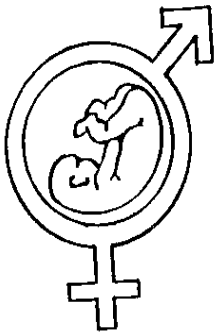

MATERNITY MANUAL

ROBERTA L. KRUEGER, M.D.
OBSTETRICS AND GYNECOLOGY
7922 EWING HALSELL SUITE 310
SAN ANTONIO, TEXAS 78229

[210] 692-9230
www.KruegerMD.com
www.CervixWithASmile.com

MATERNITY MANUAL

Compliments

of

Roberta L. Krueger, M.D.
Family Oriented Obstetrics & Gynecology
San Antonio, Texas
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Dear Expectant Parents:

Every birth is a special and unique event. I am delighted to be able to share this special time with you. This important handout will answer many of your questions about me, my office, and the hospital. Since we feel that knowledge and preparation are essential to your understanding and enjoyment of your pregnancy, please feel free at any time to ask questions concerning the topics contained in this booklet or related to other medical problems. I encourage you to take an active role in learning about your health and pregnancy; as the ultimate responsibility of your health lies with you.

OUR OFFICE

APPOINTMENTS

Your prenatal appointments will be arranged approximately every four weeks during the first seven months, ever other week from 30-36 weeks, and then weekly until you deliver. You are urged to keep your appointments. It is an established fact that good prenatal care contributes to the health of the mother and infant. If for any reason you cannot keep an appointment, we ask you to contact our office as soon as possible so that we may utilize that time for someone else.

MY STAFF

Both myself and my staff are dedicated to serving your health needs. Our office works together as a team. We emphasize self-responsibility for health care. During your visits, you will get to know us. We are here to help you.

When you arrive for your appointment, let the receptionist know you are here. She will also make your appointments for return visits. We try to schedule OB appointments together; however, if you need special consideration, please let us know.

My nurse has a great deal of OB and GYN experience. She will return phone calls, inform you of lab results, and take some of your initial history.

We will contact you insurance company and make arrangements with you for payments. Any concerns to deal with this will be directed to our office manager.

FEES

This is best handled on a pay-as-you-go basis. We will assist you in working out steady payments so as to have the full amount paid by the seventh month of pregnancy. With a Cesarean Section delivery, a longer hospital stay is required and additional physician support is needed (anesthesiologist, surgical assistant), and they will submit their own bills to you.

Insurance companies routinely process claims and reimburse the patient after the delivery, so we will submit the claims at that time. If you should leave our care before delivery, you will be charged only for your office visit, lab fees, and any other service performed. Any overpayment will be refunded.

Our fee includes complete medical history and physical examination, complete care during office hours during pregnancy, routine urinalysis at each office visit, and complete care of the mother at the time of delivery.

Our fee does not include medications, cultures, or treatments for non-pregnancy related injuries or illnesses, after hour office visits, emergency room visits, hospitalizations for surgery or other illnesses, hospital charges (you will receive a separate bill from the hospital), newborn care, circumcision of male infant, three-hour glucose tolerance test (this test is ordered if the diabetes screening test is abnormal), sonograms, non-stress tests, sterilization surgery, visits to other physicians for medical problems that occur during pregnancy.

GENERAL INFORMATION

Our office hours are 8:30 a.m. to 5:00 p.m., Monday through Friday. Please try to telephone during normal business hours as your chart is available and we are better able to help you. This pertains to non-emergency problems, appointments, and prescriptions. For prescriptions please make sure you have a correct pharmacy phone number available.

IN AN EMERGENCY

During office hours, please call the office, state that the problem is urgent, and you will be instructed as to what to do.

After office hours call 210-692-9230
You will hear a recorded message giving you the choice to talk with an operator immediately or to call back during regular office hours. Briefly state the problem to the operator and they will forward your call. Please keep your telephone line free until the doctor calls you back.

My home phone is now listed as anonymous, therefore to get a call back press *87 to unblock anonymous calls, or leave a cell number so that I am able to return your call.

PHYSICIAN COVERAGE

As a parent myself, I schedule time to spend with my family. I rotate calls with other OB/GYN physicians.. The doctor on call specializes in OB/GYN. They are very capable of taking care of you if I am not available. Importantly, we share many of the same ideas about patient care.

TESTING

FIRST VISIT-- Pap smear, Routine Prenatal Lab, (Complete Blood Count, Urinalysis, Blood Type, Syphilis Test, HIV and Hepatitis screening) An optional genetic test for cystic fibrosis will be offered to you, you only need to be tested once in your life time for this. This is performed by drawing maternal blood.

11-13 WEEKS

15-20 WEEKS-- **The Integrated Test ,** risk assessment for Down Syndrome, open neural tube defect and trisomy 18. This test is performed in two stages. The first is an ultrasound, done by a specialist, between 11 weeks and 13 6/7 weeks. This also includes a blood test. The second is a blood test looking at 4 markers, the quad screen. This test now takes the place of an amniocentesis for many of my patients over 35. A few couples still choose an amniocentesis. The above test is the next most accurate. In assessing risk it is around 86 to 95% accurate. As of January 2007, the American College of OB/GYN recommends this test be offered to all patients not just those 35 and over.

16-18 WEEKS-- Maternal Screen 4, or Quadruple Screen (optional test). This is a screening, not a diagnostic test, which helps us identify if your baby may have a neural tube defect, Down Syndrome or trisonomy 18. If the test reads positive it means further testing is needed. There are false positive tests and false negative tests. An extensive handout will be provided to read close to this visit so you can decide if you want this test. I will also be going over the option with you during your visits. About 1/30 white people carry this gene. I will give you a thorough handout to read at your visit.

20-22 WEEKS-- Sonogram if desired or indicated. At this time, you can see all the baby's vital organs and get good dating on the pregnancy.

26-28 WEEKS-- Diabetes Test, repeat Complete Blood Count

36-40 WEEKS-- Non-stress test or biophysical profile if indicated.
Vaginal Culture for Group B Strep. Begin self-monitoring of the baby with kick count chart given to you at your visit.

ADVICE FOR THE PREGNANT WOMAN

NUTRITION AND WEIGHT GAIN

A balanced diet is essential during the prenatal period. The proper diet for a pregnant woman does not differ radically from that for a normal, healthy non-pregnant woman. Restrictions on the amount of salt may be suggested by your doctor. Digestion during pregnancy is often slowed. Some women's appetites increase markedly during pregnancy, resulting in excessive weight gain.

Excessive salt intake often results in the accumulation of fluid in the tissue, which is known as edema. During the last four months of pregnancy, it is often desirable for patients to use less salt. The normal

requirements for salt in the diet will still be met, since all foods contain some of the necessary elements. Patients who gain excessive weight and retain fluid are prone to develop more complications during pregnancy than those who are more conscientious about their diets. All patients should increase their water intake during pregnancy, up to eight to ten glasses of water a day. This is especially important in San Antonio. Adequate water intake will decrease your risk for urinary tract infections and preterm labor.

I will be giving you a prescription for prenatal vitamins. We give you samples of vitamins in your new OB pack. Decide which brand best suits you then call and have our office call your prescription to the pharmacy or ask for a prescription at your second visit. You will need to take (1) a day and continue these if you decide to breastfeed.

CHILDBIRTH CLASSES

Most couples benefit greatly from childbirth preparation classes. These classes cover information on prenatal care, nutrition, labor and delivery, anesthesia, and newborn care. Tours of the hospital are sometimes included; however, if you would like to tour the hospital this can be arranged separately from classes. Southwest Texas Methodist Hospital provides classes to women delivering at their hospitals. If you sign up for the Women's Plus card with Methodist you also will obtain free parking.

SPOTTING IN EARLY PREGNANCY AND MISCARRIAGE

It is known that one out of every five to eight pregnancies will end in miscarriage, and that many women who have a late menstrual period and then experience a heavy flow many have had a very early miscarriage. Miscarriage is a very common event in human pregnancies. Spotting in early pregnancy occurs in at least one out of every five women. This may be related to normal changes within the uterus or maybe a threatened miscarriage. When spotting occurs, we suggest that you avoid intercourse or the use of tampons. Bleeding as heavy as the heaviest day of a menstrual period or bleeding with severe cramping maybe signs of miscarriage. No treatment is available for this. In the majority of women in whom spontaneous abortion (miscarriage) occurs, it is the result of some problem in development of early pregnancy which cannot be corrected. Spotting alone is not necessarily a sign that miscarriage will happen, but should be treated as a potential warning. When you have spotting, avoid allowing anything to enter the vagina and rest (although other changes in your activity are not required). If heavy bleeding or severe cramping occurs, or you notice the passage of tissue with the bleeding, please save any tissue and consult with me immediately.

