Galen Pregnancy Information Booklet

Wisdom. Compassion. Integrity.

GALEN OBSTETRICS & GYNECOLOGY

Caring for Women of All Ages

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Introduction

Welcome to Galen Ob/Gyn, and congratulations on your pregnancy! Pregnancy is a wonderfully rewarding, and oftentimes challenging, experience. We feel honored that you have chosen us to help care for you during this special time.

This booklet is intended to address a few questions you might have at various points in your pregnancy. If questions arise which are not specifically addressed in this booklet, or perhaps are addressed but not in suitable detail to your liking, please be sure to bring these questions up with your provider at one of your office visits.

If you ever find yourself in a position in which you are concerned about something in your pregnancy, please feel comfortable to call our office. During the day, your doctor or nurse will call you back as soon as possible. At night, more urgent concerns will be passed to the doctor or nurse on call, and they will call you back as quickly as they are able. If you ever feel that your particular issue is an emergency, day or night, please call our office number immediately (423-899-9133) so that we can address your concern right away.

In the interest of continually improving this booklet, please feel free to make suggestions to your doctor or nurse regarding information or topics which you would like to see included in future revisions.

May the journey of your pregnancy be exciting, enjoyable, & rewarding!

Warmly,

Your Galen Physicians, Midwives, Nurse Practioners, Nurses, & Staff

I. **Birthing Classes:**
   A. Classes are offered in our office with instruction from one of the Labor & Delivery nurses. If you are interested, please ask someone at checkout or the front desk.
   B. There are a number of different classes related to pregnancy & childbirth offered at local hospitals as well:
   Birthing Classes, Breastfeeding Classes, Lamaze Classes, Water Aerobics
      1. If you are interested in learning about what is offered, call one or both of the numbers below for more information:
         a. Erlanger East & Erlanger Downtown Hospitals
            (1) 778-LINK
         b. Parkridge East Hospital (East Ridge):
            (1) 855-3683 or 622-6848

II. **Pediatricians:**
   A. There are a number of excellent Pediatricians in town.
   B. If you already have one who cares for another one of your children, for convenience you may want to have them serve as your new child's Pediatrician as well.
   C. If you don't have a Pediatrician yet, ***word of mouth*** from friends, nurses (e.g., on the Labor & Delivery floor), or your Obstetrician may help you choose who to ask to see your new baby.
   D. If you live out of town (e.g., in Cleveland or Dalton) & plan to have an out-of-town Pediatrician care for your baby, we can easily have one of the local Pediatricians see your baby in the hospital (since out-of-town Pediatricians typically don't make "rounds" in Chattanooga). The "covering" Pediatrician will then let you know when to make your 1st office appointment with your out-of-town Pediatrician.

III. **Pre-Registration:**
   A. If you are still undecided about where to deliver, please take a bit of time (perhaps on a Sunday, when things are slower) to visit both Erlanger East (Women's East Pavilion) & Parkridge East (East Ridge) hospitals for a tour of their L&D (Labor & Delivery) accommodations.
      1. Both hospitals have L&D rooms which are beautiful & comfortable, & both have nurses & staff who are caring, attentive, & highly qualified. So you can't go wrong with either choice.
   B. Once decided, pre-registration is a simple matter of filling out some paperwork including your name, address, phone number, & insurance information.

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I. **BACK PAIN:**

A. Back pain is one of the most common discomforts during pregnancy. There are many possible causes, but the most common is back muscle strain due to a change in center-of-gravity caused by an enlarging uterus. Weakness of the abdominal muscles may also play a role, since the hormones of pregnancy cause relaxation of muscles. This change in center of gravity makes the back muscles work harder, so they are easier to strain.

B. There are a number of things you can do to help reduce the strain on your back during pregnancy:

1. Wear low-heeled (but not flat) shoes with good arch support
2. Ask for help when lifting heavy objects
3. When standing for long periods, place one foot on a stool or box
4. If your bed is too soft, ask someone to help you put a board between the mattress & box spring
5. Don't bend at the waist to pick things up – instead, squat, bend your knees, & keep your back straight
6. Sit in chairs with good back support or use a small pillow behind the lower part of your back
7. Try to sleep on your side (left or right is okay) with one or two pillows between your legs for support
8. Apply heat or cold to the painful area, or massage it (e.g., heating pad or hot/warm bath)
9. Wear a pregnancy girdle/belt which helps support the weight of your pregnant abdomen
10. One of several stretches may also help:
    a. Upper body bend from a standing position with legs shoulder-width apart
    b. Upper body bend while sitting in a chair
    c. Cat-like stretch (try to bow your back outward) on all fours
    d. Trunk twist while sitting with legs crossed
11. Take Tylenol as directed if pain persists despite these helpful hints.

II. **BREASTS & BREASTFEEDING:**

A. It is normal to experience breast tenderness in early pregnancy.

B. Breast leakage at some point in pregnancy is also normal.

C. There are many reasons we recommend you breast feed your baby:

1. Breast milk provides your baby with all the nutrients they will need in the first 6 months of life.
    a. FYI: The mother of a preterm infant, who needs more protein than fat in the first few weeks of life, will automatically produce milk with the perfect protein concentration for that child
2. Breast milk also provides maternal antibodies which help protect your baby from infection until her/his immune system matures.
3. Breastfeeding releases oxytocin (the body's natural "Pitocin"), which contracts milk glands of the breast & also contracts the uterus. This minimizes blood loss after delivery & helps to rapidly shrink your uterus to normal size.
4. Breastfeeding burns more calories during the day (300-400), so you are likely to lose more weight, more quickly by breastfeeding.

D. *Despite these benefits, breastfeeding is not for everyone.* If you find that breastfeeding is creating unhealthy tension between you & your new baby, you may want to consider bottlefeeding instead.

