Childbirth Education Table of Contents

Pregnancy Information

Childbirth Priorities and Goals..............................2
Third Trimester Discomforts................................3
Concerns During the Third Trimester...................4

Labor Information

Labor Reference Guide.....................................5
How to Tell When Labor Begins..........................6
- Anatomy and Physiology of Labor..................6
- Signs of Labor..6
- True vs. False Labor......................................6

Labor Pain Factors and Management...................7
- Physiologic Causes of Labor Pain..................7

Slow-to-Start Labor Strategies............................8
- Possible Causes of a Slow Labor..................8
- Advice for a Slow Labor................................8
- Timing Labor Contractions............................8
- When to Call the Doctor................................8

Natural Pain Relief...9
The 3 R's in Childbirth Preparation....................10
Affirmations...11
- Positive Affirmations.................................11
- Guided Imagery..11
- Writing Affirmations..................................11

Relaxation Suggestions....................................12
- Aromatherapy..12
- Music...12
- Yoga..12
- Massage...12
- Visualization 12

Pressure Point Massage...................................13
Breathing Strategies for Labor..........................14
- Breathing Awareness.................................14
- Breathing Pace and Patterns.......................14
- Strategies to Accompany Breathing.............14

Rhythmic Breathing Methods.............................15
- Cleansing Breath.......................................15
- Early Labor...15
- Active Labor..15
- Pushing..16

Labor Progression...17
- Changes in Labor.......................................17
- Possible Signs of Labor..............................17
- Early Signs of Labor...................................17
- True Signs of Labor....................................17

Stages of Labor...18
- Stage One: Early..18
- Stage One: Active......................................18
- Stage One: Transition.................................19
- Stage Two: Delivery...................................19
- Stage Three: The Placenta..........................19

The Take Charge Routine for Coaches 20
Positions for Labor and Pushing........................21
Back Pain in Labor...22
- Positions and Movements...........................22
- Comfort Measures......................................22

Positions for Back Labor...................................23

At the Hospital

Labor Information...24
- Normal Labor..24
- Birth Plan...24
- Labor Instructions.......................................24
- When to Call Your Doctor.............................24

At Good Samaritan Hospital..............................25
- When the Baby is Born................................25
- Hospital Length of Stay...............................25

Reducing the Chance of a Cesarean...................26
- Reasons for a Cesarean Section...................26
- Possible Emotional Feelings........................26
- The Best Cesarean Possible........................27

Medications for Labor.......................................28
- Systemic Medications..................................28
- Local Anesthesia...28
- Epidural Anesthesia.....................................28
- Rollover Technique with an Epidural.............29
- Spinal Block...29
- General Anesthesia......................................29

Supporting a Woman with an Epidural................30
Labor Management Issues................................31
Induced Labor..32
Episiotomy and Vaginal Tears...........................33

Postpartum Information

Postpartum Care..34
- Normal Changes..34
- Menstrual Cycle..34
- Birth Canal and Perineum.............................34
- Bladder and Bowel Function..........................34
- Skin Changes and Hair Loss.........................34
- Weight Loss..35
- Postpartum Depression................................35
- Exercise...35
- Nutrition...35
- Sexuality 35

Factors that Influence Recovery.........................36

Breastfeeding Information

Breastfeeding Information.................................37
Getting Started...37
Breastfeeding Resources..................................37
Breastfeeding Tip Sheet....................................38
Breastfeeding after a Cesarean Birth..................40

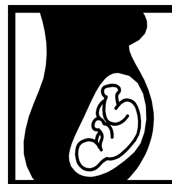
Newborn Information

Choosing the Pediatrician..................................42
The Normal Newborn..43
Infant First Aid: Choking....................................44
Infant First Aid: CPR...45

Appendix

Glossary of Terms..46
What to Pack for the Hospital.............................48
Labor Coach Comfort Measures..........................49
Cord Blood Collection Information.......................50
References and Resources.................................52

Childbirth Priorities and Goals



Without question, the top priorities and goals for birth are a healthy mom, baby, and labor partner. Your team at Los Olivos Women's Medical Group will help you attain these goals.

During the Childbirth Preparation classes, our instructors will educate you about pregnancy and labor. We will discuss mechanisms to help make your labor experience enjoyable as well as safe. We will work together to teach you about normal labor and options that you have during labor to tailor it to your desires. Remember, every labor is different and there is no way to predict what will happen along the way. Use this class to familiarize yourself with normal and abnormal labor so that you will understand your own experience.

Topics of discussion in the course include: physical and emotional changes of pregnancy, an overview of labor and delivery, normal birth and cesarean section deliveries, updated information on medical interventions and pain relief options, relaxation, breathing techniques and comfort measures, partner support during labor, the "normal" newborn, breastfeeding, postpartum adjustments and expectations.

Our instructors are registered nurses or other healthcare professionals certified in childbirth education. They have wide ranges of experience in Labor and Delivery and have obstetric experience at several hospitals.

Review the list and use it as a *guide* to reflect on which of the topics, for your birth experience, are important and/or of concern. Then use your thoughts and questions to discuss, clarify, and plan with your labor partner and obstetrician.

Listed below are some priorities and goals that we will consider in the class:

- Physical and emotional changes of pregnancy
- Overview of labor and delivery
- Strategies for natural pain relief
- Relaxation and breathing techniques
- Techniques for the labor coach and support person
- Variations of normal birth and cesarean section
- Positions for labor and delivery
- Pain relief options
- Role of the labor support person
- Different medical interventions
- Postpartum changes
- Breastfeeding techniques
- Newborn care

While setting individual goals and being thoroughly prepared are important, parents who realize that nature and babies sometimes throw curves into the best-laid plans will have the best delivery experience. Taking your labor one contraction at a time and being prepared to adapt as things change will make for a beautiful birth. Keep an open mind. Be willing to adapt to your labor as it progresses. The most important outcomes are a healthy mom and baby.

Third Trimester Discomforts

The third trimester often feels like the longest trimester due to the rapid increase in growth of the baby and the discomforts that accompany the changes. Here are some suggestions for easing the common aches and pains that can occur. Please discuss any concerns with your physician.

Complaint	Cause	Action
Constipation	Pressure from the uterus causes the stomach to empty more slowly	Drink at least eight glasses of water every day; eat several servings of whole grains and fresh fruits and vegetables each day; use a stool softener
Hemorrhoids	Varicose veins in the rectum	Avoid constipation, apply ice packs as needed; avoid straining during bowel movements
Varicose veins	Increased blood volume; increased pressure in the lower extremities	Wear support hose for support; sit with your legs elevated; avoid standing or sitting in the same position for extended periods of time
Frequent urination	Pressure from the uterus	Limit fluid intake before bedtime
Heartburn	Decreased motility of the stomach and gastrointestinal tract causes stomach acid to reflux	Eat frequent, small meals; avoid spicy foods; try antacids. Prop yourself up at night.
Leg cramps	Fatigue; pressure on the sciatic nerve	Stretch and flex feet and legs.
Backache	Hormones are causing the ligaments to relax; balance and posture changes related to additional weight of the baby.	Avoid wearing high-heeled shoes; increase core muscle strength with yoga or pilates; maintain good posture; stretch. Wear low, rubber-soled shoes. avoid lifting.
Swelling in the hands and feet	Increased blood volume; increased pressure in the lower extremities	Remove rings from fingers; elevate feet; sleep with carpal tunnel hand braces; exercise regularly; stay well hydrated. Don’t cross your legs when sitting; avoid knee high nylons; move frequently.
Shortness of breath	The uterus is putting pressure on the internal organs and diaphragm. The lungs cannot expand as usual.	Avoid sleeping flat on your back. Use pillows around you and between your legs. Sleep in a recliner. Elevate the head of the bed.
Nasal congestion	Nasal congestion makes breathing difficult. Snoring is common. Nosebleeds occur.	A humidifier in the bedroom may increase the moisture in the home. Saline nasal drops or vaseline inside the nostril may help.

Concerns During the Third Trimester

With all of the changes in your body, you may have difficulty knowing if a discomfort you feel is a natural part of pregnancy or a sign of a problem. This chart describes some common discomforts and warning signs that may occur during pregnancy. Please discuss any concerns with your physician.

Concern	Action	Cause
SWELLING Feet and ankles swell after prolonged sitting or standing. Both hands are swollen. One hand swells after you've slept on that side of body. Face and or eyes are puffy and swollen. Fingers are numb	Lie on your left side with your feet elevated. Raise hands over your head wiggling your fingers to aide circulation. Use wrist braces if carpal tunnel syndrome (pain in fingers) occurs. Prevention: exercise regularly, stay well-hydrated and avoid prolonged standing or sitting.	Uterine pressure on the vessels carrying blood out of legs causes edema. If associated with high blood pressure, swelling may indicate pregnancy induced hypertension (pre-eclampsia). Normal increase in fluid and blood volume also causes swelling.
LEG PAIN Calf is hot, red, swollen, or tender to touch.	Notify obstetrician.	May indicate a blood clot.
Sharp cramp in calf.	Sit with your leg straight, foot flexed and gently reach toward your foot.	Cause is often not clear; may be exacerbated by insufficient calcium intake.
VAGINAL DISCHARGE Thin mucous discharge, usually colorless.	Notify obstetrician if color or odor changes (possible infection).	Normal pregnancy hormonal changes causing more mucous.
Blood-tinged discharge.	Notify obstetrician if heavy or persistent bleeding.	Likely loss of mucous plug with approaching labor. Common after intercourse and vaginal exams.
Thin, watery discharge.	Notify obstetrician.	Possible rupture of the amniotic sac.
ABDOMINAL DISCOMFORT Sharp pain in side along lower abdomen to groin.	Gently bend at waist toward pain, relax and breathe slowly.	Muscle spasm or stretching of ligaments that support the uterus. Increase core muscle strength with yoga and stretching.
Persistent pain accompanied by rigid abdomen, nausea, vomiting, dizziness.	Notify obstetrician.	Possible emergency with placenta (abruption) or uterus.
Intermittent cramping or abdominal tightening.	Notify obstetrician if occurs with regularity and more than 6 times in one hour and less than 34 weeks.	May indicate preterm labor contractions. Rest and drink fluids.
OTHER WARNING SIGNS Persistent vomiting. Persistent headaches. Visual disturbances (spots, blurry) Significant decrease in urine output. Decreased fetal movement.	Notify obstetrician.	

LABOR REFERENCE GUIDE

Labor Stage	Possible Physical Reaction	Possible Emotional Reaction	Laboring Woman	Partner
STAGE ONE Prelude to Labor (1 to 7 days before onset of true labor)	More Braxton-Hicks contractions Increased vaginal discharge Loss of mucous plug Increased pressure to pelvic floor Two – three pound weight loss Mild diarrhea and/or nausea Burst of energy	Excitement, nervousness Restlessness, impatience Discouragement if phase lasts for a day or more	Continue normal activities Lots of rest Use relaxation to reduce anxiety Finish last minute arrangements for baby and household	Encourage and practice relaxation Encourage activity balanced with rest Massage, pressure point, etc to help with moms discomforts Arrange childcare for other children
Early Labor	Contractions are mild Increase to frequency of one every 5 – 10 minutes & last about 30-40 seconds Bag of waters may leak or break "Bloody show" – vaginal discharge with pinkish (bloody) tinge	Excitement, nervousness "Stage fright" Mild feeling of insecurity. May want to go to hospital	Eat & drink!!! Need calories on-board for work of labor: complex carbs and proteins. No large meals or spicy, greasy foods! Lots of fluids!!! Alternate activity & rest Use breathing technique when needed	Encourage activity balanced with rest Be at her side through contractions and encourage breathing techniques and comfort measures when needed Call MD when contractions are five minutes apart for at least one hour and mom can't walk or talk through contractions
Active Labor	Contractions are stronger w/ increased frequency to every 3– 5 minutes/last 50 – 60 sec. Bag of waters may break	Focusing on work of labor/ less aware of surroundings May have increased anxiety/ tension after hospital arrival May be discouraged if labor plateaus	Rest & relax between contractions Remember PURE at all times! Adjust focusing/breathing techniques as needed	Praise & encouragement By her side with every contraction Assist with focusing and breathing Comfort measures – PURE!
Transition	Contractions intense & frequent! Frequency: every 2-3 minutes; Length: 60-90 seconds Possible nausea, chills, shaking Perineal and rectal pressure Possible urge to push	Emotional, overwhelmed, irritable May feel loss of control and express desire to quit Difficulty with focus & concentration	Manage *one* contraction at a time Remember birth is now near! Ice chips and rest between contractions Adjust focusing/breathing techniques as needed (hee-hee-hee-hoo) Feather, pant, blow if urge to push	Firm, clear directions Encouragement and remind "almost there!" Your face/eyes are her focal point Assist with focusing and breathing Offer ice chips in-between contractions Assess comfort level/environment Assist with rest in-between contractions
STAGE TWO Pushing & Birth	Contractions are strong & steady Frequency: every 3 -5 minutes Length: 50- 60 seconds Rectal Pressure/urge to push Perineal burning/stretching sensation	Renewed energy & strength Calm/cooperative/determined	Push only with contractions Relax between with legs down	Encourage effective positions with pushing efforts Relaxation in-between Ice chips and cool cloth Verbal encouragement and reassurance
STAGE THREE Delivery of Placenta	Contractions mild Sometimes chills & shaking	Relief, excitement Desire to hold & touch baby Feels close to partner	May need small push to deliver Rest/ bonding with baby If necessary, repair of episiotomy or tear by MD	Watch, hold, touch baby Support effort for placenta delivery Encourage relaxation for perineal repair
STAGE FOUR Immediate Postpartum (about 2 hrs)	Fatigue, hunger, thirst Possible chills/shaking Mild uterine cramping (with beginning of uterine involution) Heavy vaginal discharge (lochia)	Relief, excitement, pride Talkative Anxious to see/hold baby	Rest, food and drink Warm blankets if chills or shaking First efforts at breastfeeding Nurse will explain fundal massage and postpartum self-care	Encourage rest and nourishment Assist with holding/feeding baby Encourage and assist with self-care

How to Tell When Labor Begins

Anatomy and Physiology of Labor

During the last few weeks of pregnancy, the cervix produces the hormone prostaglandin that causes the cervix to soften and “ripen”. The cervix begins to efface (shorten) and the mucus plug may start to pass.

Braxton-Hicks contraction often occur during the third trimester and the uterus begins to make oxytocin receptors which are necessary for labor contractions. No one knows what triggers labor. As labor begins, the contractions become coordinated due to stronger and more sustained release of oxytocin from the mother’s brain. These contractions move the baby downward through the pelvis and out of the cervical opening into the vagina for delivery. The contractions increase in intensity until the baby is delivered.

Signs that you are Approaching Labor

Lightening
The baby drops deeper in the pelvis away from the ribs, making it easier to breathe. This can happen weeks before the onset of labor or as labor begins. Deep pressure in the pelvis and shooting pains down the vagina are common complaints. The hormone relaxin causes cartilage in the hips and the pubic bone to soften which may cause back and joint pain. Shooting pains down the vagina are common.

Show (Mucus Plug)
As the cervix softens and begins to dilate, mucus is discharged into the vagina. This is common during the last few weeks of pregnancy. The discharge that can be clear, pink or slightly bloody.

Effacement
The cervix changes from approximately to inches in length to paper thin as it stretches and pulls over the baby’s head. The effacement is described as 50% or 80% or complete when it is completely thinned out.

Rupture of Membranes
The amniotic sac that surrounds the baby may rupture. This can be a continuous trickle or a gush of watery discharge.

Contractions
The uterine muscle tightens and relaxes in a regular timed fashion. Contractions cause the cervix to open. Regular pattern of cramps or menstrual cramps that progress into regular contractions

Dilation
The cervix must be completed dilated (10 centimeters) before delivery can occur. Both effacement and dilation are estimated by vaginal examination.

Station
The relationship of the top of the baby’s head to the spines of your pelvic bones is described as station. If the baby’s head is at the level of the ischial spines, the baby is at zero station. Any level above this is a negative number, below this is a positive number. Delivery is close at +3 station.

Differences between True Labor and False Labor (Braxton-Hicks)

Contractions	Braxton-Hicks	True Labor
Timing	Irregular contractions that have no pattern. They do not progressively get closer together.	Regular contractions that get closer together and stronger with time. Become more painful with time.
Change with Maternal Movement	Contractions may stop or slow down with resting or changing position.	Contractions continue despite resting or walking.
Strength	Usually weak and do not become significantly more intense.	Gradually increase in intensity so talking becomes difficult.
Pain	Generally felt in the front.	Can start anywhere and progress to encompass the entire uterus.

Labor Pain Factors and Management

Factors in labor that *increase* pain	Factors in labor that *decrease* pain
• Fatigue • Hunger • Worry, uncertainty • Tension • Fear of the unknown • Sense of loneliness • Anticipation of pain • Focusing on pain • Feeling helpless	• Hydration (clear fluids or IV) • Being rested and feeling strong • Confidence • Relaxation • Knowledge • Support of partner and caregivers • Stay in the present • Concentrate and distract away from pain • Self–determined & active

Physiologic Causes of Labor Pain:

- Decreased oxygen supply to uterine muscles during contractions.
- Stretching of the cervix.
- Pressure from baby on the nerves lying near cervix, vagina.
- Tension on and stretching of supporting uterine ligaments.
- Pressure on urethra, bladder, rectum.
- Distention of pelvic floor muscles.
- Pressure against and stretching of perineum & vaginal opening during pushing & birth.
- Fear and anxiety can cause the release of excessive stress hormones (epinephrine and norepinephrine) and can result in a longer, more difficult labor.

Most often pain is an indicator of a problem or an injury – a signal that something is wrong with our body. During labor, pain results from the normal and healthy physical effort and mechanisms needed to progress and give birth. If women can make the mental jump from the perception of pain as a warning to pain as an indicator of progress, she will be able to manage labor and birth more effectively. And of course this can be done more easily with the support of an actively involved partner and caregivers.

Adapted from: Pregnancy, Birth and You, Trudy & Ron Keller, 1994

Strategies to Ease a Slow-to-Start Labor

Are you having frequent, painful contractions, with or without back pain, that are accompanied by ***NO*** dilation? Perhaps you have seen your doctor and been told that this is pre-labor. You are not even in labor (that is, dilating) yet. Such an early labor is often very discouraging and exhausting.

