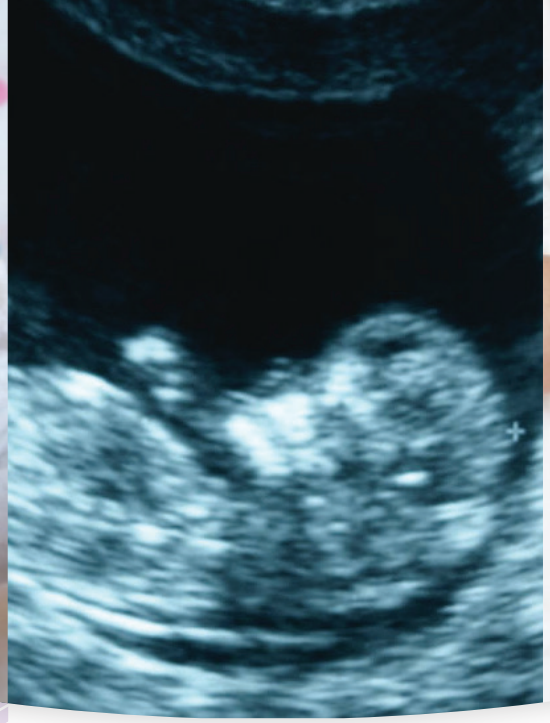


# Family-Centered Prenatal Care Resource

## A guide for what to expect before, during, and after delivery

Livingston HealthCare

*We're here for you.*

320 Alpenglow Lane | Livingston, MT 59047
406-222-3541 | LivingstonHealthCare.org

# Contact Information

Emergency . . . . . 911

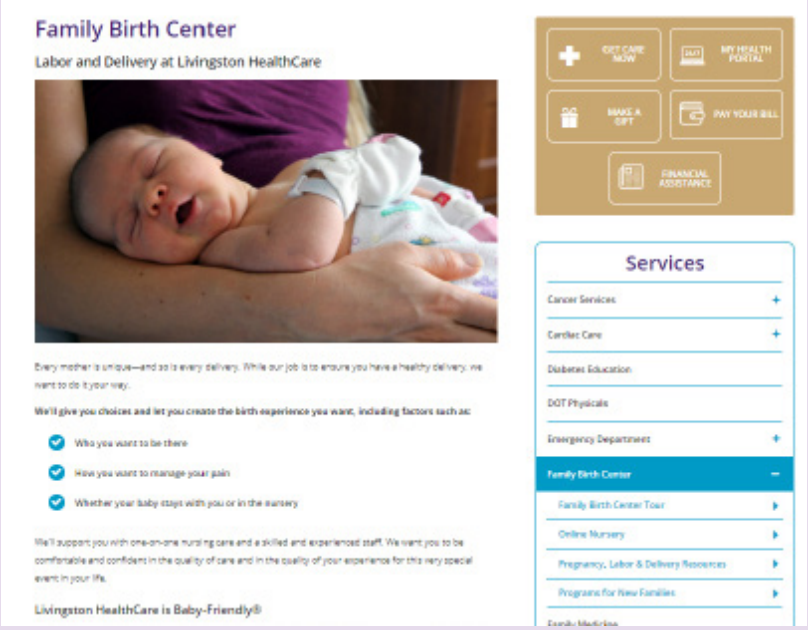
Livingston HealthCare Hospital . . . . . 222-3541

Livingston HealthCare Hospital . . . . . 823-6433
Family Birth Center

Livingston HealthCare Clinic . . . . . 222-3541

Website . . . . . LivingstonHealthCare.org

*Website resources include: book and DVD library, lactation consulting information, physician-recommended online materials and courses for purchase.*




Obstetrician _____

Pediatrician _____

Other Important Numbers

_____

## Notes

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**Notes**

# The Start of Something Wonderful

Congratulations on your very special new beginning. We are honored that you have chosen us to be a part of your pregnancy and birth experience.

We are dedicated to providing you and your baby the best care possible. Our care is team-based, integrating the experience and expertise of physicians, social workers, nurses, counselors and case managers. As needed, we will also collaborate with maternal-fetal medicine specialists and social service support agencies. We'll work with you to plan your pregnancy, with options for you at every step of the way. From pain management to education, natural birthing options to family involvement, you can decide what you want, with the security of medical support.

During this time of incredible growth and development in the womb, we want to do everything possible to make this time as safe and healthy as possible:

- We want moms to have good nutrition with a healthy, well-balanced diet
- We want to do all we can to prevent premature births or other complication that could arise during the course of pregnancy, labor and delivery
- We want to support mothers and parents to discontinue any harmful substances that could adversely impact mother's health and baby's growth
- We want to help families to be involved and supportive, providing a safe and nurturing environment for mother and baby
- We want to insure that all pregnant women have adequate housing, insurance and social resources

## What is my gestation age in months?

| Weeks | Months |
|---|---|
| 2 | |
| 4 | **1** |
| 6 | |
| 8 | |
| 9 | **2** |
| 10 | |
| 12 | |
| 13 | **3** |
| 14 | |
| 16 | |
| 17 | 4 |
| 18 | |
| 20 | |
| 22 | **5** |
| 24 | |
| 26 | **6** |
| 28 | |
| 30 | **7** |
| 32 | |
| 34 | |
| 35 | **8** |
| 36 | |
| 38 | |
| 40 | **9** |

**Reminders**
A full-term pregnancy is 40 weeks from the first day of your last menstrual period.

Not every month has the same number of days, so using weeks is more accurate.

Your due date is an estimate. Your delivery date can be influenced by many factors.

**Some of the services that we are proud to offer you include:**

- A phone number for questions at any time during your pregnancy
- One-on-one nursing care
- Family-centered birthing area
- Family-centered cesarean births
- Complementary care amenities (music, aromatherapy, soaking tubs, etc.)
- Your choice of who will be present at the delivery
- Family suite where partner and baby can "room in"
- Visitation per your wishes (who and when)
- Pain management options—from all natural to epidurals
- Financial assistance for uninsured or underinsured moms
- Nurses and providers with expertise in supporting natural labor and breastfeeding
- Collaboration with community family resources (CHP, PCCHD, PAT)

chp Community Health Partners

PARK COUNTY MONTANA HEALTH DEPARTMENT

We have compiled this information to assist you through your pregnancy and provide you with a place to collect other information throughout the process.

***If you have questions at any point during your pregnancy, please feel free to call your provider at (406) 222.3541 or the Family Birth Center at (406) 823.6433.***

Thank you very much for allowing us the opportunity to share this special time with you. When your family grows, so does ours.

### *We are dedicated to taking care of you!*

Our parental support program offers resources and professional help from caregivers for parents, guardians and families experiencing a variety of stressors including mental health or substance use challenges during pregnancy and through the first year postpartum. Our team consists of specially trained registered nurse (RN) care managers, behavorial health proviers and social workers who partner with your provider and connect you to community resources so you are surrounded with support.

We offer support for:

- Depression
- Anxiety
- Tobacco, alcohol or drug use
- Stress
- Grief/loss
- Challenges with social needs (housing, transportation, food)

The challenges are common, but every experience is a little different. Here are some of the ways parents describe feeling:

- I can't be a parent, I should just run away.
- My baby or partner deserves better.
- Why do I feel like crying all the time?
- I am having anger or rage that is not normal for me.
- I want to be alone all or most of the time.
- I am worried I am not a good parent.
- I am overwhelmed with all of the things in my life.
- I don't feel I am bonding with my baby.
- I can't sleep, even when my baby is sleeping.
- I have lost my appetite.
- My thoughts are racing, I can't sit still, concentrate or rest.
- I feel like the only way I can make myself feel better is by using alcohol, prescription drugs or other substances.

### *We want you to know you are not alone!*

We are here to help with resource connections and support to ensure you and your family have the ability to be at your best. Regardless of age, income, sexual orientation, gender identity, education or culture, 15-20% of parents experience perinatal mood or anxiety disorders (PMADS). There are a variety of factors and conditions in the environments where we live that shape health and well-being. Contact us for support no matter where you are in your journey.

With support from:

The Meadowlark Initiative
HEALTHY PREGNANCIES & SECURE FAMILIES

**If you can answer yes to any of the following statements or a parent verbalizes any of the following statements, don't leave the parent alone, call 911 or go to your local emergency room immediately:**

- **I have had thoughts of hurting myself**
- **I have had thoughts that I should or need to hurt my baby, myself of someone else**
- **I am worried I am seeing or hearing things other people don't see or hear**
- **I am afraid to be alone with my baby**
- **I think my family or baby would be better off without me**
- **I feel very concerned or paranoid that other people might hurt me**

# PERINATAL MOOD AND ANXIETY DISORDERS (PMADS)

**Perinatal: Anytime during pregnancy through the first year postpartum**

- Depression (PPD)
- Anxiety (PPA)
- Panic Disorder
- Obsessive Compulsive Disorder (OCD)
- Postpartum PTSD
- Bipolar Disorders
- Postpartum Psychosis

## SYMPTOMS

- Feelings of guilt, shame or hopelessness
- Feelings of anger, rage, or irritability, or scary and unwanted thoughts
- Lack of interest in the baby or difficulty bonding with baby
- Loss of interest, joy or pleasure in things you used to enjoy

- Disturbances of sleep and appetite
- Crying and sadness, constant worry or racing thoughts
- Physical symptoms like dizziness, hot flashes, and nausea
- Possible thoughts of harming the baby or yourself

## TREATMENT OPTIONS

- Counseling
- Medication
- Support from others
- Exercise
- Adequate sleep
- Healthy diet
- Bright light therapy
- Yoga
- Relaxation techniques

## RISK FACTORS

- History of depression, anxiety, OCD
- Pregnancy or delivery complications, infertility, miscarriage or infant loss
- Abrupt discontinuation of breastfeeding
- Thyroid imbalance, diabetes, endocrine disorders
- Premenstrual Syndrome (PMS)
- History of Abuse
- Lack of support from family and friends
- Financial stress or poverty
- Unwanted or unplanned pregnancy

**Postpartum Support International | www.postpartum.net | 800.944.4773 (call or text)**

*Postpartum mood disorders may be experienced by the individual who gave borth as well as their partner.*

# Books, DVDs Available Through Livingston HealthCare

*We invite all expecting parents to borrow resources from our library. There are no rental fees and we just ask that you return the resource when finished so that others can share in the education. Resources are located in the Clinic at 320 Alpenglow Ln. For additional information and resources please visit Family Birth Center on the Livingston HealthCare website.*

## Books:

- *The Nursing Mother's Companion:* Comprehensive for preparation, overcoming obstacles, and through weaning
- *The Womanly Art of Breastfeeding* from La Leche League International
- *Days in Waiting: A Guide to Surviving Pregnancy Bedrest:* A practical book of suggestions to deal with both home and hospital bedrest
- *What to Expect When You're Expecting*
- *What to Expect the First Year*
- *When You're Expecting Twins, Triplets or Quads*
- *Your Pregnancy Week by Week*
- *Pregnancy & Birth: Your questions answered*

## DVDs:

- *Womb Collection—Nat Geo: Volume 1:* 2-disc set highlighting stages of fetal development through pregnancy
- *Womb Collection—Nat Geo: Volume 2:* 2-disc set about multiples and identical twins.
- *Multiples: More of Everything: Vol1 "Prenatal & Birth"*
- *Multiples: More of Everything: Vol2 "Postpartum & Breastfeeding"*
- *Get Ready for Birth*

# Books, DVDs Available Through Livingston HealthCare (cont.)

- *Celebrate Birth* (41 min): Patient Q&A, brief overview of labor; video demos positions and partner support; emphasizes non-medicated options; ***graphic*** birth scenarios shown
- *Practicing for an Active Birth* (2 hour, 15 min): Information on process of labor, comfort measures, positioning and working with support partner; lots of breathing and relaxation practice
- *Planned Cesarean* (37 min): Informative look at the procedure dispels myths and misunderstandings about cesarean; reviews effects of anesthetics, what to expect, recovery, etc.; family-centered and breastfeeding friendly
- *Expecting Multiples*:
  Disc 1 (75 min): nutrition, preventive care, preterm labor
  Disc 2 (76 min): birthing experience, parenting, anesthesia
- Laugh and Learn About Breastfeeding: 9 lessons, including tips for tandem nursing twins
- Laugh and Learn About Newborn Baby Care: 6 lessons, through age 3 months
- *Infant CPR* (20 min): English/Spanish and closed captioning

## Childbirth Classes

Livingston HealthCare offers free childbirth classes. For more information and a schedule of classes, ask your provider, or call 406.823.6660 to register.

# What to Expect When You Are Expecting

## Respiratory

Shortness of breath is caused by the uterus pushing up on the diaphragm (the muscle that helps you breathe). To help relieve any shortness of breath, try:

- Keeping good posture when sitting and standing.
- Sleeping propped up with pillows or in a reclining chair.
- Doing exercises such as arm stretches and circles.

**Nasal congestion and nosebleeds** may be common during pregnancy due to hormone changes causing swelling of the nasal veins. To help relieve these symptoms, try:

- Cool-air vaporizers.
- Saline nasal spray or washes.

*Call your doctor if you experience severe nosebleeds.*

## Skin and Hair

You may experience changed pigment (color) of your skin, oilier skin and hair, thicker hair, changes in hair color, and skin tags (small flap of skin) due to hormone changes. To help relieve these symptoms, try:


- Avoiding sunlight, as it may increase the amount of pigment changes.
- Bathing daily, washing skin and hair with appropriate products.
- Avoiding clothing and necklaces, which cause irritation, if skin tags develop and are a problem for you.
- Waiting—hair may return to normal, and coloring changes usually disappear after delivery.

**Notes**

## Notes

**Stretch marks** form when the skin cannot stretch enough during pregnancy.

- Stretch marks are caused by a lack of skin elasticity. The amount of elasticity your skin has is inherited.
- Stretch marks occur in 90 percent of all pregnant women. They occur mostly in the abdomen (tummy), but may also occur on the breasts, buttocks, and thighs.
- Stretch marks are caused from within, so lotions or skin creams will not prevent them.
- Eating a well-balanced diet may help prevent stretch marks.
- Use lotion if your skin becomes dry.

## Urinary

The need to urinate often and urine leakage are due to pressure on the bladder from the uterus as your baby grows.

- Use the bathroom when you have the urge.
- Kegel exercises help prevent leakage and should be continued after delivery. In Kegel exercises, you squeeze the muscles that you use to stop the flow of urine. Hold up to ten seconds, then release.
- Do not limit your fluids. Eight to ten eight-ounce glasses of water or juice are recommended daily.
- Do not wear tight underwear or pantyhose.

***Call your doctor if it burns when you urinate. This is a sign of a bladder infection and can cause preterm labor.***

## Cardiovascular

**Edema or swelling is due to:**

- Hormone changes causing increased water and sodium levels in your body.
- Increased blood volume.
- Pressure from the uterus on the major veins.