III. **CIRCUMCISION:**

A. The strip of skin which covers the "glans" or head of the penis is called the ***foreskin***. For centuries parents have chosen, for religious and/or personal reasons, to have their sons circumcised shortly after birth. The vast majority of Americans choose to circumcise their sons, while many Europeans choose not to. The debate over whether the surgery is medically useful, however, continues to this day.

B. Several studies show a small but significant decrease in the risk of developing UTI's (Urinary Tract Infections) in boys who are circumcised, but the overall risk of UTI's is quite low in boys anyway. Studies also suggest there is a decreased risk of STD's (Sexually Transmitted Diseases) later in life if a boy is circumcised.

C. No surgery is without risks, even minor surgeries, and in the case of circumcision risks include bleeding, infection, & permanent cosmetic damage to the penis or urethra. But these risks are quite low & we perform the surgery quite often – so we don't expect any problems with your son's circumcision.

D. The decision to circumcise your son is entirely a personal one. If you choose circumcision, it will likely be done either before leaving the hospital or shortly after discharge (e.g, in your Ob/Gyn's or Pediatrician's office).

IV. CORD BLOOD COLLECTION:

A. Cord blood is the extra portion of your baby's blood which remains in the umbilical cord & placenta after delivery. Because it is rich in ***stem cells*** (i.e., cells which have the remarkable ability to become any type of tissue in the body), their collection after delivery *may* prove useful at some point in the future.

B. For example, if your child were to develop some type of cancer which required chemotherapy at some point in his or her life, their own cord blood stem cells might be used to help regenerate their immune system. Research is ongoing, but these same cells might also prove beneficial at helping to repair damaged tissues later in life (e.g., damaged heart tissue from a heart attack, damaged brain tissue after a car accident, etc.).

C. Because siblings share half of their genetic material with each other, one child's cord blood has an excellent chance of "HLA matching" with a sibling. In the case of a match, the donor child's cord blood could be used to help save the life of his/her brother or sister–all without having to go through the pain of donating their own bone marrow.

D. The disadvantage of cord blood collection thus far has been the cost. There are public cord blood banks which will pay the cost of collecting your child's cord blood, but there is no guarantee it will be available for your family should you need it (since it will be made available to anyone in the world who has a matching HLA type). Few public banks are in this region, as well. Private cord blood banks store the cord blood specifically for you, but a collection & storage fee is required (generally $2000-$3000 initial fee plus $100-$200 per year for storage).

E. Your child's chance of ever needing cord blood is quite low, so you may feel that the high cost is not worth the potential benefit.. But if you feel that the potential benefit outweighs the cost, cord blood collection may be for you.

F. For more information, please visit www.cryo-cell.com or www.cordblood.com or www.viacord.com or do an internet search for "public" or "private" "cord blood banking".

V. DENTAL WORK:

A. It is okay to have dental work performed while you are pregnant. In fact, treatment of dental infections (e.g., tooth abscesses) may help prevent pre-term labor.

B. You dentist will certainly be aware of the risks of certain medications during pregnancy. But since he/she probably sees relatively few pregnant patients, the "Letter to your Dentist" at the end of this booklet might serve as a good reminder.

C. So take this booklet with you to your next dental visit if you plan to have any significant work done to your teeth.

VI. EXERCISE DURING PREGNANCY:

A. Exercise outside of pregnancy has many benefits, including muscle & bone growth. For these same reasons, & more, exercise is equally important during pregnancy:
   1. Helps reduce backaches, constipation, bloating, swelling
   2. Helps prevent or treat gestational diabetes
   3. Increases energy
   4. Improves mood
   5. Improves posture
   6. Promotes muscle tone, strength, & endurance
   7. Helps you sleep better

B. **Risks:**
   1. Joints:
      a. Pregnancy hormones cause the ligaments which support your joints to become relaxed. This makes joints more mobile, which can increase risk of injury. For this reason, try to avoid jerky, bouncy, or high-impact motions, especially in the 2nd half of pregnancy.
   2. Balance:
      a. The extra weight of your uterus in the front of your body shifts your center of gravity forward, placing more stress on muscles & joints, especially those of the pelvis & low back. This can cause back pain & make you less stable, & therefore more likely to lose your balance & fall, especially in late pregnancy.
   3. Heart Rate:
      a. The extra weight of pregnancy will make your heart work harder than before you were pregnant. So don't overdue it. Keep well hydrated, take "cool-down" breaks every 30-45 minutes, & try to exercise moderately.

C. **Safe Exercises:**
   1. Aerobics
   2. Cycling (stationary)

3. Running (especially if you were a runner before pregnancy)
4. Strength training
5. Swimming
6. Walking

D. **Unsafe Exercises:**

1. Contact sports – trauma issues
2. Gymnastics – trauma issues
3. Horseback riding – trauma issues
4. Racquet sports – balance issues
5. Scuba diving – decompression sickness issues
6. Skiing (Snow & Water) – balance issues, trauma issues, high altitude issues with snow skiing

E. **Warning signs** (Stop exercising & contact us if you experience any of the following):

1. Chest pain
2. Decreased fetal movement
3. Dizziness
4. Fluid leaking from the vagina
5. Headache
6. Significant shortness of breath
7. Uterine contractions
8. Vaginal bleeding

F. The best time to exercise during pregnancy is before 24 -28 weeks, since exercise is more difficult & tiresome in the last 3 months. Try to exercise for 30 minutes most if not all days of the week.

G. If you didn't exercise before pregnancy, start slow (e.g., 5 minutes a day, adding 5 minutes each week).

H. A good exercise regimen includes initial stretch, 5-10 minute warm-up, moderate exercise, 5-10 minute cool-down, & final stretch.

