# What to Expect When Your Client is Expecting!

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## What You Will Learn

- What happens during each trimester of pregnancy
- The importance of nutrition and easy tips for healthy eating
- What happens during a prenatal visit
- Commons aches and pains and what to do about them
- Danger signs: when to worry
- Preparing for Labor & Delivery
- The Postpartum Period
- Baby Basics
- When to call a health care provider

## Signs & Symptoms of Pregnancy

### Presumptive Signs

- ❖Menstrual suppression
- Morning sickness (nausea/vomiting)
- Frequent urination
- Breast tenderness
- Perception of movement (quickening)
- Chadwick's sign (dark blue discolor of cervix)
- Fatigue

### Probable Signs

- ◆Enlargement of Abdomen
- Hegar's sign (change in size & shape of uterus)
- Fetal outline by abdominal palpation
- Softening of cervix
- Braxton-Hicks contractions

### Positive Signs

- Fetal heart tones
- Fetal movements by examiner
- Fetal body detected by ultrasound

## Pregnancy: First Trimester

<u>Symptom</u>	<u>Probable source</u>	<u>Comfort measures</u>
Fatigue	Hormonal changes	Increased rest & naps
Nausea & vomiting	BHcg & estrogen	Simple carbohydrates
Breast tenderness	Estrogen effects on ductal system	Well-fitting bra
Constipation	Progesterone-slowing digestive system	Fiber intake & liquid intake
Excess salivation (Ptylasim)	Progesterone	Assure it will pass
Urinary Frequency	Uterine enlargement	Will resolve in 2 <sup>nd</sup> trimester
Headaches	Increased blood volume	Increase fluids-may take Tylenol
Vaginal spotting	Increased blood flow to uterus & cervix (also implantation bleeding)	Pelvic rest

## Pregnancy: Second Trimester

<u>Symptom</u>	<u>Probable source</u>	<u>Comfort measure</u>
Back & ligament pain	Uterine enlargement	Support girdle and stretches
Nose bleeds (epistaxis)	Increased blood volume, estrogen	Episodic management
Bleeding gums	Estrogen	Softer toothbrush
Palpitations	Increased cardiac output	Reassurance when P.E. is normal; \( \) caffeine
Chloasma (skin changes)	Estrogen & progesterone	Reduce sun exposure
Linea nigra (dark line down belly)	Estrogen & progesterone	Will resolve after pregnancy

## Pregnancy: Third Trimester

<u>Symptom</u>	<u>Probable source</u>	<u>Comfort measure</u>
Fatigue	Related to anemia & growing fetus	Increase iron sources
Backache	Lordosis of pregnancy & growing uterus	Support girdle & stretching
Leg swelling/cramps	↓ venous return, change in serum osmolality	Increase fluids, keep feet propped at night, increase calcium
Bladder pressure	Anatomical from distended uterus	Reassurance that it will end
Indigestion	Relaxation of sphincter	Zantac, Tums, Maalox
Increased vaginal d/c	Estrogen mediated	Wear pantyliners
Faintness	Pooling of blood in LE & pressure on vena cava	Care with activity
Stretch marks	Stretching & hypercortisolism (hormonal)	Try vitamin E oil but really boils down to genes

$\sim$	Age in Weeks	Fetal size and development
BABY MILESTONES	<ul><li>6 weeks</li><li>7 weeks</li><li>9 weeks</li><li>10 weeks</li></ul>	Heart has formed & circulation established. A big part of the lungs is formed. Fingers, toes and parts of face, like lips formed. Baby can make urine. Eye area collapse into cuplike structures Immune system begins. Nostrils are formed. Size of kidney bean. Eyes move to front of face, eyelids form and fuse. Baby begins
	•11 weeks •12 weeks	to squint, open mouth & make small movements. Chin, eyelids & arms can sense touch Taste buds develop and mature
	•14 weeks	Baby starts developing hair, skin & nails. Swallowing begins. <b>Size</b> of an orange.
	•16 weeks •20 weeks •25 weeks •26 weeks	External genitalia spotted. Respiration develops. Size=grapefruit Ears stick out. Downy hair covers body. Size of 2 iPods (300 g) Fetus can respond to sound. Be careful what you say. Ability to suck. Able to hear sounds. Eyebrows & eyelids
	•29 weeks •30 weeks	detected. <b>Weight of 3 oranges</b> (630 g) Lungs with fluid begin to expand & compress, simulating breath Eyes can sense light & able to smell. Can suck & swallow- helps develop GI system. Can hic-cup. <b>Weight of one pineapple</b> .
	-34 weeks	Skin is red & crinkled. Fat starts to deposit. Reflexes like blinking & grasping are set. Sleep patterns detected. Size=average Chihuahua.
	•36 weeks	Baby begins to descend into pelvis. Fingernails reach end of fingertips.
	-37 weeks -38 weeks	Lungs considered mature, baby is not considered pre-term With formation of more fat, body becomes rotund, less wrinkly. Size of lightweight laptop (2500 g)
	40 weeks	Normal gestation ends. All systems are a go.