**To relieve these symptoms:**

- Avoid sitting or standing for long periods of time.
- Do ankle exercises if needed to sit or stand for a long time.
- Put your feet up when sitting or resting.
- Avoid tight stockings or shoes.
- Avoid crossing your legs at your knees.
- Use table salt in moderation and limit foods with high salt content. (i.e. canned soups, prepared/packaged foods).
- Be sure to drink eight to ten eight-ounce glasses of water or juice daily.

**Varicose veins** are due to the factors listed above, along with heredity and weight gain. To prevent these symptoms:

- Try wearing maternity support pantyhose. It is best to put them on before getting out of bed in the morning.
- The relief measures given for edema and swelling will also apply for varicose veins.

***Call your doctor if you experience sudden swelling and/or rapid weight gain.***

**Hemorrhoids** are due to the pressure of the uterus on the hemorrhoid vein. To prevent these symptoms:

- Avoid constipation. Eat a well-balanced diet and drink eight to ten eight-ounce glasses of water or juice daily.
- Use ointments (Tucks or Anusol), ice packs, and warm tub soaks.

**Notes**

## Notes

**Faintness** is caused by anemia (low iron in your blood), low blood sugar, sudden changes in position, or standing for long periods of time. To prevent these symptoms:

- Stand up slowly.
- If you need to stand for long periods of time, change positions as much as possible.
- Eat small amounts of healthy foods throughout the day.

*Call your doctor if you experience any faintness or if you experience blurred vision or see spots.*

## Digestive

Nausea is experienced by many pregnant women in the first few months of pregnancy and can vary in length and severity. Not all pregnant women are nauseated in the morning; some are nauseated all day or only in the afternoon or evening, or after eating or smelling particular foods. The following tips should help relieve your nausea, or at least make it more tolerable:

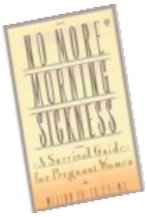
- Try eating several small meals throughout the day and evening rather than three large meals. Avoid letting your stomach get too empty or too full.
- You may find that you tolerate certain foods better than others. Once you find them, try to stick with those foods. Try dry saltine crackers, 7-UP or ginger ale, foods high in protein such as eggs, cheese, and tuna fish, and foods high in carbohydrates such as pasta, breads, potatoes, and rice. Sour flavors (e.g., lemon added to water, sour candies, etc.) reduce nausea by increasing moisture in the mouth.
- Avoid foods that are spicy or fatty.
- If a particular food does not appeal to you, don't eat it. If you desire a particular food or specific preparation of food, try it. You may find it to be very agreeable.
- If your vitamins make nausea worse, consider taking them at bedtime. Alternately, switch to children's chewables (you'll still get 400 mcg of folate daily).

- You may find it necessary to keep crackers or other snacks at your bedside to eat before getting up in the morning.
- Alternatively, you may want to try getting up and eating breakfast and then lying down for one-half to one hour afterward before getting ready for the day. Getting your partner or some member of your household to prepare breakfast for you in this case can be especially helpful.
- Special teas are often helpful, especially chamomile, ginger, raspberry, mint, and alfalfa teas. Ginger can aid in soothing and relaxation of the digestive process (up to one gram of ginger daily). Chamomile teas are especially useful in the evenings and just before bedtime and may also aid in sleep.

***If you experience severe nausea that interferes with your daily activities—especially if you are having a lot of vomiting, it is very important that you call one of the OB nurses for further assistance: 222-0800.***

- Vitamin B6 can be useful for nausea and may be taken 25 mg at a time, up to four times per day.
- TUMS can be used liberally for nausea if helpful, or for heartburn, and is also a good source of calcium.
- If you are smoking, STOP.
- Some women find relief with the use of Seabands or motion sickness bands. Seabands are adjustable wrist bands with a plastic nub which presses on nerves in your wrist. Originally developed for motion sickness, these bands often help with pregnancy nausea. Seabands are most effective when worn before nausea becomes severe. You may need to put them on upon waking in the morning, or even wear them during the night to aid in sleep. They can be found at drug stores or in sporting goods catalogs.

***A useful book is No More Morning Sickness, A Survival Guide for Pregnant Women, by Miriam Erick.***




## Notes

## Notes

**Heartburn** is caused by the uterus pushing up on the stomach and from hormone changes causing the stomach sphincter (muscle at the opening of the stomach) to relax. To help prevent these symptoms:

- If you are smoking, STOP.
- Try taking TUMS or other calcium-based antacids.
- Elevate the head of your bed 10–15°.
- Do not lay down immediately after meals.
- The relief measures given for nausea and vomiting will also help with heartburn.

**Constipation** is due to hormone changes, diet, lack of fluids, lack of exercise, and the pressure of your growing uterus on your intestines. To prevent constipation, try:

- Increasing the amount of fluids you drink. Try drinking 10-12 glasses of water or juice a day.
- Drinking a glass of hot water and lemon juice before you eat breakfast.
- Exercising at least three times per week.
- Eating foods high in fiber like vegetables, fruits, breads, and cereals.
- Discussing stool softeners with your doctor. Don't take any medications for constipation before speaking with your doctor.

## Musculoskeletal

**Hormone changes** may cause your joints to relax and "feel loose." To help manage these symptoms:

- Be careful when walking, climbing, etc., as there is an increased chance of losing your balance.

***These symptoms will go away after you deliver.***

Backaches during pregnancy are common due to the uterus pulling muscles out of place. To help prevent these symptoms:

- Avoid high-heeled shoes and very flat shoes without arch support.
- Avoid lifting heavy objects.
- Practice good posture by sitting and standing upright.
- Consider stretching and/or gentle yoga for strengthening and pain relief.
- Discuss chiropractic care, acupuncture, and/or physical therapy with your healthcare provider if backaches are an ongoing concern.

**Headaches** can be caused by hormone changes, being tired, dehydration, nasal congestion, eye strain, tension, anxiety, and backaches.

- The tips listed for backaches may also help to ease headaches.
- Try a neck massage, heating pad, or a warm wash cloth.
- Take Tylenol as directed by your doctor.

***Call your doctor if headaches continue or if you have blurred vision or see spots.***

**Leg cramps** are due to an imbalance of minerals (calcium, magnesium, potassium), poor circulation to your legs, dehydration, or the uterus pressing on nerves. To help prevent these symptoms:

- Wear supportive, properly fitted footwear.
- Stretch gently but regularly.
- Drink plenty of fluids.
- Put a heating pad on the sore muscle.
- Discuss your diet with your doctor.

## Notes

Notes

# Nutrition During Pregnancy

It's important for both you and your baby's health that you eat a healthy diet throughout your pregnancy. Your diet should be strong in protein, vitamins, minerals, fluids, fiber, and calories, but only about 300 calories more each day than your prepregnancy needs.

## General Guidelines

The pattern of weight gain is more important than the total amount of weight that you gain during your pregnancy. You should expect to gain 2-8 pounds during the first three months and one pound per week after that. The average 30 pound weight gain is generally distributed as follows:

- 7.5 pounds–Baby
- 7 pounds–Mother's extra fat stores
- 4 pounds–Extra blood volume
- 4 pounds–Extra fluid volume
- 2 pounds–Amniotic fluid
- 2 pounds–Increased breast size
- 2 pounds–Increased uterus size
- 1.5 pounds–Placenta

Remember that this is an average weight gain. Your weight change may not be within this range, but it may be normal for your pregnancy. Don't begin a weight loss diet during your pregnancy. In fact, weight loss diets during pregnancy could affect the growth and development of your baby.

# Prenatal Nutrient Requirements

| Nutrient | Nonpregnant RDA | Pregnant RDA | Dietary Sources |
|---|---|---|---|
| **Calcium** | 1,200 mg | 1,200 mg | Dairy products, green vegetables (see Food Sources of Calcium Chart, p. 17) |
| **Carbohydrates** | 100 g | 250 g | Grain products, fruits, vegetables, milk |
| **Iodine** | 150 mg | 175 mg | Iodized salt, seafood |
| **Iron** | 15 mg | 30 mg | Meats, eggs, enriched grains (see Food Sources of Iron Chart, p. 19) |
| **Folic acid** | 180 µg | 400 µg | Liver, spinach, asparagus, wheat germ, broccoli, grains, leafy vegetables, dried beans, peas (see Folic Acid, p. 18) |
| **Niacin** | 15 mg | 17 mg | Fish, liver, meat, poultry, (nicotinic acids) eggs, enriched grains, milk |
| **Phosphorus** | 1,200 mg | 1,200 mg | Dairy products, grains, eggs, dried beans |
| **Protein** | 46-50 g | 60 g | Meats, fish, poultry, complex grains, dairy |
| **Vitamin A** | 4,000 IU | 4,000 IU | Fortified milk, deep yellow (retinol) or orange fruits and vegetables, green vegetables |
| **Vitamin B1** | 1.1 mg | 1.5 mg | Enriched grains, pork, (thiamine) wheat germ, lima beans |
| **Vitamin B2** | 1.3 mg | 1.6 mg | Liver, dairy, enriched cereals, (riboflavin) eggs |
| **Vitamin B6** | 0.6 mg | 2.2 mg | Liver, chicken, potatoes, (pyridoxine) bananas, wheat germ, spinach, beef, egg yolks, fish |
| **Vitamin B12** | 2 µg | 2.2 µg | Animal proteins (cyanocobalamin) |
| **Choline** | 425 mg | 450 mg | Eggs, shrimp, peanuts, beef liver, poultry meat |
| **Vitamin C** | 60 mg | 70 mg | Citrus fruits, tomatoes, (ascorbic acid) green peppers, cantaloupe |
| **Vitamin D** | 400–800 IU | 1,000–2,000 IU | Fortified milk, liver, eggs, cod fish, expose skin to sun |
| **Vitamin** | E 15 IU | 15 IU | Vegetables, oils, milk, eggs, (α-tocopherol) nuts, grains |
| **Zinc** | 12 mg | 15 mg | Oysters, meat, potatoes |

Notes

# Vitamins and Minerals

Your doctor may recommend that you take prenatal vitamins. These vitamins do not take the place of good eating.

## Calcium

Try to get enough calcium from your diet early on. Calcium helps maintain healthy bones and teeth for you and your baby. If you don't get enough calcium in your diet when you are pregnant, your baby will draw it from your bones, which may impair your health later in life. To ensure you are getting enough calcium:

- Drink milk. Try Lactaid or calcium-fortified soy milk if you cannot tolerate regular milk.
- Use milk and yogurt in cooking instead of cream or sour cream.
- Add powdered milk to soup, mashed potatoes, casseroles, and sauces.
- Use cheese in sandwiches, salads, or as a snack.
- Try desserts such as pudding, custards, frozen yogurt, and ice cream.
- Add yogurt into your weekly meal plan.
- If you don't need to add fat to your diet, eat low-fat and fat-free dairy products.
- If you can't meet your calcium needs through diet, consult your doctor or registered dietitian about supplementing. "Calcium citrate" is a common form taken as a tablet or chewable. Daily dose is 500 - 1000 mgs and can be taken with or without food. Constipation may be a side effect; adding magnesium usually balances and relieves this.

## Food Sources of Calcium

**Daily goal: 1,200 mg**

| Food | Serving Size | Mg of Calcium |
|---|---|---|
| **Sardines** | 3oz | 372 |
| **Yogurt, nonfat** | 4 oz | 300 |
| **Milk, skim** | 1 cup | 300 |
| **Milk, whole** | 1 cup | 290 |
| **Milk, buttermilk** | 1 cup | 296 |
| **Cheese, cheddar** | 1 oz | 210 |
| **Cheese, American** | 1 slice | 195 |
| **Cheese, mozzarella** | 1 oz | 163 |
| **Turnip greens, cooked** | 2/3 cup | 184 |
| **Salmon** | 3oz | 167 |
| **Custard** | 1/2cup | 161 |
| **Tofu** | 3 oz | 128 |
| **Ice cream** | 1/2 cup | 99 |
| **Shrimp** | 3oz | 98 |
| **Spinach, cooked** | 1/2 cup | 88 |
| **Broccoli, cooked** | 1/2 cup | 68 |
| **Peanuts, roasted, with husks** | 2/3 cup | 68 |
| **Green beans, cooked** | 1/2 cup | 62 |
| **Eggs, poached** | 1 large | 51 |
| **Beans, cooked** | 1/2 cup | 50 |
| **Cottage cheese** | 1/4 cup | 38 |
| **Almonds** | 12nuts | 38 |
| **Perrier water** | 1 cup | 32 |
| **Cream cheese** | 1 oz | 23 |
| **Fish, broiled** | 4 1/2 oz | 20 |
| **Bread, enriched white** | 1 slice | 20 |
| **Wheat cereal, flakes** | 1 cup | 12 |

**Notes**

Notes

## Iron

Iron helps carry oxygen throughout the body. If you don't eat enough iron-rich foods, you may feel tired or run down. Consider the following ways to increase the amount of iron in your diet.

- Remember that iron from meat, fish, and poultry is more easily absorbed than iron from plants.
- Include foods high in vitamin C, such as citrus juices and fruits, melons, dark green leafy vegetables, and potatoes. This may help your body absorb more iron.
- Eat enriched or fortified grain products.
- Limit coffee and tea during meals, as they inhibit iron absorption.
- Use cast iron cookware.
- If you can't meet your iron needs through diet, consult your doctor or registered dietitian.

### Elemental Iron Available in Supplements

| | Amount of Elemental Iron | Dose Containing 60 mg Elemental Iron |
|---|---|---|
| **Ferrous fumarate** | 32.5% | 185 mg |
| **Ferrous gluconate** | 11.0% | 545 mg |
| **Ferrous sulfate** | 20.0% | 300 mg |

## Folic Acid

Folic acid is needed to help prevent anemia and problems with baby's development, such as spina bifida. Food sources include:

- Liver
- Dried beans
- Fresh, dark, leafy greens
- Lean beef
- Potatoes
- Lima beans
- Asparagus
- Whole wheat bread
- Kidney beans
- Broccoli

Prenatal vitamins also contain folic acid.