I. If your pregnancy is complicated by Preterm Labor, Vaginal Bleeding, or certain other risky conditions, exercise should be avoided until after delivery.

VII. GESTATIONAL DIABETES MELLITUS (GDM):

A. Diabetes occurs when the body has difficulty either producing or responding to insulin, which is produced by the pancreas. Insulin enables the absorption of glucose (sugar) into cells so it can be used for energy. Lack of insulin production (i.e., Type I or "Juvenile Onset" diabetes), and lack of insulin sensitivity (i.e., "Insulin Resistance" which is seen in both Type II & Gestational diabetes), both result in

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elevated blood glucose levels. These high sugars can have a number of detrimental effects on the body such as blood vessel damage, nerve damage, heart problems, & vision loss. High sugar levels in a diabetic women who gets pregnant can lead to miscarriage, birth defects, & macrosomia (abnormally large baby).

B. Pregnancy is a natural state of insulin resistance. The body protects the developing fetus who gets "first dibs" on the maternal blood sugar. Occasionally this *mild & expected* insulin resistance is replaced by more severe insulin resistance. This can lead to the above problems in pregnancy.

C. In order to screen for Gestational Diabetes (GDM), you will need to take a ***one-hour glucola*** test at about 28 weeks of pregnancy. If you have a history of GDM, your doctor may recommend that you take the test at your first or second Ob visit. If your one-hour glucola is less than 135, your risk of having GDM is extremely low. If it is greater than or equal to 195, you have GDM. If it is between 135 & 195, you will need to do a diagnostic ***three-hour glucola*** to either confirm or "rule-out" GDM.

D. If you have GDM, we will prescribe a glucose meter, lancets, & test strips for you to start checking your blood sugars four times per day (fasting, & 2 hours after each meal). We will also send you to a Diabetic Counselor for advice on dietary changes which should improve your blood sugars. Moderate exercise helps reduce the amount of insulin needed to keep your blood sugars in the normal range. But if your blood sugars remain elevated despite changes in diet & exercise, you will likely need to be started on insulin injections (usually twice a day).

E. GDM usually resolves after delivery of your baby, but more than 50% of women with GDM will develop Type II diabetes later in life. Regular exercise & dietary modification can help prevent future diabetes.

VIII. GROUP B STREP (GBS):

A. Group B Strep (**GBS**) is a bacteria normally found in the gastrointestinal, urinary, and/or reproductive tracts of about 20-30% of women. It is a "cousin" of Group A Strep which causes Strep Throat. Except for an occasional urinary tract infection, however, it rarely causes any problems in the mother. But if a baby is born through the birth canal of a mother who is GBS+, they may get GBS in their mouth, throat, & lungs. The same is true of a women undergoing a c-

section, but theoretically only if her "water" has broken before delivery, since the bacteria can then easily travel into the uterus toward the baby.

B. Only about 1-3% of babies born to GBS+ mothers acquire the infection, but if they do, it can have disastrous consequences such as newborn pneumonia, sepsis, & even death.

C. To prevent this risk, we do a GBS culture on every pregnant patient within 5 weeks of their due date (usually between 35 & 37 weeks). If your culture returns positive for GBS, we simply give you antibiotics (usually Penicillin) during labor to prevent transmission to the baby.

D. If you previously have had a baby who acquired GBS infection (e.g., pneumonia, sepsis) or have had a urinary tract infection during *this* pregnancy which was found to be caused by GBS, you will not need to be tested at 35-37 weeks (Instead you'll simply receive antibiotics during labor). If, however, you previously tested positive for GBS in a prior pregnancy, but your baby was healthy after delivery, you *will* need to have a new culture performed at 35-37 weeks.

IX. HIGH BLOOD PRESSURE DURING PREGNANCY:

A. A blood pressure measurement (e.g., 120/80 or 120 "over" 80) consists of two numbers:

1. Pressure in the arteries when the heart contracts, ***systolic pressure*** (which is the top number)
2. Pressure in the arteries when the heart relaxes, ***diastolic pressure*** (which is the bottom number).

B. Arteries are coated by a layer of smooth muscle which allows their constriction & dilation. This is necessary so the body has the ability to direct blood flow to areas which need it most. During a long run, for example, arteries to the legs will dilate so the leg muscles get plenty of blood & oxygen. If, however, your brain or heart tissue is not getting enough blood, the arteries in the rest of the body constrict to allow more blood flow to these organs. This can raise the blood pressure, causing *hypertension*.

C. There is a wide range of normal blood pressures (e.g., 90/50's to 130/80's). Hypertension is usually considered at blood pressures of 140/90's or higher.

D. During mid-pregnancy, the blood pressure typically falls (e.g., to 90-110's / 50-70's). By the end of pregnancy it should rise back to your own normal pre-pregnancy level (e.g., 120/80).

E. Some women have high blood pressure before they get pregnant. This

is called *chronic hypertension*. Other women develop high blood pressure in early or late pregnancy. This is called *transient hypertension of pregnancy*. Still others develop a collection of problems in the last half of pregnancy (i.e., after 20 weeks) which include high blood pressure, excessive protein spillage in the urine, severe headaches, vision changes, & upper abdominal pains. This is called ***preeclampsia*** or ***pregnancy induced hypertension*** (i.e., **PIH**, previously called "toxemia").

F. If your blood pressure is very high before pregnancy, or rises dramatically in early or late pregnancy with no signs of PIH, you may be started on one of several blood pressure medicines which is considered safe during pregnancy. If you show one or more signs of PIH, however, you may be asked to perform certain tests (e.g., blood or urine tests) in order to "rule-in" (confirm) or "rule-out" (deny) PIH.

