrive when your labor becomes active.

•Can my husband be present for the whole time? Your husband (or support person) can be present for the whole labor and delivery.

•Can I eat when I am in labor? We advise that you only have ice-chips. The usual tendency is to feel nauseous when in active labor.

•When does my breast milk come in? It helps to nurse the baby right after delivery, but usually your milk doesn't come in until several days later.

•When can I send E-mail? We will be happy to answer any E-mail question as long as it is not regarding a medical emergency. For an urgent matter you should contact our office or answering service.

We hope that this information has been helpful to you. Good luck with your new pregnancy!

Sincerely yours,

Mark Seigel, M.D., F.A.C.O.G.
Emily Gottlieb, D.O.
Bailey Cannon, M.D.

Obstetric Informed Consent

Pregnancy and delivery are exciting and joyful occasions. Most of our patients are healthy and take excellent care of themselves. Even when our patients are at high risk, the end results are a happy and healthy mother and baby. However, even a normal pregnancy and delivery are not without risk. Our doctors have the training and experience to handle problems safely and effectively. We want you to read this form carefully so that you understand some of the limitations of modern medicine and some of the risks associated with pregnancy, labor and delivery.

We strive to make your experience as personal and special as possible. We do it because we enjoy participating in the very emotional and positive experience of birth with a family that we have come to know over 9 months. However, we cannot promise that your favorite doctor will be available 24 hours a day, seven days a week. Like everyone else, we have family commitments, medical issues or need to take time off after long days and nights of being on-call. We also have other responsibilities to our patients and may be busy in surgery or with office duties away from the hospital. Our practice works on a rotating call schedule so you always have a physician rested and ready to care of you in the safest way possible. That's why throughout your pregnancy we encourage you to meet all the doctors in our practice. The following are important points to keep in mind during your pregnancy and delivery:

Genetic testing

1. The field of genetics is changing rapidly. Several private companies (www.Counsyl.com and others), are offering comprehensive testing directly to consumers for over 100 different genetic disorders. Even though national organizations are not recommending universal testing, you should be aware that these tests are available. We encourage you to speak with family members to find out if there is a possibility that your family is at risk for genetic problems. Testing of this nature costs about $350 and is not covered by insurance.

2. Our practice offers testing for several common inherited diseases such as: Cystic Fibrosis, Spinal Muscular Atrophy and Fragile X Syndrome. A simple blood test can determine if you are a carrier for one of these diseases. A negative result significantly lowers, but does not completely eliminate the risk of being a carrier. Tests are not able to detect all the genetic abnormalities that cause a particular disease. If the tests are positive, genetic counseling is recommended to determine the risk to the baby.

3. We offer specific genetic testing for certain ethnic groups even if there is no family history of any disorder. Jewish parents may be tested for Tay Sachs, Canavans Syndrome and others. Parents of African American descent can be tested for Sickle Cell disease and Thalassemia. Parents of Southeast Asian or Mediterranean descent can also be tested for Thalassemia.

4. You can choose to have a test (a combination of blood work and ultrasound) to detect Down's Syndrome, Trisomy 18 (Genetic problems) and Spina Bifida (a spine defect). These tests only report the statistical chances of having a baby with one of these conditions. Some of the "positive" tests are false positives, meaning the baby does not have any of these conditions. Unfortunately, some negative tests are false negatives, meaning the baby has one of the conditions even though the test was negative. If your test is positive, you will have counseling with one of the doctors so you can choose the best course of action.

5. A more accurate way to test for the most common chromosomal anomalies is now available. It determines the risk for Downs Syndrome, Trisomy 18 and Trisomy 13 by looking for and evaluating fetal chromosomes in maternal blood. It only requires a blood sample from the mother and can be ordered as early as 10 weeks gestation. You can get more information about this test at www.harmonytest.com. We offer this test and currently in most cases insurance companies are paying for it.

6. You can also have a more accurate diagnostic test at 16 weeks of pregnancy called an amniocentesis.
This test is invasive and carries a low risk of complications such as bleeding, infection, rupture of the membranes and miscarriage. The risks of a serious complication from the amniocentesis are about 1 in 300. If you choose not to have this procedure, you may still elect to have the First Trimester Screen test described above, which may help you in making a decision. Another option is CVS (Chorionic Villus Sampling) which is an invasive test that can be performed earlier in the pregnancy, but caries a higher risk of complications. We do not perform this test in our office, but can refer you to a local center.

7. If you are 35 years old or over at the time of your due date, your risk for having a baby with genetic problems such as Down's syndrome or Trisomy 18 increase rapidly. An amniocentesis will detect these genetic abnormalities as well as many others. Before you agree to or decline any of these tests, we encourage you to carefully weigh your options and discuss with your family and the doctors their risks, benefits and alternatives.