## Good Nutrition Is Important

- •95% chance of having a healthy baby in a pregnant woman that adheres to an excellent diet
- Improved ability to nourish her growing baby
- Fewer discomforts during pregnancy
- Improved ability to remove waste products for her & her baby
- Improved muscle tone which plays a major role in pregnancy & birth
- •Healthy weight gain (25-35 lbs) is easier to manage during labor and during the postpartum period
- Less weight to take off after delivery

## Six Essential Nutrients

- Only need an extra 300 calories a day (not eating for two!)
- PROTEINS: essential building material for new growth; need 80-100 grams daily. Sources: meat, fish, poultry, eggs, dairy products, peanut butter, dried beans, peas and nuts
- <u>CARBOHYDRATES</u>: provide energy (calories), fiber, vitamins and minerals; need 2300-2500 calories daily. Sources: grains, fruits, vegetables
- <u>FATS</u>: concentrated source of energy; add taste to foods. Sources: butter, margarine, oils, dressings, mayonnaise. Use sparingly.
- VITAMINS: need balance of all and increased need for some (folic acid, vitamin C). Sources: food and prenatal vitamin
- MINERALS: increased need for calcium; 1200 mg daily and iron 30-60 mg daily. Sources: food and supplements if needed
- WATER: need 1-2 quarts daily; 68 oz or 4- bottle waters. Cure all for everything in pregnancy. Limit <4oz of juice a daysource of hidden calories

### Sample Food Guide 2000 calories

- Fruit Group- 2cups (4 servings) ½ cup is equivalent to:
- ½ cup fresh, frozen, or canned fruit
- 1 medium fruit
- 1/4 cup dried fruit
- ½ cup fruit juice
- Vegetable Group 2.5 cups (5 servings)
- Dark green vegetables 3 cups/week
- Orange vegetables 2 cups/ week cooked vegetable
- Legumes (dry beans) 3 cups/week
- 1 cup raw leafy vegetable
- Starchy vegetables 3 cups/week
- ½ cup vegetable juice
- Other vegetables 6.5 cups/weeks
- Grain Group- 6 ounces
- Whole grains
- Other grains
- 1 slice bread
- 1 cup dry cereal
- ½ cup cooked rice, pasta, cereal
   (1/2 1 1/4 cup depending on cereal type-check label)

- Meat and Beans Group- 5.5 ounces
- Cooked lean meats
- Poultry, beef 4 or 5 serving s per week/ fish- 2 servings per week
- Nuts, seeds, and dry beans
- 1 egg
- ½ cup cooked dry beans or tofu, 1 Tbsp peanut butter, ½ oz nuts or seeds
- Milk group- 2-3 cups 1 cup equivalent is:
- 1 cup low-fat/fat free milk, yogurt
- 1 ½ oz of low-fat or fat-free natural cheese
- 2 oz of low-fat or fat-free processed cheese
- Oils/Fats- use sparingly
- 1 tsp soft margarine
- 1 Tbsp low-fat mayo
- 2 Tbsp light salad dressing
- 1 tsp vegetable oil
- The Serving Secret: What constitutes a serving?
- 3 ounces of meat = palm of hand
- 1 cup = fist
- 1 tablespoon = end of thumb
- 1 teaspoon = end of little finger

## **Food Basics**

### The Serving Secret: What constitutes a serving?

3 ounces of meat = palm of hand

1 cup = fist

1 tablespoon = end of thumb

1 teaspoon = end of little finger

### Foods to Avoid

Raw or uncooked meats

Fish that are high in mercury; avoid Shark, Tilefish, Swordfish, King Mackerel. Most other fish/shellfish are safe but limit intake to 12oz a week.