## Food Sources of Iron

**Daily goal: 30 mg**

| Food | Serving Size | Mg of Iron |
|---|---|---|
| **Calf liver, cooked** | 3 1/2 oz | 14.2 |
| **Liverwurst** | 3 oz | 8.7 |
| **Chicken livers, cooked** | 3 1/2 oz | 8.5 |
| **Prune juice** | 1/2 cup | 5.2 |
| **Pumpkin seeds** | 1/4 cup | 5.0 |
| **Ground beef, lean, cooked** | 1 1/2 oz | 3.8 |
| **Chickpeas** | 1/2cup | 3.0 |
| **Steak, cooked** | 3 oz | 2.7 |
| **Raisins** | 1/2cup | 2.5 |
| **Molasses, blackstrap** | 1 T | 2.3 |
| **Kidney beans** | 1/2 cup | 2.2 |
| **Prunes, large** | 4 | 2.2 |
| **Chicken, dark meat** | 3 oz | 2.0 |
| **Spinach, cooked** | 1/2 cup | 2.0 |
| **Sunflower seeds** | 1/4 cup | 2.0 |
| **Oatmeal** | 1 cup | 1.7 |
| **Turkey** | 3oz | 1.5 |
| **Apricots, dried** | 4 halves | 1.3 |
| **Avocado** | 1/2 | 1.3 |
| **Egg** | 1 | 1.1 |
| **Blueberries** | 5/8cup | 1.0 |
| **Chicken, white meat** | 3 oz | 1.0 |
| **Honey-roasted almonds** | 1 oz | 1.0 |
| **Peanut butter** | 2 Tbsp | 1.0 |
| **Bread, whole wheat** | 1 slice | 0.8 |
| **Bread, enriched white** | 1 slice | 0.6 |
| **Dry cereal** | (read label, varies widely) | |

**Notes**

Notes

## Vitamin D

Pregnant women should get at least 2,000 IU of vitamin D a day through either diet or supplements. Prenatal vitamins, calcium supplements, and fortified milk are some reliable sources. Breastfeeding mothers should also receive 2,000 IU of vitamin D a day to ensure adequate amounts for herself and her newborn.

## Omega-3 Fatty Acids (DHA & EPA)

DHA helps ensure that your baby's brain develops to its full potential; EPA helps DHA cross the placenta. Women who have an inadequate intake of these omega-3 fatty acids have a higher risk of preterm labor. Purified fish oil supplements are a convenient and safe way to supplement your diet with the recommended 300 mg a day of DHA. Omega-3 fatty acids are also added to some prenatal vitamins.

## Choline

Choline is needed for the synthesis of acetylcholine, which is a key nerve and brain transmitter in the developing baby. It is vital for brain development and normal spinal cord formation. It is passed to the baby in breaskmilk also. Food sources of choline are plentiful (see chart), and it is also added to some prenatal vitamins.

# Other Food Concerns

## Vegetarianism

A vegetarian diet can be carefully planned to be adequate in protein and other nutrients. Your dietitian can help you plan meals that are well-balanced.

### Nonmeat Sources of Protein

**Daily goal: 60 g**

| Food | Amount Equal to 20 g |
|---|---|
| **Cheese** | 3 oz |
| **Dried beans** | 1 1/2 cups |
| **Eggs** | 3 whole |
| **Milk** | 2 1/2 cups |
| **Nuts and seeds** | 7 Tbsp |
| **Peanut butter** | 4 1/2 Tbsp |
| **Tofu** | 8 oz |

## Herbal Supplements and Teas

Some herbal supplements and teas are helpful and safe during pregnancy and postpartum. Quality and safety are important. Please discuss their use with your doctor or dietitian.

## Artificial Sweeteners

The effects of artificial sweeteners on the unborn baby are not clear. Ask your doctor before using any of these products.

## Caffeine

Caffeine intake of up to 150mg (8-10 oz) a day seems to be safe. Caffeine is found in coffee, tea, soft drinks, and chocolate.

## Mercury

Fish is rich in omega-3 fatty acids that, according to recent studies, help the baby's nervous system and brain development. We encourage you to eat fish, but keep your servings to 12 oz. or less per week. Too much mercury can cause harm to an unborn child's brain and nervous system. Certain fish are high in mercury, such as shark, swordfish, king mackerel or whitefish, and should be avoided during pregnancy. Tuna—although not albacore—and wild salmon are safe, healthy choices.

## Listeriosis

Listeriosis is caused by bacteria from foods like unpasteurized dairy, hot dogs, and cold deli meats. Symptoms include fever, chills, muscle aches, and in pregnant women, it can cause miscarriage, premature delivery, and stillbirth.

To prevent listeriosis, consume only pasteurized milk and soft cheeses. Choose prepackaged deli meats or heat all deli meat products until they are steaming hot. Always wash your hands and countertops; keep raw meat, fish, poultry, and cutting boards that have been in contact with uncooked meats away from other foods; and quickly refrigerate leftovers. Consider cooking and preparing your own poultry and meat for sandwiches.

## Pica

Pica is an abnormal craving and eating of a substance not normally eaten, such as chalk, laundry starch, etc. This can occur during nutritional deficiency. Please call your doctor if you experience

### Notes

Notes

# Risks That Affect Your Baby's Development

## Alcohol

- When you drink any kind or any amount of alcohol while you are pregnant, it does affect your baby.
- According to research, even small amounts of alcohol can increase the risk of birth defects. The safest choice is to not drink any alcohol during your pregnancy.
- Consuming alcohol increases the risk of miscarriage and stillborn births.
- Alcohol use can also cause low birth weight, prematurity, and heart and brain defects.
- If you drink alcohol during your pregnancy, your baby could be born with Fetal Alcohol Syndrome (FAS).

**Symptoms of FAS may be:**

- Hearing loss
- Hyperactivity
- Mental handicap or learning problems
- Small for age
- Small or poorly formed face, poor muscle tone

## Smoking

- Smoking during pregnancy decreases the blood flow that carries oxygen to the placenta and the baby.
- Smoking decreases the amount of vitamins your baby will get from you.
- Smoking can result in:
  - Increased risk of miscarriage, stillborn birth, or premature birth
  - Low birth weight
  - Lower I.Q.
  - Increased risk of cleft palate and other birth defects
- Smoking can make morning sickness and heartburn worse.
- Secondhand smoke from coworkers or family members can pass bloodborne chemicals from mother to unborn baby.
- Infants and children who grow up in homes where parents smoke are more likely to suffer from respiratory illnesses and infections.
- Smoking puts your baby at greater risk for Sudden Infant Death Syndrome (SIDS).
- Nicotine replacement (patches, gum, lozenges) are safely used in pregnancy to help moms stop smoking—ask your provider for instructions.
- Electronic "E"-cigarettes deliver nicotine along with other chemicals (including formaldehyde) and are not recommended as a substitute for standard nicotine replacement products.

MONTANA TOBACCO QUIT LINE 1-800-QUIT-NOW

## Marijuana

Research has shown that THC—the chemical in marijuana that causes psychoactive effects—crosses the placenta and can appear in blood concentrations in baby up to a third of what they are in mom. The average concentrations of THC in marijuana have more than quadruped over the last 30 years, making it much more potent.

Because THC is attracted to and stored in lipid/fat tissue, it readily enters the brain of the fetus. This also means it is stored and released from mom's fat tissue long after the last ingestion or inhalation.

THC has been shown to bind with cannabinoid receptors in the developing brain and may "hijack" normal neuronal growth. It may also disrupt developing babies' epigenetics—how genes express themselves—including genes responsible for a number of brain systems. The effects could be long-lasting.

**Notes**

Notes

A number of studies have shown that marijuana-exposed babies start having issues from age 4-6 to adolescence, including poor concentration, impulse control and problem-solving. Some studies suggest these children are at higher risk of substance abuse and mental illness as teens and adults.

Heavy marijuana use in pregnancy may result in preterm birth and low birth weight.

## CBD (cannabidiol)

CBD is derived from marijuana and hemp. It lacks the psychoactive "high" of THC and is becoming widely available after legalization. Its safety in pregnancy is UNPROVEN.

Of first concern is lack of regulation and standardization of the products (both edible and topical)—there is no oversight of purity or strength. CBD products may even contain THC.

Secondly, CBD has been shown to REDUCE THE ABILITY OF THE PLACENTA TO BLOCK other medications and substance from crossing to the baby. This exposes the baby to potentially dangerous levels of other chemicals.

## Stimulants (Methamphetamine, Amphetamines):

Meth harms the development of babies in the womb by reducing placental blood flow and oxygen to the baby. It is seen as:

- Low birth weight/stunted growth
- Premature birth
- Heart defects
- Distress in labor
- Changes in brain development (can result in abnormal behavior, aggression, learning problems and impaired physical coordination in children as they grow up.)

## Cocaine/Crack

If used in pregnancy, these drugs can cause premature birth, birth defects (malformed limbs and organ damage), brain damage and even stroke in the baby.

## Narcotics (Heroin, prescription medications—ie: Oxycodone, Fentanyl, Hydrocodone)

Babies exposed to narcotics in the womb could be born premature and/or underweight. Your baby could be born addicted and suffer from withdrawal symptoms after birth. You and your baby are at risk of overdose and even death. There are safe ways to manage dependence on narcotics during pregnancy—ask your provider for help.

# Your Beliefs and Concerns About Prenatal Genetic Testing

Livingston HealthCare
*We're here for you.*

***Check the statements that are true for you:***

- ☐ I would want to know if my pregnancy is affected with a genetic condition or congenital anomaly.
- ☐ I want the most information available about my baby and my pregnancy, even if there is a small risk associated with obtaining that information.
- ☐ I would not have a test that could cause a miscarriage of pregnancy, even if the chance is very small.
- ☐ I would end a pregnancy if affected by a genetic condition or congenital anomaly.
- ☐ I want information about my pregnancy before sharing the news with my friends or family.
- ☐ I have more anxiety worrying about the possibility that my baby may have special health needs, than if I know for sure and could prepare.
- ☐ I do not want a test that would tell me if I have a genetic condition.
- ☐ I would rather know before birth if the baby has a genetic condition or congenital anomaly.
- ☐ I want to get as much information about my pregnancy as I can before having diagnostic testing.
- ☐ I value information that is more precise for a smaller number of conditions (such a Down syndrome) rather than less precise information about more conditions.
- ☐ The cost of the testing options could influence my decision.

***Please bring this form with you to your first ultrasound appointment with Dr. Alyson Righetti or Dr. Kyra Piñango.***

# Genetic Screenings

Genetic testing is available to all of our pregnant patients, but it is completely optional. *You will review all of this information and have time for questions at your early pregnancy office ultrasound appointment.* It may be recommended more strongly for select families where there is an increased risk for genetic birth defects (i.e., advanced maternal age, etc.). Most insurance companies cover this, but if you want any of these tests, please check with your insurance company prior to the testing (Livingston HealthCare's Patient Financial Services can assist with this). These tests vary in cost, accuracy and risk to the patient. The noninvasive tests have a small amount of false positive rates, meaning the test shows increased risk when the baby is normal.

## Common Questions

**What should I consider when deciding whether to have prenatal genetic testing?**
It is your choice whether to have prenatal testing. Your personal beliefs and values are important factors in the decision about prenatal testing.

It can be helpful to think about what you would do if a genetic test result comes back positive. Some parents want to know beforehand if their child will be born with a genetic disorder. This gives parents time to learn about the disorder and plan for medical care that the child may need. If the disorder is very serious and the life expectancy is short, hospice care for the baby can be planned. Some parents may decide to end the pregnancy in certain situations. Other parents do not want to know this information before the child is born. They may decide not to have any testing at all. There is no right or wrong answer.

Keep in mind that certain tests can be done only at certain times during pregnancy. Tests that are done earlier allow parents more time to make decisions if a test result is positive. If ending the pregnancy is being considered, it is safer to do so within the first 13 weeks of pregnancy.

**How do I choose between prenatal screening and diagnostic testing?**
Any woman can choose to have diagnostic testing instead of or in addition to screening. The main benefit of having diagnostic testing instead of screening is that it can detect all conditions caused by an extra chromosome and many other disorders in which chromosomes are missing or damaged. Diagnostic tests also are available for many inherited disorders. The main disadvantage is that diagnostic testing carries a very small risk of losing the pregnancy.

**Notes**

Notes

# Carrier Testing

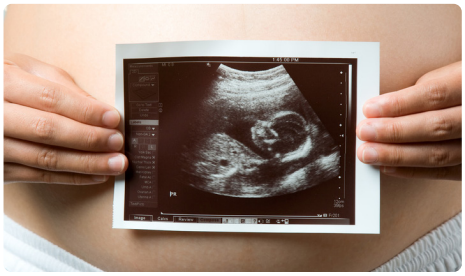
If mothers have not been tested before pregnancy to see if they have a genetic mutation that could pass Cystic Fibrosis (CF), Spinal Muscular Atrophy (SMA) or Fragile X to their children, they are offered a blood test in pregnancy. Even if there is no family history of these diseases, women are offered screening, because as many as 1 in 25 carry an abnormal CF gene (or 1 in 45 for SMA) that could be passed to their children. The carrier testing is highly accurate and is done with a blood sample taken from the mother. If she is a carrier for CF or SMA, her partner can be tested to see if he carries the same recessive gene abnormality. If he does, 1 in 4 of their children can have the disease and 2 in 4 can carry the gene.

To know before birth if a fetus is affected, diagnostic testing (see above) can be performed, *or* newborn testing can occur after birth if both parents are carriers. There are treatments but no cure for CF. There are treatments and a genetic cure for SMA. Early diagnosis is necessary for prompt and effective care for affected babies.

# Screenings for Major Chromosomal Abnormalities (Trisomies 13,18 and 21 "Downs syndrome")

**Noninvasive Testing**
These tests measure blood markers from the pregnant woman and/or look at early fetuses by sonogram to identify patterns that suggest an abnormality. Because no fetal tissue is sampled, there is no direct evidence of abnormality provided by the results (see Definitive Testing).

## Ultrascreen/Early Screen



This test combines ultrasounds and blood tests and may be done in Billings or Bozeman. Ultrasounds measure the thickness at the back of the neck of the fetus. If they are able to visualize the nasal bone, it increases the accuracy for testing for Trisomy 21. The blood tests measure PAPP (Pregnancy Associated Plasma Protein) and HCG, a hormone made by the placenta. Major abnormalities affecting the placenta or fetal brain, spine, heart, etc. can sometimes also be detected at this early ultrasound.

## *Ultrascreen/Early Screen, continued*

**Available** 11–14 weeks

**Accuracy** **Trisomy 21:** If a baby has Down syndrome, this test would pick it up 85% of the time. (False positive 5% or 2% with nasal bone assessment)
**Other major chromosome abnormalities** (such as Trisomy 13 and 18): are greater than or equal to 78% detection (false positive 6%).

**Limitations** Any abnormal results will need to be verified by further testing to interpret accurately (see options below).

## Cell-Free DNA (cfDNA)

Cell-Free DNA (cfDNA) refers Non-Invasive Prenatal Testing (NiPT) to small fragments of fetal DNA found in the mother's blood during pregnancy. Most cfDNA fragments come from the placenta and can be used to test for common chromosome disorders in a developing fetus. *This test is specific for chromosomes 13, 18, 21 (Downs Syndrome), X and Y.* The accuracy of cfDNA screening depends on several factors, including a woman's baseline risk of carrying a fetus with a trisomy (extra chromosome). The test is slightly more accurate in women age 35 and older.

cfDNA screening is <u>not</u> a diagnostic test (a positive result does not *definitely* mean your baby has an extra or missing chromosome). If abnormal, you will be offered an ultrasound evaluation and a diagnostic test (see below) to determine the actual chromosomes.