Routine testing

1. Ultrasound examinations (sonograms) have certain limitations. Not all abnormalities can be diagnosed with an ultrasound. Even

with a good ultrasound machine and well-trained personnel, some abnormalities may be missed. This is due to the position of the baby, the size of the patient, the timing of the ultrasound or other factors. Approximately 3 to 4% of all fetuses have some type of abnormality. Many of these cannot be diagnosed by ultrasound, such as: genetic problems, cerebral palsy, autism, mental retardation, and lung maturity. Some physical conditions may be too small or too difficult to recognize such as heart abnormalities, anatomic defects or limb problems.

2. Testing for sexually transmitted diseases such as Syphilis, Chlamydia, Gonorrhea and HIV is a routine part of prenatal care. The laboratory performing the test is required by law to report positive test results tothe County Health Department, which in turn may notify your sexual partner(s).

During labor and delivery

1. The blood in your newborn's umbilical cord is a rich source of stem cells. For a fee, several private companies offer a way to save the umbilical cord blood so they can be used in the future. Stem cells are used today to treat many diseases including leukemia, other cancers, blood and immune system disorders and some genetic diseases. If you are interested in finding out more about this option, please ask anyone in our office or go to www.viacord.com or www.cordblood.com .

2. Our doctors may offer or recommend a labor induction, which involves admitting you to the hospital to bring about labor using medicines such as Pitocin, Cytotec® or Cervidil®, and possibly rupturing the membranes. Reasons to induce labor include lack of fetal growth, decreased amniotic fluid, decreased fetal activity, high blood pressure, diabetes, or passing your due date.

3. Our doctors may recommend a cesarean section for a variety of reasons. Sometimes the decision is made during labor for reasons that cannot be predicted during pregnancy, such as fetal distress or arrest of labor. Approximately 35% of babies born in the United States are delivered by cesarean section. Like with any major surgery, there are risks associated with having a cesarean section. The most common complications are excessive bleeding, infection, and injury to internal organs. You may have scarring of the skin or a different sensation at the site of the incision but rarely prolonged pain. There may be other complications, and in rare circumstances, damage to a limb or organ, paralysis, cardiac arrest or death.

4. After a Cesarean section, the next pregnancy is at risk for a uterine rupture in labor. The risk is small, but the consequences are very serious, including neurologic damage or death to the baby, severe maternal bleeding and possible hysterectomy to the mother. Vaginal Birth After Cesarean Section can be attempted under carefully controlled circumstances, but there are definite risks involved and so you must consult with your physician if you want to find out if you are a candidate for trying it.

5. A vaginal birth is the safest way to deliver, but also has possible risks to the baby and the mother. The doctor may determine that you need an episiotomy, or you may suffer a vaginal laceration. Most episiotomies and vaginal lacerations are easy to repair and will heal normally. But on rare occasions, they can lead to complications such as: chronic pain, bleeding, infection, formation of a fistula (a connection between either the bladder and the vagina or the rectum and the vagina), painful intercourse, or incontinence of urine or stool. A surgical procedure is needed to repair these problems. Any delivery may require forceps or vacuum assistance. The doctors have extensive experience and training in the use of these instruments and they are generally safe and effective. However, you may suffer a more extensive vaginal laceration, or the baby may have a temporary or permanent injury. Injury may also occur if there is difficulty in delivering the baby's shoulders (shoulder dystocia). This is an infrequent and unpredictable event, but is more likely to occur if the mother has diabetes and/or a large baby. The nerves in the neck that control the arm can be damaged (Erb's Palsy). In most cases this injury resolves spontaneously but some children require physical therapy and surgery.

6. A serious hemorrhage after delivery is rare, but may require a blood transfusion. In rare circumstances you can acquire a disease such as HIV or hepatitis as a result of receiving a blood transfusion. If you would refuse a blood transfusion for any reason, you should discuss in detail these issues with the doctors well in advance of your delivery, and provide written documentation to make sure that your wishes are carried out. In very rare occasions, the hemorrhage cannot be controlled without surgery, and you may require removal of the uterus leaving you unable to have more children.

In most cases, you will have a successful pregnancy even when there are some complications, but diseases such as toxemia or diabetes can occur without warning. In addition, 3-5% of all pregnancies are delivered prematurely. Medical conditions, the age of the mother, twin pregnancies and other factors can increase the risks even more. As a result, nobody can guarantee an uneventful pregnancy and a good outcome even though the doctors cared for you properly and you cared for yourself properly. We encourage you to discuss any of these issues with us at any of your visits.
You can find out more about these topics in many books such as 'What to expect when you are expecting' as well as our web site (www.markseigel.com or www.RockvilleObGynDoctor.com). We also have free brochures regarding these issues.

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