### Go to:

http://www.americanpregnancy.org/pregnancyhealth/fishmercury.htm for other fish levels of mercury and intake.

### **Prenatal Visit**

- Obtaining FHT's (fetal heart tones after 11wks)- using a Doppler
- Measuring the fundal height > 20 weeks
- Asking if pt is experiencing N/V, contractions, vaginal bleeding, loss of fluid, headaches, blurred vision, dizziness, RUQ pain
- •Ensure that pt is feeling the baby moving ("quickening"-baby's first movements, may not occur until 20-22 weeks)
- •Check vital signs (BP should be less than 140's/90's) & weight
- •Dilation, station & effacement (thinning of cervix) after 38 weeks-must be trained to do this
- •Post-dates: after due date (40 weeks) patient must undergo antenatal testing (Non Stress Test or Bio-Physical Profile) once weekly

### Common Discomforts

- Backache- Exercises to improve postures; squat rather than bend at the waist; pelvic rocking
- Constipation- \(\gamma\) water, fruits & vegetables, whole grains; eat breakfast; exercise; Mg Oxide; stool softener if needed. USE LAXATIVES or ENEMAS as a last resort!
- Heartburn- Smaller meals; | fried, greasy, spicy foods; do
   not lie down for two hours after eating; liquid antacid
- Hemorrhoids -Avoid constipation; Preparation H or Anusol; \u22bt standing; rest with hips elevated, apply ice; pelvic rocking
- Insomnia- High protein snack at bedtime; exercise during the day; establish regular time to wake and regular bedtime; practice relaxation, Tylenol PM
- Leg cramps Need some salt in diet; ↑ potassium (bananas, oranges); practice runner's stretch
- Numbness/tingling in fingers- Attention to posture; shoulder rolling exercise; upper body stretch; several times a day, raise one arm & stretch upward-wiggle your fingers for a slow count to five, lower arm & repeat with other arm

## Common Discomforts cont'd

- Round ligament pain -Apply warm, moist heat; rest with leg on affected side drawn up; warm tub soak, acetaminophen
- Swelling of feet and ankles -Left-side rest with legs elevated; support stockings, avoid excessive salt, avoid crossing legs while sitting, regular exercise
- Varicose veins 
   standing; lying on left side; elevate legs slightly above hips; support stockings; Vitamin C 1000 mg daily
- Shortness of Breath Side-lying position, use pillows all around you, prop up instead of lying flat at night, sleep in recliner
- Nasal congestion ↑ fluids, cold steam humidifier, saline nasal spray
- Fatigue Listen to your body, rest. Avoid caffeine.
- Morning Sickness- Eat high protein foods; eat small meals daily; avoid fried foods; sip soda water; get out of bed slowly; drink spearmint, raspberry leaf, or peppermint tea

## Nausea/Vomiting

- •Advised to keep crackers by the bed and eat a small amount before rising.
- Encouraged small, frequent (5 a day) meals.
- •Ginger ale, ginger tabs 500mg/day and vitamin B6 25mg (four times a day)-50mg (twice a day) supplementation.
- In addition to the above measures and to the Vitamin B6 supplementation, a pt may also add Unisom (doxylamaine) 12.5mg (1/2 tab) in the AM, then 12.5mg in 6-8 hrs, then 25mg (1tab) at bedtime.
- If you are having excessive vomiting (this may be hyperemesis gravidarum) and you are not able to keep fluids or food down, then please go to triage for IV hydration.

## Danger Signs (contact Health Provider)

### Preterm Labor < 36 weeks\*</p>

- Contractions- more than 6 per hour
- Menstrual-like cramps
- Abdominal cramps
- Low backache- comes and goes or is constant
- > Pelvic pressure- feels like baby is pressing down
- Changes in vaginal discharge- sudden increase in the amount or may become more mucous-like, watery, or slightly blood-tinged.