READING MATERIAL

In order to learn more about your health, pregnancy, and eventually, your newborn, I encourage you to ask questions, read the enclosed material, and attend childbirth classes.

Some of you may want additional reading. The following is a list of some books you may find helpful:

1. What to Expect when You Are Expecting by Eisenberg, Murkoff, and Hathaway. This book gives a month-by-month explanation about what new things are happening to you and your baby. This book leaves a little to the 'a la natural'.
2. The Complete Book of Breastfeeding by Eiger and Wendkos-Olds. This is a Comprehensive book on breastfeeding, covering diet and nutrition, exercise and fitness, sexuality and breastfeeding while working.
3. The Year of Birth: A Practical Guide for Expectant Parents by Brown. This book is a month-by-month guide to pregnancy. It answers concerns of mothers and fathers to be with illustrations and charts.

4. Dr. Mom by Niefart. This is a practical down-to-earth approach to medical situations with children. It is my favorite. The author gives good breastfeeding tips.

5. Planning For Pregnancy, Birth, and Beyond. This book is put out by The American College of Obstetricians and Gynecologists and is a comprehensive guide. This is available for purchase in our office.

THE DUE DATE AND QUICKENING

The due date, or EDC (expected date of confinement) is an approximation of the end of pregnancy. This date is calculated by counting 40 weeks, or 280 days, from the first day of the last menstrual period. This date is only an approximation and not a date when the patient should definitely expect delivery. Your physician can estimate the probable EDC on the basis of the last menstrual period, the size of the uterus and its growth, ultrasound examinations, when the fetal heart tones are first heard, and when the patient feels the first definite kicking of the baby. This active movement of the fetus is called quickening and usually occurs between the 18^{th} and 20^{th} week. Please report the date you feel movement for the first time at your next office visit. This movement is not to be confused with the fluttering sensations in the lower abdomen which some patients experience as early as the second month of pregnancy.

A HEALTHY LIFE STYLE

Many of the choices you make in your daily life affect your fetus. This is true of the things you do-exercise, rest, and work-as well as the things you don't do-drink, smoke or abuse drugs. Some women may need to change their life style during pregnancy. This change may not be easy, but your doctor and the health care team can give you information and support. Even better is the daily support of your family and friends-especially your partner. Together, you can build a healthy life style that will benefit you and your baby.

During pregnancy it's important to eat a healthy, balanced diet to make sure your fetus gets enough nutrients. The food you eat supplies energy to both you and your fetus. You also need to eat more than you did before you became pregnant. Combining good nutrition with regular exercise is one of the best ways to stay fit. It is suggested you consume at least 40 grams of protein per day and more if you are exercising or have a multiple gestation. Fish are an important part of a healthy diet. However, chemicals in some fish may be hazardous to your health. Eating large amounts of fish containing chemical pollutants may cause birth defects, liver damage, and other serious health problems. To reduce this health risk patients should follow local advisories, or if there are none the federal advice.

1. Pregnant women, those who may become pregnant, nursing mothers and young children should not eat shark, swordfish, king mackerel, or tilefish. (FDA)
2. Women of child-bearing age can safely eat up to an average of 12 ounces a week of other types of cooked fish from a store or restaurant. (FDA)
3. Women of child-bearing age should not eat more than 6 ounces in a week of cooked fish that are caught in local waters. (EPA)

REST

During pregnancy, the growing fetus puts demands on your body that make you get tired more easily than usual. At times, you may feel drained of energy. This fatigue is normal but can be hard to handle. Try to get all the rest you need. Go to bed earlier, if you can, and get up later. Take mini-breaks during the day to relax. At work, find a couch or quiet room where you can put your feet up. Short naps are fine if they don't prevent you from sleeping well at night. Take brisk walks or do other exercises to release tension and feel more refreshed. Housework and childcare duties don't stop during and can be hard work. These duties can

result in you feeling tired and stressed. You may need to share more duties with your partner or others to ensure you are getting enough rest. Careful planning and enough sleep are very important.

CLOTHING

Maintaining a neat, fresh, well-groomed appearance contributes to a sense of well being with the changing figure during pregnancy. Outer clothing should be loose and comfortable. Rolled stockings and garters should be avoided because of the constriction they place on the veins in the legs. Low or medium heels should be worn since high heels make balance precarious and put undue stress on the lower back.

PEDICURES

It is alright to get a pedicure during pregnancy.

MEDICATIONS

Due to the uncertainty as to the possible side effects of medications on the developing fetus, no medications should be taken during pregnancy without a clear medical indication. The routine use of drugs such as tranquilizers, sleeping medications, etc., is discouraged. The most important time for the restriction of drugs is during the first few months of pregnancy. For this reason, it is wise to restrict medications after pregnancy's suspected unless prescribed by a physician who is aware of the possible pregnancy. If you are not certain whether to continue a particular prescription, ask me. If you are given medications by other physicians or dentists, please inform us at your next office visit of the type of medications and the medical condition being treated. It should be stressed that treatment of medical problems with medications can be done safely if the physician is aware of the pregnancy. The taking of excessive amounts of vitamins during the pregnancy is to be avoided unless specific approval is given by your physician. As these medications are ok during pregnancy, you may keep this list as medications to take while breast-feeding also.

ACCEPTABLE MEDICATION DURING PREGNANCY INCLUDE:

-Headaches, minor aches and pains-Acetaminophen (Tylenol, Extra Strength Tylenol or Anacin 3- 1-2 tablets)
-Constipation- Surfak, Colace, Metamucil- since these are stool softeners any amount which is effective (2-4/day as needed is ok)
-Diarrhea-Gatorade, Kaopectate, Imodium-a.d.
-Colds, allergies, coughs- Sudafed, Chlortrimeton, Benadryl, Robitussin, Mucinex, cough drops, salt water gargle
-Heartburn-Tums, Maalox, Mylanta, Riopan, solutions are preferred over tablets because they offer more heart burn relief
-Sleep Aid-Benadryl 25-50 mg. at night
-Prenatal Vitamins- prescription is recommended. New recommendations suggest 1 mg. or more of folic acid which reduces risk of nural tube defect.
-Synthroids or other thyroid replacement should be taken 8 hours from the time of any iron supplementation. Please continue this medication. Your baby can possibly develop problems if you stop this medication during pregnancy.
- Hair dye, permanents, and self tanning products are safe.
- It is alright to get a pedicure during pregnancy.

If your family physician or dentist prescribes a medication, those which are safe to take include:

-Antibiotics: Penicillin, Ampicillin, Amoxicillin (amoxil), Erythromycin, and Cephalosporins (Keflex, Cefin, Keftab)

-Local Anesthtitic- to remove teeth, work on root canals, or other dental work

-Throat Sprays- Cloresptic, etc. are ok as are all throat lozenges

-Cold remedies antihistamines- Zyrtec, Mucinex, Claritin, Allegra

-Allergies-Nasal steroid sprays

-Pain Medication: Please **DO NOT** take Motrin, Advil, Aleve, or like products which are in a class of drugs called non-steroidal anti-inflammatory drugs. (Motrin, Advil, and Aleve are allowed in breastfeeding mothers.)

-Flu Shots are recommended for all pregnant women In fact you are considered in a high-risk group especially in need of early vaccination.

-TB testing is ok during pregnancy.

(See Agents that Can Harm the Fetus on the next page)

AGENTS THAT CAN HARM THE FETUS:

Agents	**Reason Used**	**Fetal Effects**
Alcohol	Social reasons, dependency	Growth restrictions and Mental retardation
Danazol	To treat endometriosis	Genital abnormalities
Anticoagulants (eg. Warfarin, Coumadin, Panwarfin and discumarol)	To prevent blood clotting; used to prevent or treat thromboembolisms (cloths blocking blood vessels)	Abnormalities in bones, cartridge, and eyes, central nervous system
Antithroid drugs (eg. Thyroid Propylithiouracil, iodine)	To treat an overactive thyroid gland	Under-active or enlarged
Anticonvulsant (eg. Phenytoin and Dilantin)	To treat seizure disorder and irregular heartbeat	Growth and mental retardation
Trimethadione (Tridione) Paramethadione (Paradione) Valporic Acid (Depakene)		Mental abnormalities Neural tube defects
Chemotherapeutic Drugs (eg. Methotrexate (Mexate) and Aminopterin)	To treat cancer and psoriasis (skin disease)	Increased rate of miscarriage, various abnormalities
Isotretinion (Accutane)	Treatment for cystic acne	Increased rate of miscarriage and developmental abnormalities
Lead	Industries involving lead, paint manufacture and use, printing, ceramics, glass manufacturing, and pottery glazing	Problem in development of the fetal central nervous system
Lithium	To treat the manic part of Manic-depressive disorder	Congenital heart disease
Organic Mercury	Exposure through eating contaminated food	Brain Disorder
Streptomycin	An antibiotic used to treat Tuberculosis	Hearing loss
Tetracycline	An antibiotic used to treat a wide variety of infections	Under-development of tooth enamel, and incorporation of tetracycline into bone
X-Ray Therapy	Medical treatment of Disorders such as cancer	Growth restrictions and mental retardation

X-RAYS

X-rays of a non-emergency nature should be avoided during pregnancy. This is especially true of X-rays of the pelvis. As a general rule, any non-emergency X-ray involving the pelvis should only be performed immediately after a menstrual period in women of the reproductive age group. This will help avoid exposure of an early developing pregnancy. This risk of radiation injury during pregnancy from most X-ray exposure in not great.