G. Treatment for mild PIH involves close observation followed by delivery at or after 37 weeks gestation. Treatment for severe PIH involves delivery even sooner than 37 weeks. If you develop any of the symptoms or signs of PIH (i.e., high blood pressure, severe headaches despite Tylenol, vision changes such as spots or stars, or intense high abdominal pain), we ask that you contact us immediately.

X. LABOR:

A. In the last half of pregnancy (20-40 weeks) it is normal to have periodic irregular contractions, especially at the end of the day. Some of these contractions will actually be painful as well, but they usually lack the coordinated uterine activity necessary to dilate your cervix. These are called Braxton Hicks contractions.

B. True contractions (which ultimately have the effect of thinning & dilating your cervix) tend to come with regularity, first every 15 minutes or so, then increasing in frequency to every 10, 8, 6, & 5 minutes or closer.

C. If you are less than 36 weeks pregnant (i.e., more than 4 weeks before your due date) & you start contracting with any regularity (e.g., consistently more than 4-5 contractions per hour) and your contractions are consistently painful, we need for you to call us right away since you may be experiencing ***pre-term labor***.

1. In the case of contractions, you may be advised to drink lots of water, lie on a couch or bed, & monitor the contractions for another 30-60 minutes – or you may be asked to come straight into the office or hospital.

D. If you break your water (i.e., your amniotic membrane ruptures), you need to call us, even if you aren't yet contracting.

E. If you are 36 weeks pregnant or beyond & are planning to delivery your baby vaginally, we usually recommend that you watch closely for these indicators that you may be in ***active labor***:

1. Contractions are coming every 5 minutes or closer (i.e., timed from the beginning of one contraction to the beginning of the next)
2. Contractions are so strong they take your breath away & you can't talk through them
3. Contractions are coming regularly like this for 1-2 hours straight without trailing off
    a. If you have previously delivered one or more babies vaginally, or you live more than one hour from the hospital, you may want to notify us after about 1 hour of regular contractions rather than 2 hours.

F. If, despite this advice, you are ever uncertain about whether or not you might be in labor, please call us.

XI. MATERNAL SERUM SCREENING FOR BIRTH DEFECTS (I.E., QUAD SCREEN OR MSAFP):

A. The risk of having a baby with chromosomal problems like Down syndrome increases with maternal age (e.g., 1 in 1667 at 20 years old; 1 in 1250 at 25yo; 1 in 952 at 30yo; 1 in 378 at 35yo; 1 in 106 at 40yo; & 1 in 30 at 45yo). Despite these statistics, 80% of babies with Down syndrome are born to mothers younger than 35 who have no risk factors at all (because there are more women <35 having babies).

B. What was once called the MSAFP (Maternal Serum Alpha Fetal Protein) is now a collection of four hormone levels (i.e., Quad Screen) which is used to determine a mother's risk of having a baby afflicted with a neural tube defect (e.g., spinal bifida), Down syndrome (i.e., Trisomy 21), or Trisomy 13 or 18. The varying levels of these four hormones–alpha fetal protein (AFP), estriol, hCG, & inhibin – along with the mother's age, weight, & gestational age, are used to calculate a risk assessment which either gives reassurance of low risk or potential concern for high risk of these disorders in this pregnancy. The Quad screen's sensitivity is about 75-80% – i.e., it will correctly identify mothers whose fetuses are afflicted about 75-80% of the time. The addition of a thorough ultrasound at about 20 weeks gestation improves our ability to detect these disorders even further.

C. No test is perfect. A small percentage of women with *normal* Quad

Screen results will have a baby afflicted with one of these disorders. And many of the women who have *abnormal* Quad Screen results will end up having a reassuring ultrasound and/or amniocentesis (and subsequently, a normal baby). We generally recommend screening of all pregnant women between 16 and 20 weeks gestation, but if you choose to decline the test, we will honor that request.

D. A newer test called a Nuchal Translucency (NT) screen is available between 10-14 weeks to assess risk of Down syndrome or other chomosomal problems. There is also an "Early Screen" blood test which involves drawing blood at both 10-14 weeks & 16-20 weeks. We will try to discuss these options with you at your 1st Ob visit. If you would like more information, please feel free to ask.

XII. MULTIPLE PREGNANCIES (I.E., TWINS, TRIPLETS, ETC.):

A. Multiple pregnancies occur when one of two things occur:

1. Two or more eggs are fertilized by an equal number of different sperm (e.g., "fraternal" twins)
2. One egg is fertilized by one sperm, but subsequently splits into two or more equal parts (e.g., "maternal" or "identical" twins)

B. Twin & Triplet pregnancies can bring much joy to their families, but they also pose inherent risks to mother & baby. Essentially *all* of the risks associated with a singleton pregnancy (i.e., single child), are multiplied exponentially with the addition of each child to the womb. Some of these risks are:

1. Increased risk of pre-term labor
2. Increased risk of pregnancy induced hypertension
3. Increased risk for insulin resistence & gestational diabetes
4. Increased risk for discordant growth (i.e., one twin gets bigger at the expense of the other)
5. Increased risk of blood loss & anemia after delivery
6. Increased risk of death of one or more fetuses

C. Having twins or triplets can be a very exciting time. But expect to be watched much more closely via ultrasounds & NST's (Non-Stress Tests) than if you were carrying a singleton pregnancy. Getting in touch with support groups or other friends who have had twins or triplets will likely be helpful as well.

XIII. NAUSEA:

A. Nausea in early pregnancy is thought to be due to the rising pregnancy hormone, hCG (human Chorionic Gonadotropin). This hormone level

rises rapidly in early pregnancy to a peak at around 8-12 weeks gestation. For this reason, most women feel a decrease in the nausea shortly after 12 weeks. But some women struggle with nausea for 14-16 weeks or even longer.