Possible Causes of a Slow-to-Start Labor

- Your baby may be looking up in the pelvis (occiput posterior).
- You may have a scarred cervix (from previous surgery, a biopsy, etc.)
- Your cervix may still be long, unripe, and/or posterior.
- You may be tensing your muscles or worrying a great deal about the labor, your baby, or something else.
- Several of the above factors may be occurring at the same time.

Advice for a Slow-to-Start Labor

- If possible to sleep, or doze between contractions, do so. Otherwise try interspersing restful activities (massage, music, guided imagery or visualizations) with distracting activities.
- Continue to eat and drink (high carbohydrate, low fat food and beverages).
- Try distraction, such as baking bread, visiting friends, shopping, watching a movie.
- If contractions are too frequent and too painful for you to get relief from any of the above, try conscious tension release (the “roving body check”), using slow breathing as a way to release tension.
- Especially if you have back pain and irregular contractions, try the open knee-chest position for 30 to 45 minutes (using pillows and your partner to help you stay in the position). If the baby is posterior, this position may help to “back” the baby’s head out of the pelvis, giving it a chance to reposition before coming down again. Contractions may even stop for a while.
- Try abdominal lifting during contractions (lifting your belly while bending your knees). This may realign the baby more favorably with your pelvis and reduce some of your pain.
- If you want to slow down or stop the contractions to possibly get some rest, you might try a bath of deep warm water. Do not do this until it is clear that your labor is not progressing, you are very tired, and you cannot sleep outside the bath.
- Your caregiver can arrange a drug induced rest if the above are unsuccessful and you become exhausted and discouraged.

This kind of start to your labor does not mean that the rest of your labor will continue to be slow and frustrating. By 4 or 5 centimeters, chances are that progress will normalize. Try not to get too discouraged.

Timing Labor Contractions

Contraction Duration: beginning to end of one contraction
Contraction Frequency: beginning of one contraction to the beginning of the next contraction

Guideline for When to Call the Doctor

Strong contractions are occurring every 5 minutes and lasting for 60 seconds for at least one to two hours and you are having difficulty talking through the contractions. This will make sure it is true labor and not false regular. Contractions take hours to become strong and regular. When you feel you need to go to the hospital, call your physician. Your physician will notify the hospital of your arrival so that they will be expecting you. Also call your doctor if your water breaks, the baby is not moving normally or if you have active vaginal bleeding. It is normal to see more mucus and some bloody show during early labor. For more information, see page 25.

Natural Pain Relief

A woman's environment, body, and mind all contribute to her perception of pain and decisions about medication in childbirth. You can use this list to expand your options in several ways. Try a new suggestion from each category in your practice sessions. Review it before discussing options with your labor partner. Pack your bag with it in mind. Hang it on the door of your birthing room for ideas in labor. Share it with your coach and doctor and ask for support in trying all the options available.

The Birth Place: Good Samaritan Hospital

Familiarize yourself with the hospital. Go on a hospital tour. Know what's available.
Discuss your goals with your physician.
Participate actively in decision making.
Try water therapy - shower, bath, Jacuzzi; if in bed, sponge or foot bath.
Privacy - within the limits of safety.
Music - soft and relaxing music for first stage, energizing for second stage.
Adjust lighting and temperature to your comfort.

Coping Techniques

Relax, particularly where you hold your tension.
Use breathing patterns to enhance relaxation.
Touch - massage, heat, cold, pressure, tap a rhythm.
Assume a variety of positions that use gravity to help your baby descend.
Sway, rock, dance to keep your pelvis mobile.
Urinate frequently.
Eat and drink as you can to maintain strength and energy.
Count, chant, hum, moan - make releasing, relaxing noises.

Emotional Well-Being

Rely on companionship and support. Let those around you know what you want and need.
Practice relaxation, focusing, and breathing together with your partner to build trust and confidence.
Have confidence in your body's ability to cope with labor and the birth of your baby.
Think of your baby.
Figure out what your needs are and communicate them.
Focus on something positive that you see, hear, feel, smell, taste or imagine.
Pray or meditate.
Do affirmations, visualizations.
Expect the unexpected.
Concentrate only on the moment and on responding to this one contraction.
View pain in labor for what it is - normal, healthy, productive, intermittent - and ending with the ecstasy of your baby's birth!

The 3 R's in Childbirth Preparation: Relaxation, Rhythm and Ritual

By Penny Simkin, PT

The 3 R's approach to childbirth preparation is a simplified approach based on observations of laboring women and how they actually cope with pain and stress in labor. Some cope well; others are overwhelmed in labor. There are three characteristics common to women who cope well:

1. **Relaxation:** In early labor relaxation *during* contractions is a realistic and desirable goal; later in labor, however, many women cope much better if they don't try to relax during contractions. They feel better if they move or vocalize during the contractions, or even tense parts of their bodies. It is vital, however, that they relax or be calm *between* contractions.

2. **Rhythm:** The use of *rhythm* characterizes their coping style;

3. **Rituals:** They find and use *rituals,* that is, the repeated use of personally meaningful rhythmic activities with every contraction.

   While women draw heavily on the coping measures they learned in childbirth class, those who cope will usually do more than that; they discover their own rituals spontaneously in active labor. If disturbed in their ritual or prevented from doing the things they have found to be helpful, laboring women may become upset and stressed.

   Women are most likely to find their own coping style when they feel safe and supported, and are free from restrictions on their mobility and their vocal sounds and are also free from disturbances to their concentration, such as other people talking to them or doing procedures on them during contractions.

   Following are some examples of unplanned spontaneous rituals discovered by laboring women:
   - one woman felt safe and cared for when her mother brushed her long, straight hair rhythmically during the contractions.
   - another rocked in a rocking chair in rhythm with her own pattern of breathing.
   - another wanted her partner to rub her lower leg lightly up and down in time with her breathing.
   - another wanted her partner to count her breaths out loud and point out to her when she was beyond the number of breaths that meant the halfway point in the contraction.
   - another dealt with back pain by leaning on the bathroom sink, swaying rhythmically from side to side and moaning while her partner pressed on her lower back.
   - another, who had rowed crew in high school, used a visualization in conjunction with her breathing pattern: each breath represented a stroke of her oar, helping her to "glide smoothly" through the contraction.
   - another let her breath follow the rhythm of her partner's hand moving up and down ("conducting"); she focused entirely on the partner's ring with its blue stone as her guide.

   Once a woman finds a ritual, she depends on it for many contractions. Changing the ritual or disturbing it throws her off. Most women change their ritual form time to time in labor, when a change or pace seems necessary.

Affirmations

Positive Affirmations

Affirmations or positive suggestions have been used for many years as coping tools and positive motivators. Affirmations are most effective during deep relaxation because the subconscious mind is more open to suggestion. The words themselves are not magic, rather it is the person's belief in the words that is important. Practice saying affirmations, silently, with slow breathing technique (in through the nose, out through the mouth)

Example: "In the infinity of life where I am, all is perfect, whole and complete. I see any resistance patterns within me only as something else to release. They have no power over me. I am the power in my world. I flow with the changes taking place in my life as best I can. I approve of myself and the way I am changing. I am doing the best I can. Each day gets easier. I rejoice that I am in the rhythm and flow of my ever-changing life. Today is a wonderful day. I choose to make it so. All is well in my world." Repeat: I am strong. I believe in myself. If I believe in myself, anything is possible. (Adapted from: Hayes, Lousie. "You Can Heal Your Life.")

Guided Imagery

Guided imagery is a process through which a person learns to visualize him or herself as powerful and peaceful. Affirmations may be used to visualize and potentially affect specific body parts as in cancer therapy and pain control.

Example: "Relax completely, body and mind and put your responsibilities aside for a while. For the next few minutes there's nothing you need to do, no problem you need to solve. This is your time to relax and be at peace. Breathe deeply and rhythmically. Let your breathing become a little deeper, a little slower, without forcing the breath in any way. Now imagine that you are in a peaceful special place, a place that makes you feel comfortable and totally secure. It can be any place at all: real or imaginary, a mountain top, a lush valley, a warm beach, a meadow dotted with wildflowers, or a room where you feel comfortable-whatever makes you feel perfectly secure. Take a few minutes to let the details of this special place unfold before your mind's eye. If distracting thoughts come into your mind, imagine they are little puffs of white clouds carried away by the breeze on a clear day. And let them drift away. Explore your special place, enjoy being there. Acknowledge this is your own place, no one can enter without your invitation. You can return to your special place any time you want to feel peaceful and completely relaxed. When you are ready to return to your everyday life, count slowly to five, stretch gently and open your eyes." Remember, that all is well in your world! (Adapted from: Jones, Carl. "A Special Place.")

Writing Affirmations

Pregnancy

1. Pregnancy is healthy, beautiful, and natural.
2. I am eating nutritious foods for my baby.
3. I am able to make the best choices for a healthy, joyful birth.
4. I believe in my abilities. I am a loving person.
5. All is well in my world.

Birthing

1. I am relaxed as I feel the power of my contractions.
2. Contractions massage my baby's body in preparing for birth.
3. I feel the love of those is helping me.
4. I accept the healthy pain of labor, if and when it is here

Father/Support person

1. I have the strength to support my wife (partner) through labor and birth.
2. I send my love and support to my wife (partner).
3. I will be a loving parent. I believe in my abilities.

Postpartum

1. I feel the strength and joy in holding my baby. My breasts make milk to nourish my baby.
2. I am adjusting to my life with my new baby.
3. Rest strengthens my body for mothering.
4. I am a loving wife and parent.

Adapted from Mind Over Labor by Carl Jones and Pregnant Feelings by Baldwin and Palmari

Relaxation Suggestions for Pregnancy and Labor

Being able to relax at will is an important skill to have during labor. Pain and fear can naturally make you tense. Tension in your body can make your contractions more painful. Relaxing frees your body and helps with labor.

The ability to relax is not limited to the day of labor. As your due date approaches and your excitement and anxiety grow, you may need to be able to relax just to fall asleep or steal an afternoon catnap. After your baby arrives, the ability to relax may help you get past some of the harder parts of new parenthood. Some of our favorite relaxation techniques include:

Aromatherapy: Take time to smell the roses.
Aromatherapy is one of the newest therapeutic techniques, although the effects of smells have been known since ancient times. Different smells, practitioners say, can evoke different feelings. Sometimes the effect is physical—the chemical substances that create a particular aroma affect different organs of the body. Sometimes the effect is emotional—a smell may stimulate pleasant memories.

For aromatherapy, a smell is provided by an "essential oil," a concentrated extract of a plant. Lavender can have both physical and emotional effects. It can soothe headaches or an upset stomach and often reminds people of a favorite place or person.

Lavender and chamomile are relaxants and make good choices for a venture into aromatherapy. Essential oils can be applied to a cotton ball. Lie down comfortably inhale a whiff of the aroma to aide with relaxation. Herbal teas or a soothing bath can also help.

Music: Let the music play.
Music is another ancient therapeutic technique. Music that relaxes you while you are pregnant will also help you relax during labor. Try pacing your breathing to the rhythm of the music. Experiment with different kinds of music. Make a playlist that you enjoy for your labor.

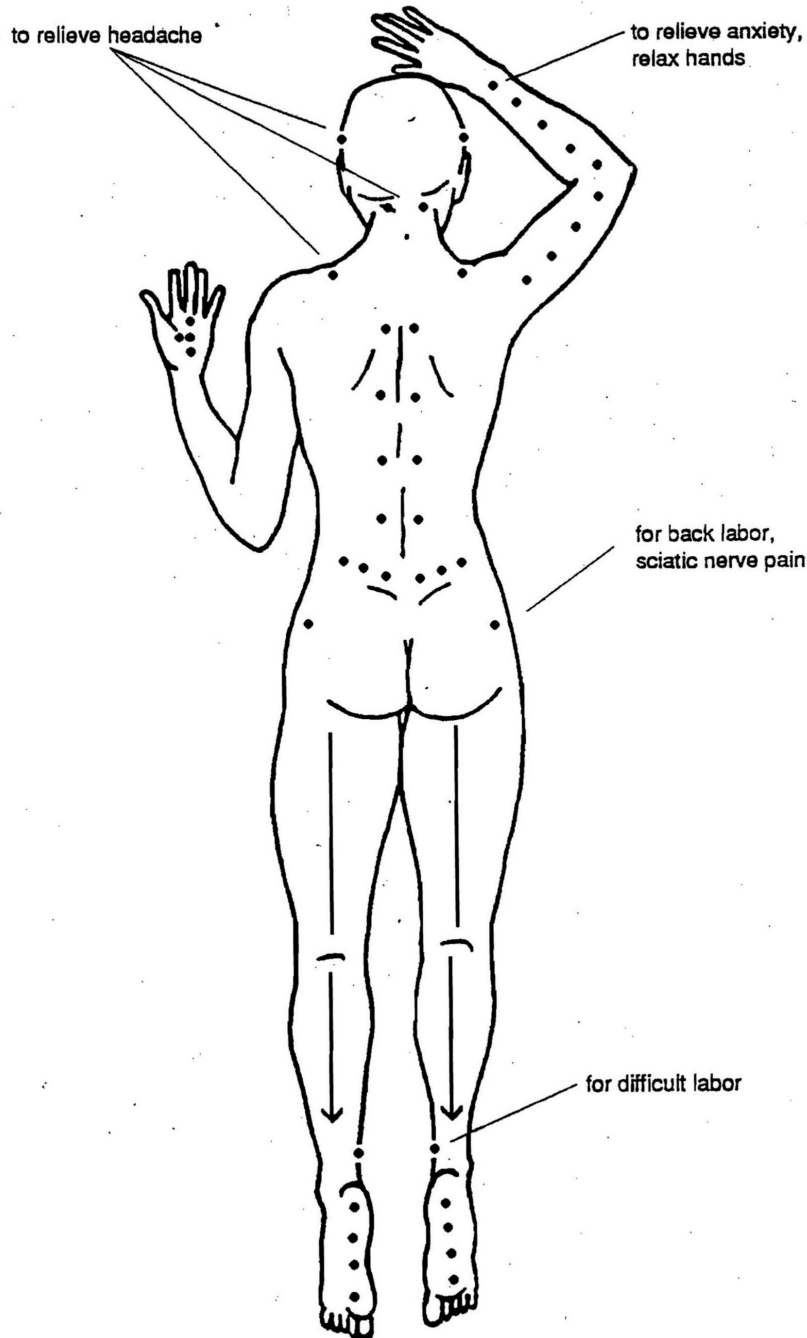
Yoga: Relax with yoga or meditation.
Techniques adapted from yoga can be particularly relaxing. Find a comfortable position on a bed or padded surface, preferably on your side with your back supported with pillows. Consciously tighten and relax your muscles starting with your toes. Bend your toes for a few seconds; then relax them. Flex your ankles, and then relax them. Move slowly upward through calves, thighs, stomach, buttocks, hands, arms, mouth, and so on, tensing and relaxing each in turn. Breath comfortably. Lie down quietly for a few minutes and concentrate on gently inhaling and exhaling, freeing your mind of any other thoughts.

Massage: Give yourself a massage.
The best massage is one that someone gives you, but if you're not always fortunate enough to have a massage, you can give one to yourself. The only guidelines are to find a comfortable position for yourself, dim the lights, play some music if you like, and do what feels good.
Abdomen: The best known self-massage for pregnant women is known as effleurage: gently moving the fingertips, often in a circular pattern, over your belly. Effleurage is also a good technique to use in labor.
Scalp: Grasp clumps of hair in each hand, pulling gently, and rotating your hands for a few seconds. Move on to other clumps of your hair. You will look like you are pulling your hair out! After you have had enough, knead your scalp with your fingertips.
Neck and face: Move your fingertips to the back of your neck and massage it in a circular motion. Move on to your cheeks, mouth, and forehead, applying slightly more pressure on the upward half of the circular motion than on the downward stroke. Try to keep your fingers in contact with your skin throughout the massage.
Hands and feet: Knead your palms, fingers, soles, and toes with your thumb and palm. Concentrate on feeling how the pressure of the massage releases tension in your hands and feet.

Visualization: Picture yourself relaxed.
Visualization becomes easier with practice and practicing can be enjoyable. Again, find a comfortable position for yourself, dim the lights, close your eyes, and picture yourself in a place—real or imaginary—where you feel happy and safe. Many parents-to-be pictures themselves lying on a beach with a warm sun, cool breezes, and the sound of the waves breaking. he best part is that you can stay in your relaxation place as long as you like; no reservations are necessary!

Pressure Point Massage

To increase relaxation and reduce pain sensation, apply firm pressure with your fingertips on the indicated points for three to five seconds at a time. Applying pressure to certain areas of the body will decrease stress, tension and pain sensation.
Source: Jungman, 1991



Touch and massage have been proven to reduce pain sensations. Soothing touch releases endorphins that cause a sense of well-being. Comfort measures such as massage or touch, a cold washcloth or soothing sound produce endorphins in the brain that block or slow down the perception of pain.

Breathing Strategies for Labor

Some women go through labor and birth breathing naturally, without using any special breathing strategies. Others focus on slow breathing to help them relax, or on special breathing patterns for distraction during contractions. Breathing while in labor is intuitive. You do not need to remember any special breathing pattern.

Breathing Awareness

Become aware of your normal breath. Place one hand on your upper chest and the other on the lower curve of your belly. Feel the movement in your chest, belly, or both as you breathe in and out. Another way to focus on your breath is for your partner to place both hands in various places on you back-the low back, middle, then upper back. Focus your attention on the warmth and pressure of the touch and breathe towards it.

Slow, focused breathing has been used in meditation and yoga practices for centuries. It has been shown to reduce stress, both in labor and in life. As you relax, your breathing naturally slows. By consciously slowing your breathing pace, you can help yourself release tension. Concentrating on a focal point in the room or closing your eyes to focus inward may help you become more in tune with your breathing.