SEXUAL INTERCOURSE

In the healthy, uncomplicated pregnancy, sexual intercourse is not a problem. When there is a history of vaginal bleeding, threatened miscarriage, or a history of premature delivery, it may be recommended that intercourse be restricted. In the last weeks of pregnancy, sexual relations may become uncomfortable, and due to the danger of introducing infection or rupturing the bag of waters, intercourse may be restricted.

VAGINAL DISCHARGE

All women experience some discharge from the vagina. Pregnant women will have an increase in this discharge, which is a result of the activity of the glands of the cervix (the opening of the womb). Occasionally this discharge may become annoying. Irritation from the discharge on the outside of the vagina is a result of the skin remaining moist. Evaporation can be improved by wearing white cotton undergarments and loose fitting clothing to provide air circulation. Occasionally, the discharge may be associated with an infection. Persistent unusual discomfort, odor, or green color should be brought to my attention.

VACCINES

Vaccines help prevent diseases caused by infection. Like all medications, vaccines should be used during pregnancy only when it is necessary and safe. Ideally, a woman should have had all her vaccinations before pregnancy; but if a vaccination is necessary during pregnancy, waiting until the fourth month is generally good advice.
Some vaccines are usually not given to pregnant women, but are safe to be used if you are likely to come in contact with the infections:

*Hepatitis B
*Pneumonia caused by Pneumococcus
*Flu vaccination is highly recommended. Currently women that are pregnant are considered to be in a high-risk group, as defined by the Center for Disease Control. You may get a vaccination through our office if there is an ample supply.

Some vaccines are safe for pregnant women. They are not routinely given, however, unless you are likely to come in contact with the disease:

*Rabies
*Polio
*Diphtheria
*Tetanus

Certain vaccines should not be used during pregnancy because they contain a live virus, which might harm the baby you are carrying:

*Measles
*Rubella
*Mumps

Exposure to measles, rubella, chicken pox and mumps should be avoided during pregnancy. Women should be vaccinated against these diseases at least 3 months before they become pregnant. If you are already pregnant but not vaccinated, you should get vaccinated right after you have your baby. Vaccination is safe for you and your baby while you are breast-feeding.

If you are certain you have had chicken pox in the past you DO NOT need to worry if you are exposed to this disease. TEACHERS, especially since you are around children, please advise me if you have not had chicken pox before, there is a vaccine we can administer after you deliver.

MEDICAL CONCERNS DURING PREGNANCY

COLDS, FLU, DIARRHEA, AND OTHER ACUTE ILLNESSES DURING PREGNANCY

Pregnant patients have the same medical problems as non-pregnant patients. There is no specific treatment for the common cold, either in the pregnant or non-pregnant patient. Bed rest, fluids, the use of Tylenol, a mild antihistamine such as Chlortrimeton, Sudafed, Robitussin and nose drips (1/4% Neo-Synephrine) are probably safe. Mucinex sold over the counter also helps to break up mucus. Benadize is a good antihistamine to take at night. Claritin, Allegra and Zyrtec are also ok. Ocean spray is a salt-water solution which helps break up mucous and allows you to breathe easier. Also, warm salt-water gargles may relieve a sore throat. Both of these are very safe. The use of a cold mist humidifier will relieve symptoms safely. These are very helpful and should be left on at night in your bedroom to keep from getting a sore throat from mouth breathing.

Minor diarrhea and vomiting or gastroenteritis can be treated with Imodium AD. Kaopectate for diarrhea is also recommended, but the most benefit can be obtained by the following simple regimen:
Once symptoms appear, do not eat or drink anything for six hours. For the next six hours, take in only liquids that you can see through and which do not bubble. If that is well tolerated, you may add for the next six hours bland food such as dry toast and crackers. If after 18 hours your symptoms have improved significantly, you may slowly return to your regular diet. It is important to avoid milk products (butter), as they are difficult to digest, especially after recovering from an intestinal upset. The majority of these minor illnesses during pregnancy have not been shown to have adverse effects on the baby.

One disease that is extremely rare in pregnancy is acute toxmoplasmosis. This disease is caused by a protozoan, which leaves in the intestinal tract of cats, and in raw meats. Exposure to cat fecal material may be the source of transmission of the disease. When a pregnant woman develops an acute toxoplasmosis in early pregnancy, severe defects to the developing fetus may occur. It should be emphasized that this is an extremely rare disease, and avoidance of contact with cat fecal material (litter boxes, etc.) should be stressed during the course of your pregnancy. Proper cooking of meat will prevent infection from the source of raw meat.

DENTAL CARE

Care of the teeth remains important during pregnancy. Routine dental cleaning and examination is encouraged. It is important that your dentist be aware that you are pregnant, as this may affect medications and management of any dental problems, which he/she may be treating. If you are given any medications by the dentist, please inform me at your next office appointment. It is suggested that you avoid routine x-rays unless your dentist feels that they are important for proper diagnosis and care.

HEADACHE

Headache early in pregnancy is a frequent complaint. In the majority of patients with headaches in the first five months of pregnancy, no abnormality can be demonstrated as the cause. Suddenly stopping caffeine intake may be the cause of the headaches, please remember that some caffeine is ok during pregnancy. By the middle of the pregnancy, these headaches mostly decrease in severity and disappear. You may occasionally take Tylenol as needed. Persistent headaches in the latter part of the pregnancy may be a sign of high blood pressure and should be reported if they are not relieved with Tylenol.

HEARTBURN

The term “heartburn” means a sensation of burning pain beneath the breastbone. This symptom has nothing to do with the heart, but is related to the stomach contents going back into the lower esophagus (the tube that leads to the stomach). This symptom is common in pregnancy and is treated effectively in most cases with antacids. Liquid antacids such as Mylanta or Maalox can be bought without prescription. Under no circumstance should patients take sodium bicarbonate or other medications containing large amounts of sodium. This can result in fluid retention as pregnancy progresses.

HEMORRHOIDS

Hemorrhoids are protruding, dilated veins around the opening of the rectum. They are a result of increased pressure on these veins and a weakness in their walls. Hemorrhoids are common in pregnancy. Hemorrhoids may become painful if there is excessive swelling or if a blood clot forms within the vein itself. The discomfort from hemorrhoids (itching, burning, and pain) can be relieved by filling the bathtub with approximately four inches of moderately warm water and sitting in this water for 20 minutes three or four times a day (Sitz baths). Maintaining good bowel habits and a soft consistency to the stool will also help. Eating a well-balanced diet including fresh fruits and vegetables are important. Prunes, dried apricots, and raisins may help soften your stool. If these do not help, Surfak (a pill) or Metamucil (a powder) help give bulk to the stool and may be purchased over the counter from your pharmacy. You may take 2 to 6 Surfak a day, they are not absorbed, drink plenty of water to help them work.

Occasional hemorrhoids may bleed slightly, especially with the passage of a hard stool. If you have excessive discomfort from hemorrhoids, please notify me at your next visit, or sooner if the problem becomes acute. Over-the-counter suppositories, ointments and creams also are frequently helpful, and are safe. Remember hydration is very important. Also, drinking 8 glasses of water should be the rule. In the summer when it is hot here in San Antonio, you may need more water.

NAUSEA AND VOMITING

Nausea during early pregnancy is very common. Vomiting may occur with this nausea, but usually both symptoms are not distressing enough to require more than understanding, alterations of diet, and occasionally, medications. Most women will have little, if any nausea and vomiting after the fourth month. Changes in your diet can help some of these problems. Eating dry crackers in the morning before either foods or liquids will often help. Drinking no fluid with meals and taking Vitamin B6 (100 mg) three or four times a day may also be useful. This can be purchased over the counter in your local pharmacy. Sometimes hard candy to suck on can help. Emetrol, which is over the counter, is also helpful to some women. If you have a lot of nausea and vomiting, eat those foods, which agree with you, even if they may not be 100% of a balanced diet. Some calories going in are better than none. Starches, breads, cakes, and potatoes work well for most women.