B. **Behavioral & diet changes:**
   1. Start taking **multivitamins** (MV) or **prenatal vitamins** (PNV) before conception (decreases chance of severe nausea & vomiting during pregnancy)
   2. Avoid **iron** pills unless otherwise instructed (except PNV or MV)
   3. Keep **crackers** at your bedside & **eat before rising**
   4. Move **slowly**
   5. Get plenty of **rest**
   6. Avoid an **empty stomach**
   7. Eat **frequent, small meals** & **drink liquids between meals**
   8. Eat a **high protein, bland, low fat diet**
   9. Avoid **spicy** or **fatty** foods
   10. Drink **lemonade** (hydrates & induces salivation)
   11. Drink **tea** made from **ginger** root, or drink **Ginger Ale**
   12. Don't **brush** teeth immediately after eating
   13. Avoid environmental **temperature** extremes
   14. Avoid olfactory (i.e., sense of smell) triggers (e.g., **perfumes**, chemicals, pets, food odors, etc.)
   15. The **BRAT Diet:**
       a. BRAT stands for:
          (1) **B**ananas
          (2) **R**ice
          (3) **A**pplesauce
          (4) **T**oast
       b. If you experience nausea & vomiting (e.g., in early pregnancy, or later in pregnancy due to a "stomach bug"), try advancing your diet slowly, first to sips of water, then clear liquids (like fruit juices or jello), & then to the BRAT diet (which should be easier on your stomach initially than other foods, especially fatty or spicy foods).

C. **Vitamin & Herbal Medicines:**
   1. Ginger 250mg PO (Per Oral = by mouth) q (every) 6-8 hours
   2. Vitamin B_6 10mg PO q 8 hours
       a. or 25mg PO q 8 hours
       b. or 30mg PO q 24 hours
   3. Premesis Prenatal Vitamin PO q Day (contains vitamin B_6)

D. **Accupressure / accupuncture:**
   1. Studies show conflicting results. Some patients benefit, while others don't.

E. **Medicines:**
   1. **Antihistamines:**
       a. **Unisom** / doxylamine (Also found in Tylenol Nightime, Alka Seltzer Nighttime, Vick's Nyquil) 25mg PO qHS
          (1) Taking along with Vitamin B_6 may be beneficial
       b. Benadryl / diphenhydramine (B) 25-50mg PO q 6 hours PRN
       c. Vistaril / hydroxyzine (C) 25-50mg PO q 6 hours PRN
   2. **Phenothiazine derivitives:**
       a. **Phenergan** / promethazine (C) 12.5-25mg PO q 6 hours PRN
       b. Compazine / prochlorperazine (C) 5-10mg PO q 6-8 hrs PRN
       c. Tigan / trimethobenzamide (C) 300mg PO q 6-8 hours PRN
   3. **Anticholinergics:**
       a. Transderm Scop / scopolamine (C) 1.5mg patch behind ear
   4. **Dopamine antagonists:**
       a. **Reglan** / metoclopramide (B) 10mg PO q 6 hours PRN
   5. **5-HT3 (serotonin) receptor antagonists (previously expensive):**
       a. **Zofran** / ondansetron (B) 4-8mg PO or ODT q 4-8 hours PRN
       b. Anzemet / dolasetron (B) 50-100mg PO x 1
       c. Kytril / granisetron (B) 1-2mg PO q 12-24 hours PRN
   6. **Steroids:**
       a. Limited data on efficacy

XIV. **NUTRITION:**

A. Eating a healthy balanced diet is important whether you are pregnant or not (Refer to the Food Guide Pyramid for general assistance in planning your meals). During pregnancy, however, it becomes more important to take in enough ***iron & folic acid*** to help prevent anemia & neural tube defects respectively. Unless you have twins, diabetes, or a history of having a baby with a neural tube defect, one prenatal vitamin (PNV) per day provides enough iron (about 25-30mg) & folic acid (800mcg) for your pregnancy. For this reason we recommend one PNV – every day that you are pregnant...as well as every day you breastfeed after delivery.

B. During pregnancy you will require only about 300 calories more per day than you usually need. Because most of us over-eat by at least 300 calories per day, don't fall into the trap of thinking you need to double your caloric intake in order to "eat for two." Eating a healthy balanced

diet is usually sufficient.

C. Ideal weight gain during pregnancy depends on one's pre-pregnancy weight. In general, the ideal total weight gain for a pregnancy is about 25-35 pounds. With this said, a woman who is underweight before pregnancy may do well gaining 40 pounds, while one who is overweight before pregnancy may do well gaining only 15 pounds.

D. **Mercury:**
   1. Fish is an important part of a healthy diet. But many fish (especially larger ocean fish) contain high amounts of mercury which can harm an unborn child. Avoiding shark, swordfish, king mackerel, & tilefish, and limiting consumption of freshwater fish to once a week, should be adequate to limit your mercury consumption.

E. **Listeriosis:**
   1. Listeriosis is an illness caused by a bacteria found in certain foods. Symptoms include fever, chills, muscle aches, & back pain. Washing all fresh fruits & vegetables, avoiding foods such as unpasteurized milk & cheese and raw or undercooked meat or poultry, and making sure hot dogs & deli meats are reheated until steamy hot, should limit your risk of acquiring Listeriosis.

F. **Water:**
   1. Because your blood volume will increase by 50-100% during pregnancy, your body will crave water. Be sure to drink plenty of water throughout the entire pregnancy – more than you think you need.
   2. A good rule of thumb is that your should try to keep the color of your urine clear (like the color of water). A light yellow color is okay when you wake in the morning, but yellow (concentrated) urine at other times of the day indicate your body needs more water.
      a. Note that PNV's (Prenatal Vitamins) will likely turn your urine a bit yellow as well, but do your best to drink enough water to keep your urine fairly clear.