Breathing Pace and Patterns

We normally breathe in and out without thinking. However, some women find that focusing on the depth and pace of each breath helps them to "ride" over the peak of the contraction. Bring in new energy and blow away tension by taking a "cleansing breath." This is just a deep breath, like a natural sigh you use each day. In labor you may choose to begin and end each contraction with a cleansing breath. Through the contraction you will breathe to the depth, pace, and pattern that feels right to you. Many women focus on a slow, relaxed breathing pattern throughout labor. Others choose to change the breathing pace and/or pattern as the contraction change. While breathing at a slow pace is generally more relaxing, varying the pace or pattern is often a good focus or distraction. Most people are comfortable if they consciously pace their breathing at between half and twice their own normal breathing rate. Throughout labor you should breathe in the way most comfortable for you: in and out through the nose; in through the nose and out through the mouth; or in and out through the mouth.

Strategies to Accompany Breathing

Visualize:

- an ocean wave slowly rolling in as you inhale; slowly rolling out as you exhale.
- being surrounded by your favorite relaxing color, breathing in that color to spread its relaxing effects to all or your body; then breathing out a color of tension.
- the soft petals of a flower gradually opening up as the morning sun strikes.
- your cervix opening, opening, opening to the full 10 centimeters.

Repeat rhythmical phrases:

- "Breathe in for my baby, breathe out tension."
- "Breathe in energy, blow away pain."

Count:

- *to a number:* count to 4 or 5 as you breath in; and the same number or more as you breathe out.
- *your own pattern:* inhale and exhale a certain number of times, ending each pattern with a soft blow (3 to 1 pattern- breath in, out; in, out; in, out; in, soft blow). The labor partner can suggest changing patterns during the contraction by signaling with his fingers or voice a pattern for mom to try.

Whisper words or sounds on exhalation:

- "hee" or "huh". (Keep mouth, lips, and jaw relaxed.)
- "hee" or "huh" a certain number of times, then give a soft blow or "huu" (example: "hee, hee, huu").

Combine:

- *different paces:* breath slowly at the beginning and end of the contraction, and faster over the peak.
- *imagery and counting:* visualize a group of lighted candles, counting them as you blow them out.
- any of the strategies above.

Adapted from *Prepared Childbirth:The Family Way* by Debbie Amis and Jeanne Green

Rhythmic Breathing Methods

Breathing should be intuitive and natural without using any special breathing strategies. Some patients focus on slow breathing to help them relax or on special breathing patterns for a distraction during contractions.

During a contraction:

- Take a cleansing breath using the affirmation “I am relaxed”
- Establish a focal point taking a few normal breaths
- Begin rhythmic breathing
- As contraction decreases in strength, take a few normal breaths
- When contraction ends, take a cleansing breath using the affirmation, “I am relaxed”

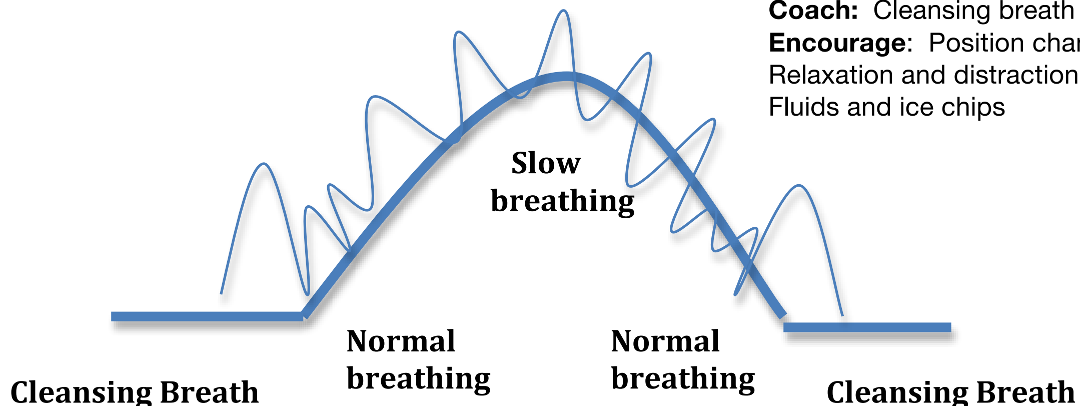
Cleansing Breath

A slow inhalation through the nose, bringing the air down to your diaphragm. Complete with a slow and deliberate exhale, blowing air out through the mouth. Use as often as desired to help with relaxation.

Early Labor

Relaxed Chest Breathing or Slow Abdominal Breathing: Cleansing breath, continue with same pattern, in through nose, out through mouth, end with cleansing breath.

Coach: Cleansing breath reminders!
Encourage: Position changes
Relaxation and distraction
Fluids and ice chips

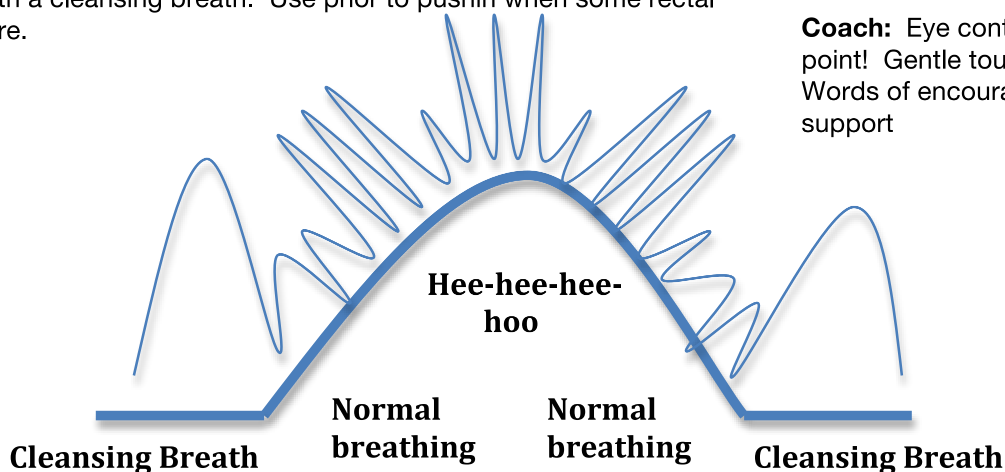


Active Labor

Transition Breathing (5-10 cm)

Cleansing breath, then three pants and one blow: hee-hee-hee-hoo. Repeat throughout contraction. End with a cleansing breath. Use prior to pushin when some rectal pressure.

Coach: Eye contact-you are focal point! Gentle touch reassurance. Words of encouragement and support

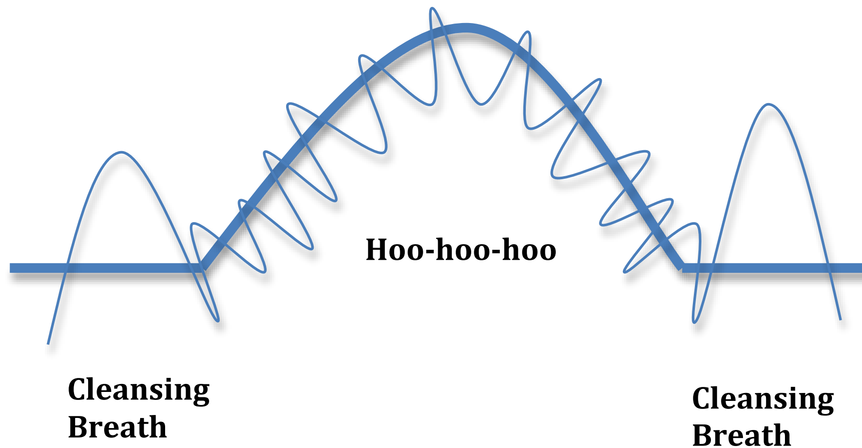


Active Labor (continued)

Pant Blow or Feather Breathing (9-10 cm)

Breathing like blowing out a candle. Use if not completely dilated and trying not to push. Cleansing breath, then pant blow (hee-hee-hee or hoo-hoo-hoo). Finish with a cleansing breath.

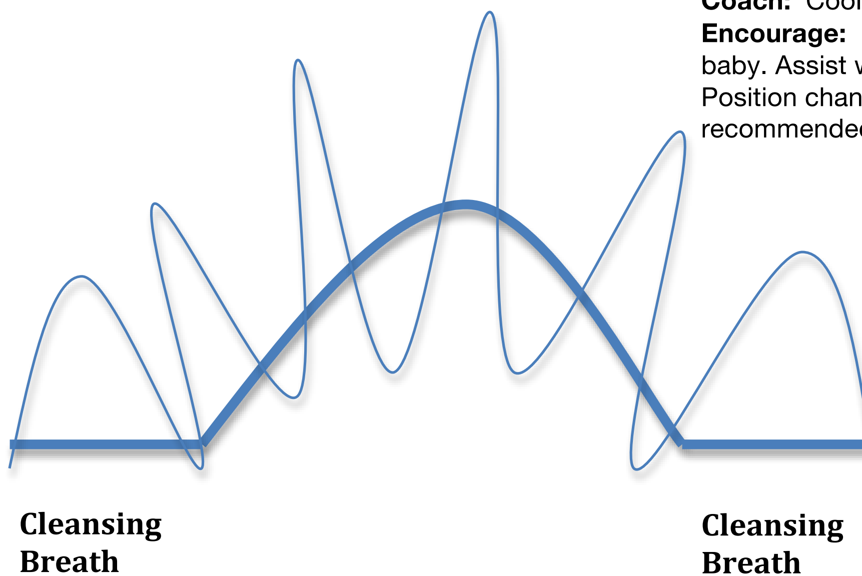
Coach: Eye contact, verbal reassurance and encouragement.



Pushing

Cleansing breath, big inhale to push air down toward diaphragm, then hold breath during push. Take a quick breath between pushes. Try to get three or four pushes with each contraction. Grunting sometimes helps with pushing effort. Finish with cleansing breath.

Coach: Cool compresses and ice chips
Encourage: Chin down and curl around the baby. Assist with leg support if needed. Position changes as comfortable and recommended by nurse



Labor Progression

Braxton-Hicks contractions cause the first four changes in the cervix, listed below, to occur before labor begins. Braxton-Hicks usually occur during the last month of pregnancy. Occasionally, however, a woman will have strong labor contractions before significant changes have taken place in the cervix. If so, she will probably have a "Slow-to-Start" labor (see page 9). More time and more contractions are necessary to bring about cervical change. When the cervix is ready, labor speeds up and labor progression usually occurs. A big challenge in labor is accepting the slow pace of progression without becoming discouraged. Reassurance from optimistic supporters, along with distracting activities, nurturing, and rest help during this time.

Physical Changes in Labor

1. The cervix moves from a posterior position to an anterior position.
2. The cervix softens or "ripens".
3. The cervix thins and effaces.
4. The cervix dilates.
5. The fetal head rotates and moulds to become "cone-shaped".
6. The fetus descends through the birth canal.

Factors That Can Affect Your Progress in Labor

1. Position of the baby's head.
2. Size of the baby.
3. Size and shape of the mother's pelvis.
4. Mother's physical and emotional state.
5. Presentation of the baby.
6. The effectiveness of the contractions in dilating the cervix.
7. The birth partner and the support that they provide.

Labor Signs

Possible Signs of Labor

1. Vague nagging backache that causes a restlessness and need to change positions. This backache may be associated with contractions and is different from the backache commonly experienced throughout pregnancy.
2. Increased number of soft bowel movements sometimes accompanied by flu-like discomfort and intermittent or continuous "menstrual" cramps. An increase in prostaglandin levels ripen and efface the cervix, but may also cause diarrhea and cramping.
3. Unusual burst of energy resulting in great activity termed the "nesting urge".

Early Signs of Labor

1. Blood-tinged mucous discharge ("show" or mucous plug) released from the vagina. This is associated with thinning of the cervix. A similar discharge may also appear after intercourse or a pelvic examination and is not a sign of labor.
2. Amniotic sac ruptures or leaks resulting in a trickle of fluid from the vagina without any labor contractions. The water breaks prior to labor 10 -12 percent of the time.
3. Persistent, non-progressive contractions that do not become longer, stronger, or closer together. Called "false labor" or Braxton-Hicks, these contractions help soften the cervix.

True Signs of Labor

Contractions that become longer, stronger, and closer together over time. The laboring woman needs to concentrate during these contractions and cannot be distracted.
Spontaneous rupture of membranes followed by contractions.

Adapted from The Birth Partner: Everything You Need to Know to Help a Woman Through Childbirth, by Penny Simkin, 1989 (Harvard Common Press).

Stages of Labor

There are three stages of labor. Dilation of the cervix occurs during the first stage of labor. The first stage is divided into three phases: the prodromal phase (early labor), the active phase and the transitional phase. The average duration of the first stage of labor for women having their first baby is 12 to 16 hours. The second stage of labor starts when the cervix is fully dilated and is completed with delivery of the baby. Pushing may last from one contraction to two to three hours. The third stage is completed with delivery of the placenta and usually takes less than 15 minutes.

The First Stage of Labor

Early Labor

The prodromal or early labor phase lasts from the start of labor until the cervix dilates to four centimeters. Contractions are slow to become regular, but become more frequent with increasing strength and duration. It is best to stay home during this phase if possible.

The Mother

If contractions begin at night and if they are not too strong or close together, try to get more sleep. Do not eat anything too heavy.

During early labor, many women prefer sitting in a comfortable chair with your head, arms and legs supported. Walking for brief periods of time may distract you from the contractions. Try not to wear yourself out too early by walking too much.

Do not start breathing patterns until you feel that you need them. Breathing should be deep, slow and even.

The Support Person

Be calm and have confidence in yourself. Remember that your presence and companionship are your most important contributions.

At this stage of labor, just a few words of encouragement or praise for your partner are important. Keep calm, avoiding over excitement or dwelling on the upcoming delivery.

During the trip to the hospital, remain calm and concentrate on driving carefully. There is plenty of time. You should learn the route (and an alternate route) in advance, the approximate time it will take, where to park, and what entrance to use night or day. In case you may be unavailable to drive your wife/partner to the hospital, arrange for an alternate person. If you have children at home, have a couple of potential sitters available. Remind your wife/partner to relax and to breathe slowly and evenly with the contractions. This may be difficult in the car, and she may need extra encouragement during the trip.

Good Samaritan admissions in the main lobby is open 6 am to 10 pm. If you go to the hospital during the night, use the Emergency Room entrance to the hospital.

Active Labor

During active labor, contractions are closer, stronger and more prolonged. This phase lasts from four centimeters to seven centimeters. Contractions are progressively stronger and closer together, 3 to 4 minutes apart and last 40 to 60 seconds.

The Mother

You are preoccupied with labor and no longer feel like talking. Each contraction requires deep concentration.

Your position is important for comfort and your ability to relax. Move from side to side frequently. Remember to empty your bladder.

The Support Person

A quiet, subdued environment helps you relax. Avoid bright lights, excessive talking or movements in the room. Speak in a calm, reassuring voice between contractions.
Offer frequent words of encouragement. Such comments as, “you are doing well!” or “good work!” are a must. The use of positive suggestions such as “your contraction is at its peak and will soon be letting up” will help.

Help her with her breathing. This is a good way to aid her relaxation and divert her attention from the uterine contractions. Remind her to use slow deep breathing as long as possible, only changing to more rapid upper chest breathing when absolutely necessary. She should breathe in through her nose as much as possible to prevent dryness of the mouth.

Women in labor appreciate small gestures of comfort like a back rub, a cool wet washcloth to wipe the face and neck, and moistening the lips and mouth with ice chips and sips of water.

Transition

Transition is the most demanding period of labor. Contractions are long, strong, and frequent. Transition lasts from dilation of 8 centimeters to 10 centimeters.

The Mother

You may be irritable or discouraged. You may feel out of control and cry. It helps to have the labor partner for breathing. It is common to experience shaking. Some women experience amnesia during this phase and turn focus inward.

The Support Person

Your partner may panic and lash out at you. She will need your help now more than ever. Help with each contraction. Watch for nausea, holding her breath, and an urge to push. Remember "pant, pant, pant" to avoid these symptoms.

Remind her that transition is short. Relief comes with the pushing stage. Help her take contractions one at a time. Use the periods between contractions to rest since they will be very short. She may sleep between contractions and wake up confused when a contraction begins While maintaining eye contact, breathe with your wife/partner. If she panics and momentarily loses control, speak to her in a firm tone, saying "breathe with me, breathe in and out, keep it up, etc." until the contraction is over.

If your wife/partner is bothered by low back pain, apply counter pressure with your hand. Do not leave your wife/partner alone in transition.

A catch in her breathing or a sensation of being unable to breathe, along with the urge to push, may signal the onset of the delivery stage. Make sure the staff knows she feels like pushing. Urge her to continue her breathing pattern until a nurse or physician give permission to push.

The Second Stage: Delivery

The pushing stage brings mixed feelings of surprise at the power of the urge to push and joy that birth is imminent. Pushing may last two to three hours for first time mothers.

The Mother

Pushing will bring relief from the labor. Breathe deeply before each push. Shaking is common during delivery and after delivery. Burning and stretching sensations are common as the baby moves down the birth canal. It is the home stretch at the end of a marathon - the "light at the end of the tunnel". Contractions may become less frequent but are stronger. There is a natural urge to bear down with the contractions.

The Support Person

Your wife/partner must really concentrate. She can be easily confused by lots of voices, so let her nurse or physician give the instructions about pushing. Help with the counting. Stay close to her and soothe her between contractions. Offer cool washcloths and ice chips Encourage her.

The Third Stage: The Placenta

The Mother

Fatigue and relief are common reactions after delivery. Shaking may continue during this stage. After delivery of the placenta, the uterus will shrink to the level of the umbilicus. The nurse will massage the uterus to prevent excessive bleeding.

The Take Charge Routine for Coaches

Reserve this for any time in labor when your partner:
- Hits an emotional low
- Is in despair, weeps or cries out
- Wants to give up and feels she cannot go on
- Is very tense and cannot relax
- Is in a great deal of pain

The "Take Charge Routine" is exactly that. You move in close and do all you can to help her until she regains her inner strength. Usually her despair is temporary. With your help she can pass through it and her spirits will rise.