DOUCHING

Glandular activity of the cervix increases during pregnancy, which can result in an increased in vaginal discharge. This does not make douching necessary. If a discharge becomes heavy or foul-smelling and irritates the skin, please let me know. Douching is not recommended.

CALCIUM

A pregnant woman needs about 1500 mg of calcium a day. A glass of whole, low-fat, or skim milk has about 300 mg. If you are not a milk drinker, you may take 5-6 Tums a day (200 mg each) or buy calcium carbonate tablets. These usually come in 500 to 600 mg tablets. Viactive is a chewable calcium (500 mg) and is well tolerated by many women. You should space the calcium intake throughout the day as calcium inhibits the absorption of iron, they should not be taken together at the same time.

BOWEL HABITS

Constipation is not uncommon during pregnancy, due to the decreased activity of the intestinal tract. This tendency can be lessoned by drinking more water and including fiber in the diet. Some may occasionally need laxatives. Simple laxatives such as prune juice or milk of magnesia can be used safely in moderation. Use of a stool softener such as Colace, Surfak, or Metamucil (which can be purchased without prescription), will often decrease the need for laxatives. Excessive gas may be treated by an over-the-counter medication called Mylicon, or other products containing simethicone. If you are taking vitamins and iron, your stools may be dark in color.

VARICOSE VEINS

The veins in the pregnant lady are subjected to increasing pressure due to the growth of the uterus. Some patients have a congenital weakness of the walls of the leg veins and are prone to develop dilation of these veins with the stress of pregnancy. Varicose veins are dilated blood vessels, which appear on the legs and even the vulva, usually after the fifth month. Adequate support hose, especially the leotard type for maternity patients are of great help in protecting the veins. These were one of my best purchased during pregnancy. I encourage you to buy them if you are on your feet most of the day. Standing or lifting for prolonged periods contributes to the problem. Lying down with legs elevated on a pillow offers temporary relief. Scheduled rest periods for an hour in the late morning and an hour in the late afternoon, lying on your left side will give added relief to the discomfort of varicose veins.

SMOKING, ALCOHOLIC BEVERAGES AND OTHER CHEMICALS

I encourage you to stop smoking while you are pregnant. The long-term dangers of cigarette smoking are well known. The risk of premature delivery is greater in patients who smoke heavily and smoking hinders the growth of your baby. It is well known that alcohol intake during pregnancy can cause damage to the infant. Most specifically, it causes mental retardation. Drinking alcohol during pregnancy is therefore not recommended. You would not give alcohol to your baby once it is born, so please don't give him/her alcohol while they are developing. Alcohol passes to the baby very quickly and the same amount that is found in your bloodstream. The use of other chemicals (mood and mind altering drugs) is absolutely not recommended. Exposure to any toxic chemical should be avoided.

CAFFEINE

Caffeine is a stimulant and diuretic found in coffee, tea, colas, and some other soft drinks, and a few over-the-counter medications. Caffeine crosses the placenta into the fetal blood, but it does not appear to be linked with birth defects. Very high amounts may be linked to some complications of pregnancies. However, three servings or less of coffee, tea, or colas a day is considered safe.

TRAVEL

Most women can travel safely until close to their due date if they follow a few simple guidelines. The most comfortable time for most pregnant women to travel is mid-pregnancy. By this time your body has adjusted to pregnancy and you probably have more energy. Morning sickness is usually no longer a problem. And complications are less likely. Toward the end of your pregnancy, it may be harder for you to move around and sit comfortably for long periods.

The best rule of thumb is to follow your body's signals. Your own physical feelings are among the best guides to your well being and safety-on the road as well as at home. When choosing how to travel, think about how long it will take for you to reach your destination. The quickest way may be the best. Whether you go by car, bus, train, plane, or ship (motorcycles aren't recommended). Take extra steps to ensure your comfort and safety. Here are some hints that apply no matter what type of transportation you choose:

- Walk around often- every 2 hours or so. This will decrease swelling and help make you more comfortable.
- Wear comfortable shoes and clothing that doesn't bind.
- Take some crackers, juice, or other light snacks with you to help prevent nausea.
- While you are away, take time to eat regular meals. Make sure they are balanced and nutritious: you'll have more energy and feel better. Add fiber to your diet to ease constipation, which can be a problem during travel.
- Drink extra fluids.
- Although traveling can upset your stomach or disrupt your sleep, if medication is needed please refer to the recommended medications in this manual.
- Try to get more sleep, and rest often so you won't feel tired and irritated.
- Take a copy of your medication records with you if you will be far from home.
- You may want to schedule a prenatal visit before you leave.
- If you plan to be away for more than a few weeks, ask us to give you the name of another doctor in the area where you will be staying in case in case of an emergency.
- If you plan to travel very late in your pregnancy, check with your doctor. Going into labor away from home can pose problems.
- Keep your travel plans flexible. Problems can come up before you leave that could force you to cancel your trip.
- Usually I don't let you travel by airplane after 34 weeks.

Travel during pregnancy is safe for most women, but it is not recommended for women who have serious health problems that need special medical care. If you are planning a trip out of the country, you may need to take special precautions. If you are not sure whether travel is safe please ask.

BY LAND

A car can be a good way to travel, especially for short distances. Make each day's drive short enough to be fun. Ten hours on the road is tiring even when you aren't pregnant. No more than 5 or 6 hours of driving each day is a good target.

Always wear a seat belt. Some women worry that the belt will hurt the fetus if the car stops quickly or if there is an impact. The fetus is not likely to be harmed unless the mother has a serious injury. The fetus is cushioned in a fluid-filled sac inside the uterus, which in turn, is protected by muscles, organs, and bones. Studies have shown that in nearly 100% of car crashes, the fetus recovers quickly from any pressure the seat belt exerts and suffers no lasting injury. If you don't wear a seat belt you can be thrown from the car or get a concussion (an injury to the brain caused by a hard blow). These risks are much more serious than any risk from wearing a seat belt.

Air bags do not replace seat belts. If your car has an air bag, you should still wear your seat belt. (The gas used in air bags is harmless.) If you get in an accident, you should see your doctor to make sure you and your fetus are okay.

You may also choose to travel by bus or train. Buses have narrow aisles and small bathrooms. Trains have more space for walking around but are wobbly, so balance might be a problem. Don't worry that bumpy rides could induce labor; they don't.

THE RIGHT WAY TO WEAR A SAFETY BELT

For the best protection, you should wear a lap and shoulder belt throughout your pregnancy every time you travel in a car, including during your ride to the hospital for the birth of your baby. Some cars have only lap belts in the back seat. If a lap belt is all there is, use it.

Place the lower part of the lap part of the belt under your abdomen, as low as possible, and against your upper thigh. Never place the lap belt above your abdomen because this could cause major injuries in a crash. Position the upper part of the belt between your breasts. Adjust both the upper and lower parts of the belt as snugly as possible and the upper part of the belt off your shoulder. Safety belts worn too loosely or too high on the abdomen can cause broken ribs or injuries to your abdomen, but more damage is caused when they aren't used at all.

BY AIR

Flying is generally safe during pregnancy. Airlines in the United States usually allow pregnant women to fly up until 34 weeks of pregnancy. Commercial planes are pressurized (the air in the cabin is not as thin as the air outside), but many private planes are not. It is best to avoid altitudes higher than 7,000-9,000 feet in un-pressurized planes. Metal detectors and airport security checks do no harm the fetus. Here are some tips for a comfortable flight:

- Try to get an aisle seat so you can walk around and get to the bathroom easily. The forward part of the plane usually has a more stable ride. You may wish to avoid a seat near an exit, where you may be expected to assist others in an emergency.
- Cabin temperature can change even on a short flight. Wear a few layers of light clothing that allow you to bundle up or remove a layer or two. You can also ask the flight attendant for a blanket. Pillows may also make your seat more comfortable.
- Eat lightly to avoid being airsick. You can get special meals on many flights if you order in advance. Because the air in the cabin is dry, drink plenty of fluids.
- Allow for extra rest after long flights to recover from jet lag.

BY SEA

Ship cruises can be a relaxing way to travel. However, sea travel can upset your stomach. If you've never been on a ship before, this is not a good time to try it. If you think your stomach can stand the ship's motion, check on the cruise line's regulations for pregnant women. Your doctor can tell you about medication you can take for seasickness and what to do about medical care while the cruise is on the open sea.

EXERCISE

Regular exercise during pregnancy can make you look and feel better, help your posture, and lessen discomforts such as backaches and fatigue. The goal of exercise during pregnancy should be to reach or keep a level of fitness that is safe. You should not exercise to lose weight during pregnancy. Some exercises provide aerobic conditioning of the heart and lungs and others relieve stress and tone muscles. For total fitness, an exercise program should include exercises that provide both conditioning and strengthening.