### Vaginal Bleeding

- Bright red vaginal bleeding is not normal. Note the amount & if clots are present
- Severe abdominal pain
- Decreased fetal movement
- Fever
  - More than 100.3 F

## Danger Signs cont'd

### • Headache\*

- Usually severe or persistent
- Seeing spots or flashing lights
- Other neurological symptoms- numbness, loss of vision, weakness, loss of balance or speech difficulty

### • Urinary discomfort

- Frequency with small amounts
- > Painful urination
- Blood-tinged urine
- Persistent Nausea & Vomiting
- Dizziness, Lightheadness\*
- Sudden swelling or puffiness of hands, feet or face
- Vaginal discharge with foul odor or causing irritation
- Reddened painful area in the legs
- Severe pubic pain
- \*Try drinking 1 quart of water, laying on left side and resting. Monitor x 1 hr. If the symptoms persist, call your health care provider.

## Signs/Symptoms Labor

### **Getting Ready:**

It is important to remember that the signs of labor do not necessarily mean that labor may happen any time soon. A woman may show several signs and not go into labor for two more weeks. Patience will pay off for the pregnant mom. Some early labor signs may be:

- A sudden burst of energy (the "nesting instinct")
- An upset stomach/diarrhea
- •The baby "drops" known as lightening
- •Bloody show (keep in mind that it could be the cervix opening or from a recent cervical exam or intercourse)
- Loss of mucous plug

### <u>True Labor:</u>

- Contractions get longer, stronger and closer together
- Contractions are in a fairly regular pattern
- Walking or changing position makes them stronger
- Contractions are usually felt beginning in the back and moving forward
- Cervix opens and thins (cervical change) (describe effacement and dilation)
- Vaginal bleeding usually indicates cervical change "blood show"

### **False Labor**

### False labor

Pre-labor, or "false labor" is very similar to true labor and can be experience as painful. Even if it has determined that "real labor" has not begun, encourage the mother that every contraction is still bringing her one step closer to having her baby. Pre-labor sometimes serves to help prepare the cervix or to rotate the baby to a more favorable position.

### **Braxton-Hicks or Pre-labor**

- Contractions remain the same strength, distance, and length
- Contractions may be irregular
- Walking or changing position does not affect the contractions
- These contractions may be felt up high in the front
- May feel like the baby is "balling up"
- Usually will go away with rest, increased hydration and relaxation

## Rupture of Membranes (ROM)

Sometimes, labor begins with the bag of waters or membranes rupturing, although this only happens in the minority of labors. Usually the water breaks during late labor, if left alone. When the water breaks there may be a near constant trickle of fluid from the vagina or a sudden gush. Think TACO if your water breaks at home:

**T**ime

**A**mount

Color

**O**dor

\*color should be clear/ straw colored; green or pea soup is meconium-stained fluid & should be noted to tell MD

# Prelude to Labor- getting prepared

- THE LAST MONTH- BRAXTON-HICKS CONTRACTIONS
- More discomforts, more uterine activity, tired of being pregnant
- The uterus gets hard, tight, feels like "baby is balling up"
- More common with increased activity, fatigue or emotionally upset
- Usually 10 or more minutes apart, lasting 1-2 minutes
- Usually irregular but may be regular for a period of several hours without getting any closer or stronger
- May or may not be painful
- May be felt in different parts of the uterus or felt all over the belly or through the middle or top of the belly with or without low pelvic pressure
- May stop or decrease if you change your activity, eat or drink something, relax in a warm tub or just propping feet up, or go to sleep

# The Last Week or Two- softening of cervix

- Mom's Feelings and Reactions
- Changes in emotions possibly feeling low and thinking labor will never start
- Combination of excitement and anxiety
- Burst of energy or nesting instinct
- Wants to contact family or friends

- Physical changes in mom
- More episodes of Braxton –Hick's contractions occurring late afternoon or evening almost everyday
- Increased vaginal discharge becoming more watery- without itching, odor, or irritation; no gush or pop or steady trickle
- Loss of mucous plug
- Increased pressure of pelvic floor and frequent low back pain
- Two or three pound weight loss or gain
- Some nausea and diarrhea
- Premenstrual symptoms
- Baby's activity level may change

# The Last Week or Two-softening of cervix cont'd

- WHAT TO DO- COMFORT MEASURES
- Continue with normal activities
- Focus on taking more naps-REST
- Eat well and drink plenty of water
- Learn to work as "a team" with support person
- Finish last minute details and make necessary arrangements
- Have suitcase and goody bag ready
- Practice relaxation and breathing

- SUPPORT PERSON'S ROLE
- Help with last minute arrangements
- Make sure she is getting the proper rest needed.
- Frequent back rubs and feet rubs ©
- Because opening the lines of communication is so important to both you and the mother, talk about and share your feelings, fears and concerns. If you talk about your fears, they will not be so scary