Try the following:

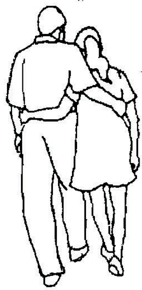
- Remain calm. Your touch should be firm and confident. Your voice should remain calm and encouraging.
- Stay close by her side, your face near hers.
- Anchor her. Hold her shoulders or her head in your hands -- gently, confidently, firmly -- or hold her tightly in your arms.
- Make eye contact. Tell her to open her eyes and look at you. Say it loudly enough that she can hear you, but calmly and kindly.
- Change your ritual during contractions. Try a different position. Try changing the breathing pattern. Breathe with her or pace her with your hand or voice.
- Encourage her every breath. Guide her in patterned breathing. Say, "Breathe with me…BREATHE WITH ME…That's the way…just like that…Good…STAY WITH IT…just like that…LOOK AT ME… Stay with me…good for you…it's going away…good…good…Now just rest…That was so good." You can whisper these words or say them in a calm encouraging tone of voice. Sometimes you have to raise your voice in order to get her attention, but try to keep your tone calm and confident.
- Talk to her between contractions. Ask her if what you are doing is helping. Make suggestions. For example, "With the next one, let me help you more. I want you to look at me the moment it starts. We will breathe together so it won't get ahead of us. Okay? Good. You're doing so well. We're really moving now…"
- Repeat yourself. She may not be able to continue what you tell her for more than a few seconds, but that's fine. Say the same things again and help her continue.
- What if she says she can't or won't go on?
  - Don't give up on her. This is a difficult time for her. You cannot help her if you decide she cannot handle it. Acknowledge her concerns.
  - Recognize that labor is difficult but not impossible.
- Ask for help and reassurance. The nurse or another support person can help a lot. Ask for advice. Try doing some of the coaching.
- Remind her that the baby will be born and she will be a mother. It may seem surprising, but laboring women are often so caught up in labor that they do not think much about their baby. It may help for her to remember why she is going through all of this.
- What about pain medications? Do you call for them or not? It depends on:
  - Her prior wishes. Did she want an unmedicated birth? How strongly did she feel about it?
  - How rapidly is she progressing? How far does she still have to go?
  - Is she asking for medications herself?
  - How easily she can be talked out of them?

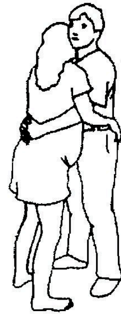
These factors help you become a better coach. It is sometimes difficult to balance present wishes against prior wishes. Try to stick with what she wanted before labor regarding medication use. But, if in labor she insists on changing from a plan of not using them, respect her wishes. Every labor is different and it is impossible to predict what the labor will be like. By using the "Take Charge Routine", you can indeed get your partner through those desperate moments when she feels she cannot go on. You can truly ease her burden by helping with every breath.

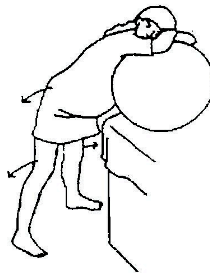
Excerpted from *The Birth Partner: Everything You Need to Know to Help a Women Through Childbirth*, by Penny Simkin, PT, Harvard Common Press, 1989

Positions for Labor

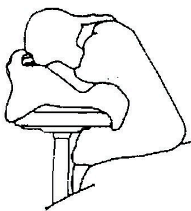
From the Labor Progress Handbook by P. Simkin and R. Ancheta, 2000.

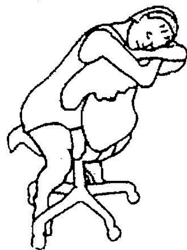

1. Walking


2. Slow dancing

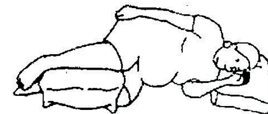

3. Standing, swaying with birth ball

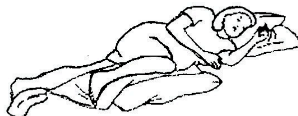
4. Sitting, swaying with birth ball

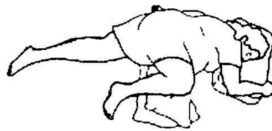

5. Sitting, leaning on tray table

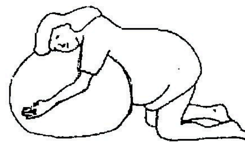

6. Straddling a chair

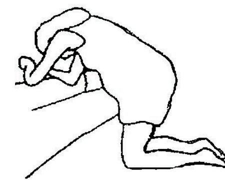
7. Sitting in a rocker


8. Sidelying


9. Semi-prone, lower arm forward

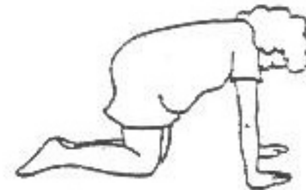

10. Semi-prone, lower arm behind


11. Kneeling over birth ball


12. Kneeling over chair seat

Positions for Pushing

23. Sidelying, leg support


25. Hands and knees

24. Semi-sitting

31. Semi-reclining, pulling legs back

28. Squatting with bar

Back Pain in Labor

One woman in four feels intense backache during labor contractions. Such “back labor” may be due to the position of the baby’s head or the shape of the woman’s pelvis or her spinal flexibility. Relaxation and breathing may not be enough to cope with such pain. Here are some suggestions for additional ways to deal with backache during labor.

Use positions and movements to encourage the baby into a favorable position, speed a labor that has slowed down, or relieve back pain.

Positions and Movements

Side Lying: Lying on the side with both hips and knees flexed, and a pillow between her knees.

Semi-prone: Lying on her side with her lower arm behind or in front of her and her lower leg out straight she flexes her upper hip and knee, rests her knee on doubled-up pillow and rolls toward her front.

Hands and Knees, Kneeling and Leaning forward: Standing with her upper body on a chair or a birth ball (a large physical therapy ball). Some labor beds can be arranged to support her in this position.

Pelvic Rocking: While kneeling and leaning forward, she rocks her pelvis forward and back, or in a circle. This helps dislodge the baby within her pelvis, encouraging rotation.

Standing and Walking: Take advantage of gravity in encouraging descent of the baby.

Slow Dancing: Standing and swaying side to side while being embraced by her partner helps.

The Lunge: Standing and facing forward, place a chair beside her. She places on foot on the chair seat, with her knee and foot pointing to the side while she faces forward. Remaining upright, she slowly “lunges”, or leans sideways, toward the chair, so that she bends the knee of the leg on the chair for a slow count of 5 then returns to upright. She should continue through the contraction and try lunging in each direction, and stick with the direction that is most comfortable.

Abdominal Lifting: While standing, she interlocks the fingers of hands and places them underneath the belly against her pubic bone. during the contractions, she lifts her abdomen up and slightly in, while bending her knees. This often relieves back pain while improving the position of her baby in her pelvis.

Open Knee-Chest: This position may help reposition an OP baby if used during very early labor. If she has frequent irregular painful contractions causing back pain, and the cervix is not dilating, try this. Be sure her buttocks is high in the air. She remains in that position for 30-45 minutes. The back pain often disappears in this position.

Comfort Measures

These can be used with the above positions and movements to help reduce back pain. Your partner can help you.

Counter Pressure: Holding the front of her hip with one hand (to help her maintain balance) press steadily and firmly (with your fist of the heel of your hand) in one spot in the low back or buttocks area. She will help you know what spot to press—it varies from woman to woman and within the same labor. Try pressing in several places and she will tell you when you have found it.

Double Hip Squeeze: The mother kneels and leans forward (or on hands and knees). From behind, press on both sides of her buttocks with the palms of your hands. Apply pressure toward the center (pressing her hips together). Experiment to find the right places to press. Do this during contractions. Apply as much pressure as she needs.

Cold or Warm Compresses: Place an ice pack, hot water bottle, cold or hot towels, frozen folded wet washcloth, or silica gel pack on the low back between contractions to relieve back pain. Cold usually is

more effective, because of its numbing effects. Before applying a cold pack, be sure she is warm. If her hands, feet or nose are cold, wrap her in a warm blanket and put socks on before applying the cold pack. Also, be sure there are one or more layers of cloth between the skin and the cold or hot pack, so that she will feel a gradual increase in cold or warmth. Do not place warm or cold items on any area affected by an epidural.

Shower or Bath: Direct the shower against her low back. It helps immensely. Both baths and showers are very relaxing and may help a great deal with back pain.

Rolling Pressure Over the Lower Back. A rolling pin, a hollow rolling pin filled with ice, or a can of frozen juice or cold soda pop (keep a six pack in a bowl of ice, so you'll always have a cold can) rolled over her low back is soothing during or between contractions. Since such tools are rarely available in the hospital, you might bring them in, especially if she is having back labor at home.

Positions for Back Labor

Illustrations by Shanna dela Cruz (1999, 2005 by Ruth Ancheta) from *The Labor Progress Handbook: Early Interventions to Prevent and Treat Dystocia,* by Penny Simkin and Ruth Ancheta (Blackwell Science, 2005). Reproduced with permission

13. Counter pressure

14. Double hip squeeze

15. Kneeling over the back of bed

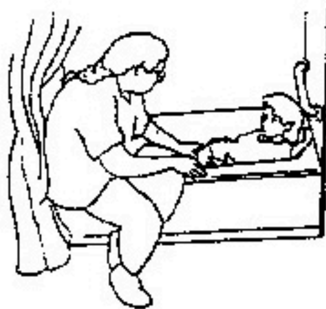
16. Open knee-chest position

17. Abdominal lifting

18. The lunge

Techniques for Back Pain.

19. Shower



20. Bath

21. Strap-on cold pack

22. Heat

Other Comfort Measures.

Labor Information

Normal Labor

The birth process is a normal and healthy event. Your body is designed to birth your baby. During the last weeks of pregnancy, the baby “drops” into the pelvis. The cervix moves from a posterior position to a forward position and begins to soften. Braxton-Hicks contractions may occur to help thin out the cervix and help it dilate. Educate yourself about childbirth. Talk with your doctor during your prenatal visits and ask questions. Reduce your stress level as much as possible. Avoid listening to “friends” stories and reading the internet about difficult labors. The stories do nothing to help you prepare and may increase your anxiety.

Birth Plan

Most of us agree that the birth priorities should include a healthy, full-term pregnancy, with spontaneous onset of labor that continues without interventions. The mother has medications as planned and ends with spontaneous vaginal delivery and successful breastfeeding. This is the usual birth plan.

Unfortunately, childbirth is not always controllable or predictable, and some of these priorities sometimes do not materialize. This can be surprising and disappointing for parents and caregivers. For example, premature labor sometimes occurs unexpectedly. Sometimes risk factors develop during pregnancy or labor in the mother or fetus, and induction, medications, forceps or vacuum extractor, or even cesarean delivery become necessary. If pain medications are planned, a very fast labor or an occupied anesthesiologist may mean the woman does not get medication when she desires. If an unmedicated labor is planned but labor is extra long or complicated, pain medications may become necessary. Challenges in breastfeeding, such as weight loss in the baby or insurmountable problems for the mother, may mean the baby needs formula.

Sometimes, women or couples cannot have all their other priorities met because the most important priorities -- a healthy mother and baby -- might be jeopardized.

Labor Instructions

As labor begins, stay calm. Labor at home as long as you can. Home is a more comfortable environment than the hospital. It is not necessary to count your contractions during early labor. If it is your first labor, you can generally stay home until you can no longer talk through your contractions. Eat a light meal during early labor and stay hydrated throughout labor. Alternate rest and light activity – remember labor is a process of movement, but don’t wear yourself out! A warm shower or bath can be relaxing and soothing.

The “**PURE**” technique is **P**osition, **U**rination, **R**elaxation, & **E**nvironment to help your labor become more efficient and faster.

Position: change position at least every thirty minutes

Urination: empty your bladder hourly

Relaxation: massage, imagery, focal point, ice chips, rocking, breathing exercises, walking

Environment: comfortable room temperature, lighting, music, visitors, aromatherapy

When to Call Your Doctor

After your contractions are regular and painful and you can no longer talk through them, call your physician (408) 356-0431 or the after hours number (408) 554-2872. The doctor will answer your questions and then call the hospital so that they will be ready for you when you arrive. If you have any high risk problems such as twins, diabetes, high blood pressure, or are a carrier of vaginal Group B streptococcus, make sure you tell the doctor. Always call if the baby is not moving normally or if there are signs of amniotic fluid leaking or active bleeding. “Bloody show” or blood tinged mucus is normal.

At Good Samaritan Hospital

When you arrive on Labor and Delivery, your nurse will review your health history. She will check your cervix to see how your labor is progressing and then relay this information to your physician. The baby will be monitored with an external monitor to make sure that the contractions are not causing any distress. If everything is progressing normally, you should be able to continue to move around your labor room and Labor and Delivery. Continue to drink as much fluid as possible during labor and keep your bladder empty. If you decide you want pain medication or an epidural, an intravenous line will be started.

Utilizing the relaxation and distraction techniques that you have learned in class will help you maintain control. These techniques should help you avoid or delay the need for medication or anesthesia.

As labor progresses and the contractions become more challenging, try “upright” positions so gravity will help encourage the baby to move down and out. Upright positions include walking, slow-dancing, kneeling over the back of the bed or sitting in a rocking chair. The use of the birthing ball not only keeps your body fairly upright, but also allows for a squatting-type sit, which will increase the pelvic opening up to 20 percent. Rest on your side.

While pushing, use positions that maximize the baby’s descent. Most women feel most comfortable pushing in a semi-sitting position. Squatting or pushing on your side may also be comfortable positions. While pushing relax your shoulders, neck and legs. Your partner and the nurse can help support your legs if you have an epidural and cannot hold them by yourself.

There are two types of pushing efforts: spontaneous and directed. Women with no anesthesia can push spontaneously with the urge during a contraction. As the contraction begins, take a cleansing breath and release. Then as the urge builds, quickly take another big breath in, curl around your belly, tighten your abdominal muscles and bear down. As you bear down, you may hold your breath for several seconds or *slowly* release the air by grunting or straining. Your labor nurse and physician will guide you in the technique and timing that is most effective and safe for both you and baby. Women with epidural anesthesia in place may not have the urge to push and so the pushing timing and efforts are often improved when “directed” by the caregiver and labor partner.

When the Baby is Born

As the baby is delivered, it is placed on the mom’s abdomen. The nurse will help dry the baby off and suction amniotic fluid and mucus from the nose and mouth with a bulb syringe. Newborns are usually blue until they cry and oxygenate their skin. The dad is handed scissors and shown how to cut the umbilical cord. After bonding with the baby, your nurse will weigh the baby and do an assessment. This includes a physical exam and some basic procedures for the baby’s health. The baby receives an antibiotic eye ointment that prevents blindness that can be caused by gonorrhea or chlamydia. A shot of Vitamin K is given to help the baby make clotting factors which are essential to reduce the risk of bleeding during the first week of life. Hospital identity bands will be placed on the baby and both parents. These should remain in place until you go home. After the assessment, the baby remains with you until discharge. You will be given lots of help and advice by the hospital staff. Your pediatrician will visit you in the hospital and you will receive a book from Good Samaritan on Postpartum and Newborn Care.

Hospital Stay at Good Samaritan Hospital

Your insurance will allow you to stay in the hospital for 48 hours (2 days) after a vaginal delivery and 96 hours (4 days) after a cesarean section. If you want go home early, you can be discharged from the hospital if you are feeling well and the baby is doing well. To go home after a cesarean section, you should be eating a normal diet, taking oral medications and able to walk around. Most women do not have a bowel movement until they go home.

Reducing the Chance of a Cesarean

Let your labor start and progress on its own unless there are clear reasons for inducing labor. Move and change positions often during labor. Labor at home as long as possible. Work actively with your contractions. Keep up your energy by drinking fluids. Try lots on non-drug comfort measures before considering an epidural. If you have an epidural, continue to move constantly. See the "rollover technique" described on page 30. Let the epidural wear off if you cannot push effectively.

Reasons for a Cesarean Section

If the baby does not fit through the pelvis due to the baby size or the size of the pelvis this is called cephalo-pelvic disproportion (CPD). If the labor does not seem to be progressing, pitocin is usually given to make the contractions stronger. If the cervix still does not open, an intrauterine pressure catheter is usually placed to confirm that the contractions are strong enough. If dilation remains the same for two to three hours despite strong labor, this is called "Failure to Dilate" and is an indication for a cesarean section. While pushing, if the baby remains at the same station (level) for more than one to two hours this is called "Failure to Descend".

Your baby may not tolerate labor, shown by decelerations or decreased variability on the electronic fetal monitor. A non-reassuring fetal heart rate can occur due to the umbilical cord being compromised or placental insufficiency. Cord compression can occur when the uterus contracts and compresses it. The cord may be wrapped around the baby in such a way that either it may be stretched while the baby descends though the birthing canal or if the amniotic fluid is low. If the delivery occurs after the due date, the placenta may calcify and be over-mature so blood flow and oxygen exchange may be decreased.

If the heart rate is non-reassuring, several interventions occur in an effort to continue a safe labor. You may be asked to turn on your side or be in an "all four" position. Always avoid lying *flat* on your back. You may be given oxygen by a mask. If the heart rate pattern suggests cord compression, an intrauterine pressure catheter may be inserted next to the baby in the uterus for an amnioinfusion. The catheter is very thin and will be able to measure your contraction intensity and also provides a mechanism for allowing sterile saline fluid to go in the uterus and mimic amniotic fluid. This may cushion the cord and minimize the decelerations.

If your baby is found to be in a breech position prior to the start of labor, ask your physician about the possibility of attempting a "version". A version is done in the hospital and is performed by the doctor. An intravenous line is started and medication is given to relax the uterus. The baby is manually rotated into the head-down position. Complications of version include abruption of the placenta and problems with the cord.

Other reasons for a cesarean section include breech presentation, twins (though some may deliver vaginally), active herpes lesion, previous cesarean section, previous uterine surgery (myomectomy). Placental problems may include placenta previa (the placenta covers the opening to the vagina), cord prolapse (the cord drops below the head and is compressed), placental abruption (the placenta separates from the uterus and causes hemorrhaging).

If the baby is felt to be so large (macrosomia) that a shoulder dystocia (trapped shoulder after delivery of the head) may occur, your physician may recommend a primary cesarean section without labor. Induction will be recommended to patients that go past their due date by one to two weeks to avoid post-maturity syndrome with the baby. This occurs when the placenta becomes over mature and there is decreased circulation to the baby. Meconium and distress can occur. If the cervix is unfavorable or a prolonged induction seems imminent, a cesarean section may be offered. Some patients may also elect to have a cesarean section for personal reasons.