**Available** After 11 weeks
**Accuracy** Trisomy 21 (Downs): Detects >99%
Trisomy 13 & 18: Detects >98%
False positives: ≤0.5%
**Limitations** Results may be limited if taken too early (insufficient fetal DNA), and in multiple gestations (twins, etc.).

# Definitive/Diagnostic Testing

**These tests take a sample of the actual pregnancy and thus are highly accurate and specific.**

## Chorionic Villi Sampling

In Chorionic Villi Sampling (CVS), a physician, while monitored by ultrasound, takes a sample of the placenta through the cervix. The sample is sent to a genetics laboratory where the chromosomes are reviewed for chromosomal problems.

**Notes**

Notes

## Chorionic Villi Sampling, *continued*

Some studies indicate that limb deformities may be caused by doing CVS too early. Prior to the test, an ultrasound is needed to accurately date the pregnancy. In addition, the mother is also checked for blood type and any infection.

There is a small risk of ruptured membranes, bleeding and infection with this procedure—fewer than 1 woman out of 400.

This test is unable to detect neural tube defects, so the AFP blood test is also recommended at 15 weeks.

This procedure is available in Bozeman.

**Available** 10–12 weeks
**Accuracy** Almost 100%

## Amniocentesis

In amniocentesis, a sample of amniotic fluid, which contains cells shed by the fetus, is collected through a needle and sent to a laboratory for analysis. An ultrasound is used as a guide to determine a safe location for the needle to enter the amniotic sac through the mother's abdomen.

Usually performed between 14 and 20 weeks, the test detects chromosome abnormalities, neural tube defects and a few other specially recognized genetic disorders. Down syndrome, or Trisomy 21, is the most common chromosome abnormality. Spina bifida is the most common neural tube defect. Genetic disorders include cystic fibrosis.

Although amniocentesis is considered to be a safe procedure, it is recognized as an invasive diagnostic test that does pose potential risks. There is a small risk (0.05–5%) of membrane rupture, bleeding and infection. In very rare cases (1 in 800), miscarriage can occur. Miscarriages can occur because of infection in the uterus, the water breaks, or labor is induced prematurely.

Following completion of the procedure, the mother may experience other side effects, including cramping, leakage of fluid and minor irritation around the puncture site.

**Available** After 15 weeks
**Accuracy** Almost 100%

# Exercise During Your Pregnancy

Exercise is encouraged during pregnancy, but you must be cautious to avoid risk to your pregnancy.

## Advantages of Exercise:

- Decreases shortness of breath.
- Decreases fatigue, cramps, and swelling.
- Increases strength and endurance, which helps with labor and getting back in shape after your pregnancy.
- Improves mood, energy, body image, and self esteem.
- Decreases risk of bone loss.
- Helps prevent injury and protects connective tissue at risk because of joint laxity.
- Improves muscle tone and posture.
- Helps reduce muscle aches, constipation, and swelling.
- Helps prevent gestational diabetes and too much weight gain.
- Preserves level of fitness.
- Helps prevent low back pain and urinary incontinence.

### Notes

Notes

# Exercise Guidelines

## Approximate exercise frequency:

Exercise 30–60 minutes, 3–4 times a week.

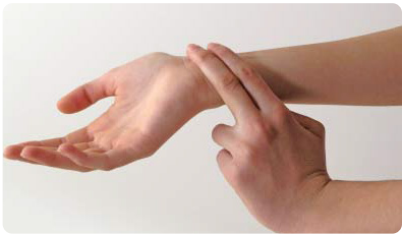
## Approximate exercise intensity:

Keep your exercise intensity at a mild to moderate level.

- **Mild:** 40–50% maximum heart rate
- **Moderate:** 50–65% maximum heart rate
- **Heavy:** 65–80% maximum heart rate

## Use the "Talk Test":

If it is difficult to carry on a conversation, you are at approximately 70% of your maximum heart rate.



## Goal:

Not more than 65% maximum heart rate. Max of 140–160 beats per minute (bpm) if you have been exercising prior to pregnancy. You might want to try water aerobics, therapy ball classes, yoga, or any exercise program geared towards pregnant women.

# Exercise Considerations

- When in doubt, talk to your physician.
- If not currently active, start with walking, swimming, or cycling.
- Ideally, you should exercise three times a week.
- Drink plenty of fluids before and after exercise to prevent dehydration.
- Keep your heart rate below 140 bpm. You should be able to talk while exercising.
- Use good body mechanics when lifting to avoid muscle strain. Use your legs to lift, not your back.
- Always avoid holding your breath and exhale on exertion.
- Protect your joints as they will be more mobile than normal.
- Avoid heavy lifting, competitive or aggressive sports, and aggressive stretching.

- Typically your maximum exercise capabilities are going to decrease 20–25%.
- Don't do jerky or bouncy movements because your ligaments will have become more relaxed.
- Your balance may not be as good so avoid exercises that increase risk of falling or injury.
- After four months, avoid lying flat on your back as the weight of the baby will decrease circulation by compressing your major blood vessels. Place a rolled towel under your hip when lying down.
- Stop any exercise/activity immediately if you experience uterine cramping, vaginal bleeding, leaking of fluid from the vagina, dizziness, heart palpitations, or back pain.

## Avoid exercise if:

- You are at risk for preterm labor.
- You have any vaginal bleeding or premature rupture of membranes.
- You don't feel well.

## Sex

You may continue normal sexual activity if comfortable. If you have a high-risk pregnancy, discuss with your doctor.

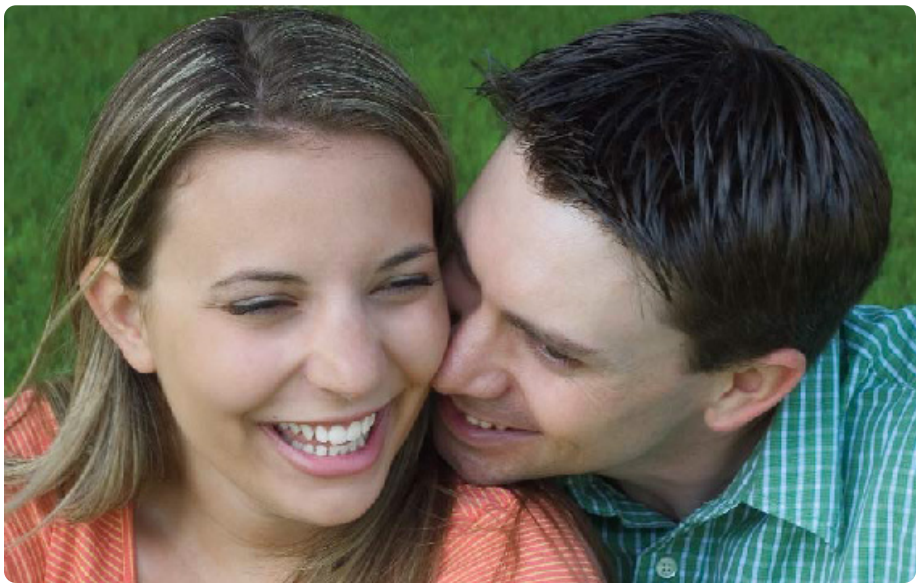
### Notes

Notes

# STDs and Infections

## Sexually Transmitted Diseases (STDs)

Many STDs can affect the health of your baby. If you think that you may have an STD, please speak to your doctor.



- **Autoimmune Deficiency Syndrome** (AIDS/HIV) can be transmitted to your baby during pregnancy or delivery. Tell your doctor if you or the baby's father may have been exposed to HIV.
- **Chlamydia** can cause eye infections and pneumonia in babies born to untreated mothers. Chlamydia can cause premature labor.
- **Gonorrhea** affects the baby's eyes during birth, causing eye irritation or blindness.
- **Herpes** can cause severe illness to newborns if an outbreak is present at the time of birth.
- **Syphilis** can cause severe damage and possibly death to your unborn baby.

# Infections

## Chicken Pox

- If you've already had chicken pox, you cannot get it again.
- If you have not had them, avoid contact with children who have rashes or who have been exposed to the disease.
- Chicken pox can cause severe respiratory illness in pregnant women and can cause serious illness in newborns who contract chicken pox at birth.

## German Measles/Rubella

- If you have had rubella or received the vaccine, you cannot contract the virus.
- If you are not immune and do come in contact with the virus, it can cause damage to your baby's heart, eyes, and hearing.

## Hepatitis B

- Hepatitis B can cause your baby to have liver problems.
- We will check your blood to make sure you aren't infected.

## Toxoplasmosis

- This is a mild infection caused by parasites that are carried in the stools of house cats.
- It can cause damage to your baby's brain and eyes.
- Avoid toxoplasmosis by allowing someone else to clean the cat's litter box.
- Try to avoid gardening or other outside work in areas where cats may have stooled. If you do any gardening, always wear gloves.

- Pigs, cows, and sheep also carry the toxoplasma parasite. Be sure to cook all meat well. Wash your hands well when handling raw meat. Speak to your doctor if you think that you may have come in contact with the virus.

**Notes**

Notes

# Car Safety

## Seat Belts during Pregnancy

You should always wear a seat belt. Wearing your seat belt helps protect you and your baby in the event of a car crash. You should wear a seat belt no matter where you are sitting in the car.

## How to Wear Your Seat Belt

The seat belt should be a 3-point restraint. That means it should have a lap strap and a shoulder strap. Lap and shoulder belts keep you from being thrown from the car during an accident. The shoulder strap also keeps the pressure of your body off of the baby after a crash.

**The correct way to wear your seat belt when pregnant is:**

- The lap strap should go under your belly, across your hips and as high as possible on your thighs.
- The shoulder strap should go between your breasts and off to the side of your belly. (If possible, adjust the height of the shoulder strap so that it fits you correctly.)
- Seat belt straps should never go directly across your stomach.
- The seat belt should fit snugly.

## Airbags

Don't turn your airbags off. They can protect you from a head injury during an accident. To be safe, move your seat back as far as possible and tilt the seat to get some distance between your belly and the steering wheel or dashboard.

Airbags are not a substitute for a seat belt, so always wear your seat belt even if your car has airbags.

## Where to Sit

If you are not driving, sit in the back seat. Injuries from car crashes tend to be less serious for those who are sitting in the back seat. It is still important to wear a seat belt.

# Things to Discuss with Your Doctor

Call your doctor if you experience any of the following symptoms:

- Frequent headaches
- Lightheadedness or dizziness
- Changes in your vision, such as blurred vision or seeing "spots"
- Sudden swelling in your face, hands, or feet
- Sudden weight gain (more than five pounds a week)
- It burns or is difficult to urinate
- You have fluid leaking from your vagina
- You have vaginal bleeding
- You have chills or a fever
- You think you may be having contractions and have not reached 37 weeks gestation in your pregnancy

## Fetal Movement

Movement tells us that the baby is getting proper oxygen and nutrients from the placenta. It is normal for some babies to be more active than others. It is also normal for babies to have certain times during the day when they are more active. If you are ever concerned about your baby's movement, count the length of time it takes your baby to move ten times. Your baby should not take more than two hours to move ten times.

If your baby is not moving normally, eat or drink something—preferably cold and with sugar—and lie on your left side. Count the baby's movements.

***If you do not feel five to six movements over the next hour, call your doctor.***

Do not hesitate to call, even if you are feeling movement, but it is different than usual.

**Notes**

## Notes

# Reproductive

Due to hormone changes, your breasts may become tender and increase in size. Colostrum (the first milk) may appear after week 12, and your nipples and areolas (brownish area around your nipple) may darken in color. To help manage these symptoms:

- Wear a supportive bra.
- Wear nursing pads if colostrum leaks, changing them often. Nursing pads can be purchased at any drug store.

Your uterus grows along with the growth of your baby.

- At 20 weeks gestation, your uterus should reach your umbilicus (belly button).
- Wear loose clothing.

You may have vaginal discharge during your pregnancy.
To help manage this symptom:

- Shower or bathe daily.
- Avoid douching.
- Wear cotton underwear instead of nylon.

*Call your doctor if the vaginal discharge increases or changes, if it becomes foul-smelling, or if you have any vaginal bleeding.*

# Glucose Screening for Gestational Diabetes

- Due to hormonal changes during pregnancy, 3% of women are diagnosed with gestational diabetes.
- Between week 24 - 28 your doctor will order a glucose screen. Sometimes medications (oral or insulin) are needed.
- If your glucose screening test is abnormal, your doctor will do a three-hour glucose tolerance test to see if you have gestational diabetes.
- If you are diagnosed with gestational diabetes, your doctor will discuss a special diet and exercise plan with you. Your doctor may refer you to a Certified Diabetes Nurse Educator and a nutrition counselor.
- Sometimes insulin is needed to control blood sugar levels and to minimize the effects of the gestational diabetes on your baby, such as excessive growth, risk of stillbirth, and risk of contracting diabetes.
- Gestational diabetes often goes away after giving birth. However, women diagnosed in pregnancy are at an increased risk of developing Type 2 or adult onset diabetes. These women will be carefully monitored postpartum.

## Notes

# Traveling During Pregnancy

Traveling is usually safe during pregnancy. The best time for travel is during the second trimester when the morning sickness is over and you are least likely to go into labor.

## Guidelines:

- Use seat belts, both lap and shoulder belts. Buckle the lap belt below your belly (See Car Safety, page 29).
- Don't get overtired. Rest frequently and limit your time sightseeing or being on your feet.
- Stop at least every two hours to stretch your legs and use the bathroom.
- Flying shouldn't be a problem, except on small private planes that don't have pressurized cabins. Most airlines require a note from a doctor after 36 weeks of pregnancy.
- If traveling out of the country, check immunization requirements and drink only bottled water.

## Notes

PATIENT HANDOUT

# Tdap vaccination during pregnancy

Society for Maternal-Fetal Medicine

By the Society for Maternal-Fetal Medicine (SMFM), with the assistance of Dr. Loralei L. Thornburg and the SMFM Education Committee

## Why is vaccination against pertussis (whooping cough) important during pregnancy?

In 2012, more than 48,000 cases of pertussis were reported in the United States. For people who have not been vaccinated, pertussis is highly contagious. Pertussis is easily spread through the air when infected people cough. Approximately 90% of those who are not immune to pertussis can become infected. Pertussis in adults can cause significant illness such as a severe chronic cough lasting up to 3 months, but in newborns it can be life-threatening. Recent studies have shown that almost 1% of infants who need to be hospitalized die from pertussis, usually due to pneumonia and seizures.