## Hospital Bag suggestions

- Two or more bed pillows
- CD player/IPOD with your favorite music
- Hand fan
- Lip balm
- Food for support person
- Breath mints for partner
- Sour Iollipops
- Cards, books, videos and any other time passers
- Pair of socks
- Focal point
- Tennis balls in a sock or other massage tools

- Camera or video recorder
- Toiletries for mom and support person
- Slippers and bathrobe
- Change of clothes for support person
- Going-home clothes for mom and baby
- Lotion
- Hair accessories- brush, tiebacks, or barrettes
- Reading and writing material
- Change for vending machines
- Watch or clock with second hand
- Bra and panties

### Uterus

- During pregnancy, weighs more than two pounds immediately after delivery & is the size of a grapefruit.
- After 6 weeks returns to approximate 2 ounce size

### Afterbirth pains

- As the uterus is shrinking, muscle fibers contract causing afterbirth pains
- Most noticeable the first 3-4 days following delivery
- More pronounced with second baby
- More pronounced with breastfeeding
- Help to shrink the uterus to is pre-pregnant state and reduce blood loss

### Lochia

- Drainage from the birth canal following delivery
- Immediately after delivery, the discharge is bright red and like a menstrual flow
- After 3-4 days, it becomes watery and pale (pink)
- By the second week, the lochia is thicker and possibly more yellow in color
- After 4 weeks, the discharge decreases to a minimum
- Signs of infection include heavy, profuse and persistent bleeding (more than 1 pad per hour or passing a clot greater than a fifty cent piece), or if there is a foul odor to the discharge

#### Birth canal

- Episiotomies usually require four or more weeks to heal.
- Breastfeeding mothers are more likely to have vaginal dryness (due to diminished estrogen production) and some discomfort during intercourse for 4-6 months after delivery.
- It is important to resume Kegel exercises to help speed healing and help the muscles return to normal.
- Change sanitary pads often to absorb the discharge and to avoid infection. The perineum should be rinsed and cleaned with luke-warm water 2-3 times daily, and after urination and bowel movements. Use a hand held shower, a squeeze bottle or sitz bath to cleanse the episiotomy.
- Washing or wiping should occur from front to back to prevent contamination and infection.
- The episiotomy will heal quickly if kept clean and dry

### Menstrual cycle

- The first menstrual period following delivery is usually delayed by breastfeeding.
- Most will experience their first period within 7-9 weeks
- Nursing mothers usually resume menstrual periods by 12 weeks; but some may not resume until they have completed breastfeeding

#### <u>Bladder</u>

- It is important to try to empty your bladder every 3-4 hours while hospitalized, especially right after delivery
- You will notice the elimination of large amounts of urine the first few days after delivery because your body is getting rid of the extra fluid that accumulated.

### Weight loss

- Much of the weight remaining after delivery is from excess fluid.
- The average loss of weight immediately following the birth of the baby, placenta and fluid is around 12 pounds.
- An additional loss of 8-10 pounds may occur later in the postpartum period as the fluid levels in your body return to normal.

### <u>Bowels</u>

- The first bowel movement usually occurs in the first 2-3 days.
- If needed, a stool softener or laxative may provide relief from constipation and from hemorrhoids that may develop during and after labor.
- If an episiotomy was cut or if stitches were required for a repair, taking a stool softener in the immediate days following delivery will help with the first bowel movement.

### Muscle and joints

- In the first 1-2 days following childbirth, you will feel muscle aches and fatigue, especially in the shoulders, neck and arms due to the physical exertion of labor.
- Many women expect the abdominal muscles to return to prepregnancy condition after birth, are often disappointed to find their muscles weak, soft and flabby. Ask your healthcare provider about starting an exercise program that can help.
- Continue to massage the fundus (top of uterus) for firmness and it will slow decrease in size- known as involution

### Skin changes

- Any blotchy appearance to the face and the dark line (linea nigra) of the lower abdomen disappear gradually over several months after childbirth.
- Stretch marks will fade to silvery lines but will not completely disappear.

#### Varicose veins

If you developed varicose veins during the pregnancy, leg massage, leg elevation, and use of support hose when walking or standing are recommended for the first 6 weeks following delivery.