Possible Emotional Feeling of Cesarean Parents

It is important to talk to each other and feel comfortable with the reason for the cesarean section if one has been recommended. You should understand the indication by discussing it with your

physician. It is important to keep an open mind during labor as to different possibilities or outcomes. Unfortunately, every eventuality cannot be predicted.

Most parents feel excitement at the birth of the baby and relief that labor is over. Having a healthy baby helps with any disappointment that the birth experience did not meet expectations. If the mother feels guilt that she did something to cause the cesarean, she should discuss this with her physician. Most patients are relieved to find that cesarean sections are relatively quick (30 minutes), have minimal pain (narcotic in the anesthetic) and have a small scar (near the hair line).

The Best Cesarean Possible

If you are having a planned cesarean, knowing what happens at the hospital should help make the birth more personally satisfying for you, your partner and your baby. Make sure that you understand and agree with the reasons for the cesarean. Once you are scheduled, you will be asked to arrive two hours before the procedure. Do not eat any food for eight hours prior to the surgery or have any water for four hours prior to the surgery time.

When you get to the hospital, your nurse will ask you your health history and start an IV. The IV prevents dehydration and nausea. You may receive some medication prior to the surgery to prevent nausea. When your obstetrician arrives, you will walk to the operating room with your partner. The baby will be monitored, Plexi-pulse (massage boots that help prevent blood clots) will be placed on your calves and you will get the spinal anesthetic.

You will see the baby and your partner can photograph the baby as it is delivered. The doctor cuts the cord and a nurse will take the baby to the room next door for Apgar scores and to bulb suction the amniotic fluid from the baby's mouth. Your partner can stay with the baby or with you. After the baby is examined briefly, the baby is returned to you for the remainder of your hospitalization.

During the cesarean, you should feel no pain. It is common to feel pressure as the baby is delivered. After the baby and placenta are delivered, the uterus is sutured and the incision is closed. No muscle is cut during the procedure so you should return to normal fairly quickly. If you are extremely anxious, the anesthesiologist can give you Versed to calm you after the baby has been delivered. The disadvantage to this is it may cause amnesia or make you sleepy.

Post-operative pain medications are available for after the birth. If you received intrathecal (spinal) narcotic in your spinal, you may only need Ibuprofen and an oral narcotic. If you did not receive intrathecal narcotic, you may request intramuscular or intravenous Demerol or Morphine. Some women worry about side effects of the medication on the baby. Since only very small amounts reach the baby, the side effects are minimal. The downside of avoiding pain medication is extreme pain which reduces your ability to move around and care for your baby. With adequate pain relief, you can have more normal interactions with your baby.

You should be able to move around soon after the spinal wears off. Using a pillow over the incision when you are sitting up or nursing reduces discomfort. To roll over in bed, the least painful way is to "bridge". To roll from back to side, first draw up your legs, one at a time so that your feet are flat on the bed. Then "bridge," that is, lift your hips off the bed, by pressing your feet into the bed. While your hips are raised, turn hips, legs and shoulders over to one side. This avoids strain on your incision. Some women also bring support or mild compression panties to wear after the surgery.

After delivery, your partner can stay with you in the hospital. The rooms are quite large and have a chair that converts into a bed so your parter can "room-in" with you the entire time. Your partner can help you with changing the baby's diapers, moving him from one breast to the other and carrying him. A nursery is available upon request at night if you would like the nurses to watch the baby while you are sleeping.

Having help at home is essential to a rapid recovery. If possible, someone in addition to your partner should help keep the household running smoothly. If that person knows about newborn care and feeding, all the better. Your family of three (or more) need nurturing and help during the first days and weeks to ease and speed your recovery and help you establish yourselves as a happy family.

Medications for Labor and Birth

Systemic Medications (Narcotics)

Narcotics are used to "take the edge off" pain. They work in the central nervous system as a depressant to raise the pain threshold. Narcotics can be administered intravenously or intramuscularly. Side effects to the mother may include drowsiness, difficulty focusing during contractions, nausea, dizziness and respiratory depression. Systemic analgesics may cause respiratory depression in the newborn if given near delivery.

Fentanyl is the most commonly used narcotic for labor. It is given intravenously and the duration is about one hour.Shaking after delivering a baby, whether a vaginal delivery or via c-section, is very common. Typically there is no need for concern since it passes rather quickly. Demerol is often given after delivery for shaking. Both Demerol and Morphine are used after cesarean delivery and can be given through the IV or into the muscle for longer duration of action. Demerol will help relieve shaking that commonly occurs after both vaginal and cesarean delivery. Morphine can be added to an epidural or spinal by the anesthesiologist for extended pain relief.

Local Anesthesia

With vaginal deliveries, every attempt is made to avoid vaginal lacerations or an episiotomy. If lacerations are anticipated and no epidural is present during the delivery, local anesthesia such as Lidocaine can be injected into the perineum so that the lacerations do not cause as much discomfort when they occur. Local anesthesia is also used to numb the vagina if sutures are necessary.

Epidural Anesthesia

Epidural anesthesia, or an epidural block, causes some loss of feeling in the lower areas of the body, yet the patient remains awake and alert. An epidural block may be given at any time during labor, preferably after the cervix is dilated to four centimeters. An epidural block usually contains both an analgesic (fentanyl narcotic) as well as an anesthetic (bupivicaine). If a cesarean section is necessary after labor, the same epidural will be used during the surgery. Your doctor and nurse will help you to decide when to get the epidural.

An epidural block is placed in the lower back in a small area (the epidural space) safely outside the spinal cord. You will be asked to sit or lie on your side with your back outward and to stay this way until the procedure is completed. You can move around in bed with an epidural. Walking is not permitted due to concerns about falling. An anesthesiologist from Group Anesthesia Services will discuss the procedure with you if you are considering an epidural.

An epidural may not be possible if you have bleeding or coagulation problems, an infection near the site of insertion, certain neurological disorders, some types of previous lower back surgery or blood pressure problems.

Before the block is performed, your skin will be cleaned and local anesthesia will be used to numb an area of your lower back. After the epidural needle is placed, a small tube (catheter) is usually inserted through it, and the needle is withdrawn. Small doses of the medication can then be given through the tube to reduce the discomfort of labor. The medication also can be given continuously without another injection. Low doses are used because they are less likely to cause side effects for you and the baby. In some cases, the catheter may touch a nerve. This may cause a brief tingling sensation down the leg. Because the medication needs to be absorbed into several nerves, it may take a short while for it to take effect. Pain relief will begin within 10-20 minutes after the medicatio has been injected.

Although an epidural block will make you more comfortable, you still may be aware of your contractions. You also may feel your doctor's exams as labor progresses. Your anesthesiologist will adjust the degree of numbness for your comfort and to assist labor and delivery. You might notice a bit of temporary numbness, heaviness, or weakness in your legs. Sometimes, a patient controlled button is attached to the epidural infusion machine to allow you to supplement your epidural infusion. Your anesthesiologist will set this up for you if your delivery is not imminent.

Although rare, complications or side effects with an epidural can occur. Some women (less than 1 out of 100) may get a headache after the procedure due to an inadvertent spinal block. Other side effects may include ineffective pain relief, slowing labor, a decrease in blood pressure.

The veins located in the epidural space become swollen during pregnancy. Because of this, there is a risk that the anesthetic medication could be injected into one of them. If this occurs, you may notice dizziness, rapid heartbeat, a funny taste, or numbness around the mouth when the epidural placed. This reaction is usually avoided with a small test dose of the medication which precedes the administration of the larger dose of anesthesia.

Rollover technique with an Epidural

It is important to continue to move and change position with an epidural. The "rollover" technique involve changing position every 20 to 30 minutes. Usually after an epidural is placed, you are in a left, side-lying position. After 20-30 minutes, you might be positioned into a semi-prone position on your left side. You can be positioned on hands and knees hugging a pillow with the foot part of the bed lowered, followed by the same positions on your right side and then returning to a semi-sitting position. The nurses will help you with positioning. Once you are dilated, the position of the baby's head can be determined. You may be asked to move to one side or another or even in hands and knees to move the baby into an Occiput Anterior (OA) position so the baby can move through the pelvis.

Spinal Block

A spinal block is generally used for cesarean sections. Spinals provide a denser block than an epidural and usually have a quicker onset of action. They typically last about two hours. The procedure is similar to an epidural with an injection into the lower back. An anesthetic such as lidocaine or bupivicaine is used to numb the skin and prevent pain. An intrathecal spinal narcotic such as morphine can be added to the spinal to help with post-operative pain relief. The anesthesiologist or your obstetrician may offer this option to you. If you choose to receive the morphine in your spinal, you will most likely be able to avoid intramuscular shots after delivery and start or oral pain medications. Side effects from the morphine include itching which can be treate with Benadryl.

It is not uncommon to have a period during which you feel breathless or as if you cannot breathe. can be scary. It happens because the anesthetic may numb the nerves that let you feel your breathing, while the nerves to the muscles that make you breathe are not blocked. In other words, you are breathing, but cannot feel it. As long as you can talk, we know that you can breathe.

General Anesthesia

A general anesthetic puts you to sleep with complete loss of consciousness. General anesthesia is used when a regional block (spinal or epidural) is not possible due to an emergency with the baby a maternal medical condition. It is also used if no epidural is present and another procedure such as a tubal ligation is desired after delivery of the baby.

If you need a general anesthetic, the anesthesiologist will give medication through the intravenous line and then place a breathing tube into the trachea (windpipe) during surgery. Because of the ris of aspiration (food or fluid going into the lungs), labor patients are counseled not to eat or drink o labor has started.

Finally...

Many women worry that receiving pain relief during labor will somehow make the experience less "natural." The fact is, no two labors are the same, and no two women have the same amount of pain. Some women need little or no pain relief, and others find that pain relief gives them better control during labor and delivery. Talk with your doctor about your options. Be prepared to be flexible. Don't be afraid to ask for pain relief if you need it.

Supporting a Woman with an Epidural

Before receiving an epidural, you will need an intravenous line (IV) for hydration. Your blood pressure and the baby will be monitored during the remainder of the labor. You will not be able to walk to the bathroom or get out of bed any longer. You may need a catheter to empty your bladder if you lose the sensation to void. If your labor does not continue to progress, pitocin will be started to make the contractions continue and maintain dilation. If your contractions are occurring every three minutes and dilation does not continue, an intrauterine pressure catheter may be placed to determine if the contractions are of good quality.

Fathers' Concerns in Labor

In the period before the woman receives an epidural, she may become progressively less communicative, exhausted and have greater pain. The father may feel increasingly anxious, frustrated and helpless. After the epidural the woman becomes "herself" again and the father feels relieved, less worried and can enjoy labor.

Reducing the Side Effects of an Epidural

Possible associated effect of an epidural	How to reduce the effect
Woman "forgets" she is in labor and focuses on other discomforts such as the length of labor, numbness, feeling of helplessness, baby's well-being. Slow progress, fever, or the fetal heart rate monitoring may cause tension. This may be challenging when it is time to push the baby out.	Remind her that she is in labor by pointing out contractions and having her feel them with her hand. If she is still feeling pressure or pain with the epidural in place, this may be due to rapid dilation or descent of the baby. It is normal to still feel discomfort with a quick labor. Attend to other discomforts and prepare her for pushing.
Sensory nerves are blocked so that she can't feel herself breathing even though she can talk and move.	Remind her that this is normal and reassure her. Coach her through each breath.
Full bladder	If she cannot empty her bladder, a catheter may be necessary.
Fever	The mother is more likely to have a fever due to alteration in production and dissipation of heat rather than infection. The baby may also have a temperature due to the maternal fever. Apply cool washcloths, blankets, change the room temperature.
Baby not in correct position such as Occiput Posterior or Asynclitic	Some patients with epidurals may need more medical intervention such as vacuum or cesarean delivery due to inability to push, fetal occiput posterior position (OP) at delivery and delayed pushing. Labor is on average one hour longer even with aggressive use of Pitocin. Avoid this by changing the mothers position frequently using the rollover technique and allowing the epidural to wear down if pushing is ineffective.
Ineffective pushing	With an epidural, the sensation to push may be absent. Options for delivery include decreasing the epidural so that the mother can feel the pushing sensation or delay pushing as the baby moves down the birth canal. When the mother feels pressure, she should try pushing. When the head is visible, do directed pushing. Use the monitor for biofeedback as she bears down.
Possible backache or joint pain	Prevent discomfort by respecting the limits of her joints. Support numb legs with position changes and pushing. Do not overextend her legs.

See Rollover Techniques under Epidural - page 29.

Labor Management Issues

While most labor and delivery experiences are uneventful, some labor become high-risk requiring intervention for the health of the mother or the baby. If an intervention is necessary, your physician will discuss the indication with you.

Amniotomy: Breaking the amniotic sac to stimulate labor or to allow the placement of internal monitors such as a fetal scalp electrode or intrauterine pressure catheter.

Amnioinfusion: Saline is infused through an intrauterine pressure catheter to mimic amniotic fluid. This may cushion the cord and minimize decelerations in the fetal heart rate.

Fetal Scalp Electrode (FSE): An internal fetal monitor that is attached to the baby's head with a very thin wire to monitor the baby's heart rate. If external monitoring shows a non-reassuring pattern, internal monitoring may be used used to confirm that the baby actually has good variability and is doing well. An internal monitor may also be used on twin A if twin B is very close and needs to be distinctive. It can also be used for obese women if the external monitor cannot hear the baby during labor.

Intrauterine Pressure Catheter (IUPC): The IUPC is used to directly measure the strength and frequency of the uterine contractions. A small catheter is placed into the uterus next to the baby. An external monitor shows the frequency and duration of contractions, not intensity. Intensity is important if dystocia occurs. The catheter is also used if an amnioinfusion is necessary.

Forceps: These instruments look like large spoons. They are inserted in the vagina and gently placed on baby's head to facilitate delivery. Although not used very often, they are valuable in cases of distress when the baby is on the perineum or the mother is exhausted from pushing. They are used to avoid a cesarean section.

Vacuum extraction: A soft plastic suction cup that is placed on the baby's head to hold the head at the same level in the pelvis rather than having the baby go in and out without making forward progress. The infant is then delivered during a contraction with the mother pushing. The vacuum is frequently used when the baby's head is slightly asynclitic (rotated from occiput anterior). It is used instead of a cesarean section.

Medication for Preeclampsia and Hypertension: Magnesium Sulfate is used to prevent seizures in patients with preeclampsia. It is given intravenously and may cause a feeling of warmth or lethargy. Side effects include possible respiratory depression. Labetalol and Hydralazine are medications given for high blood pressure during labor.

Medications for Preterm Labor: Terbutaline is a smooth muscle relaxants (tocolytic) that acts on the uterus to reduce contractions. Nifedipine is a calcium-channel blocker that also has a temporary effect in delaying delivery. Ibuprofen also seems to work to decrease the frequency of uterine contractions for a short period of time. Tocolysis is rarely successful beyond 24–48 hours because current medications do not alter the fundamentals of labor activation. However, just gaining 48 hours is sufficient to allow the pregnant women the opportunity to receive corticosteroids. Betamethasone (corticosteroid) is used to stimulate fetal lung maturation by producing surfactant in an effort to reduce Infant Respiratory Distress Syndrome. If premature delivery is anticipated, Betamethasone is given between 26 and 34 weeks of pregnancy.

Medications for Group B Strep Carriers: Antibiotics are given to mothers' who test positive for Group B Strep in their urine or on their vaginal culture near term. Antibiotics should be given intravenously at least four hours before delivery. If delivery occurs before the antibiotics have been given, the baby will have a blood culture and complete blood count drawn after delivery. The baby will also need close clinical observation for infection for at least 24 hours after delivery. This does not apply to cesarean delivery with intact membranes at delivery.

Medications for Postpartum Hemorrhage: Pitocin is used during labor to stimulate contractions and after delivery to contract the uterus and prevent excessive bleeding. If bleeding persists due to a loss of tone in the uterine musculature, uterine atony can occur. Methergine, Hemabate and Misoprostel may also be used to help contract the uterus.

Induced Labor

Labor may be induced if the health of the woman or baby is at risk. The reason for induction including the risks and benefits will be discussed with you when induction is recommended by your physician.

The following are possible reasons for inducing labor

- Post date pregnancy (41 weeks or more)
- Decreased amniotic fluid
- Decreased fetal activity
- Insufficient fetal growth (intrauterine growth retardation)
- Gestational diabetes
- Small for dates pregnancy
- High blood pressure or pregnancy induced hypertension
- Medical problems that could harm you or your baby
- Chorioamnionitis (Infection in the uterus)
- Premature rupture of membranes (the amniotic sac has broken)

There may be elective reasons why you may request induction. Living far from the hospital or having advanced cervical dilation may be an indication. Labor will never be induced electively before 39 weeks. While it is normal for you to want your own doctor to deliver your baby, we do not recommend induction just to make this possible. All of the physicians at Los Olivos are excellent and will follow your desires for a normal birth should your own doctor not be available.

There are a number of methods for starting labor. Most methods are started at the hospital, where labor and delivery services are nearby and the baby can be monitored.

Stripping the Membranes

To strip the membranes, your doctor checks your cervix with a gloved finger. The amniotic membranes are dislodged gently from the wall of the uterus. Cramping and spotting may occur if this is done. Stripping the membranes causes the uterus to release prostaglandins. These hormones ripen the cervix and may cause contractions.

Ripening the Cervix

If your cervix is not ready for labor, medication (prostaglandin) can be placed next to the cervix to stimulate cervical changes. Cervidil is the most frequently used as cervical ripening agent. This medication is administered at the hospital where their effects on labor can be monitored. Once the cervix is “ripe”, pitocin is given to start the contractions.

Rupturing the Amniotic Sac

Amniotomy or “breaking the bag” may stimulate contractions or may make them stronger. If you cervix is dilated sufficiently, your doctor can make a small hole in the amniotic sac, allowing the fluid leak out. An amniotomy is performed with an amniohook during a cervical exam. There is no pain or discomfort associated with amniotomy. Most women go into labor within hours of their water breaking. If labor does not begin spontaneously, pitocin (oxytocin) is administered intravenously.

Pitocin

Pitocin is the artificial form of oxytocin, the hormone that causes contractions. Pitocin is administered intravenously by a programmed pump. Pitocin is gradually increased, mimicking a natural labor pattern. While on pitocin, the baby’s heart rate, as well as the length and frequency of contractions will be monitored.