The majority of pertussis cases in the United States, specifically hospitalizations and deaths related to this infection, occur in infants younger than 3 months of age. Babies cannot be vaccinated until they are 2 months old, so a newborn is at risk of getting infected until he or she can receive a vaccine. Vaccinating women in pregnancy may reduce the likelihood that their babies will be exposed to pertussis.

## Is the vaccine safe during pregnancy?

Tdap (combined tetanus, diphtheria and pertussis) vaccination in pregnancy has been shown in studies to be very safe. The vaccine contains pertussis bacteria that have been made inactive and proteins from tetanus and diphtheria that contain no bacteria. There are no known harmful effects on the developing baby.

## When and how often should the pertussis vaccine be given?

The vaccine should be administered in the third trimester, between 27 and 36 weeks' gestation. Following vaccination, the pregnant woman produces antibodies against the bacteria. These antibodies cross the placenta to the fetus, protecting the newborn against infection after delivery. Pregnant women should receive a Tdap vaccine during every pregnancy, regardless of when prior vaccinations were given, in order to provide maximum protection for the newborn.

## Who else in the household should get a Tdap vaccine?

All family members and caregivers who will have contact with the newborn should also be sure that their Tdap "booster" vaccine status is up to date. Even if they received a standard tetanus booster within the past 10 years, they should get the Tdap vaccination at least 2 to 3 weeks before the baby is born, to make sure immunity has started to develop.

## What are some side effects of the Tdap vaccine?

The vaccine has very few side effects. Pain and redness can occur where the injection is given. Rarely, inflammation of the blood vessels where the injection is given can occur. If any pain, redness, or swelling persists beyond a few days, contact your doctor.

FROM THE PAGES OF Contemporary OB/GYN
Expert Advice for Today's Ob/Gyn

# Almost There

## True Labor or False Labor?

Contractions are your uterine muscles tightening up. If you put your hand on your abdomen (stomach) when you have a contraction, you can feel your uterus get hard. It will then get soft when the contraction is over. When contractions first start, they may feel like menstrual cramps or gas pains, but they may also start very strong and painful.

### True Labor

- Pain from the contractions starts in your back and comes around to your abdomen (stomach area).
- Your abdomen will feel hard when you have a contraction and softer when the contraction is over.
- The contractions will be regular, get stronger, last longer, and get closer together.
- Contractions do not change if you change activity.
- Resting or taking a warm bath or shower will not make them stop, but walking may make them stronger.

### False Labor

- False labor contractions are mainly felt in your lower abdomen and in your upper legs.
- False labor contractions may exhibit true labor symptoms for a while, but stop after a few hours.
- False labor contractions are short, irregular, do not become closer together, and do not get stronger.
- Changes in your activity may make the contractions stronger or closer together; or they may stop.

The timing and strength of your contractions may indicate if you are in true labor. However, sometimes the only way to tell for certain is to have your cervix checked by a doctor or nurse.

**Notes**

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## Preterm Labor

Any sign of labor before 37 weeks gestation is preterm labor. Most women will not experience preterm labor. However, it is important for you to be aware of the signs and symptoms.

- Contractions are felt as a tightening in the abdomen or in the lower back (similar to menstrual cramps). If these are not regular and not painful, they are known as Braxton-Hicks contractions. Your uterus is a muscle and this is the way it gets ready for labor. This is normal.
- If you are having frequent contractions (six or more in one hour) that are not going away, especially if they are painful or are accompanied by vaginal bleeding, you should let your provider know right away. This may be a sign of preterm labor.
- You may also notice increased clear to white vaginal discharge during pregnancy. This is normal. If your discharge becomes very heavy and/or changes color, contact your provider.

  If you think you are leaking clear fluid, wear a pad for a few hours. If the pad stays continuously wet, call your provider in case your water has broken early.

## Signs of Labor

Prelabor signs vary from woman to woman, and from one pregnancy to the next. Any of the following may occur as signs that labor may be starting:

- Lightening or engagement occurs when the baby drops or settles into your pelvis. You may notice less pressure on your stomach and lungs, and more pressure on your bladder. You may breathe easier, have less heartburn, but may have to urinate more often.
- "Nesting" may happen a day or two before labor begins. You may notice a sudden burst of energy. Take on one project at a time—you don't want to start labor exhausted!
- You may have a backache before labor starts or during labor. When your uterus contracts, it pulls on the muscles of your lower back. To help relieve your back discomfort, try a warm shower, massage, rest, and different positions.
- Increased vaginal discharge, which can be clear or pink mucous, is caused by the stretching of your cervix. This will typically occur between hours and up to a week before your labor begins. The plug of mucous, which fills the opening of your cervix, may release.

## Signs of Labor, continued

- You may experience flu-like symptoms like diarrhea, nausea, or mild cramps. This occurs from hours to days before labor starts. This is nature's way of cleaning out your body to make way for the baby. If you have these flu-like symptoms, rest and drink plenty of fluids.
- Contractions become less irregular.

# Monitoring Your Baby

Your doctor and nurses use various medical equipment to monitor your baby. A few of the more commonly used machines include:

- A hand-held tool, called a Doppler, which allows you to hear the baby's heartbeat beginning at 10 to 12 weeks.
- An ultrasound machine uses harmless sound waves to determine the size and position of your baby. It can also tell where the placenta is attached.
- Electronic fetal monitoring traces your baby's heartbeat and your contractions on a continuous piece of paper.

# When to Come to the Hospital

- Your contractions are five minutes apart or you are too uncomfortable to stay at home.
- Your water breaks. Even if you aren't feeling any contractions, you need to come to the hospital to be checked. This may be either a gush or just a trickle of fluid. Your nurse will need to know what time your water broke, the color of the fluid, how much fluid there was, and if it had an odor.
- You are leaking fluid. You may want to wear a pad to help absorb the moisture on your way to the hospital. This may also help your nurse know whether it is amniotic fluid that you are leaking.
- You have constant, abdominal (stomach area) pain or if you have bright red vaginal bleeding.
- You are more than two weeks from your due date and you feel that you are having contractions. Take into consideration how far away you live when making the decision when to leave for the hospital.

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**Notes**

# Getting Prepared

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Know how to contact your partner when it's time to go to the hospital, and make any arrangements in advance. In addition, consider the following:

- Arrange for a friend to be a back-up driver.
- Know the signs of labor and when to call the hospital.
- Make childcare arrangements for your older children.
- Have your bags packed well in advance of your due date.

## Make a Plan

We encourage you to make a birth plan so that we can individualize your care to your wishes as much as possible, while still maintaining safety for both you and your baby. This plan will help you:

- Communicate your preferences for pain relief in labor.
- Inform your care team about who will accompany you during birth.
- Clarify special concerns about the birthing process and newborn/postpartum care.
- Indicate a newborn medical provider for use after your hospital discharge.

When you arrive at the hospital, go to the registration desk (Monday-Friday, 8 am - 8 pm). They will call the Family Birth Center for you. If you arrive at the hospital between 8 pm and 8 am, on a weekend, or under urgent circumstances, use the Emergency Room entrance and check in at the desk.

# Packing list

## Checklist for mom

- ❑ Comfortable gown or t-shirt to wear during labor plan
- ❑ Eyeglasses (if needed)
- ❑ Lip balm for dry lips in labor
- ❑ Socks or slippers

## Checklist for partner

- ❑ Camera, video camera, film, extra batteries (ask about filming discretion)
- ❑ Cell phone/long distance calling card
- ❑ Deck of cards/reading material
- ❑ Health insurance information
- ❑ List of phone numbers to call when baby arrives
- ❑ Snacks and juice in a cooler
- ❑ Sugarless gum/candies
- ❑ Swimsuit to wear in shower while assisting mother

## Pain relief and massage

- ❑ Back massage tool or rolling pin
- ❑ Birthing ball (also available from the hospital staff)
- ❑ Ice pack or sturdy Ziploc bag (also available from the hospital staff)
- ❑ Massage oil or cornstarch
- ❑ Rice "socks" or bags to heat in microwave (also available from the hospital staff)
- ❑ Tennis ball (to roll against lower back)

**Notes**

## Notes

## Relaxation aids

- ❑ MP3 player or CDs of your favorite music (both soothing and energizing) to play on the hospital-provided stereo
- ❑ Favorite aromas (fragrance pillow, scented soap, or lotion)
- ❑ Favorite pillow or blanket (this may get soiled)
- ❑ "Focal point" object (special picture/small item)

## Postpartum checklist

- ❑ Baby book for footprints
- ❑ Baby name book (if you're the last-minute type)
- ❑ Cotton nightgowns (front opening for breastfeeding)
- ❑ Cotton underwear
- ❑ Journal
- ❑ Loose-fitting clothing to wear home
- ❑ Magazines or a book
- ❑ Nursing bras
- ❑ Robe and slippers
- ❑ Toiletries/cosmetics (be prepared for photo opportunities)

## Checklist for baby

- ❑ Baby blanket
- ❑ Extra bag to take gifts home
- ❑ "Going home" outfit
- ❑ Hat
- ❑ Infant car seat (be familiar with with and know how to install the car seat before baby arrives)
- ❑ Socks
- ❑ Sweater or bunting
- ❑ Undershirt

# Shopping for Your Baby

## Clothes Your Baby Will Need Right Away

*(size based on your baby's expected weight)*

- ❑ 4–6 pairs booties/socks
- ❑ 4–6 receiving blankets
- ❑ 4–6 sleepers
- ❑ 6–8 t-shirts/onesies
- ❑ Bonnet or cap
- ❑ Cloth diapers/burp cloths (for burping)
- ❑ Going home from the hospital outfit
- ❑ Outdoor clothing (consider the weather)

## Bath and Toiletry Supplies

- ❑ Alcohol and fragrance-free baby wipes
- ❑ Baby emery board
- ❑ Baby soap (fragrance and dye free)
- ❑ Brush and comb
- ❑ Diapers (sized by weight; plan for up to 14 diapers per day)
- ❑ Nasal bulb
- ❑ Q-tips for cleaning the umbilical cord
- ❑ Tear-free baby shampoo

## Breastfeeding Supplies

- ❑ 3–4 nursing bras (measure at 36 weeks)
- ❑ Disposable breast milk storage bags or fourounce plastic bottles
- ❑ Lanolin breast cream
- ❑ Manual breast pump
- ❑ Nursing pads

## Other Supplies

- ❑ Car seat
- ❑ Crib or bassinet

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# Pain Management

## Your Body, Your Plan

Your birthing plan should be as unique as you are. At Livingston HealthCare, we are pleased to offer you many options to relieve common discomforts of labor. Since each mother's experience is unique and each labor presents unique challenges, we feel that knowledge of all options is helpful. In order for you to fully understand the different types of pain management, the following is a brief description of each of the options that are available. As with all events during your labor, the decision to use these options will be made by you, with advice from your labor team.

## Maternity TENS

TENS (transcutaneous electrical nerve stimulation) is a small, portable electrical unit used for various types of painful conditions ranging from sports injuries to chronic pain.

TENS relieves pain in two ways. Electrical pulses (similar to an electrical massage) pass from the machine through electrodes placed on your skin. Pain relief is first felt by the blocking or interrupting of pain signals being sent to your brain, effectively making your brain unaware of pain. Secondly, the body is stimulated to increase its own production of natural painkillers known as endorphins and enkephalins.

### Benefits of TENS:

- Safe for mother and baby
- Drug free, non-invasive, and non-addictive
- No known harmful side effects to mother or baby
- Does not alter the normal course of labor
- Does not impair the mother's thought processes during labor
- Allows a mother to be completely mobile during labor
- Can be used with other forms of analgesia (pain relief)

## Aromatherapy

You can use aromatherapy in different ways:

- For massage, massage into the lower abdomen or the back. Make your own massage oil by adding 2–3 drops of clary sage, rose, or lavender and ylang-ylang or nutmeg oil in 5 tsp of almond oil.
- For a bath, try rose, cypress, or lavender.

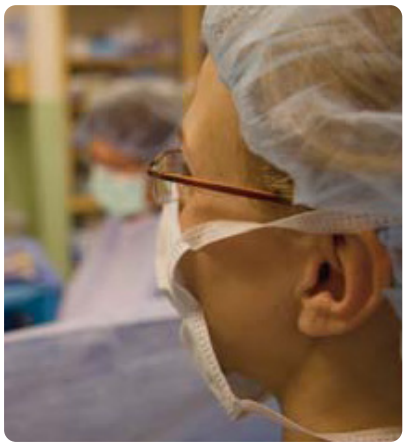
Aromatherapy scents can be purchased at health food stores and most pharmacies. You may also enjoy tub teas (available from health food stores). Make sure that you are not allergic to any of the oils or herbs and that you find the fragrances to be pleasant.

## Hydrotherapy

Relaxing shower spray and/or soaking in the deep water tub during labor is a popular and successful option to relieve labor discomforts. Livingston HealthCare does not offer "in-water" births, but almost all mothers can benefit from labor hydrotherapy.

## Nitrous Oxide

Nitrous oxide is a colorless, odorless breathed-in (inhalation) gas. The gas that is used for labor pain is a mixture of 50% nitrous and 50% oxygen. Each patient has a different experience using nitrous oxide. Most women claim that the gas helps "take the edge off' of the contractions and allows them to cope with labor better. Some report more pain relief, and less anxiety. Nitrous oxide is very safe for mother and baby, does not interfere with labor, the ability to push, or breastfeeding.



## Local Anesthesia

A medication is injected into the tissues of the perineum (the outer part of the birth canal) to numb the area during delivery, or afterward to place the stitches that repair torn areas.

### Notes

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## IV (Intravenous) Medication

Stadol and Fentanyl are commonly used IV medications. They promote a sense of relaxation and reduce the sensation of pain. This can reduce anxiety and allow you to focus on coping with the contractions of labor. When you receive these medications, you may feel sleepy. Mothers receiving IV pain relief will need to have their babies continuously monitored, and may be confined to bed for a period of time, depending on their reaction to the medication. Babies may show changes in heart rate tracings with these medications. If given too early in labor, progress may slow and if given too close to the birth, it may cause temporary breathing problems for the baby.

## Intrathecal Anesthesia

This injection into the spinal canal is fast acting and can include drugs to relieve the pain of contractions, as well as reduce painful sensations in the birth canal. It lasts several hours. Effects on the baby and mother are detailed on the consent form on page 50.

## Epidural Anthesthesia

Epidural anesthesia is medication(s) delivered from a tiny tube/catheter placed in the space just outside the spinal canal. Although its pain-relieving benefits take a few minutes to develop, epidural anesthesia can reduce the painful sensations from contractions, as well as baby's movement down the birth canal. It is safe, but requires close monitoring of mother and baby, and you will be confined to the delivery bed until the medication effects wear off (usually an hour or two after the birth). If a cesarean delivery is needed and epidural anesthesia is in place, this may be used as anesthesia for the delivery. Effects on the baby and mother are detailed in the consent form on page 49.