Pregnancy causes many changes in your body, some of which affect your ability to exercise. The hormones produced during pregnancy cause the ligaments that support joints to become stretched. This makes the joints more prone to injury. The extra weight gained in pregnancy, as well as its uneven distribution, shifts your center of gravity. This places stress on joints and muscles, especially those in the lower back and pelvis, and can make you less stable and more likely to fall. For these reasons, you may wish to modify your form of exercise during pregnancy.

Almost any form of exercise is safe if it is done with caution and if you don't do too much of it. Here are some guidelines for a safe and healthy exercise program geared to the special needs of pregnancy.

- Get regular exercise (at least three times a week). Avoid spurts of heavy exercise followed by long periods of no activity.
- Avoid brisk exercise in hot, humid weather, or when you are sick with fever (such as the flu).
- Avoid jerky, bouncy, or high-impact motions. Activities that call for jumping, jarring motions, or quick changes in direction may strain your joints and cause pain. Low-impact exercise is best. A wooden floor or a tightly carpeted surface reduces impact and gives you sure footing.
- Wear a bra that fits well and gives lots of support to help protect your breasts.
- Wear the proper shoes for the activity to be sure your feet are well cushioned and to give your body good support. There are shoes designed just for walking, running, aerobics, or tennis.
- Avoid deep knee bends, full sit-ups, double leg raises (in which you raise and lower both legs together), and straight-leg toe touches.
- After 20 weeks of pregnancy, avoid exercises that require lying with your back on the floor more than a few minutes.
- Always begin with 5 minutes of slow walking or stationary cycling with low resistance to warm up your muscles. Intense exercise should not last longer than 15 minutes.
- Follow intense exercise with 5-10 minutes of gradually slower activity that ends with gentle stretching in place. To reduce the risk of injuring the tissue connecting your joints, do not stretch as far as you possibly can.
- The extra weight you are carrying will make you work harder as you exercise at a slower pace.
- Get up from the floor slowly and gradually to avoid feeling dizzy or fainting. Once you are standing, walk in place briefly.
- Drink water often before, during, and after exercise to be sure your body gets enough fluids. Take a break in your workout to drink more water if needed.

- If you did not exercise two or three times a week before getting pregnant, start with physical activity of very low intensity, and bit by bit move to higher levels.
- Stop exercising and consult the office if you get any symptoms and if they are unusually severe:
    - Pain
    - Vaginal bleeding
    - Dizziness or feeling faint
    - Shortness of breath
    - Irregular or rapid heart beat
    - Difficulty walking
    - Pain in your back or pubic area

The sports and exercises you can do during pregnancy depend on your own health and, in part, on how active you were before you became pregnant. Pregnancy is not a good time to take up a new, strenuous sport. If you were active before your pregnancy, however, you should be able to keep it up, within reason.

Here are some sports you may have done before pregnancy:

- Walking is always good exercise. If you were not active before you became pregnant, walking is a good way to start an exercise program. Try to walk briskly for 20-30 minutes, three times a week.
- Swimming is great for your body because it uses many different muscles while the water supports your weight. It is best not to dive in the later months of pregnancy. Scuba diving is not recommended at anytime during pregnancy.
- Jogging can be done in moderation. Avoid becoming over heated, stop if you are feeling uncomfortable or unusually tired, and drink plenty of water to replace what you lose through sweating.
- Aerobics is good to strengthen the heart and lungs. It is safest to do only the low-impact version. Water aerobics combines the advantages of swimming and aerobics.
- Tennis is generally safe during pregnancy, but be aware of your change in balance and how it affects rapid movements.
- Body building or strength training can make your muscles stronger. It can help prevent the muscle aches and pains that are common during pregnancy. Strength training should be done under the supervision of an expert to avoid muscle and joint injuries. Use slow, controlled movements and do short sets of strength exercised (10 or fewer repetitions).
- Golf and bowling are fine for recreation, but don't really strengthen the heart and lungs. With either of these sports, you may have to adjust your change in balance.
- Snow skiing can be okay, in the first trimester, if you are careful, but be aware that several possible hazards are beyond your control. Two such hazards are the risk of injury to yourself and the effects of exercising at an altitude that you are not accustomed to. At very high altitudes the air is thinner, which makes it harder to breathe. Because of the danger of serious injuries and hard falls while downhill skiing, stay on safe slopes. You may have problems with balance during skiing. Cross-country skiing is safer than downhill skiing during pregnancy, and it is also better for strengthening your heart. Ski machines are acceptable to use.
- Water skiing and surfing should be avoided completely. You can hit the water with great force, and taking a fall at such fast speeds could harm you or possibly your fetus.

The added weight and changes in your posture caused by pregnancy can make your back hurt. Certain exercised can ease back pain by strengthening and stretching muscles. You should also take special care to avoid injury and ease discomfort.

A HEALTHY BACK

BACKACHE

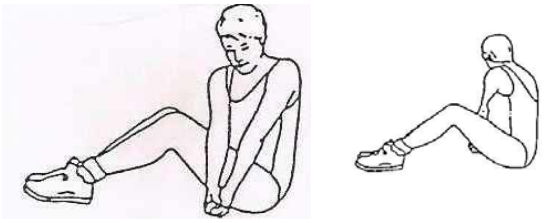
Backache, a common complaint, is a result of an increasing strain on the back as pregnancy progresses. As the uterus grows the patient's posture changes to compensate, and this often results in a dull, aching discomfort in the lower back. The discomfort can be worsened by prolonged periods of activity. The wearing of high heels further aggravates the change in the shape of the back, and should be avoided. The best treatment for persistent low backache is rest, the wearing of proper garments, and prenatal exercises. Bothersome backaches may be temporarily relieved by lying on a hard surface (such as the floor) with the legs elevated or a heating pad. Be sure not to fall asleep when using a heating pad. An elastic maternity belt is a great help to pregnant women, especially those who stand a lot during the day. The purchase of one of these belts is money well spent.

Following are exercises that strengthen and stretch muscles that support the back and legs and promote good posture-muscles of back, the abdomen, the hips, and the upper body. These exercises not only will help ease back pain but also will help prepare you for labor and delivery.

DIAGONAL CURL

This exercise strengthens the muscles of your back, hips, and abdomen. If you have not already been exercising regularly, skip this exercise.

- Sit on the floor with your knees bent, feet on the floor, and hands clasped in front of you.
- Twist your upper torso to the left until your hands touch the floor.
- Do the same movement to the right.
- Repeat on both sides 5 times.

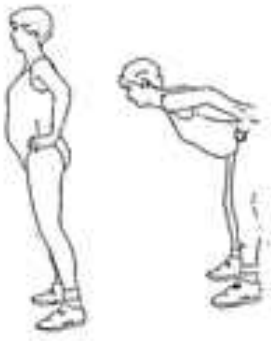


Following are exercises that strengthen and stretch muscles that support the back and legs and promote good posture-muscles of back, the abdomen, the hips and the upper body. These exercises not only help ease back pain but also will help prepare you for labor and delivery.

UPPER BODY BENDS

This exercise strengthens the muscles of your back and torso.

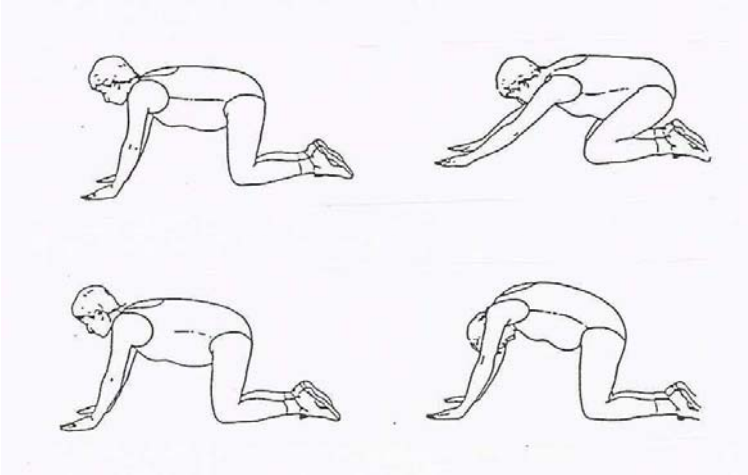
- Stand with your legs apart, knees bent slightly with your hands on your hips
- Bend forward slowly keeping your upper back straight. You should feel a slight pull along your upper thigh.
- Repeat 10 times.



ROCKING BACK ARCH

This exercise stretches and strengthens the muscles of your back, hips, and abdomen.