Reasons Labor Should Not Be Induced Include:

- Placenta previa (the placenta is attached over the cervix)
- Breech position
- Umbilical cord prolapse
- Previous uterine myomectomy
- Previous cesarean section

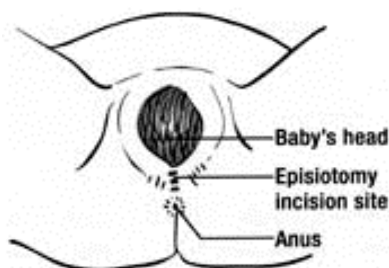
If you doctor feels that labor induction is the best option for you and your baby, he or she will explain the reasons and procedures in detail. You should feel free to ask questions and have your concerns addressed.

Episiotomy and Vaginal Tears

While episiotomy used to be a fairly routine procedure during vaginal births in the United States, this is no longer the case. In general, the use of episiotomy is reserved for situations where there is a need to deliver the baby due to fetal or maternal distress or complications, or to avoid severe tearing.

During the pushing phase of your labor, both your labor nurse and your physician will make all possible efforts to minimize the need for an episiotomy (or potential tearing) through the use of perineal (area just below the vaginal opening) massage, perineal support, and well controlled pushing techniques. However, even with these efforts, sometimes spontaneous tears can result.

Should you require an episiotomy at the time of delivery, your physician will inform you first, and make certain that the site is numb either through an already administered epidural block or local anesthetic.



When necessary, the majority of episiotomies are made "midline", meaning straight down from the lower part of the vaginal opening toward the anus/rectum.

Repairs of episiotomy sites or tears are done immediately following the birth, and for most patients require only minimal stitches with dissolving sutures. The hospital nursing staff will use ice packs, sitz baths, gentle perineal cleansing, and analgesics to minimize swelling and discomfort and to promote rapid healing. Prior to your discharge, you will be taught self-care for the episiotomy or tear site.

As mentioned previously, please be sure to communicate any specific concerns or questions you have regarding episiotomy with your physician at your prenatal visits. Also, you should feel confident to ask questions of and express concerns to your labor and delivery nursing staff during your birth.

The Fourth Trimester: Postpartum Care

Normal Changes

It takes several months to return to your normal pre-pregnancy state. After delivery, the first six weeks are considered the postpartum period. The uterus will shrink to the level of the umbilicus during the first day postpartum. After that is will continue to involute (shrink) for the next six weeks. Bleeding will also continue intermittently during the first six weeks. You may bleed like a regular menstrual cycle, then stop, then start again or you may spot daily for six weeks. Drainage after delivery is called lochia. The discharge may be watery and pale or change to a thicker yellow or fleshy color. It often smells "earthy". Cramping and passing an occasional clot is also normal.

Menstrual Cycle

The first period is usually delayed following delivery. Some women may not have a cycle until they finish nursing. Other women may ovulate soon after delivery. You may be able to get pregnant before your periods return, even when you're breastfeeding. Birth control is important from the very beginning so speak with your doctor about your options regarding birth control. Options for birth control are listed at http://www.lowmg.com/info/medinfo/ob/ob_book/contraceptive_options.pdf

Birth Canal and Perineum

The vagina stretches to allow delivery and then must shrink back to normal size after delivery. The muscles and support may not return to normal for six to seven weeks. Stitches from vaginal tears or an episiotomy take six weeks to dissolve. Swelling and edema from the delivery may take one to two weeks to resolve. If the vagina was swollen at delivery and stitches were needed, the stitches may appear looser as the vagina heals. Do not be concerned, as this is normal. Lactation causes vaginal dryness. This is caused by diminished estrogen production due to breastfeeding. Lubrication or prescription vaginal estrogen may help with discomfort.

Bladder Control

Sometimes the nerves to the bladder are stretched during delivery causing urinary retention which requires a bladder catheter for a short period of time. Muscular and ligament support to the bladder may also change with delivery. If stress incontinence is a problem, Kegel exercises may help restore the bladder function. Vaginal estrogen may also help with incontinence if nursing causes a low estrogen state in the vagina. It is normal to urinate more frequently after delivery due to third trimester water retention and swelling.

Bowel Function

Constipation is common after delivery due to dehydration, medication and decreased activity. The first bowel movement usually occurs two to three days after delivery. Hemorrhoids are common with delivery and may never resolve completely. If hemorrhoids are painful, use cold compresses, TUCKS, and hydrocortisone cream. Both constipation and hemorrhoids are improved by using a stool softeners such as Benefiber.

Skin Changes

The mask of pregnancy (facial) and the linea nigra (black line on the abdomen) will usually resolve within six months. Stretch marks gradually fade to silvery lines but do not completely disappear. Skin tags, rashes from pregnancy and the small red blood vessel spots on the skin disappear within a few weeks.

Hair Loss

It is normal for hair to fall out after delivery and while breastfeeding. It may take several months after finishing nursing for a return to a normal hair growth cycle.

Weight Loss

Returning to pre-pregnancy weight is a common goal. Combining a healthy diet with exercise will help you lose weight safely after delivery. Because dieting after pregnancy can decrease bone mineral density, it's important to get enough calcium and do weight bearing activities. Lose weight gradually. Remember, it took nine months to gain the weight. It takes nine months to get back to normal. Consume at least 1,800 calories per day (an additional 500 calories per day is recommended if you're breastfeeding). Drink plenty of fluids.

Postpartum Depression

Many women have emotional changes after delivery. Let your physician know if you've been feeling overwhelmed, anxious, sad, isolated, nervous, obsessive, incompetent, exhausted, or you can't sleep. Your doctor can help you get the help you may need. Take time for yourself. Get enough rest. Call on family and friends for help. Delay going back to work as long as possible. A comprehensive reading list is located at the back of this book. Call your doctor if you think that you are depressed.

Bathing

Showers and baths are safe after delivery. The perineum should be rinsed with lukewarm water two to three times daily the first few days after delivery. A squeeze bottle or sitz bath can help with this. Washing or wiping should occur from front to back. Stitches may take six weeks to dissolve.

Exercise

Get up and move. Go outside and walk. Regular physical activity after delivery should be a part of every new mother's daily life. A gradual return to exercise is recommended. Some women may be able to start exercising within days of delivery; others may need to wait four to six weeks. Do Kegel exercises to strengthen the pelvic floor and abdominal muscles. This reduces the risk of urinary stress incontinence. Do weight-bearing exercises to tone and shape your body and keep your bones strong. If you had a cesarean section, your doctor may advise you to wait six weeks prior to resuming exercise.

Nutrition

A well-balanced diet is essential for women before, during, and after pregnancy. Most multivitamins and prenatal vitamins don't supply enough calcium. Also, breastfeeding mothers transfer 250-350 mg of calcium to their baby through breast milk when they're nursing. Vitamin and mineral supplements can help ensure that you get the nutrients you need. Make sure you consume at least 1,000 mg of calcium daily, 1000 Units of Vitamin D and 15 mg of iron daily. For calcium, eat foods such as low-fat and fat-free dairy products and leafy vegetables (e.g., broccoli, kale, and collards). For iron, eat foods such as fortified cereals, lean beef, dried fruits, tofu, oysters, and spinach.

Sexuality

Lack of interest in sex is common after childbirth and for the first couple of months following delivery. This is due to exhaustion and may be due to hormonal changes. Most women experience a gradual return to pre-pregnancy levels of sexual desire, enjoyment, and frequency within a year of giving birth, but every woman has her own timetable. Keep an open dialogue with your partner about your readiness to make love. Make time for cuddling and kissing to re-establish physical closeness.

Factors that Influence Postpartum Recovery

Time Period	Factors that Enhance Recovery	Factors that Inhibit or Prolong Recovery
Pre-pregnancy	Excellent physical health and fitness, Good mental health Family support Financial well-being Positive experiences relating to health care or reproduction Experience caring for newborns	Poor health and fitness Personal or family history of mental illness, Dysfunctional family of origin or lack of family support Financial worries Previous negative experiences with health care providers or with reproduction
Pregnancy	Good self-care Health maintenance Freedom from pregnancy complications Thriving healthy fetus Good relationship with doctor	Unhealthy or stressful pregnancy, complications or poor self-care, Fetus not thriving, or in questionable health, Little contact or poor relationship with doctor
Birth	Freedom from complications Continuity in care from staff Labor of normal length Minimal interventions Normal vaginal birth Healthy, term newborn Immediate, prolonged contact with and feeding of newborn	Fetal complications Lack of continuity in care Fear of labor, staff, procedures Prolonged labor requiring heavy use of pain or other medications and procedures Cesarean birth Baby admitted to the NICU Breastfeeding difficulties Early separation of newborn from mother
First Days	Adequate rest for mother and partner Adequate help, nourishment, and support for mother and partner Good healing of any incisions, Milk comes in and baby nurses well Mellow, responsive baby Consistent advice from staff regarding self-care, infant care and feeding	Exhaustion in mother/partner; inability to sleep, lack of help, isolation, loneliness, Fussy, needy baby; poor feeder Infection, illness in mother, poor incision healing, Maternal pain (perineum, incision, breasts, other), Newborn problems, Delay in milk production or excessive engorgement Contradictory advice from staff members.

Postpartum recovery is a complex process that is influenced by many factors and processes. When the latter occur smoothly and harmoniously, recovery is optimal and will be completed in 4 to 8 weeks. There are man;y basic survival tools and tactics that will aid in a speedy recovery. Sleep whenever you can. Eat three good meals a day have nutritious snacks on hand - this is especially important for breastfeeding mothers. Drink a lot of fluids. Take a bath or shower daily. Take a walk or get some sort of physical activity each day. Ask for help when you need it. Don't expect others to know when and how to help. Develop support systems. Set realistic expectations of what you can and cannot do in a day. Remember that caring for an infant can be time consuming (feeding, changing, burping, holding). It can be helpful to plan one activity or outing each day, but be flexible.

Expect to be tired. Nap frequently to make up for lost sleep. Anticipate and work on communication problems. Find ways to give you and your partner positive feedback. Find support in local moms groups. If you have postpartum depression, join a support group and see a counselor. Get help early!

Expect to have feelings about the labor, the birth, toward the baby, about nursing or not, about responsibility, about your partner. Remember feelings are feelings. They are not logical, rational, right or wrong. Allow yourself to feel them and find someone safe to talk to about them. Up to 80% of women experience the "baby blues", a mood change which can occur 24-48 hours postpartum. It is believed that this mood swing is related to the rapid hormonal changes of labor and childbirth. Symptoms can include crying easily (often or for no apparent reason), irritability, fatigue, difficulty sleeping, and sometimes anxiety or worry. Usually these symptoms are gone in 2 weeks, but sometimes they last longer. Most families experience a normal period of adjustment to the new demands as needs change to accommodate the new baby.

Adapted from Penny Simkin, PT and Pec Indman Ed.D, LMFCC

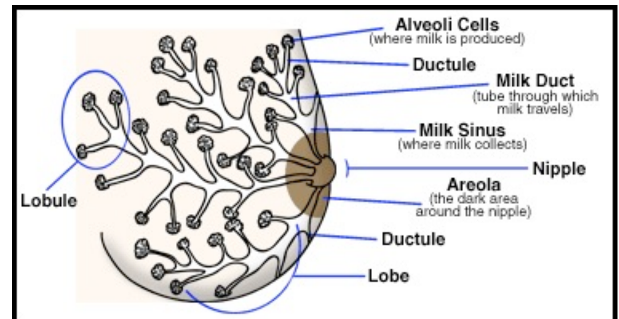
Breastfeeding Information

Importance of Breastfeeding

Human milk is uniquely suited for human infants. It is easy to digest and contains all the nutrients that babies need in the early months of life. Breast milk contains antibodies specific to illnesses encountered by the baby and fatty acids that play a role in infant brain and visual development. Breast fed babies have fewer allergies and asthma, fewer infections, less diarrhea, and a lower incidence of crib death. Maternal benefits include feeling closer to the baby, quicker return to pre-pregnancy weight, protection against cancer (breast, ovary and uterus) and protection against osteoporosis.

Getting Started

You generate breast milk soon after delivery by allowing the baby to suckle the nipple. This causes prolactin and oxytocin to be released from your brain and milk production begins. Prolactin activates the milk-producing cells to manufacture milk. Oxytocin is responsible for the release of the milk from the alveoli. From the alveoli, milk ducts empty the milk into lactiferous sinuses beneath the areola. Each sinus narrows into ducts which release milk through the nipple when the nipple is suckled.



The milk supple will "come-in" during the second or third day after delivery. Colostrum is a thick yellow nutritional milk produced during the first few days of life. The "let-down" reflex refers to the baby nursing and the breast filling with milk. After a few days, the "let-down" reflex may occur each time you think of the baby or hear any baby cry.

Milk is generated by supply and demand. The more the baby nurses, the more milk is produced. Pumping will increase the milk supply. Storing extra milk in the freezer can allow the mother some freedom away from the hungry baby and also allow others to participate in feeding. Breastfeeding and bottle feeding require different set of jaw muscles from the baby. If the baby is feeding well, it is recommended that the baby not take a bottle for at least three weeks to minimize "nipple confusion".

Lactation consultants make rounds and will visit you while you are in the hospital to help you and answer your questions. The postpartum nurses are also very good resources and will help you with different breastfeeding techniques and feeding positions.

Tips for Fathers

Being a mother is one of the most challenging things we ever do and breastfeeding is often not easy in the first weeks. A new mother needs encouragement and support. The following words can help: "This is hard work isn't it? I'm so proud of you!", "You must be really tired. What can I do to help?", "Most moms don't feel confident in the beginning. Like any new skill it takes practice--for you and the baby.", "Your nipples look sore, I know how hard it is now, but it will get better. Let's work on position and latch." "I can tell you are really frustrated. Let's get some help with this".

In the first few months of the baby's life, fatigue can sometimes be overwhelming. Providing meals, helping with the household or other siblings and "mothering the mother" are important. Get help if it is needed.

Resources

www.lowmg.com/medicalinfo/obstetric/breast_feeding.html
www.lalecheleague.org or (800) 886-4324
www.breastfeedingonline.com
www.4woman.gov/breastfeeding
www.medela.com
www.lactationeducationconsultants.com/books.html
http://breastfeedingtaskforla.org/

www.breastfeeding.com
www.kellymom.com
www.ILCA.org
www.alittlemiracle.com
www.nursingmotherscouncil.ort
http://www.breastfeedingonline.com/

Nursing Mothers Counsel (408) 792-5101 or (831) 688-3954
The Ultimate Breastfeeding Book of Answers by Dr. Jack Newman and Teresa Pitman
The Womanly Art of Breastfeeding by La Leche League International
The Nursing Mother's Companion by Kathleen Huggins, RN, CLC
The Complete Book of Breastfeeding by Marvin S Eiger, MD and Sally Wendos Olds

Breastfeeding Is BEST

Breastfeeding Education, Support, & Training

Breastfeeding Tip Sheet

Congratulations! You made a wise choice when you decided to breastfeed. Your breast milk is the ideal food for your baby, and breastfeeding will benefit both of you. Breastfeeding is natural–but it takes practice. In the hospital, you probably had lots of help. At home, you may feel that you're on your own, and you are likely to have questions during the first few days.

You will find some of the answers on this sheet and in breastfeeding booklets your health care professional can provide. But also, identify someone you can turn to for both encouragement and help: a trusted nurse, a lactation consultant, or even a friend who is supportive. If you start to feel discouraged or frustrated or even ***suspect*** you have a problem, call that person!

Get comfortable and take care of yourself

- As soon as you get home from the hospital, change into comfortable clothes or your pajamas, nightgown, or robe. Give yourself time to recover before returning to your routine.
- Don't try to do too much too soon. For the first couple of weeks, concentrate on becoming acquainted with your baby and taking care of yourself.
- Take a nap every day. Sleep when your baby sleeps.
- Drink plenty of fluid. Sip something (and maybe have a snack) while your baby breastfeeds.
- Try to eat well, but don't be concerned if you're not as hungry as usual at first. When your appetite returns, eat healthy, well-balanced, and regular meals, just as you did during pregnancy.
- You don't have to drink milk to produce milk, but you ***do*** need calcium. If you can't drink milk or eat dairy products, ask your health care professional about other ways to include calcium in your diet.

- Avoid alcohol and limit caffeine. Remember: What you eat and drink may affect both you *and* your baby.
- ***Don't smoke!*** And don't let anyone else smoke around your baby, either.
- Check with your health care professional before taking any medicine or herbal supplement, even non-prescription remedies for headaches or colds.
- Accept all offers of help! Let the baby's father, relatives, neighbors, and friends take care of the cooking, cleaning, grocery shopping, and babysitting any other children during the early weeks of breastfeeding.
- Enjoy your visitors, but don't encourage them to come too often or stay too long.

Take proper care of your breasts

- Choose nursing bras that are comfortable and well-fitting. They should be snug to provide support but not so tight that they cut into your breasts or your back. Cotton cups are better than synthetic cups because they let more air circulate around the nipples.
- Wash your hands (including your nails) with warm, soapy water before touching your breasts.
- Wash your breasts daily during your shower, but ***don't use soap***. Soap can dry your skin and wash away the oils that keep the nipple and areola (the dark skin around the nipple) soft and naturally moist.
- Gently dab a bit of your milk on your nipples after each feeding. Then let them air-dry for at least 5 minutes.

Know what to do about sore nipples

- You may experience some nipple tenderness or soreness in the first few days of breastfeeding. But if the discomfort lasts through the feeding, continues for longer than a week, or is severe, let your health care professional know.
- Probably the most frequent cause of sore nipples is incorrect "latch-on" (the way a baby attaches to the breast). Be sure to:
  1) Wait for your baby's mouth to open ***wide*** before she* attempts to latch on, and
  2) Pull the baby far enough onto your breast so that her nose, cheek, and chin all touch the breast. Her mouth should be positioned over the areola.

Ross Pediatrics provides this information to health care professionals to help counsel patients.

*This material alternates between "she/her/hers" and "he/him/his" when referring to babies.