## Spinal Anesthesia

Spinal anesthesia is medication injected into the spinal canal to provide total numbness to the abdomen for cesarean delivery. A second medication is usually included which provides pain relief for the first 12 hours after surgery. Nausea, itching, and low blood pressure can occur—all can be treated safely by your anesthetist. A benefit to this anesthesia is being awake for the birth of your baby by c-section.

## General Anesthesia

With general anesthesia, intravenous and inhaled medications are used to put the mother to sleep. This option may be necessary if time is critical, such as instances of fetal distress, hemorrhage, or other emergencies. Monitoring of mother and baby are constant and careful, making this a safe, but infrequently required option.

## Possible complications/ risks from epidural anesthesia.

They are uncommon but have been reported in the medical literature.

- Failure to relieve pain (12–20%)
- Low blood pressure
- Temporary inability to urinate
- Temporary nausea and vomiting (<25%)
- Postdural puncture (spinal) headache (<10%)
- Persistent area of numbness/weakness of the legs
- Breakage of needles/ catheters etc., possibly requiring surgery
- Hematoma (blood clot) possibly requiring surgery
- Infection
- Rapid absorption of medication causing dizziness and seizures
- Temporary total spinal anesthesia (requiring life support)
- Respiratory or cardiac arrest (requiring life support)
- Back pain
- Fetal distress from one of the above complications
- Increased risk of forceps or vacuum assisted delivery and, in some studies, an increased risk of cesarean delivery

# Consent for Epidural Anesthesia

Epidural anesthesia is available for pain relief during labor. It is important that you realize how this procedure is done and what the risks and benefits are. An anesthetist who has been trained in epidural anesthesia will numb an area on your back, then place a tiny tube (catheter) into the space just outside the spinal canal. Local anesthetics with or without narcotic medications will then be slowly and continuously injected. The drugs will bind to pain receptors in your spine and give you pain relief. It frequently takes up to 30 minutes for full relief to occur.

The following are possible complications/risks from epidural anesthesia. They are uncommon but have been reported in the medical literature.

Because of these risks, you will be monitored closely and required to stay in bed for the duration of your labor plus several hours after. If this is not possible or acceptable for you, the medication will be turned off.

The potential benefits include much less pain in labor. You will be more alert than if you were given an equivalent amount of medicine in your IV. Your baby is exposed to lower doses of medicines. Having less pain may improve the effectiveness of your labor and place less stress on your baby.

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*I have read the above information and I understand it. I have had an opportunity to ask questions and I understand the risks and benefits of, as well as alternatives to, this procedure. I understand that I will be charged for this procedure and for the supplies and drugs necessary. I consent to epidural anesthesia for pain control during my labor.*

Name _____ Signature _____ Date _____

Witness _____ Signature _____ Date _____

# Consent for Intrathecal Narcotics

As your labor progresses you may request pain medication. One option is injection of a low dose of a narcotic into your spine. The advantage of this method is that it puts the medicine close to the actual pain receptors so it works very well. Very little of this medicine is released into your blood, therefore very little is given to your baby.

It is important that you realize how this procedure is done and what the risks and benefits are. An anesthetist or OB doctor who has been trained in spinal puncture will place a very small hollow needle between the bones in your spine and into the fluid-filled sac that surrounds the spinal cord. A narcotic pain-relieving drug will then be injected into the fluid. The drug will bind to the pain receptors in your spine and give you profound pain relief.

There are side effects. Most people will feel some itching and about 25% of people will experience nausea. Occasionally, less than 10% of the time, people will get a severe headache that may require a blood patch be placed on the small hole in the fluid-filled sac. It is possible that you could experience oversedation, infection, nerve damage, or a reaction to the narcotic, but it is extremely unlikely. If bleeding should press on your spinal nerves, you would need an operation to evacuate the blood clot. However, this is extremely unlikely.

Keep in mind that thousands of women have received intrathecal narcotics for labor and no cases of serious injury from this procedure have been reported. The pain relief will be temporary, generally lasting two to four hours.

The potential benefits are many: you will have much less pain, you will be much more alert than if you were given an equivalent amount of pain medicine through your IV, and having less pain may improve the effectiveness of your labor.

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*I have read the above information and I understand it. I have been given the opportunity to ask questions and I understand the risks and benefits of this procedure. I understand that I will be charged for this procedure and for the drugs and supplies that are necessary. With this understanding, I consent to intrathecal narcotics for pain control during my labor.*

Name _____ Signature _____ Date _____

Witness _____ Signature _____ Date _____

# Consent for Nitrous Oxide

What is it exactly? Nitrous oxide for labor pain is a mixture of 50% nitrous and 50% oxygen that is inhaled through a mask that a woman holds and self-administers, as she wishes. A version of nitrous oxide is used widely in dental offices where most people know it as "laughing gas". The blend that's used in laboring women is not as strong and is not considered an anesthetic. While using nitrous, the pain may still exist for some women, but the gas should decrease the intensity and reduce anxiety. It is the most commonly used labor analgesic world-wide. It has been widely used in Western Europe and Canada for decades.

How does it work? You hold your own mask and begin to inhale the gas mixture about 30 seconds before a contraction begins. Starting to inhale before a contraction begins helps the gas reach its peak effect at about the same time as the contraction reaches its peak, providing the greatest relief. After exhaling a few times, the nitrous oxide completely leaves your body. *Nobody besides the patient can hold the mask or use the equipment.*

Does it have side effects? Some women have reported dizziness or nausea after prolonged use. Medication to help ease the nausea is available if that happens. It can also cause some unsteadiness when upright. A staff member will assist you when you want to get out of the chair or bed.

Are there any effects on the baby? Some animal studies have shown effects on animal babies and it is not known, if in the future, there may be proven some negative effect on humans. Nitrous oxide has been used throughout the world for labor pain control for many decades and is considered safe. It does not linger in the mother's or baby's body so does not affect baby's breathing or alertness after birth.

Can I still be out of bed and use nitrous? We want you sitting or lying down while breathing in nitrous oxide. You need assistance during ambulation when nitrous therapy is in use.

Do I need an IV? You will not need an IV specifically for nitrous oxide; however, you may need an IV for other reasons.

Can I use nitrous and have intravenous narcotics or an epidural at the same time? The combination of narcotics and nitrous can slow your breathing and affect your oxygen levels. If it is necessary to combine these pain relievers, your oxygen level must be monitored continuously and, if low, the nitrous will be discontinued.

Can I use nitrous in the tub? Yes, however, we will want to be sure we know how you will respond to nitrous before hydrotherapy is initiated. A nurse must be present when you get in and out of the tub.

# Consent for Nitrous Oxide *continued*

Are there any reasons I could not use it? Yes, you cannot use it if:

- you cannot hold your own facemask
- you cannot stay awake or alert
- you cannot maintain y-our blood oxygen at a healthy level
- your baby's heart rate shows that he/she is not tolerating labor
- you have a vitamin B12 deficiency
- you have abnormal air-containing cavities (e.g. pneumothorax, air embolism, middle ear surgery).

*I have read the above information and I understand it. I have had an opportunity to ask questions and I understand the risks and benefits of, as well as alternatives to, this procedure. I understand that I will be charged for this procedure and for the supplies and drugs necessary. I consent to epidural anesthesia for pain control during my labor.*

Name _____ Signature _____ Date _____

Witness _____ Signature _____ Date _____

# Delivering under Special Circumstances

## Patient Information for Operative Vaginal Delivery (Forceps or Vacuum)

During labor, your physician may recommend delivering your baby with the assistance of forceps or vacuum extractor. These instruments are safely used for a number of reasons, including the following:

- Suspicion of immediate or potential harm to the fetus
  (for example, nonreassuring fetal heart-rate patterns)
- Prolonged second (pushing) stage of labor
- Maternal exhaustion or medical conditions requiring shortened second (pushing) stage

In most situations, the alternative to a vaginal delivery using forceps or vacuum is Cesarean section. This information, plus a discussion with your caregivers, will give you objective information about the potential benefits and risks of an operative delivery, so that you can make an informed decision about accepting or refusing the procedure. The choice of instrument to use for operative vaginal delivery (either vacuum or forceps) usually rests with the clinical judgment and experience of your doctor.

- In a vacuum-assisted delivery, a suction cup is placed on your baby's head. As you push, suction is applied and the doctor pulls.
- In a forceps delivery, forceps are applied around the baby's head and rest over his or her cheeks. While you push, the doctor pulls.

Delivery may require several contractions. During a natural birth, the baby's scalp can become swollen and the scalp bones can be pressed together. The vacuum or forceps can make the swelling or molding of the scalp bones more visible. However, as with a routine vaginal birth, the baby's head will usually return to a normal shape within one or two days.

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## Potential Benefits of Operative Vaginal Delivery

In recommending a forceps- or vacuum-assisted delivery, your physician has made certain that specific criteria have been met and there is a reasonable chance of success. The benefits of a forceps or vacuum delivery include, but are not limited to:

- Safe and rapid delivery of the baby
- Prevention of the need for a Cesarean section
- Improved recovery compared to a Cesarean delivery (less blood loss, shorter recovery and hospital stay, more time and energy for mother-baby bonding and for caring for any older children)
- Lower risk of surgical complications or problems in future pregnancies (for example, abnormal placental location or more difficult Cesarean deliveries)
- Enabling the mother to remain active and participatory

## Potential Risks of Operative Vaginal Delivery

Your physician is trained in the safe use of forceps and vacuum, and has been granted privileges by the hospital to use them when appropriate. Despite this, complications can and do occur. In recommending the use of forceps or vacuum, your physician believes the risks are unlikely, and are outweighed by the benefits of an expedited delivery. When comparing operative vaginal delivery to the alternative, Cesarean section after labor, the risks to the baby are similar. They include, but are not limited to:

- Trauma to the mother's birth canal and/or rectum, which may require suturing, but which usually heals completely. Such injuries may cause future problems with bowel or bladder function.
- Failure to deliver vaginally (need for Cesarean, after all).
- Difficulty delivering the fetal shoulders (shoulder dystocia), an uncommon event that may result in damage to the nerves of the baby's arm or in a broken arm or collarbone.
- Trauma to the baby's head, such as bruising or small skin lacerations. Such trauma is usually minor and resolves within a few days. Rarely, there could be more serious injury to the baby, including temporary or permanent damage to the nerves of the face or bleeding in the brain.

## Family-Centered Cesarean Birth

Care of parents experiencing a cesarean birth should be family-centered rather than surgery centered. In hospitals where family-centered maternity care has been extended to the cesarean birth family, there is no evidence of harm to mother or baby. The experience of cesarean birth, either elective or emergency, provokes anxiety for most women and families. A number of options, however, can be made available to facilitate a family-centered cesarean birth.

- Enable partner/support person to remain with the mother during the physical preparation
- Provide regional anesthesia where possible
- Enable partner/support person to be in the birth room in nonemergency situations
- Enable photos/videos of baby to be taken
- Free the mother's hands from restraint, allowing contact with partner and baby
- Provide opportunity for both parents to interact with baby in birth room and recovery
- Provide opportunity for breastfeeding in birth room and recovery
- If baby must go to nursery for special care, have partner accompany baby and remain with the infant until both are reunited with mother
- Keep mother informed of baby's status in nursery AND reunite family in recovery as soon as possible
- Institute mother/newborn nursing care as soon as possible and do not routinely separate mothers and babies
- Include the family in the teaching or caretaking skills
- Include siblings according to the family's wishes

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# The Advantages of Mother-Baby Nursing

In mother-baby nursing, one nurse cares for mother and baby together. This might sound simple and logical, but many hospitals do not have mother-baby nursing. Instead they have "mother nurses" who take care of women after they've had a baby and "baby nurses" who take care of newborns—usually in a nursery. While having different nurses for mother and baby may sound like specialized care, it can actually be an exercise in confusion, missed opportunities, and inflexibility. You see, when more than one nurse is involved in caregiving, signals can get crossed. Messages can get lost or confused.

Mother-baby nurses care for both mother and baby, and they nurture bonding and attachment in the new family. In fact, with mother-baby nursing, the nurse cares for the whole family. Dad and other family members are included—whomever the new mother calls "family." The daily schedule is adjusted to family needs. Each morning the mother-baby nurse helps the new mother plan her day. Care is flexible for each family according to their needs—not according to some rigid hospital schedule.

## There are many benefits for the family with mother-baby nursing:

- Mother's and baby's doctors work with the same nurse rather than with two separate nurses. At shift change the needs and wants of each mother-baby couplet are easily passed on to the next nurse.

- Questions are answered more quickly. In most hospitals, if a mother has a question about her baby and she asks them of the postpartum nurse, she's likely to hear, "I don't know. You'll have to ask the nursery nurse." Or perhaps the mother's nurse will go to the nursery nurse and find out the answer. With mother-baby nursing, one nurse doesn't have to ask another nurse. One nurse knows the answer and can tell the mother right away. She knows because she us taking care of both mother and baby.

- Families have a closer relationship with the nurse. Because there are fewer nurses to relate to, the mother and nurse are more likely to develop a feeling of trust, caring, and comfort.
- Families receive more education. The mother-baby nurse demonstrates baby care as she takes care of the infant at the mother's bedside.
- Mothers don't miss special moments with their baby. When the baby spends most of its time in the nursery, mothers miss lots of gurgles and coos. With mother-baby nursing, most infant care takes place in the mother's room so the mother can share those special moments.
- Families know their baby is receiving good care. Because the nurse cares for the baby in the mother's room, families see the care their babies receive. No one has to wonder whether their baby is the one they hear crying in the nursery.
- There is increased security. Nobody likes to think about it, but mother-baby nursing increases security. There are fewer opportunities for someone to kidnap a baby, as infants are not constantly traveling between the mother's room and the nursery. Having a mother-baby nurse reduces the number of people caring for a family and makes the appearance of strangers more obvious.

Mother-baby nursing makes sense for new families. Parents have greater involvement with their baby's care, their bonding and attachment with their new born are strengthened, and they leave the hospital more confident in their parenting skills.

**Notes**

# The Postpartum Period

After carrying your baby for nine months, you're probably more than ready to get your body back to normal. But it doesn't quite happen that way. Recovery from pregnancy and childbirth takes time, and it helps to know what to expect. Here's what's normal in the first few weeks after a vaginal delivery, what's not (call your health provider for these), and what you can do to deal with the normal postpartum changes.

## Constipation

### What's normal

You probably won't have a bowel movement for two to three days after delivery. And it may be uncomfortable if you strain to have your first one.

### What's not

Let your healthcare provider know if you don't have a bowel movement within five days of delivery.