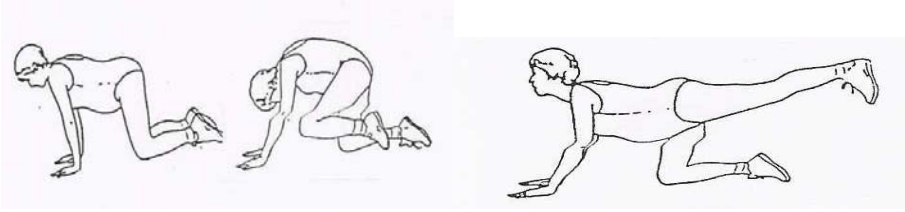
- Kneel on hands and knees, with your weight distributed evenly and your back straight.
- Rock back and forth, to count of 5.
- Return to original position and curl your back upwards as much as you can.
- Repeat 5-10 times.



LEG LIFT CRAWL

This exercise strengthens the muscles of your back and abdomen.

- Kneel on hands and knees, with your weight distributed evenly and your arms straight (hands under your shoulders).
- Lift your left knee and bring it toward your elbow.
- Straighten your leg without locking your knee.
- Extend your leg up and back.
- Do this exercise to a count of 5. Move slowly; don't fling your leg back or arch your back.
- Repeat on both sides 5-10 times.



BACKWARD STRETCH

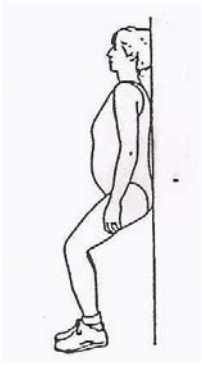
This exercise stretches and strengthens the muscles of your back, pelvis, and thighs.

- Kneel on hands and knees, with your knees 8-10 inches apart and your arms straight (hands under your shoulders).
- Curl backwards slowly, tucking your head toward your knees and keeping your arms extended.
- Hold this position for a count of 5, then come back up to all fours slowly.
- Repeat 5 times.

BACK PRESS

This exercise strengthens the muscles of your back, torso, and upper body and promotes good posture.

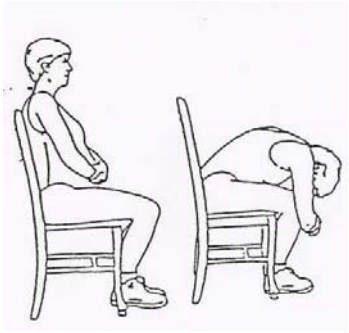
- Stand with your feet 10-12 inches away from a wall and your back against it.
- Press the lower part of your back against the wall.
- Hold this position for a count of 10, then release.
- Repeat 10 times.



FORWARD BEND

This exercise stretches and strengthens the muscles of your back.

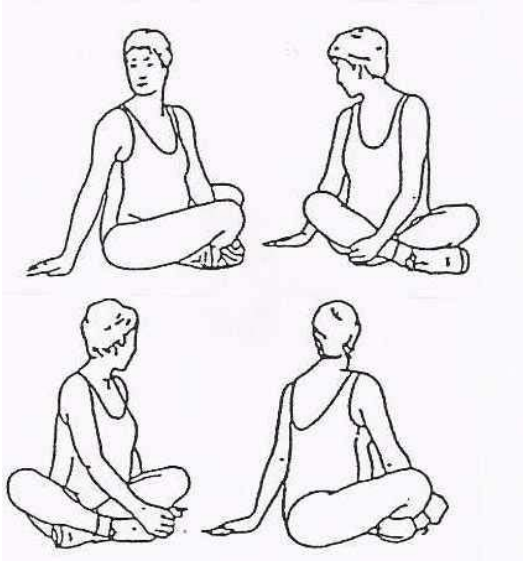
- Sit in a comfortable position. Keep your arms relaxed.
- Bend forward slowly, with your arms in from and hanging down.
- If you feel discomfort or pressure on your abdomen, do not push further.
- Hold this position for a count of 5, then get up slowly without arching your back.
- Repeat 5 times.



TRUNK TWIST

This exercise stretches the muscles of your back, spine, and upper torso.

- Sit on the floor with your legs crossed, with your left hand holding your left foot and your right hand on the floor at your side for support.
- Slowly twist your upper torso to the right.
- Do the same movement to the left, after switching your hands (right hand holding right foot and left hand supporting you).
- Repeat on both sides 5-10 times.



POSTPARTUM TUBAL LIGATION

Today, many couples are concerned about adequate contraception. Those who have decided that their families are complete often seek surgery to prevent future pregnancies. An operation is available after delivery to provide permanent contraception. This is called a tubal ligation, and can be performed within the first 36 hours after delivery or at the time of Cesarean Section. The procedure itself is relatively simple at this time. It is designed to be permanent, but no 100% guarantee of pregnancy can be made with any sterilization. The failure rates for sterilization in the female are approximately 4 in 1000. Any patient who wishes more information regarding such permanent contraception is urged to discuss this with me early in pregnancy. Patients who receive financial help from any government funds must sign papers requesting this procedure 30 days in advance of the surgery.

ULTRASOUND

Ultrasongraphy gives an added perspective for the obstetrician to use in evaluating the pregnant patient. Using a concept very similar to sonar, sound waves are passed into the patient's abdomen, and an echo image of the contents of the uterus can be obtained. This test is often; used to localize the afterbirth (placenta) or for measurement of the growth of a baby by measuring its head size. Ultrasound evaluation of pregnancy has become an important part of establishing the correctness of a due date and in evaluating the environment of the baby in the uterus. Not all pregnancies require this type of evaluation. There is no evidence at this time to indicate that the use of the ultrasound has any adverse effects. I usually offer an ultrasound to patients between 18-22 weeks.

BREAST CARE

The breasts should be supported by a well fitting, comfortable bra. Tight, constricting bras should be avoided. It is common to notice a discharge from the nipples, which will increase towards the end of the pregnancy. This may occur in early pregnancy and is still considered normal. It is important to maintain good hygiene with daily washing of the nipple area with a washcloth, soap, and water. Breastfeeding is widely believed to be best for the new mother and the newborn baby. No patient should attempt to breast feed unless she is well-motivated, however. The success of breastfeeding may depend on the mother's motivation. I encourage a patient to breastfeed her baby if she is so inclined. If the patient does not desire to breastfeed for any reason, I would suggest she not try. In situations where the mother is not going to breast feed, simple binding of the breasts following delivery is a safe method of decreasing breast engorgement. The nurses in the hospital will be happy to explain how to bind your breast. Classes in breastfeeding are available at hospitals or through LaLeche League. If you have inverted nipples, you should begin wearing breast shields while you are pregnant. Breast pumps are available for purchase from our office and there is no tax charge since you are my patient.

PRETERM LABOR (LESS THAN 37 WEEKS)

Approximately 10% of pregnancies end with delivery prior to 37 weeks of gestation. In many situations, premature or pre-term labor is treated with bed rest, hospitalization, or medications called tocolytic drugs. The patient with a history of premature labor and delivery has an increased risk of this problem. Regular tightening or pressure in the lower abdomen or which is not relieved by resting on the left side may indicate preterm labor.

16 WEEKS TO 28 WEEKS- THE SECOND TRIMESTER

By now, most patients are over the nausea, vomiting, and tiredness of the first trimester. You will start to feel good, and enjoy wearing maternity clothes. Now is the time to do your shopping, planning, and getting ready for your baby. Besides the nursery and clothing, the following are some things I want you to think about:

CHOOSING A PEDIATRICIAN

This is the physician who will take care of your baby after delivery. Talk with friends about who they use and like. We also have a list that may help you choose your baby's doctor.

ROUND LIGAMENT PAIN

The uterus in the non-pregnant and pregnant female is supported with several cord-like structures called ligaments. Two of these ligaments, called round ligaments, support from the front of the uterus to the lower abdomen. A round ligament is located both to the right and the left of the uterus. As the uterus grows in pregnancy, stretching and occasional discomfort from pulling on these ligaments can be felt by the patient. This is perceived as discomfort in the lower abdomen, radiating into the groin, especially on sitting and standing. The more pregnancies the patient has had, the more likely she will experience discomfort of this type. Walking or even rolling over in bed can precipitate such discomfort. It is suggested that when you experience this type of discomfort, rest or lie on the side on which you find most comfortable.

LEG CRAMPS

Some patients will experience cramping sensations in the muscles of the legs, especially in the calf (Charlie horse). These cramps most often appear at night. They may be related to the extra weight which the legs support, as well as the interference with blood flow in the leg, due to the pressure of the enlarged uterus. These cramps can be helped in some cases by increasing the rest periods, during the days and by gentle massage of the feet and calves. In some patients, these nocturnal cramps can be helped by placing a rolled blanket under the covers to rest the feet against while sleeping. Increasing milk intake or taking five or six tablets of the antacid Tums for several days may also be helpful, as might the addition of more calcium to the diet. If you experience persistent or severe leg cramps, please let us know at your next appointment.