XV. OTC (OVER THE COUNTER) MEDICINES:

A. There are multiple OTC medicines that are safe during pregnancy. If you are considering taking a medicine that is not on this list, please call your doctor or nurse to see if it is okay.

B. **Cold:**
   1. (Cold/Cough/Flu/Sinus): Alka Seltzer, Benadryl, Mucinex,

Tylenol, Sudafed, Triaminic, Vicks

C. **Congestion:**
   1. Sudafed

D. **Constipation:** (Be sure to increase water intake first, since dehydration is the primary cause of constipation!)
   1. Citrucel, Colace, FiberCon, Magnesium citrate, Metamucil, Milk of Magnesia, Miralax

E. **Cough:**
   1. Robitussin (any variety)
   2. All OTC cough medicines are safe, but we recommend that you avoid formulations with high alcohol content

F. **Diarrhea:**
   1. Imodium, Kaopectate

G. **Fever blisters:**
   1. Blistex, Zovirex ointment

H. **Gas:**
   1. Gas-X (simethicone)

I. **Headache:**
   1. Tylenol (acetaminophen – regular or extra strength)
   2. (Be sure to avoid aspirin, Goodies powder, ibuprofen, & naproxen during pregnancy unless your doctor directs otherwise)

J. **Heartburn:**
   1. Maalox, Mylanta, Rolaids, Tums
   2. Axid, Pepcid, Prilosec, Tagamet, Zantac

K. **Hemorrhoids:**
   1. Anusol, Preparation H, Tucks

L. **Nausea:**
   1. See booklet section entitled "Nausea"

M. **Prenatal vitamins (PNV):**
   1. Any type of PNV (including OTC generic varieties) is safe to use during pregnancy & breastfeeding.
      a. Try to find one with "DHA" (essential fatty acids) if possible
      b. If you can't tolerate one PNV per day, try taking ***two*** *Flintstone vitamins* or *Gummy vitamins* per day.

N. **Sore throat:**
   1. Chloraseptic spray, Throat lozenges (any variety)
   2. Tea (or simple hot water)

O. **Stretch marks:**
   1. No medicine has proven to be beneficial for stretch marks, but any moisturizing lotion or vitamin E cream is safe.

2. Mederma is also safe during pregnancy.

P. **Yeast infection (vaginal):**

1. Gynazole, Gyn-Lotrimin, Monistat, Mycelex, Terazol
    a. Note: The Diflucan pill is usually reserved as a 2nd or 3rd resort during pregnancy, since it may not be as safe as the above topical creams

XVI. POSTDATE PREGNANCY:

A. By definition, pregnancy is dated from the first day of the Last Menstrual Period (LMP) & lasts a total of 280 days or 40 weeks.
1. Interestingly, this is true even if you don't know your LMP. In this case, an early UltraSound (U/S) is used to calculate both the size of the baby & an estimate of the LMP.
2. If you know the date of conception but not your LMP, your doctor might calculate your LMP (and therefore your Due Date) by subtracting 2 weeks – since conception occurs just after ovulation which typically occurs about 14 days after your LMP.

B. Term pregnancy:
1. Although your Due Date is exactly 280 days or 40 weeks from your LMP, the definition of a *term* pregnancy is 37-42 weeks.

C. Pre-term pregnancy:
1. Any delivery which occurs before 37 0/7 weeks (e.g., 36 6/7 weeks) is considered *pre-term*.

D. Post-dates:
1. Technically, the definition of a post-dated pregnancy is one which persists beyond 42 weeks.
2. The reason this date is important is because after this time the risk of injury or death to the baby increases dramatically due to potential loss of function of the placenta..
3. Recent evidence suggests that this risk to the baby actually starts to rise at 41 weeks. For this reason, your doctor may insist on *inducing* (i.e., pushing you into labor) around 41 weeks.
    a. As an added precaution, your doctor may ask you to come in twice a week after 40 weeks (i.e., your Due Date) in order to perform Non-Stress Tests (NST's) which involve hooking you up to monitors on your abdomen to be sure the baby's heart rate tracing shows signs of good oxygenation to the brainstem.
    b. Or a BioPhysical Profile (BPP) may be performed, involving ultrasound evaluation of your baby.

XVII. POSTPARTUM STERILIZATION:

A. Postpartum sterilization or BTL (Bilateral Tubal Ligation) involves "bringing up" your epidural so you can't feel your naval (or putting you to sleep if you don't have an epidural), making a small incision just below your naval, & pulling up...tying...& cutting out a segment of each fallopian tube.

B. Ideal timing of postpartum BTL ranges from immediately after delivery to 24-48 hours after delivery.

C. Although there is often a deep down ache associated with postpartum BTL, recovery time is not much different than from a simple vaginal delivery.

D. Postpartum BTL should be considered a permanent procedure – so you should not consider it if there is any chance you may want another biological child in the future.

E. Risks – As with any other surgery, there are risks of BTL:
1. Bleeding – which might require extension of the incision
2. Infection – although this risk is low
3. Failure:
    a. Even though BTL is an excellent way to prevent future pregnancy, about 2-8/1000 women will get pregnant after a BTL. Of these, there is a 75% chance that the pregnancy will be ectopic (i.e., outside the uterus) – which can present a surgical emergency.
    b. So after having a BTL, if you ever feel as though you might be pregnant (e.g., missed menstrual period, nausea, breast tenderness), we ask that you do a home pregnancy test & call us right away if it is positive.
4. Alternatives:
    a. Birth control pills, patches, vaginal rings
    b. Condoms
    c. IUD (Intrauterine device) – lasts from 5-10 years
    d. L/S BTL (Laparoscopic BTL) – could be scheduled anytime after your 6 week postpartum check, & involves making one or two small incisions on the abdomen in order to ligate (i.e., occlude) the tubes laparoscopically
    e. Vasectomy – potentially cheaper & less traumatic than BTL, but requires another form of birth control for at least 2-3 months until a semen analysis confirms no live sperm

XVIII. **RH FACTOR & RHOGAM:**

A. Rh is an antigen (i.e., surface protein) which either appears or does not appear on a person's red blood cells (**RBC**'s). More than 85% of the people in the world are Rh+ (pronounced "R-H-positive") & therefore have the antigen, while the remaining 15% are Rh- (pronounced "R-H-negative") & do not have the antigen. A person with blood type O+, A+, B+, or AB+ is Rh+ by definition. A person with blood type O-, A-, B-, or AB- is Rh-.