### What you can do

To get things going again, drink eight to ten glasses of water a day, eat a diet high in fiber (whole grains, fruits, and vegetables), and take a stool softener if your healthcare provider recommends it. If straining is uncomfortable, hold a clean sanitary pad against your perineum and press upward while you bear down to relieve pressure on the area.

## Cramps

### What's normal

In the first few days after delivery, you may experience pains that feel like menstrual cramps. These are uterine contractions called afterbirth pains, and they serve a purpose: they help your uterus shrink back down (to about the size of a grapefruit), and they help prevent excessive bleeding by clamping down on the blood vessels of the uterus. These pains may last for several days after you deliver, and may be more noticeable during breastfeeding.

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### What's not
A fever or a tender abdomen could mean a uterine infection.

### What you can do
Take warm showers as often as you can. Lie on your front, and put a pillow or a warm pack under your stomach. Empty your bladder often, because a full bladder puts pressure on the uterus which can worsen cramping. If the cramps are severe, ask your healthcare provider about medication to help.

## Difficulty Urinating
### What's normal
Swelling in the area around the bladder can make it difficult to pass urine for a while after delivery. You may also be anxious about the stinging caused when urine touches the sore perineal area.

### What's not
Having to urinate very frequently or feeling pain when you urinate could be signs of a urinary tract infection.

### What you can do
Make sure you're getting enough fluids by drinking eight to ten glasses of water a day. To relax the opening of your bladder, breathe slowly and deeply. You can also try running tap water, or pouring warm water over your perineal area to stimulate the flow of urine and minimize soreness.

## Hair Loss
### What's normal
High hormone levels during pregnancy act to prevent normal hair loss. But once those levels drop, your hair will too.

### What's not
The shedding shouldn't last more than six months. After that point, your hair should be back to normal.

### What you can do
Don't overbrush your hair and try to stay away from hair dryers, curling irons, and products with strong chemicals.

## Leaking Urine

### What's normal

Because pregnancy and delivery strain the muscles and nerves around the bladder, you may find that you leak urine when you laugh, cough, or sneeze.

### What's not

This problem usually clears up by itself within three months; let your healthcare provider know if it doesn't.

### What you can do

Kegel exercises can help strengthen the muscles around the opening of the bladder. Until then, sanitary pads can catch the leaking urine.

## Perineal Pain

### What's normal

Pain and soreness in the area between the vagina and the rectum is quite common after delivery, especially if you had an episiotomy or the area tears during delivery.

### What's not

Call your healthcare provider if the pain gets worse or if the area becomes hot and swollen and you notice a pus-like discharge. These may be signs of infection.

### What you can do

Sitz baths, cold packs, and warm water poured on the area from a pitcher or a squirt bottle can be soothing. You can also try applying witch-hazel pads (commonly used for hemorrhoid care). Chill the pads for an even more soothing effect.

## Sore, Swollen Breasts

### What's normal

About three to five days after delivery, your breasts will fill with milk. This process, called engorgement, can cause your breasts to become swollen, heavy, tender, and hard.

### What's not

If the engorgement doesn't go away in three days, or if your breasts are hot to the touch or very reddened, call your healthcare provider.

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### What you can do

Wear a supportive bra, and try placing an ice pack under each armpit to reduce the swelling. To get your milk flowing, stroke your breasts gently but firmly toward the nipple. Expressing the milk, preferably by feeding your baby, can help. If your breasts are so engorged that your baby cannot latch on and breastfeed, call a lactation consultant for some guidance.

## Vaginal Discharge

### What's normal

You can expect to have vaginal discharge and bleeding, called lochia, for as long as two months after delivery (although it may stop sooner). It starts off heavy and bright red for the first days, then turns brown, and then gradually lightens in both color and amount. In the beginning, you may find that you have a gush of discharge when you sit or stand up after lying down.

### What's not

Let your healthcare provider know if you pass clots that are larger than a plum, or if you feel dizzy. Tenderness of your abdomen, discharge that has a foul odor, or a fever of 100.5°F or higher could be signs of infection.

### What you can do

To avoid infection, use sanitary pads instead of tampons, and do not resume intercourse until your doctor notes that it is safe.

### When to Call for Help

Call your healthcare provider if you experience any of the following symptoms:

- Coughing or chest pain
- Leg tenderness or redness
- Nausea or vomiting
- Headaches that do not respond to acetaminophen/ibuprofen
- Visual disturbances
- Significant swelling of face and hands
- Feelings of depression for more than two or three days
- Suicidal thoughts, or thoughts of harming your baby

# Breastfeeding

## Benefits of Breastfeeding

- Gives complete nutrition to your baby.
- No preparation, heating, refrigeration, or sterilization is needed.
- Breast milk is less expensive than formula.
- Baby is less likely to have allergies, colds, ear infections, diarrhea, colic, diaper rash, and eczema (skin rash).
- Babies have a lower risk of juvenile onset diabetes if breastfed exclusively for at least four months.
- Women who breastfeed are less likely to develop ovarian and pre-menopausal breast cancers.
- Mothers who breastfeed are more likely to return to their prepregnancy weight than mothers who formula feed.
- Reduced risk of long-term obesity for mother and child.

## Breastfeeding Preparation

- The Nursing Mother's Companion, by Kathleen Huggins, RN, MS
- The Womanly Art of Breastfeeding, by La Leche League International
- Laugh & Learn About Breastfeeding (DVD)

## How It Works

The size of your breast does not affect your ability to breastfeed. The baby's sucking causes your brain to release hormones that cause the milk glands to contract and forces the milk into the milk ducts. The nipple is squeezed between the roof of the baby's mouth and tongue during nursing.

## Nipple Preparation

No special preparation is needed to "toughen" the nipples. If you have flat or inverted nipples, it is still possible to breastfeed.

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## Getting Started Breastfeeding

The first hour of a baby's life is an excellent time to start breastfeeding. Babies tend to be more quiet, alert, and eager to nurse at this point. To encourage breastfeeding, keep your baby skin to skin with you.

The first milk—colostrum—is formed during pregnancy and provides protein, vitamins, minerals, and antibodies that help keep your baby healthy.

You and your baby should nurse 10–12 times every 24 hours during the first days after birth. Frequent nursing encourages your body to produce more milk.

## Feeding Cues

Watching your baby for feeding cues will help you know the best time to nurse. Newborn babies do not always cry to indicate they are ready to nurse. Newborns have more subtle signs that they are hungry. When your baby shows any of these cues, offer the breast.

- Rapid eye movement under the eyelids while asleep
- Mouth open
- Turning toward breast with mouth open
- Little sucking movements, often with hand to mouth

Many problems with nursing, like sore nipples and engorgement, can be avoided with proper nursing position and latch. The OB staff and Certified Lactation Counselors will be there to help make sure your baby is latched on correctly.

## Local Breastfeeding Support

| | |
|---|---|
| Livingston HealthCare Family Birth Center | 222–3541/823–6433 |
| La Leche League Help Line | 582–5688 |
| Women, Infants, and Children (WIC) | |
| WIC Livingston | 222–4189 |
| WIC Bozeman | 582–3116 |

## Breast Pump Rentals

*Please call to verify type of pumps, availability, and price.*

| | |
|---|---|
| Livingston HealthCare | 823-6433 |
| Bozeman Lactation Department | 585-5000 |
| Marianne Donsch | 570-4359 |
| Women, Infants, and Children (WIC)<br>WIC Livingston | 222-4189 |

## Nutrition during Breastfeeding

- Continue to add 250–300 calories to your daily diet.
- Continue to take your prenatal vitamins.
- Consume 2,000 IU of vitamin D a day or speak with your pediatric provider about infant vitamin D supplements.

## Birth Control during Breastfeeding

If you want to begin using birth control after the birth of your baby, there are many options to choose from. There are advantages and disadvantages to each method.

While you are exclusively breastfeeding (nursing frequently day and night with no supplemental feedings), your baby is younger than six months of age, and you have not yet started having periods again, you are more than 98% protected against pregnancy. Once breastfeeding decreases (due to the baby eating supplemental feedings or nursing less often) so does your contraceptive protection, and other methods should be considered.

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Discuss birth control options with your doctor well before you become fertile again. Following is what you should know about your choices *while you are still nursing.*

## Before starting any birth control while breastfeeding, talk to your doctor.

- **Nonhormonal methods are preferred.** These options range in effectiveness; discuss them with your doctor for more information. These methods include:
  - *Condoms*
  - *Diaphragms*
  - *Intrauterine Devices (IUDs)*
  - *Spermicides*
- **Permanent methods are also available,** such as vasectomy and tubal ligation, which have no effect on breastfeeding and are nearly 100% effective.
- **If you choose a hormonal method of birth control, several progestin-only solutions are available,** such as Nexplanon (implant), mini-pills, and injectables (Depo-Provera). All of these methods can be very effective, and may even increase milk volume. Although some of the progestin hormone may enter the breast milk, there is no evidence of adverse effects from the small amount of hormone that passes into the milk. It is recommended that the use of progestinonly hormones be delayed for at least six weeks postpartum due to the possibility of the hormones interfering with the early establishment of lactation.
- **Birth control methods that contain estrogen** are very effective, but can sometimes decrease milk supply, and some of the hormone may pass into the mother's milk. There is no evidence of a direct negative effect on the babies of mothers taking the combined pill. Diminished milk supply will return to normal upon discontinuation of the pill.

# Keeping Breast Milk Safe and Healthy

**Key Points:**

- Breast milk is the best food for babies in the first year of life. It helps your baby grow healthy and strong
- Eat healthy foods and take a multivitamin or prenatal vitamin each day to make sure your breast milk is full of nutrients for your baby
- You can pass harmful things, like alcohol, drugs and lead, to your baby in breast milk. This can cause serious problems for your baby
- Don't smoke, drink alcohol or use harmful drugs when you're breastfeeding
- Talk to your health care provider to make sure any medicine you take is safe for your baby during breastfeeding

## Can what you eat and drink affect your breast milk?

Yes. Nutrients in foods and drinks help make your breast milk healthy. When you're breastfeeding, eat healthy foods, like fruits, vegetables, whole-grain breads and lean meats. Eat fewer sweets and salty snacks. You may need 250 to 300 extra calories a day when you're breastfeeding to make breast milk for your baby.

Drink lots of water. It's important to stay hydrated (have fluid in your body) when you're breastfeeding. Drink when you're thirsty. A simple way to make sure you drink enough water is to have a glass each time you breastfeed.

Limit caffeine when you're breastfeeding. Caffeine is a drug that's found in things like coffee, tea, soda, chocolate and some energy drinks and medicines. Too much caffeine in breast milk can make your baby fussy or have trouble sleeping. If you drink coffee, have no more than two cups a day while you're breastfeeding.

## Do you need to take vitamins or supplements when you're breastfeeding?

Yes. Nutrients in foods and drinks help make your breast milk healthy. When you're breastfeeding, eat healthy foods, like fruits, vegetables, whole-grain breads and lean meats. Eat fewer sweets and salty snacks. You may need 250 to 300 extra calories a day when you're breastfeeding to make breast milk for your baby.

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**Notes**

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Here are some nutrients you may need supplements for during breastfeeding:

**DHA.** DHA stands for docosahexaenoic acid. It's a kind of fat (called omega-3 fatty acid) that helps with growth and development. If you're breastfeeding, you need 200 to 300 milligrams of DHA each day to help your baby's brain and eyes develop. You can get this amount from foods, like fish that are low in mercury, like herring, salmon, trout, anchovies and halibut. Or you can get it from foods that have DHA added to them, like orange juice, milk and eggs. If you don't get enough DHA from food, you can take a DHA supplement. It may be in your prenatal vitamin.

**Iodine.** When you're breastfeeding, you need 290 micrograms of iodine each day. Iodine in your breast milk helps your baby's body make thyroid hormones that help his bones and nerves develop. You may not get enough iodine from food you eat. And not all multivitamins and prenatal vitamins contain iodine. (Check labels) You can get iodine by:

- Eating foods that are high in iodine, like fish, bread, cereal and milk products
- Taking an iodine or iodide supplement. Iodide is a form of iodine
- Using iodized salt. This is salt that has iodine added to it. Read the package label to make sure your salt is iodized

**Vitamin B12**. Vitamin B12 in your breast milk supports your baby's brain development and helps him make healthy red blood cells. You can get vitamin B12 from foods, like meat, fish, eggs, milk and products made from milk. Or you may need a supplement. Ask your provider about taking a vitamin B12 supplement to make sure you and your baby get the right amount. You may need extra vitamin B12 if you:

- Are a strict vegetarian or vegan. A vegetarian is someone who doesn't eat meat and mostly east foods that come from plants. A vegan is someone who doesn't eat meat or anything made with animal products, like eggs or milk

- Have had gastric bypass surgery. This is surgery on the stomach and intestines to help you lose weight
- Have digestive conditions, like celiac disease or Crohn's disease. These conditions affect how your body digests (breaks down) food

Don't take herbal supplements, like ginkgo or St. John's wort, when you're breastfeeding. Even though herbs are natural, they may not be safe for your baby when taken in concentrated amounts. It's best not to use these products while you're breastfeeding unless your provider has checked them for safety.

## Can smoking while breastfeeding hurt your baby?

Yes. Don't smoke or use e-cigarettes ("vape") if you're breastfeeding. Nicotine is a drug found in cigarettes. It passes to your baby in breast milk and can cause problems, like:

- Making your baby fussy
- Making it hard for your baby to sleep
- Reducing your milk supply so your baby may not get all the milk he/she needs

Secondhand smoke also is bad for your baby. Secondhand smoke is smoke from someone else's cigarette, cigar or pipe. It can cause lung and breathing problems. Babies of mothers who smoke are more likely than babies of non-smokers to die from Sudden Infant Death Syndrome (also called SIDS). SIDS is the unexplained death of a baby younger than 1 year old.

If you do smoke, it's OKAY to breastfeed. But smoke as little as possible and don't smoke around your baby.

## Can you pass alcohol or street drugs to your baby through breast milk?

Yes. Don't drink alcohol when you're breastfeeding. Alcohol includes beer, wine, wine coolers and liquor. After you ingest alcohol, it passes into your breast milk within 30-60 minutes at levels similar to those found in your bloodstream. Among women who drink heavily, alcohol levels are higher in their breastmilk than in their blood.

Maternal alcohol consumption in various amounts has been shown to reduce milk flow and to cause side effects in babies such as slowed motor development, altered sleep-wake patterns and decreased milk intake. There is no known safe level of alcohol in breast milk.

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Using low levels of alcohol during lactation does not mean you should stop breast feeding. Wait at least 2 hours after each drink before you breastfeed. If you have more than 1 drink in a couple hours, you should pump and dump/discard your milk before breastfeeding again.

You also can pass drugs, like heroin/narcotics, cocaine, and methamphetamine to your baby through breast milk. Tell your health care provider if you need help to quit using these drugs.