NUMBNESS OF THE HANDS

Pregnant women often develop numbness in their fingers due to pressure on the nerves in the wrist. The medical term for this is carpal tunnel syndrome. Most patients will find that these symptoms will disappear within several months following delivery. If the situation becomes severe, please bring it to my attention.

EMOTIONAL FACTORS OF PREGNANCY

Many changes take place in the women during the nine months of pregnancy. It is best to avoid great emotional upheavals and to continue a normal, tranquil home environment and steady pace. Every member of the household can help with this. A little extra effort and kindness, understanding, and consideration on

the part of everyone can do much to make a pregnancy a happy one. Many patients begin pregnancy troubled with fears and superstitions. The best way to eliminate fears is with understanding and knowledge.

28 WEEKS TO 40 WEEKS- THE THIRD TRIMESTER

Now you will begin to feel tired again, and frequent urination and backaches are common. Hopefully by now you are almost ready for your baby. Here are a few more things to consider:

1. Have your pediatrician selected.
2. Pre-register at the hospital where you will deliver.
3. Decide on circumcision-this is a personal choice between you and your partner. This is usually done by your OB doctor; so let me know if you will need this done. This is also a good topic to discuss with your pediatrician. Your insurance may not cover this procedure, as it is considered an elective procedure, so please make arrangements to pay this charge prior to procedure being done.

EMPLOYMENT

Expectant mothers may continue to work as long as the work does not cause excessive fatigue and the pregnancy remains uncomplicated. Any occupation that subjects the pregnant women to severe physical strain should be avoided. Jobs requiring moderate manual labor should be avoided if they involve long hours. If needed, I can give you a letter stating that you are pregnant, your expected date of confinement, and any limitations in your activity. The usual postpartum recovery time is six weeks. In an uneventful pregnancy and delivery, most employers recognize this as the routine time of absence from work following delivery.

KICK COUNTS

Beginning in the 36th week of pregnancy “kick counts” are an easy and inexpensive way to check on how your baby is doing. I will be giving you a chart to record these movements.

HOME SAFELY AND CAR SEATS

Make sure the items you have chosen at home are age appropriate. It is best to consult a book on newborn care for all the specifics (Dr. Mom by Niefart).

Care seats are required by law in Texas. You will need one to take your baby home.

CONTRACEPTION

If you are planning on breast-feeding, it is best to use foam and condoms postpartum or a progesterone only birth control pill called Micronor. Breastfeeding by itself is NOT a safe form of birth control. If you are not breastfeeding and desire birth control pills, I will give you a prescription when you leave the hospital. If you are unsure of what you plan to use after the baby, please discuss this at one of your visits.

HERPES INFECTION AND OTHER VIRAL INFECTIONS

Today, we are learning more about the various viral infections that can have effects on developing pregnancy. The herpes virus (HSV), the hepatitis virus, the German measles virus, chicken pox, and more recently, the AIDS virus (HIV) are identified. Testing for some of theses viruses in pregnancy with either blood tests or cultures may be indicated. If you have had an infection with any of these viruses, please discuss this with me. Unfortunately, there is no treatment for most of these infections. The best rule to follow is to avoid contact with any person known to be infected. Under some special circumstances, patients who have active infections with the herpes virus at the time of labor may need to consider Cesarean Section.

THE RH FACTOR

The Rh factor refers to the presence of material on the red blood cells of an individual. If a person has the substance, she is called Rh positive and if not she is Rh negative. When a pregnant patient is Rh negative and her baby is Rh positive there is a possibility of Rh disease in the baby when it is born. Since only 15% of the population is Rh negative, only a few patients have any concern regarding this. When an Rh negative patient delivers and Rh positive infant, it is now possible most of the time to prevent any further Rh problems with a medication called Rhogam. This is administered to all Rh negative patients at 28-30 weeks of pregnancy and then after delivery if the baby is Rh positive. During preparation, Rhogam is sterilized against all known infectious agents. If you have further questions about the Rh factor, I have more information for you to read and can answer questions at the time of your visit.

TOXEMIA OF PREGNANCY/ PRE-ECLAMPSIA

Toxemia is a disease, which only pregnant women develop. It usually appears after the sixth month and involves an increase in blood pressure, protein in the urine, and fluid retention, with swelling of the hands, face, and feet, and rapid weight gain. Women who do not receive prenatal care have a higher chance of toxemia or pregnancy. Although we know that good prenatal care can prevent most cases of this disease, the exact cause of the problem is unknown. For this reason, I urge all patients to report any of these signs and symptoms:

1. Vaginal bleeding heavy as a menstrual period
2. Swelling of the face or hands and arms
3. Prolonged, severe, or frequent headaches
4. Dimness or blurring of vision
5. Persistent vomiting or associated abdominal pain
6. Persisted burning with urination
7. Chills or fever
8. Leakage of fluid from the vagina
9. Any excessive, rapid weight gain
10. Regular uterine contractions
11. Marked decrease in fetal movement

POSTDATED PREGNANCY

Any pregnancy that extends beyond 42 weeks from the last menstrual period is considered postdated. Approximately 10% of pregnancies will extend past 42 weeks from the last menstrual period and 3% will extend past 43 weeks. For this reason, it is extremely important to be accurate with dates given in your history and to maintain your appointments, which will enable me to monitor the appropriate growth of the uterus in the first and second trimesters of pregnancy. Postdated pregnancies sometimes have increased risk factors and special monitoring of the pregnancy will be required in those situations.

CONTRACTIONS OF THE UTERUS

Contractions of the normal pregnant uterus have been recorded in the first few weeks of pregnancy. These contractions are not the type of contractions, which will result in the emptying of the uterus. The uterus is a thick-walled muscle, and to retain the normal tone and health of the muscle tissue, contractions occur normally. Some patients notice these contractions as pregnancy progresses as a slight tightening in the lower abdomen and a hard feeling of the uterus. These contractions are called Braxton-Hicks contractions and become more noticeable as pregnancy progresses, and in patients who have had previous deliveries. These toning contractions of the uterus are rarely regular and rarely cause much discomfort.

GOING TO THE HOSPITAL

LOOKING FOR THE "3 B'S AND A C"

CONTRACTIONS

As labor approaches, you may experience a thick mucous discharge, bloody show (thinner mucous that is streaked with blood), flu-like symptoms (nausea or diarrhea, fatigue, achiness), or even a burst of energy, but the surest signs are regular contractions lasting 45 seconds at three to five minute intervals. When this type of contraction pattern develops, these contractions will be firm and make it difficult to talk while you are having them. If these continue for one hour, please call the office if it is during the day. If you feel you are in labor and it is not during office hours, go to the hospital for a "labor check." The nurse at the hospital will evaluate you and call me, and then you will be in the right place if you have fast labor.

The onset of labor is difficult to outline and sometimes confusing to the pregnant patient. As mentioned previously, the uterus has contractions throughout the pregnancy, and these are not to be confused with labor. Labor is a progressive change of the cervix with thinning and dilation. Labor usually starts with irregular contractions which feel like a dull ache in the lower abdomen and back. This resembles menstrual cramps to many women. The contractions will gradually become more regular and more frequent. When the contractions are regular and last longer than 45 seconds each, and have done this for an hour, follow the above directions. If this is your first baby, contractions every five minutes is probably enough. If you have had previous deliveries, regular contractions every 8-10 minutes for an hour should indicate probable labor.

BAG OF WATER

Rupture of the bag of water usually results in a sudden gush of clear fluid from the vagina, followed by a constant watery discharge. If you have ruptured your membranes, please call our office (if during the day). If this happens at night, GO TO THE HOSPITAL. Many times, if leakage of amniotic fluid can be proven, the patient may be admitted to the hospital whether she is in labor or not.

BABY NOT MOVING

If your kick counts are ever not what they should be, call me, and we will arrange an NST (non-stress test) for you.

BLEEDING

It is normal to have bloody show. This is a thick, often dark, bloody discharge from the vagina and represents bleeding and passage of mucous from the cervix. This bloody show can precede labor by hours or days and is not a predictable sign of labor. Pelvic examinations in the last few weeks of pregnancy are often followed by a bloody discharge. This is of no significance unless bleeding is heavier than a menstrual period. It is not normal to have bleeding like a menstrual period. If you have heavy bleeding, go immediately to the hospital.

ENTERING THE HOSPITAL

ADMISSION PROCEDURE

If you have pre-registered, this process will go much more efficiently. It is best to have a member of your family to help with paperwork.