- If it looks like the baby's nostrils are blocked, pull upward and inward on his bottom, which will move his head up and away from the breast.
- Another cause of sore nipples can occur if you remove your baby from the breast without first breaking the suction. To remove the baby correctly, gently slip one of your fingers into the corner of her mouth before removing your breast.
- Changing your breastfeeding position can prevent or ease sore nipples. If you rotate positions, your baby's gums won't always press on the same spot, which can cause soreness.
- Begin a feeding at the breast that is less sore, since a baby's strongest sucking comes earlier in the feeding.
- Try applying a small amount of pure lanolin cream (or some breast milk) to help soothe cracked, sore nipples. But don't use anything that has to be washed off before breastfeeding.
- If necessary, ask your health care professional to recommend a mild pain reliever.
- Call your health care professional:
  1) If you see white patches inside your baby's cheeks or a white coating on his tongue between feedings. Your baby could have a yeast infection (thrush), which can transfer to your nipples. If thrush is present, both of you will need to be treated.
  2) If your nipples are cracked and you see a red area around the crack or red streaks coming out from it.

Learn how to relieve engorgement

- *Engorgement* is an excessive build-up of milk in the breasts (they feel full, swollen, tender, and warm). The best way to avoid engorgement is to breastfeed your baby often—at least every 3 hours, day and night—right from the start, for as long as she will breastfeed, and even if you have to wake her.
- Engorgement is most likely to occur around the second or third day after your baby's birth, when your milk supply increases. Several things will help:
  1) Apply warm, moist compresses (towels or washcloths) ***just before feeding***, for up to 5 minutes. More heat than this may increase the swelling.
  2) Massage your breasts, expressing (pressing out) some milk, to soften the areola and permit your baby to latch on correctly.
  3) Gently massage your breast as your baby breastfeeds. This will encourage the milk to flow freely.
  4) If your baby breastfeeds from only one breast at a feeding, use a breast pump or hand-express enough milk from the other breast to relieve discomfort.
  5) After breastfeeding, and between feedings, put cold compresses or cloth-covered ice packs on your breasts to reduce swelling. You can also use refreezable ice packs or even bags of small frozen vegetables such as peas or corn.
  6) If you have a lot of discomfort, your health care professional may recommend a mild pain reliever.
- The engorgement should clear up, or at least be much improved, within 48 hours. If not, check with your health care professional.

Learn the signs that your baby is getting enough breast milk

- Your milk "comes in" (increases in amount)—making your breasts feel firm and full—between the second and fourth days of breastfeeding.
- Your breasts feel full before a feeding and softer afterward.
- Your baby has no difficulty latching on.
- The baby breastfeeds every 2 to 3 hours—at least eight times in a 24-hour period. (Time the feedings from the beginning of one to the beginning of the next.)
- Feedings regularly last 10 to 60 minutes. Let the baby, not the clock, determine how long a feeding lasts.
- You hear a rhythm of suck/pause/suck during feedings.
- The baby usually breastfeeds at both breasts.
- The baby appears satisfied and no longer hungry after feedings.
- After about day 4, your baby no longer passes meconium (thick, black or dark-green stools) and begins to pass yellow, seedy runny stools four or more times a day.
- A day or two after your milk comes in, your baby wets at least six diapers per day with a clear, colorless urine.

Again, congratulations. Choosing to breastfeed will give your baby a loving, healthy start in life.

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Breastfeeding After a Cesarean Birth

Breastfeeding is the best way to feed your baby. Breastfeeding is just as desirable for a baby who is born by cesarean birth, or C-section, as it is for a baby born vaginally. Your doctor and the nursing staff at the hospital will support your decision to breastfeed and will help you.

The production and flow of your breast milk should not be affected by your C-section or by the anesthetic used during delivery. The chain of hormone messages that tells the breasts to start producing milk is no different after a cesarean birth than after a vaginal birth.

The time at which a baby can begin breastfeeding after being born by C-section depends on the mother's and the baby's condition. It is recommended that breastfeeding begin as soon as possible after delivery.

With either a regional or a general anesthetic, the pregnant woman should tell both the doctor and the nurses in advance that she plans to breastfeed. A woman receiving a spinal epidural anesthetic can usually breastfeed immediately. A woman who is given a general anesthetic may not be able to breastfeed her baby quite as soon. But she can probably begin to breastfeed when she is fully awake.

On rare occasions, the condition of the baby or the mother may delay the start of breastfeeding. Generally, the mother can start and increase her supply of breast milk by expressing milk every few hours with an electric breast pump. The nurse can provide details about this technique. When the mother's milk is collected, the mother or someone on the nursing staff can feed the breast milk to the baby or freeze it for use at a later time.

Initially, you may experience some pain while breastfeeding. This is due to both the cramping of your uterus and the soreness of your incision. This pain may be eased by pain medication. Some of this pain medication may pass through your breast milk to your baby. It may make your baby a little sleepy, but it will not harm him. It is important that you manage your pain as necessary, so that your milk production and flow continues. Because some medicines can get into breast milk, be sure to discuss this with your doctor before taking any medicine. It may be best to take medicine immediately after you breastfeed. This allows the level of the medicine in your system to be lowest during feedings.

A nurse will assist you when you begin to breastfeed. To breastfeed successfully, it is helpful to learn the proper technique for positioning your baby. You can feed your baby in various positions, such as lying on your side or using the "football hold" (described on the back of this sheet), that puts less pressure on your stomach area.

Lying Down

Lying down is a comfortable position for breastfeeding, especially at night or when you are uncomfortable sitting. Lie on your side, using one pillow to support your head and another along your back. Your head and neck should be comfortably propped up with pillows. Or you can lie on your side with one arm bent under your head and the other supporting your breast. Put a pillow behind your baby's back. Lay the baby next to you on the bed so that the baby's mouth is opposite your nipple. When the baby's mouth is wide open, the baby is ready to latch on.

Ross Pediatrics provides this information to health care professionals to help counsel patients.

Many babies may want to nurse 8 to 12 times in a 24-hour period. Do not limit the number of minutes your baby is allowed to nurse each time. Your baby should nurse long enough on each breast to be satisfied. When your baby loses interest in the first breast, stop and try for a burp. You can usually tell when a feeding is over when your baby comes off the breast without help. If you need to release the baby's hold and to change breasts, gently insert a finger in the corner of your baby's mouth between the gums to break the suction. You may find that you can soon breastfeed quite comfortably in a sitting position – with the head of your bed raised or, by the day after your baby's birth, in an armchair as shown in the drawing here. A pillow under your arm and across your lap will provide support for your baby and protect the incision area from pressure and the baby's movements.

"Football" or "Clutch" Hold

Sitting Position

You may also want to try the "football" or "clutch" hold. In this position, illustrated above, your baby lies on a pillow at your side. Your baby's legs are pointing toward your back. And your baby's head is supported by your hand.

Initially, your breasts will produce a thin, yellowish fluid called colostrum, which will nourish your baby and help to protect the baby against infection. This fluid will change over the next few days into a mature breast milk, which will appear thin and bluish.

When you take your baby home, you'll need to stay rested, relaxed, and comfortable. You'll be breastfeeding as often as every 2 to 4 hours. Breastfeeding this frequently ensures a good milk supply. During the first 3 to 4 weeks of nursing, don't offer water or formula to your baby except at the recommendation of your baby's doctor or nurse.

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Choosing the Pediatrician

One of the most important decisions you will make during pregnancy is to choose the doctor who will care for your baby. You may be considering a pediatrician, who treats only your child, or a family practitioner, who treats everyone in the family. A pediatrician should be certified by the American Board of Pediatrics and a family practitioner should be certified by the American Board of Family Practice. You can get recommendations from your family, friends, childbirth educator, or your obstetrician. Try to choose your baby's doctor during your last trimester of pregnancy. A complete list of local pediatricians is in the Los Olivos book "Your Pregnancy Guide" and at http://www.lowmg.com/info/medinfo/ob/ob_book/pediatricians.pdf

You should choose your pediatrician by 34 weeks of pregnancy if possible. It may be helpful to schedule an introductory visit with a few doctors before choosing a pediatrician. Below are suggestions for some things to consider:

Staff and Office

Is the office staff friendly and helpful?
Can you arrange a meeting within a few days of your call?
Is the office conveniently located?
Do the office hours accommodate your needs?
How long would you typically have to wait for an office visit for a check up and for an illness?
Is the office clean (given that children have been in it all day)?
What does the doctor charge for office visits?
Does the doctor accept your insurance plan?
How are the payments handled?

Meeting the Physician

Is there an advice nurse?
Are there educational materials on parenting, child health and behavior issues?
How do you reach the doctor after hours?
Is the doctor board certified?
Who covers for the doctor when he or she is away?
With which hospital is the doctor affiliated, and is it convenient for you?

The Doctor-Patient Relationship

Does the doctor answer your questions patiently and clearly?
Does the doctor take a "let me handle everything" attitude or include you in medical decision making? Which style do you prefer?
How does the doctor handle telephone questions? Some doctors have a special phone-in time each day.
Will the doctor visits your baby in the hospital at birth?
What is the schedule of well-baby visits during the first year of life?
Will the doctor tell you what to expect in the weeks between visits?
Does the doctor support your choice of infant feeding? Your child-care and work plans? Your views on circumcision? Or any other issues concerning your baby's care?
Do you feel comfortable with this doctor caring for your baby? Trust your instincts.

If you live in an area away from Good Samaritan Hospital and choose a pediatrician near your home, your obstetrician will arrange for a pediatrician from Good Samaritan Hospital to check on your baby during your hospitalization. After discharge your baby will see the new doctor.

Pediatric visits during the first year of life occur at 2 weeks, 2 months, 4 months, 6 months, 9 and 12 months.

The Normal Newborn

What to Expect

Most babies will sleep less or cry more than new parents expect. The average newborn sleeps 13 to 17 hours a day and may cry one to four hours a day. A very quiet or very active infant will sleep or cry more than an average baby. Crying can mean a baby is hungry, tired, hurting, too hot or too cold, or needs a diaper change. It may be the way the baby tells you of an emotional need to be held or the baby may be bored. As you get to know your baby, you will learn the difference between the cries. It is the baby's way of communicating with you.

Bathing and Cord Care

Sponge baths should be given until the cord is dry and falls off. The umbilical cord should be cleaned with every diaper change with alcohol on a cotton swab. Usually the cord falls off by two weeks after birth. Notify your doctor if red streaks appear around the cord or if it oozes.

Bowel Movements

The baby will have frequent bowel movements in the first few days that contain meconium. After a few days, the bowel movements change from tarry black of meconium to yellow. After the first few days, the baby may have a BM every time she eats. You will be taught how to diaper the baby during your hospital stay.

Car Seat Safety

The most important piece of baby equipment you will buy is a federally-approved car safety seat. Infants are required to ride in a rear-facing car seat (or car bed, depending on their weight) when they leave the hospital. The back seat of the car is the safest place for babies. Proper installation is critical. May infant car seats come with a detachable base that stays strapped into the car when the carrier part is removed. Be sure the carrier always snaps firmly into place before driving. Some police and fire stations offer car seat safety inspections. To find an inspection station near you go to www.seatcheck.org. For more information, check www.nhtsa.gov and choose Child Safety Seat Information. By phone, call the Department of Transportation Vehicle Safety Hotline at (888) 327-4236.

Clothing

Dress the baby appropriately for the temperature. Use as many layers as you feel that you would need to be comfortable. Overdressing can cause excessive sweating and rashes. In cooler weather, use layers of clothing so you can add or remove clothing according to the temperature. Select clothing that allows easy access for changing diapers. Look for shirts that can be pulled over the baby's head easily. Babies grow quickly. Purchase only a few clothes for the first few months.

Sleeping

Most babies sleep a lot the first day or two after birth. But that doesn't last. After that you can count on getting little sleep at night. Infants don't really have "sleep problems", they just don't sleep when we want them to. Infants have a biological need to be fed and they awaken every few hours for food because they are hungry. Breast milk is quickly digested in small stomachs, so breastfed babies frequently wake up to eat during the night for several months. The safest position for most babies while sleeping is on their backs.

Swaddling

Wrapping your baby tightly helps the baby feel warm and secure. To swaddle your baby, lay the blanket in front of you in a diamond shape with a point at the top. Fold down the point of the diaper and lay your baby on his back on the blanket so that his head is above the edge you have just folded down. Take one of the side points of the blanket and pull it firmly over his chest, tucking it under his thighs. Next, bring the bottom point up over his feet and take the other side of the blanket over the baby in the opposite direction and tuck it under his thighs.

Infant First Aid: Choking (Infants less than one year old)

From Babycenter.com July 2010. Reviewed by emergency services experts at the American Red Cross, May 2008.
If your child is not breathing but still has a pulse, you'll need to perform rescue breathing. If there's no breathing and no pulse, you should perform full CPR until help arrives. Below are the basic steps to follow in the event of choking or your baby stops breathing and/or does not have a pulse. **THIS IS NOT A SUBSTITUTE FOR TAKING A CPR COURSE WITH A CERTIFIED INSTRUCTOR.**
All parents should take a CPR course to be fully prepared for emergencies.
Always call 911.

Step 1: Assess the situation quickly.

If your baby is suddenly unable to cry or cough, something may be blocking her airway, and you'll need to help her get it out. She may make odd noises or no sound at all while opening her mouth, and her skin may turn bright red or blue.

If she's coughing or gagging, her airway is only partially blocked. In this case, let her continue to cough. Coughing is the most effective way to dislodge a blockage.

If your baby isn't able to cough up the object, ask someone to call 911 or the local emergency number while you begin back blows and chest thrusts (see step 2, below). If you're alone with your baby, give two minutes of care, then call 911. On the other hand, if you suspect that your baby's airway is closed off because her throat has swollen shut, call 911 immediately. Your baby may be having an allergic reaction — to something she ate or to an insect bite, for example — or she may have an infection, like croup. Also call right away if your baby is at high risk for heart problems.

Step 2: Try to dislodge the object with back blows and chest thrusts.

If your baby can't clear her airway on her own and you believe something is trapped there, carefully position her facedown on your forearm with your hand supporting her head and neck. Rest the arm holding your baby on your thigh.

Support your baby so that her head is lower than the rest of her body. Then, using the heel of your hand, give her five firm and distinct back blows between her shoulder blades to try to dislodge the object.

Next, place your free hand (the one that had been delivering the back blows) on the back of your baby's head with your arm along her spine. Carefully turn her over while supporting her head and neck.
Support your baby face up with your forearm resting on your thigh, still keeping her head lower than the rest of her body.

Place the pads of two or three fingers just below an imaginary line running between your baby's nipples. To give a chest thrust, push straight down on the chest 1/2 inch to 1 inch, then allow the chest to come back to its normal position.

Give five chest thrusts. The chest thrusts should be smooth, not jerky.
Continue the sequence of five back blows and five chest thrusts until the object is forced out or your baby starts to cough. If she's coughing, let her try to cough up the object.

If your baby becomes unconscious at any time, she'll need modified CPR (see full instructions below). Give her two rescue breaths. If the air doesn't go in (you don't see her chest rise), retilt her head and try two rescue breaths again.

If her chest still doesn't rise, give her 30 chest compressions. Look in her mouth and remove the object if you see it. Give her two more rescue breaths, repeat the chest compressions, and so on, until help arrives.

Infant First Aid: CPR (Infants less than one year old)

All parents should take a CPR course to be fully prepared for emergencies. Always call 911. If your child is not breathing but still has a pulse, you'll need to perform rescue breathing. If there's no breathing and no pulse, you should perform full CPR until help arrives. Below are the basic steps to follow in the event of choking or your baby stops breathing and/or does not have a pulse. **THIS IS NOT A SUBSTITUTE FOR TAKING A CPR COURSE WITH A CERTIFIED INSTRUCTOR.**

CPR stands for cardiopulmonary resuscitation. This is the lifesaving measure you can take to save your baby if she shows no signs of life (breathing or movement). CPR uses chest compressions and rescue breaths to circulate blood that contains oxygen to the brain and other vital organs until emergency medical personnel arrive. Keeping oxygenated blood circulating can help prevent brain damage — which can occur within a few minutes — and death.

Step 1: Check your baby's condition.

Is your baby conscious? Flick her foot or gently tap on her shoulder and call out. If she doesn't respond, have someone call 911 or the local emergency number. (If you're alone with your baby, give two minutes of care as described below, then call 911 yourself.)

Swiftly but gently place your baby on her back on a firm surface.
Make sure she isn't bleeding severely. If she is, take measures to stop the bleeding by applying pressure to the area. Do not administer CPR until the bleeding is under control.

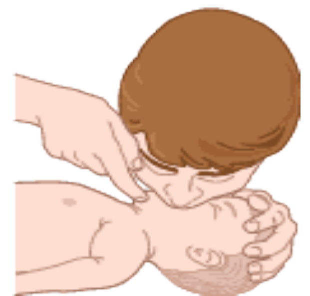
Step 2: Open your baby's airway.

Tilt your baby's head back with one hand and lift her chin slightly with the other. (You don't need to tilt an infant's head back very far to open her airway.)

Check for signs of life (movement and breathing) for no more than ten seconds.

To check for your baby's breath, put your head down next to her mouth, looking toward her feet. Look to see whether her chest is rising and listen for breathing sounds. If she's breathing, you should be able to feel her breath on your cheek.

Step 3: Give her two gentle breaths.



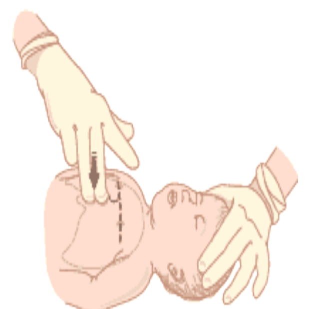
If your baby isn't breathing, give her two little breaths, each lasting just one second. Cover your baby's nose and mouth with your mouth and gently exhale into her lungs only until you see her chest rise.

Remember that a baby's lungs are much smaller than yours, so it takes much less than a full breath to fill them. Breathing too hard or too fast can force air into the infant's stomach or damage her lungs.

If her chest doesn't rise, her airway is blocked. Give her first aid for choking, above.

If the breaths go in, give your baby two breaths in a row, pausing between rescue breaths to let the air flow back out.

Step 4: Give her 30 chest compressions.



With your baby still lying on her back, place the pads of two or three fingers just below an imaginary line running between your baby's nipples.