### **Breast Changes**

- For sore nipples- after each feeding massage colostrum or breast milk into nipple and air dry
- Apply warm or cool tea bags to nipples
- For Breast Engorgement (occurs 2<sup>nd</sup> or 3<sup>rd</sup> day and lasts 48-72 hours)-frequent nursing and hand expression, supportive bra, warm or cool compresses, warm shower, Tylenol 1000mg or Motrin 400mg every 6 hours

### Hemorrhoids

If you developed hemorrhoids during the pregnancy, delivery or post delivery; they are best treated by cold compresses, topical ointments, and pain medications if prescribed by your doctor. A stool softener and laxative may be beneficial at times.

### **Emotional changes**

- It is normal to feel overwhelmed by the new priorities and demands on your time.
- It takes about 2-3 months to establish a routine with a newborn.
- During the first few days you may experience a sense of "blues", including impatience, irritability, anger, tension, exhaustion, restlessness, or crying. These feelings will generally come and go quickly.

## Recognizing Depression

Postpartum Depression is a little different and may start as early as the second or third day after delivery or take several weeks or months to develop. The symptoms may be the same as the "blues" but will be more intense. Other symptoms include:

- Loss of appetite
- Uncontrolled crying
- Lack of interest in the baby
- Feelings of hopelessness or loss of control
- Fear of touching the baby
- Fear of harming self or the baby
- Inability to sleep or need of excessive sleep

It is important to realize that these symptoms are not a sign of weakness or inadequacy. At the onset of these symptoms, it is important to contact your healthcare provider IMMEDIATELY.

## Rest & Sleep

Parents may experience extreme fatigue following childbirth. Women do not sleep well and are physically exhausted by the birthing experience. Add in the excitement and the visitors and it's easy to get overwhelmed.

Many experience conflicts between their need for sleep and the infant's basic need for care and affection.

### SUGGESTIONS TO ASSIST AT HOME:

- Keep meals simple and meal times flexible
- Keep home routine relaxed and flexible
- Get help with shopping and cooking
- •Have friends and family care for the other children
- Postpone major household projects
- Avoid caffeine containing products
- Rest when baby sleeps

### <u>ASK FOR WHAT YOU NEED!!!</u>

Infants will develop their own sleep and feeding cycles. Typically they sleep 16-20 hours per day and may wake up for 2-3 hours to eat. Part of their day may be spent crying.

## Baby Basics

- Nurse at both breasts on demand (btw 6am & MN wake the baby if its been 3 hours since last feeding). Use a variety of positions & alternate the starting breast each feeding
- A bottle-feeding baby takes 0.5 to 1 oz of formula on demand every 2-3 hours; increase gradually to 2-3 oz by one week of age- DO NOT OVERFEED!
- Clean cord with cotton ball & alcohol with each diaper change and keep diaper folded below cord to allow to breathe (cord will fall off around 2 weeks)
- Bathe eyes gently with warm water on cotton; sponge bathe and shampoo baby as necessary (avoid soap, lotion, cream, oil, powder the first 2 weeks), no tub bath until cord is healed
- Baby sleeps on back (Back to Sleep)
- Baby needs one or more layer of clothing than you do for comfort
- Expose partially unclothed baby to indirect sunlight in a warm room several times a day (helps prevent jaundice)
- 4-6 wet diapers a day are normal

## Contact Health Provider

- Excess bleeding (soaking more than 2 pads/hour
- Fever > 100.3, chills, aches
- Painful urination
- Vaginal discharge that is foul smelling
- Red, painful areas in breast
- Stitches that remain painful or swollen longer than a week
- Severe persistent headache
- Pain or swelling in legs
- Lower abdominal pain
- Persistent depression

- Baby has a fever or feels cold to touch
- Baby is lethargic, looks pale and sucks poorly
- Baby is having trouble breathing or looks blue
- Umbilical cord has a foul odor (after thorough cleaning) or pus or redness or swelling in the surrounding abdominal skin
- Green discharge from the eye(s)

## Handy Resources to Share

Roizen, M.F & Oz, M.C. (2009). You Having a Baby: The Owner's Manual to a Happy & Healthy Pregnancy. Free Press, New York, NY.

Simkin, P., et al. (2010). Pregnancy Childbirth and the Newborn. The Complete Guide. 4<sup>th</sup> ed. Meadowbrook Press, Minnetonka, MN.