WHAT TO BRING TO THE HOSPITAL

Most necessary items will be provided by the hospital. It is best to leave valuables at home to avoid the threat of loss or theft.

THE LABOR AND DELIVERY ROOMS AND LDR

When you are admitted to the hospital in labor, you will be taken to a labor room or LDR. LDR (Labor, Delivery, and Recovery) is for the low risk patient where labor, vaginal delivery and immediate postpartum recovery are accomplished in the same room. Following admission to the labor area, the patient is evaluated by the nursing staff. A baseline electronic fetal tracing will be made to evaluate the contractions and the baby's response to them. The nurse will report the patient's status to me. The physician may order intravenous fluids during labor and baseline blood count. State law now requires HIV testing at the time of hospital admission. The length of labor is variable, but averages 14 hours for a first delivery and somewhat less for later deliveries. Labor is divided into three stages, the first being the time required for the cervix to completely dilate, the second from complete dilation until the birth of the infant, and the third from the

delivery of the infant until the delivery of the placenta. When a patient is in labor, her support person of choice is invited to stay with her, but it is requested that visitors limit their stay. During the second stage of labor, the patient will be under the close supervision of the nursing staff and physician. Visitors may be asked to wait in the waiting area. The physician may not be in the hospital during the entire labor, as we rely on the nursing staff to inform us of the progress of labor. I do not routinely order a shave prep or enema on admission to the hospital.

SUPPORT PERSON IN THE DELIVERY ROOM

In certain cases, the patient and her husband, or another support person, may wish to share in the birth of the baby. It must be understood that admission of the delivery room or LDR is at the discretion of the patient, her physician, and the obstetrical nurse. In the situations where general anesthesia is given or some medical complication is present, this privilege cannot be granted. A support person may be permitted to be in attendance at the time of Cesarean Sections, but this must be with the agreement of the anesthesiologist, the obstetrical nursing staff, and the obstetrician. Methodist Hospital policy is that no videotaping in the labor and delivery is allowed.

MEDICATIONS DURING LABOR

Various medications may be used during labor to ease the normal discomfort from contractions. These medications can help the patient with relaxation. It is impossible to remove all of the discomfort of labor with medications. Meperidine (Demerol), Nubain, and other medications have been shown to be effective and safe when used in small doses. If you have questions about medications, please ask me during your office visits.

ANESTHESIA FOR DELIVERY

The choice of an anesthetic for deliver is a medical decision and not one of pure choice. If a patient has a preference for a certain type of anesthesia, this will be followed as closely as medical indications allow. In certain medical emergency situations, a type of medication which the patient would not normally choose may be the best treatment. For this reason, we request that the patient discuss any concern she has about the various types of anesthesia with the physician before the end of the pregnancy. The following is a brief summary of the type of anesthesia used in modern obstetrics.

Pudendal block, or local anesthesia. This type of anesthesia is given by the obstetrician at the time of delivery to provide pain relief just at the opening of the vagina. It is not designed to relieve the discomfort of uterine contractions or the pressure associated with delivery.

Epidural anesthesia. This type of anesthesia may be given during labor and relieves much of the pain of contractions. It is also good anesthesia for delivery. The medication is placed outside the spinal canal in the lower back. It has little effect on the infant and can be given during labor. It has become one of the most common anesthetics in obstetrics. Currently most mothers are put on an epidural pump, this administers a small, controlled amount of anesthetic into your epideral catheter, keeping you comfortable over time. The anesthesiologists who administer this are very experienced. They do all the epidurals at Methodist Hospital. I have a handout they have written. If you would like to read it, ask for it at one of your visits. A long acting pain medication called duramorph may be added to your epidural if you have a cesarean section.

General anesthesia (gas). This type of anesthesia involves the patient's breathing an anesthetic gas, which results in her going to sleep. Most obstetricians do not prefer to use this type of anesthesia except in special situations a certain amount of the gas will cross the placenta and enter

the babies system. The can depress the baby. Also, this type of anesthesia often causes nausea and vomiting while asleep and can increase risk to the other. In some medical situations, general anesthesia is the safest and best for delivery. If I feel this is best for you, I will discuss with you the medical reason behind this decision.

BREECH PRESENTATION

Approximately 95% of infants will descend to the birth canal with the head first. 3-5% will enter with the infant's buttocks or feet first. This is termed a breech presentation. There are different ways with dealing with a breech presentation, depending upon the particular circumstances. Cesarean Section delivery will be recommended. If a breech presentation is noted near the end of pregnancy, an attempt to turn the infant to a headfirst position can be considered. This is called an external cephalic version. I also have some "exercises" which may help the baby to turn.

CESAREAN SECTION DELIVERY

Sometimes delivery through the vaginal canal is impossible or medically unsafe. In such situations, delivery through an abdominal incision and incision into the uterus is the safest mode of birth. This operation is called a Cesarean Section. The incision into the abdominal wall can either be vertical (up and down) or transverse (crosswise). The type of abdominal incision has no relation to the incision in the uterus. Most incisions in the uterus are transverse. If a patient has a Cesarean Section delivery, it is important for her to know what type of incision was made into the uterus. It is impossible to predict prior to a patient's arrival in labor whether a condition will arise that would necessitate this type of delivery. Today, the Cesarean Section delivery rate has risen in the United States to approximately 20-30% of all deliveries. There are many reasons for performing Cesarean Sections. If a medical condition arises in your case that would indicate the advisability of a Cesarean Section, I will discuss it with you in detail. Cesarean Section delivery is a relatively safe operation, which has saved many infants and their mothers from danger or difficult or unsafe vaginal deliveries.

VAGINAL BIRTH AFTER CESAREAN SECTION (VBAC)

There is a concern about a potential rupture of the surgical scar on the uterus. During the patient's prenatal care, it is important to discuss with me the risk and benefits of this plan. If this occurs there is a great risk to the baby. Currently in the US very few obstetricians are offering vaginal delivery after cesarean section.

EPISIOTOMY

Episiotomy is the name of the small incision made at the opening of the birth canal at the time of vaginal delivery. The reason for the episiotomy are many, but the most important is that it reduces the danger of a serious tear or laceration of this areas and prevents delay in the delivery of the baby due to the rigidity of these tissues. The episiotomy is repaired with suture material, which is absorbed and does not have to be removed. The episiotomy is commonly referred to as the patient's "stitches" and is usually healed within the first seven to ten days after delivery. Some women are able to accomplish delivery without an episiotomy or tear. This is more likely in women who have had previous vaginal deliveries. I try to avoid episiotomies if possible, but in some cases avoidance is not a safe option. If you would like to help in avoidance of this consider bringing olive oil in a plastic container to labor and delivery to help lubricate this area allowing the skin to stretch better.

THE POSTPARTUM PERIOD

VISITORS

Following delivery, the patient will remain on the postpartum floor until her discharge. Discharge usually comes 24 to 36 hours after a vaginal delivery or 2-4 days after Cesarean Section delivery. Visiting hours depend on the hospital rules, in general, visiting hours for the new father are open during the day. Other visitors may visit at set hours. It is suggested that visiting be held to a minimum during your hospitalization because this is a time when you need your rest. Additionally, restricting the number of visitors in this initial period will reduce the baby's and your potential exposure to illness.

RELEASE OF MEDICAL INFORMATION

Occasionally, friends and neighbors will inquire regarding you, your baby, or events taking place in the hospital. Release of this type of information by your physician or by the hospital staff if not permitted, as it is considered privileged information.

BREAST PUMPS

For mothers who are interested in breastfeeding for an extended period or for those mothers who will be returning to work, you may rent a breast pump from the Methodist Lactation Center. We will support your nursing efforts in all aspects. Please feel comfortable asking for any further information in breastfeeding.

ADVICE TO EXPECTANT FATHERS

A happy, cheerful home environment will help foster a feeling of security and contentment which your wife needs more than ever during pregnancy. Help her avoid worry about her condition or its symptoms. Help her conserve her strength by relieving her as much as possible of heavy work. During pregnancy, it is normal for a woman to be more tense and to experience emotional upsets.

Encouragement and understanding by the father during these difficult periods are extremely important. Find amusements and relaxation which you and your wife can enjoy together. Walks, spectator sports, short automobile rides, and social visits are enjoyable and excellent diversions for both of you. The regular medical checkups of the expectant mother is a most important factor in her care. Between visits, her husband is often the stabilizing emotional factor. As you are well aware, pregnancy is exciting, and at times, a difficult experience for both expectant father and mother. The father's role in the pregnancy should be active rather that a passive one, and much depends on how well you meet this challenging situation. If you have questions not answered in this book or by your wife's office visits, bring them to our attention. You're welcome to come to the office appointments with your wife, but if you wish to discuss some pregnancy matter, we ask that you schedule a special appointment.

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