With the pads of these fingers on that spot, compress the chest 1/2 inch to 1 inch. Push straight down. Compressions should be smooth, not jerky.

Give her 30 chest compressions at the rate of 100 per minute. When you complete 30 compressions, give two rescue breaths (step 3, above).

Step 5: Repeat compressions and breaths.

Repeat the cycle of 30 compressions and two breaths. If you're alone with your baby, call 911 or the local emergency number after two minutes of care. Continue the cycle of compressions and breaths until help arrives.

Glossary of Terms for Childbirth

Abruptio placenta (placenta abruption): Partial or complete separation of the placenta from the wall of the uterus before the baby is born. Can cause the mother to hemorrhage possibly requiring a Cesarean delivery.

Asynclitic: An asynclitic birth or asynclitism refers to the position of a baby in the uterus such that the head is tilted to the side, causing the fetal head to no longer be in line with the birth canal. Most asynclitism corrects spontaneously in the progress of normal labor. Persistence of asynclitism is usually a signal of other problems with dystocia.

Afterbirth: The placenta and amniotic membranes. These are expelled from the uterus during the third stage of labor.

Amniocentesis: The removal of a small amount of amniotic fluid from the amniotic sac. Used to test for chromosomes, for fetal lung maturity or for amniotic infection.

Amniotic sac: Thin membranes that surround the baby inside the uterus filled with amniotic fluid.

Analgesia: The absence of the sense of pain without loss of consciousness.

Anesthesia: The loss of body sensation. General anesthesia is loss of consciousness caused by anesthetics. Local anesthesia limits loss of sensation to one area of the body.

Apgar score: A numerical evaluation of a newborn at one and five minutes after birth. Scores are based on activity (tone), pulse, grimace (reflexes), appearance (skin color) and respiration.

Areola: The dark area of the breast surrounding the nipple.

Birth canal: The passageway from the uterus through the vagina.

Braxton-Hicks contractions: Irregular contractions that may become somewhat uncomfortable near the end of pregnancy.

Breech: The presenting part in the pelvis can be the buttocks (frank breech) or the feet (footling breech).

Cervix: The opening of the uterus that must dilate to 10 cm prior to delivery.

Cesarean delivery: Delivery of the baby through an incision in the abdomen and uterus.

Colostrum: The first fluid produced by the milk glands in the breast. It is high in protein and antibodies.

Contractions: The rhythmic tightening and relaxation of the uterus. They cause effacement and dilation of the cervix and help push the baby out of the uterus.

Contraction Stress Test (CST): Tests the well being of the fetus during contractions by electronic fetal monitoring. The contractions are usually stimulated with oxytocin to see how the fetus tolerates labor.

Crowning: The moment during labor when the top of the head becomes visible.

Dilation: The opening of the cervix in labor. The cervix is 10 centimeters dilated before the second stage of pushing can occur.

Doula: A woman who provides support during labor.

Dystocia: This is an abnormal or difficult labor. Approximately one fifth of human labors have dystocia. Dystocia may arise due to uncoordinated uterine activity, abnormal fetal lie or presentation, or absolute or relative cephalo-pelvic disproportion. Pitocin is commonly used to treat dysfunctional uterine activity.

Effacement: The thinning and shortening of the cervix.

Electronic Fetal Monitoring (EFM): A recording of the fetal heart beat and uterine contractions.

Engagement: The “dropping” of the baby’s presenting part (vertex or breech) into the pelvis.

Epidural anesthesia: Injection of medication into the epidural space surrounding the spinal cord to provide pain relief during labor

Episiotomy: A small incision in the perineum (opening of the vagina) as the baby crowns if severe tearing or laceration of the vagina is anticipated during delivery.

Fetal distress: Non-reassuring fetal heart rate demonstrated on the fetal heart rate monitor.

Fontanelle: Areas in the baby’s skull that are not covered by bone. There is an anterior and a posterior fontanelle. The fontanelles allow for molding of baby’s head as it moves through the birth canal.

Fundus: The upper part of the uterus where the force of contractions originates and is strongest.

Hemorrhoids: Varicose veins in the rectum which can develop during pregnancy and delivery.

Induction: Starting labor by administering medication at the hospital.

Intrauterine Growth Retardation (IUGR): Slow or limited growth of a fetus during pregnancy.

Involution: The process of the return of the uterus to its non-pregnant size.

Kegels: An exercise to strengthen the pelvic floor (vaginal and rectal) muscles.

Labor stages:

First stage: Complete dilation of the cervix

Second stage: Delivery of the baby

Third stage: Expulsion of the placenta and beginning of uterine involution

Fourth stage: Immediate postpartum period (the first 2 hours after birth)

Let-down reflex: Release of milk into the breast. It may be triggered by the baby crying or nursing.

Linea nigra (black line): A dark line that sometimes develops down the middle of the pregnant abdomen. May last up to six months after delivery.

Lightening: The sensation that the mother feels as the baby becomes engaged or drops into the pelvis. The mother may experience increased pressure on her bladder but can usually breath better.

Lochia: The blood-stained discharge from the uterus that occurs after delivery.

Meconium: Fetal stool that is thick and green. The presence of meconium in the amniotic fluid can be an indication of fetal distress occurring at some time during the pregnancy or labor.

Multigravida: A mother with a second (or more) pregnancy.

Non-stress test (NST): A test that assess the baby's heart rate by electronic monitoring.

Occiput Anterior (OA): The occiput of the baby is the posterior fontanel or "soft spot". OA refers to the head position while passing under the mother's symphysis pubis. Occiput anterior is the easiest position for the fetal head to deliver.

Occiput Posterior (OP): OP is a position favored by certain internal pelvic shapes. This position has some obstetrical significance. Babies can deliver in the posterior position, but the pelvis needs to be large enough and it usually takes longer. There is a higher incidence of vacuum extraction, forceps and cesarean sections with OP presentation.

Oxytocin: A hormone that causes the uterus to contract during labor and the milk ducts in the breasts to release milk.

Perineum: The area between the vagina and the rectum that stretches during delivery.

Pitocin: Intravenous pitocin is used to stimulate contractions. Similar to the hormone oxytocin.

Plexi-pulse: Compression devices placed on the maternal feet or calves to prevent the formation of blood clots due to prolonged bed rest. Used for cesarean sections and during long labors.

Placenta: The organ that transfers nutrients and oxygen from the mother to the fetus. Waste products from the fetus are excreted through the placenta to the mother.

Preeclampsia: A triad of edema (swelling in the hands and legs), high blood pressure and protein in the urine. Usually an indication for delivery.

Premature (preterm) labor: Labor before 37 weeks of pregnancy.

Premature Rupture of Membranes (PROM): When the membranes of the amniotic sac rupture before labor.

Primagravida: The mother who is pregnant for the first time.

Prolapsed cord: The umbilical cord dropping in front of the baby's head. An indication for emergency cesarean section.

Ripening: Softening of the cervix that occurs near term.

Station: The relationship of the baby's presenting part to the mother's ischial spines (part of the internal pelvic bones). The baby is "floating" when it is not engaged and "crowning" when it is on the perineum. The baby is 0 station when it is engaged in the mid-pelvis at the level of the spines.

Transition: The final part of labor prior to pushing when the cervix dilates from eight to ten centimeters.

Umbilical cord: The structure that connects the fetus to the placenta. It contains two arteries and one vein.

VBAC: Vaginal birth after cesarean section.

Vernix: The greasy, white substance that covers the fetus in-utero to protect its skin.

Vertex or cephalic presentation: The head down position of the baby

What to Pack for the hospital

For Labor

- ☐ Robe and warm socks
- ☐ Focal point for labor
- ☐ iPod or other music player (charged)
- ☐ Medications in original bottles
- ☐ Popsicles, sour lollipops or hard candy
- ☐ Phone numbers of friends and relatives
- ☐ Glucose monitor if gestational diabetes
- ☐ Chapstick, toothbrush and toothpaste
- ☐ Deck of cards, magazine, book, computer with DVD's
- ☐ Food for the support person
- ☐ Contact lens case and eyeglasses
- ☐ Telephone numbers and emails of friends and family
- ☐ Digital camera and video recorder (charged)
- ☐ Tie backs or clips for long hair
- ☐ Massage oil or lotion
- ☐ Tennis balls or other firm object for back counter pressure
- ☐ Leave your jewelry at home

For Postpartum

- ☐ Nursing bra (one size larger than normal)
- ☐ Bathrobe (Good Samaritan supplies a nursing gown)
- ☐ Slippers
- ☐ Pillow from home with a distinctive pillowcase
- ☐ Pillow and air mattress for your partner if desired (sleeping chair is available)
- ☐ Comfortable clothes for yourself and partner
- ☐ Toilet articles
- ☐ Hair care items (shampoo, hair ties)
- ☐ Breastfeeding book

For the Ride Home

- ☐ Comfortable going home outfit
- ☐ Going home outfit and blanket for baby
- ☐ Infant car seat with base installed in car – make sure it is the correct size for the newborn

Labor Coach: Comfort Measures During Labor

Below is a reminder list of suggestions for ways that the labor coach can help during labor. You can help by minimizing distractions. Take control of the environment. Dim the lights, close the door and play favorite music. Stay with your partner and talk with her. As the coach, be prepared. Wear comfortable clothes and take care of yourself.

Emotional Support
Stay calm, and remember not to take things personally. Be positive and supportive. Always keep her informed as to how well she is doing.

Body Positions and Comfort Measures
Try different labor positions: Standing and leaning, walking, birthing ball, hands and knees, sitting-up, side-lying, semi-sitting, rocking and swaying, squatting and supported squat. Position pillows around her. Remind her to change position frequently, moisten her lips and remind her to empty her bladder.

Patterned Breathing
Breath with her and help her to stay relaxed between contractions. Help with breathing patterns: cleansing breath, slow chest breathing (in two three four, out two three four), transition (hee-hee-hee-hoo), feather or pant blow.

Hydrotherapy
Help her use the bath, whirlpool, or shower.

Hydration
Stay hydrated with ice chips, popsicles, water or juices.

Massage and Tension Release
Massage tense areas: brow, shoulders back, hands, feet. Acupressure, hand and foot effleurage (light stroking), aromatherapy lotion, touch relaxation, pressure point massage may help.

Attention-focusing and Mental Activity
Choose favorite music in the background. Help her relax between contractions. Help her focus during contractions. Use a focal point. Help her visualize something pleasant between contractions.

Hot and Cold Packs
Try warm blankets around the shoulders, lower back, legs and feet. Offer cold compresses to the forehead. Try an ice pack to the lower abdomen or lower back areas.

Environment
Soft lighting and appropriate temperature. “Crowd” control is important. Update family and friends but don’t overwhelm the mom. Limit the number of people in the room to the ones she really wants to be there.

Back Pain Measures
Counter-pressure, double hip squeeze, hands and knees, pelvic rocking, walking, shower or bath.

Pushing
Spontaneous (with urge), open-glottis (slow exhale with bearing down)

Birth Partner Support
Suggestions and verbal reminders, encouragement and praise, patience and confidence, immediate response, undivided attention, eye contact, expressions of love

Adapted from Penny Simkin

Cord Blood Stem Cells - Frequently Asked Questions

1. What is cord blood?

Cord blood, or umbilical cord blood, is the blood remaining in your child's umbilical cord following birth. It is a rich, non-controversial source of stem cells that must be collected at the time of birth.

2. What are stem cells?

Stem cells are the building blocks of our blood and immune systems. They are found throughout the body including bone marrow, cord blood and peripheral blood. They are particularly powerful because they have the ability to treat, repair and/or replace damaged cells in the body.

3. Why do families choose to collect and store their baby's cord blood?

Today, cord blood stem cells have been used successfully in the treatment of over 70 diseases. For most families, banking their baby's cord blood offers peace of mind that their family's stem cells are readily available should they need them. Others save cord blood because of its emerging use in treating Type I Diabetes and Cerebral Palsy, which requires a child's own cord blood. Stem cells from a related source are the preferred option for all treatment, and transplants using cord blood from a family member are twice as successful as transplants using cord blood from a non-relative (i.e., a public source).[1]

4. How is cord blood collected?

The collection process is safe, easy and painless for both mother and baby and does not interfere with the delivery. After the baby is born, but before the placenta is delivered, a medical professional will clean a 4 to 8 inch area of the umbilical cord with antiseptic solution and insert a needle connected to a blood bag into the umbilical vein. The blood flows into the bag by gravity until the umbilical vein is emptied. The blood bag is clamped, sealed, labeled and shipped by courier to a processing lab. The collection itself typically takes about 2 to 4 minutes.

5. Who can use my newborn's cord blood stem cells?

Your newborn's cord blood stem cells have the potential to be used by the child, and, if there's an adequate match, by siblings and sometimes parents. An adequate match using related cord blood is defined as a 3 of 6 HLA Match. When two people share the same HLAs, they are said to be a 'match', which means their tissues are immunologically compatible. With your newborn's cord blood there is a 100% probability of an adequate match for the child and a 75% probability for siblings.[2]

6. How long do cord blood stem cells last?

It is well-established that stem cells are still viable after 15 years of storage.[3] Although there's no definitive data on how long cord blood stem cells last, the New York State Health Department Guidelines for cord blood banking state, "there is no evidence at present that cells stored at -196° C in an undisturbed manner lose either in-vitro determined viability or biologic activity."

7. What are the odds of having a stem cell transplant?

The latest statistics suggest there is a 1 in 217 chance for any given individual to undergo a stem cell transplant by age 70.[4]

8. How much does it cost to preserve cord blood with a Family Bank?

Generally, the cost for cord blood stem cell preservation has a one time charge of about $2200 and an annual storage fee of about $125. Many companies offer extended payment plans, gift registries, and discounts for pre-payment of storage.

1. Gluckman, et al. New England Journal of Medicine, 1997; 337:373

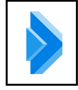
2. Beatty PG, Boucher KM, Mori M, Milford EL. Probablility of finding HLA-mismatched related or unrelated marrow or cord blood donors. Hum Immunol.2000;61:834-840.

3. Broxmeyer et al, PNAS, January 21,2003, Vol. 100, no. 2 645-650.

4. Nietfeld, JJ, Pasquini MC, Logan BR, Verter F, Horowitz MM. Lifetime Probabilities of Hematopoietic

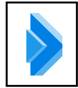
Options in Cord Blood Banking

Expecting a child can be exciting for new and veteran parents. You have many important decisions to make for your family's future, including choosing a cord blood banking option that is right for you



Family Banking

Family banking allows families to save their child's cord blood exclusively for their family's use. This service is available through private cord blood banks that charge a fee to collect, process, freeze and store your child's stem cell-rich umbilical cord blood for your family's future medical use. Contact a family bank to enroll in this service.



Donation

Cord blood donation is a way for you to preserve the potentially life-saving stem cells found in the blood of your child's umbilical cord and placenta in a donation facility for the public good. Once you donate the cord blood to a public facility, your family does not retain ownership of the cord blood. Find out if your hospital accepts cord blood donations.

Discard

Discard umbilical cord blood as waste. The cells cannot be retrieved for future use.

Reasons to Invest in Saving Your Stem Cells with a Family Cord Blood Bank

There are many reasons to bank your baby's stem cells with a family cord blood bank:

- You have an increased chance of finding a match, should treatment be needed.
- You have an increased chance of a successful transplant with a family banked unit.
- You have access to emerging treatments in regenerative medicine to treat conditions like type 1 diabetes and cerebral palsy.

Investigate if family banking is the right option for you. **Choose a family bank that has a high number of transplants, publishes their cell counts, and discloses their transplant survival rate and is financially stable.** Enrolling in a cord blood banking program can be completed by phone or online.

The Process

After you enroll you will receive a kit with everything you and your doctors need for a successful cord blood collection. After your baby is born, your obstetrician or midwife will clamp and cut the cord and then collect the cord blood. The blood will flow into the bag by gravity until it stops. The actual collection typically takes two to four minutes.

After the cord blood has been collected, the blood bag is then clamped, sealed, and clearly labeled for easy identification. Your baby's cord blood will then be transferred to a processing facility by private medical courier for processing and storage. Families who bank enjoy the peace of mind of knowing that their baby's cord blood is available should the need for a medical transplant ever arise.

References and Resources

Childbirth Education

www.lamaze.org
http://www.pennysimkin.com/articles.htm
http://www.arhp.org/publications-and-resources/patient-resources/fact-sheets
www.childbirthconnection.org
www.health4mom.org
www.marchofdimes.com
Prepared Childbirth: The Family Way by Debby Amis and Jeanne Green ISBN 0-9769758-7-4
www.thefamilyway.com
Your Pregnancy And Childbirth: Month To Month Fifth Edition. American College of OB/Gyn www.acog.org
The Labor Progress Handbook by Penny Simkin and Ruth Ancheta, Blackwell Publishing
The Birth Partner: A Complete Guide to Childbirth for Dads, Doulas, and all other Labor Companions by Penny Simkin, The Harvard Common Press
Pregnancy, Childbirth and the Newborn, by Penny Simkin

Postpartum Depression

Postpartum Support International (805) 967-7637 www.postpartum.net
Postpartum Support line (888) 773-7090
PPD Support Online www.ppdsupportpage.com
Health and Human Services www.mchb.hrsa.gov/pregnancyandbeyond/depression
Support for Dads www.postpartumdads.org
The National Women's Health Information Center http://www.womenshealth.gov/faq/depression-pregnancy.cfm
The March of Dimes http://www.marchofdimes.com/pnhec/188_15755.asp
Depression After Delivery, Inc. www.depressionafterdelivery.com/Home.asp
Maternal Child Health Bureau Hotline: (800) 311-2229; www.mchlibrary.info/KnowledgePaths/kp_postpartum.html
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Beyond the Blues, A Guide to Understanding and Treating Prenatal and Postpartum Depression by S. Bennett and P. Indman, 2003 www.beyondtheblues.com (408) 255-1730
Conquering Postpartum Depression by Rosenberg, et al., 2003
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Newborn Information

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The Gesell Institute Child Development Series 1-14 years old. Louise Bates Ames, Gesell
The Happiest Baby on the Block: The New Way to Calm Crying and Help Your Newborn Baby Sleep Longer. Harvey Karp, Institute of Human Development
What to Expect the First Year (Series). Heidi Murkoff