B. A pregnant woman's placenta serves, in part, as a barrier to keep her RBC's from passing into the fetus' circulation & vice versa.. Despite this barrier some fetal RBC's are likely to "seep" into the maternal circulation at some point in the pregnancy (usually in the latter part, & almost certainly at delivery). If a woman is Rh- & her fetus is Rh+, her immune system may see those stray fetal Rh+ cells & produce antibodies to destroy them (e.g., *isoimmunization*). Unlike RBC's, these antibodies CAN cross the placental barrier into the fetal circulation & destroy Rh+ fetal RBC's, causing *hemolytic anemia*. Because this immune process takes time, it rarely causes problems in that particular pregnancy. More often it places *subsequent* pregnancies at risk for fetal *hemolytic anemia*.

C. If your blood type is Rh- (i.e., O-, A-, B-, AB-), you will need a ***Rhogam*** shot at about 28 weeks of pregnancy (and perhaps earlier or later if you experience bleeding, miscarriage, trauma, amniocentesis, etc.). Rhogam is composed of concentrated Rh antibody (i.e., immunoglobulin) which binds to stray fetal Rh+ cells & destroys them before the maternal immune system has a chance to recognize them & produce her own antibodies against them. If a cord blood sample taken immediately after delivery indicates that the baby is Rh+, an additional Rhogam shot will be necessary before you leave the hospital.

XIX. **SEXUAL ACTIVITY:**

A. In general, sexual activity is safe throughout pregnancy.

B. As long as your pregnancy is not complicated by any of the following conditions, there should be no restriction to spontaneous sexually activity at any time during your pregnancy:
1. Vaginal bleeding
2. Placental abruption (i.e., premature separation of the placenta)
3. Placenta previa (i.e., placenta covers cervical opening)
4. Preterm labor

XX. **TOXOPLASMOSIS:**

A. Toxoplasmosis is an infection caused by a protozoan called Toxoplasma gondii (T. gondi). Wild & domestic cats are the only host organisms for the oocyst (one of the 3 life stages of the organism), so infection depends on proximity to them. Mammals such as cows then ingest the oocyst from cat feces, ultimately forming cysts in muscle & brain. Human infection occurs when infected meat is ingested or when food is contaminated by cat feces (e.g., by flies, cockroaches, or fingers). While the heat of cooking destroys the organism, eating raw or rare beef is a risk factor for human infection.

B. Most infections in humans are asymptomatic (i.e., don't cause symptoms), but acute infection, especially in the 3rd trimester of pregnancy, increases the risk of your baby being born with an infection.

C. Pregnant women are therefore advised to do the following:
1. Avoid contact with stray cats or cat feces
2. Wear gloves when working in the yard since cat feces may be present in your flowerbeds
3. Always wash your hands after preparing meat for cooking
4. Never eat raw or rare meat
5. Wash fruits & vegetables thoroughly

XXI. **ULTRASOUND:**

A. Ultrasound during pregnancy is useful in many ways:
1. Helps confirm your baby's gestational age
2. Helps reassure of health/viability in cases of vaginal bleeding
3. Helps reassure of normal anatomy (i.e., brain, spine, heart, bladder, limbs, etc.) at about 20 weeks of pregnancy
4. Helps reassure of baby's adequate growth
5. Helps reassure of normal amniotic fluid volume
6. Helps reassure of baby's health later in pregnancy

B. If your pregnancy is uncomplicated, you might receive only one ultrasound the entire pregnancy.
1. This would be performed at about 20 weeks, since this is the ideal time to look at your baby's anatomy

C. Your physician might choose to perform a vaginal probe ultrasound at your first Ob (Obstetrical) visit too, since earlier ultrasounds are more accurate in confirming gestational age
1. This early ultrasound would be especially useful if you are uncertain of your LMP or date of Conception

D. If your pregnancy is complicated in some way (e.g., diabetes, twins, etc.), you may receive a series of ultrasounds throughout your pregnancy depending on your doctor's recommendations.

E. **3D/4D U/S (Ultrasound):**

1. Our 4D (4 Dimensional) U/S provides a 3D view of your baby in real time (i.e., "time" being the 4th dimension)
2. In cases in which the 2D U/S picture reveals a question, a 4D U/S can prove useful in looking for certain anatomical defects (e.g., cleft lip or cleft palate)
3. 3D Photos:
   a. Many people request to have optional 3D photos taken of their baby / babies to place in their photo albums as keepsakes.
   b. Insurance companies don't recognize these ultrasounds as "necessary", so they are not "covered" by your insurance.
   c. If you would like to have an optional 3D scan performed in order to see your baby in 3 dimensions & have digital photos taken, we can easily schedule it for you.
   d. Ideal timing is anytime after 28-32 weeks or so.
   e. Our-of-pocket cost would be about $150-$200
   f. If interested please call, or ask someone at checkout.

XXII. **VBAC (Vaginal Birth After C-section):**

A. Attempted vaginal delivery after a prior c-sections is termed a VBAC.

B. In the distant past doctors believed, "Once a c-section, always a c-section," & discouraged patients from attempting VBAC due to the risks, to both baby & mother, of uterine rupture at the old incision site.

C. In the more recent past (e.g., within the last 10-15 years), there was a shift in obstetrical thinking that VBAC's were safer than once thought.

1. Because patient recovery is much more rapid after a vaginal delivery than a c-section, many doctors started to encourage their patients to try VBAC's, so long as their prior c-section was not a "Classical" type which involves a vertical incision on the uterus.

D. Over the last few years evidence has surfaced which indicates VBAC's may be a bit more risky than we once thought:

1. Risk of uterine rupture after a prior "Classical" c-section is ~10%
2. Risk of uterine rupture after a prior "Low transverse" incision is less than 1%
3. But evidence suggests that in the unlikely event uterine rupture *does* occur, risk of harm or death to baby might be as high as 1 in 1000.

Galen Pregnancy Information Booklet

E. Because of the inherent risks of VBAC, you & your doctor will have to decide which route of delivery is best for you.

1. If you have never delivered a baby vaginally, & your prior c-section was for "failure to dilate" your cervix or failure of your baby's head to descend after complete dilation of your cervix, it may be most wise to plan for a "Repeat c-section" at about 39 weeks of your pregnancy.
2. If, however, you *have* delivered a baby vaginally but just happened to have a c-section (either before or after) due to breech presentation, non-reassuring fetal heart rate, etc., than you may be an excellent candidate for a VBAC.

F. If you & your doctor decide to attempt a VBAC, you will likely be asked to sign a written consent on admission to the hospital indicating you understand the aforementioned risks.

1. Your doctor will also likely ask to "rupture your membranes" & place a monitoring catheter (IUPC or IntraUterine Pressure Catheter) beside your baby's head & into the uterus in order to better monitor you & your baby
   a. Uterine rupture results in a sudden loss of intrauterine pressure, so the IUPC can help identify rupture earlier
2. Finally, your doctor will remain nearby, in case of an emergency.

LETTER TO YOUR DENTIST:

Dear Dr ______________________:

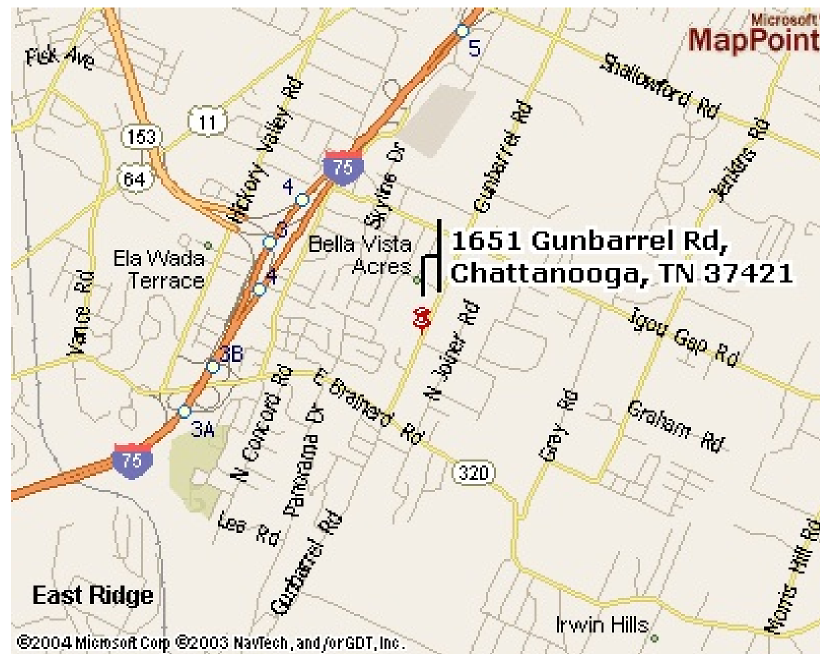
In regards to our mutual patient's dental care during pregnancy, please note our recommendation to proceed with your usual plan of care with the following considerations:

- Analgesics (lidocaine, procaine, etc.) may be used safely but should not include much if any epinephrine if possible
- Antibiotics such as penicillins & cephalosporins may be used safely, but...
  - Doxycycline & tetracycline should be avoided due to staining of the fetus' developing bones
  - Quinolones (e.g., Cipro, Floxin, Levaquin) should be avoided due to harmful effects on fetal cartilage
- Pain medicines, including hydrocodone, oxycodone, & codeine are safe for acute pain relief
  - Acetaminaphen (Tylenol) is safe during pregnancy
  - NSAID's (e.g., ibuprofen) should be avoided in pregnancy due to harmful effects on fetal renal function and on the ductus arteriosis

Thank you very much for your care of our obstetrical patient.

Sincerely,

_______________________, MD
Galen Ob/Gyn



DIRECTIONS TO GALEN OB/GYN:

Take I75 to East Brainerd Road (Exit 3A); go East 1.1 miles
Turn Left on Gunbarrel Road & go 0.4 miles
Look for Women's East Pavilion / Erlanger East Campus on your Left
(Our office is the large red brick building at the back corner of the parking lot)
or
Take I75 to Shallowford Road (Exit#5); go East 0.6miles
Turn Right on Gunbarrel Road & go 1.5 miles
Look for Women's East Pavilion / Erlanger East Campus on your Right
(Our office is the large red brick building at the back corner of the parking lot)

Office Hours: Monday-Friday, 9am-5pm*

*For after-hours emergencies, please call the main office phone number & leave a detailed message with the answering service, who will relay your message immediately to the physician on call. Although we try to call you back right away, some pages have difficulty getting through in certain settings (e.g., operating rooms, certain areas of town). Therefore, please be sure to call us again if you do not hear from us within 15-30 minutes.