If you're breastfeeding, don't use marijuana. It's not safe for your baby. You will pass THC (the active substance that causes the "high") and other chemicals from marijuana to your baby through breast milk. Because THC is stored in body fat, it stays in your body for a long time. A baby's brain and body are made with a lot of fat. Since your baby's brain and body may store THC for a long time, you should not use marijuana while you are pregnant or breastfeeding.

Breast milk also contains a lot of fat. This means that "pumping and dumping" your breast milk may not work the same way it does with alcohol. Alcohol is not stored in fat so it leaves your body faster.

If you breastfeed your baby and use marijuana, your baby may be at increased risk for problems with brain development. Marijuana also may affect the amount and quality of breast milk you make. Even if marijuana is legal to use in your state, don't use it when you're breastfeeding.

Because CBD (cannabidiol, derived from marijuana and hemp) is an unregulated substance, using it while breastfeeding (either in edibles or on the skin in oils, lotions, etc) is NOT recommended. Use of CBD products may expose your baby to contaminants like THC and other chemicals used in growing and processing the hemp or marijuana.

## Are prescription medicines safe to take when you're breastfeeding?

Some are, and some aren't. A prescription medicine (drug) is one your provider says you can take to treat a health condition. Some prescription drugs, like medicine to help you sleep, some painkillers and drugs used to treat cancer or migraine headaches, aren't safe to take while breastfeeding. Others, like certain kinds of birth control, may affect the amount of breast milk you make. Some prescription medications are safer taken in pregnancy than they are when breastfeeding.

Here's what you can do to make sure prescription medicine you take is safe for your baby when you're breastfeeding:

- Talk to your health care provider and your baby's provider about breastfeeding before your baby is born. Tell each provider about any medicine you take. If you take a medicine that's not safe for your baby, your provider may switch you to a safer one. Don't start or stop taking any medicine during breastfeeding without talking to your providers first.
- Make sure any provider who prescribes you medicine knows that you're breastfeeding. Check with your provider even if you take medicine that's usually prescribed for your baby, like baby aspirin.
- Tell your baby's provider if your baby has any signs that may be a reaction to your medicine, like diarrhea, sleepiness, a change in eating or crying more than usual.

If you have a chronic health condition and you plan to breastfeed, talk to your providers about how your condition affects breastfeeding. You most likely can breastfeed even with a chronic health condition. Your provider can help you make sure that any medicine you take is safe for your baby. A chronic health condition is one that lasts for 1 year or more. It needs ongoing medical care and can limit a person's usual activities and affect daily life. Examples are diabetes, high blood pressure, obesity and depression. Chronic health conditions need treatment from a health care provider.

## Is it safe to take prescription opioids when you're breastfeeding?

Prescription opioids are painkillers your provider may prescribe if you've been injured or had surgery or dental work. They're sometimes used to treat a cough or diarrhea. If you had a lot of stitches or a cesarean birth (also called a c-section), your provider may prescribe an opioid to help relieve your pain.

Opioid use during pregnancy is the most common cause of neonatal abstinence syndrome (also called NAS). NAS is a group of conditions caused when a baby withdraws from certain drugs she's exposed to in the womb before birth. If your baby has NAS, breastfeeding may help make her symptoms less severe. This may help her need less medicine and be able to leave the hospital sooner. If your baby has NAS, talk to your provider and your baby's provider about breastfeeding and how to make sure it's safe for your baby.

If you're using prescription opioids with your provider's supervision, you can breastfeed depending on the opioid you take. Some opioids can cause life-threatening problems for your baby. Make sure the provider who prescribes you the opioid knows you're breastfeeding,

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and take the medicine exactly as our provider tells you to. If you take any of these opioids, talk to your provider about switching to a safer medicine:

- Codeine or medicines that contain codeine
- Meperidine
- Tramadol

If you're breastfeeding and taking tramadol, codeine or medicines that contain codeine, call your baby's provider or emergency services (911) right away if your baby:

- Is sleepier than usual. Breastfed babies usually eat every 2 to 3 hours and shouldn't sleep more than 4 hours at a time.
- Is limp
- Has trouble breathing
- Has trouble breastfeeding

If you're in treatment for opioid use disorder with medicines like methadone or buprenorphine (also called medication-assisted therapy or MAT), you can breastfeed your baby if:

- Your health is stable and you're no longer misusing opioids or using other drugs, like cocaine, meth or marijuana
- You don't have HIV. HIV is the virus that causes AIDS
- Your treatment is closely supervised and monitored
- You have social support from friends and family throughout your treatment
- Your baby continues to gain weight as you breastfeed

## Are over-the-counter medicines safe to take when you're breastfeeding?

Most over-the-counter (also called OTC) medicine, like pain relievers and cold medicine, are OK to take when you're breastfeeding. For example, OTC pain relievers like ibuprofen (Advil®) or acetaminophen (Tylenol®) are safe to use when breastfeeding. Here's what you can do to help make sure an OTC medicine is safe for your baby:

- Don't take an OTC medicine during breastfeeding without talking to your provider first. If you take a medicine that's not safe for your baby, your provider can recommend a safer one.
- Read the label on the package for information about how an OTC drug may affect breastfeeding.
- Take the smallest dose (amount) of medicine to help lessen the amount that gets passed to your baby in breast milk.
- Don't take medicine that is extra-strength, long-acting (you take it just once or twice a day) or multi-symptom (treats more than one symptom). These medicines may have larger doses that stay in your body and breast milk longer than medicines with smaller doses.
- Tell your baby's provider if your baby has signs of reaction, like diarrhea, sleepiness, a change in eating, or crying more than usual.

## What medical conditions make breastfeeding unsafe for your baby?

Breastfeeding may be harmful to a baby if:

- You have HIV. You can pass HIV to your baby through breast milk.
- You have cancer and are getting treated with medicine or radiation.
- You have human T-cell lymphotropic virus. This is a virus that can cause blood cancer and nerve problems.
- You have untreated, active tuberculosis. This is an infection that mainly affects the lungs.
- Your baby has galactosemia. Babies with this genetic condition can't digest the sugar in breast milk (or any kind of milk). They can have brain damage or even die if they eat or drink breast milk, milk or anything made with milk. Babies with galactosemia need to eat a special formula that is not made with milk of any kind. Your baby gets tested for this condition soon after birth as part of newborn screening.
- If you've had breast surgery or piercing, it's most likely safe to breastfeed. Breast surgery includes getting implants, having a breast reduction or having a lump removed. Piercing means inserting jewelry into the breast, including nipple piercing. If you've had surgery or piercing, talk to your provider or lactation consultant. A lactation consultant is a person with special training in helping women breastfeed.

## If you've been exposed to lead, is it safe to breastfeed?

It depends on the amount of lead you have in your body. Lead is a metal that comes from the ground, but it can be in the air, water and food. You can't see, smell or taste it. High levels of lead in your body (called lead poisoning) can cause serious health problems.

If you think you've been exposed to lead and are breastfeeding or planning to breastfeed, tell your provider. She can test your lead levels to see if breastfeeding is safe for your baby. If you have more than 40 micrograms/dL of lead in your system, it's not safe to breastfeed. Pump your breast milk and throw it out until your lead levels are safe.

More information

- American Academy of Pediatrics
- La Leche League International
- International Lactation Consultant Association
- womenshealth.gov/breastfeeding

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# Routine Newborn Testing and Medications

There are medications and tests that are routinely given to newborns in the first days of life while they are in the hospital.

## Erythromycin Ointment

This eye ointment is given to the newborn within the first hour of birth. It protects the baby from a condition called "Ophthalmia Neonatorum," an eye infection that can lead to blindness, corneal tears, or ulcers of the eye. It is Montana law that all newborns get this ointment within the first hour of birth.

## Vitamin K

Vitamin K is given by injection to the newborn. Infants are born lacking vitamin K because they don't have the bacteria in their intestines that normally produces vitamin K until they begin eating. Vitamin K helps the blood clot. Without it, there is a greater risk of excessive bleeding. "Hemorrhagic Disease of the Newborn" can cause bleeding into the GI tract, brain, ear, nose, throat, anus, and at the belly button. This is a completely preventable disease that affects two percent of untreated babies who do not receive vitamin K.

## Newborn Hearing Screen

This painless, noninvasive test will be done before your baby is discharged home from the hospital. The nurse or respiratory therapist will use an instrument to check the baby's hearing. Soft sounds are presented to your baby's ear through tiny soft probes placed in their ear canals. The instrument automatically analyzes the echo that is returned from the baby's ear. The machine gives a PASS/REFER result. PASS means that your baby's hearing doesn't need additional testing at this time. REFER means that your baby will need to be rescreened.

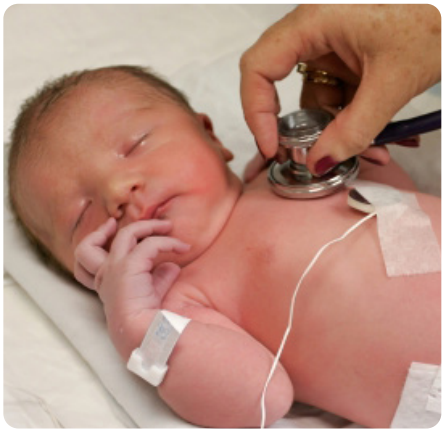
## CV Screen

The CV screen is done by checking upper and lower extremity pulse oximetry (oxygen levels) to detect serious congenital heart defects in infants.

## Baseline Bilirbin Level

Also checked is the baseline bilirubin level for jaundice in babies before they leave the hospital. Jaundice is a common development in newborns during the first week of life. If jaundice levels are too high, it can affect newborn feeding and alertness, and in very severe situations, it can affect the brain—which is why we check it early to avoid any chance of the jaundice getting severe enough to cause complications or health risks to the newborn.

## PKU Screening



Also called a "metabolic screening test", this is a simple blood test done before baby is sent home from the hospital. It might be repeated at your baby's first follow-up appointment, especially if you are breastfeeding. The screen tests for disorders that could be harmful for your infant if they go undetected. Some of the disease screens required according to Montana State Law are:

- **Phenylketonuria (PKU):** A rare disorder in which the body cannot break down an amino acid called phenylalanine, a product commonly found in artificial sweeteners.
- **Hypothyroidism:** Underactive thyroid gland
- **Galactosemia:** Inability to metabolize certain sugars
- **Hemoglobinopathies:** Blood disorders
- **Cystic Fibrosis:** Lung, Diabetes and intestinal complications

## Hepatitis B Vaccine

Hepatitis B is a serious liver disease caused by a virus. It is spread by contact with blood or other body fluids of an infected person. The American Academy of Pediatrics recommends that every baby born be vaccinated against this disease. The vaccines are a series of shots over six months. We will offer you the option to have your baby vaccinated before leaving the hospital.

***If you are unsure about your baby having any of the above routine medications or newborn screens, please discuss it with your baby's doctor prior to the birth.***

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# Car Safety Seats

## Law Requirements

Montana state law requires children under age six or weighing less than 60 pounds to ride in a federally-approved car seat or booster seat that is properly installed and used. The first step in keeping your baby safe on the road is choosing a car seat that works for your baby's age and weight, and that fits your vehicle.

## Recommendations

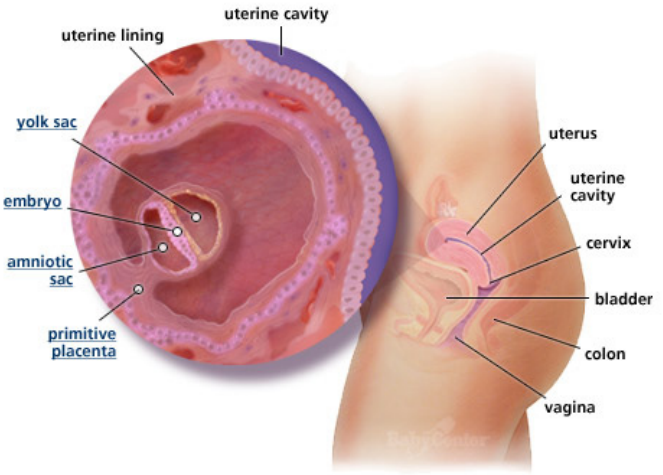
The American Academy of Pediatrics (AAP) recommends that all infants should ride in rear-facing car seats, starting with their first ride home from the hospital until they have reached at least one year of age and/or weigh at least 20 pounds. It is even better for them to ride rear facing until they reach the highest weight or height allowed by the car seat's manufacturer.

To help you choose the right car safety seat and install it safely, the AAP offers *Child Safety Seats: A Guide for All Families*. Access this guide online at www.aap.org, or call 847-434-4000.

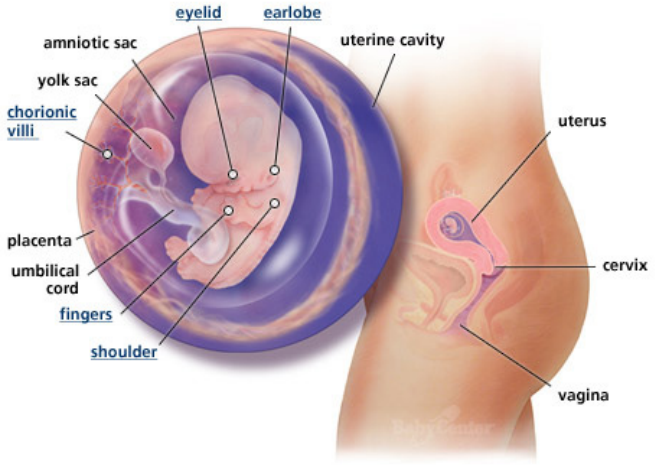
For a schedule of free car seat safety clinics in Livingston and Bozeman, visit www.safekids.org or call 587-7786.

## Notes

# An Illustrated Guide to Fetal Development




**1 Month**

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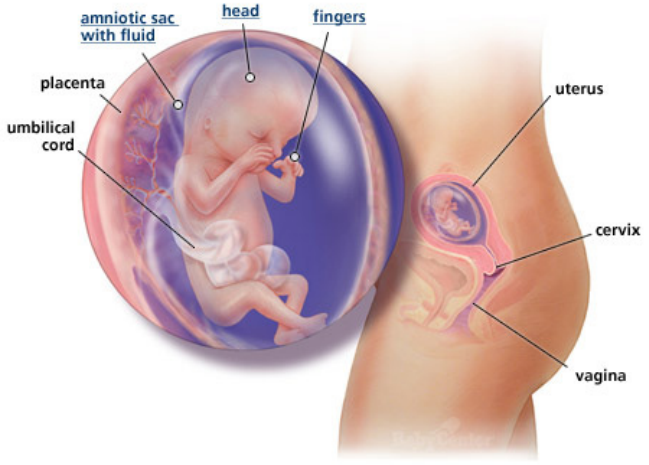
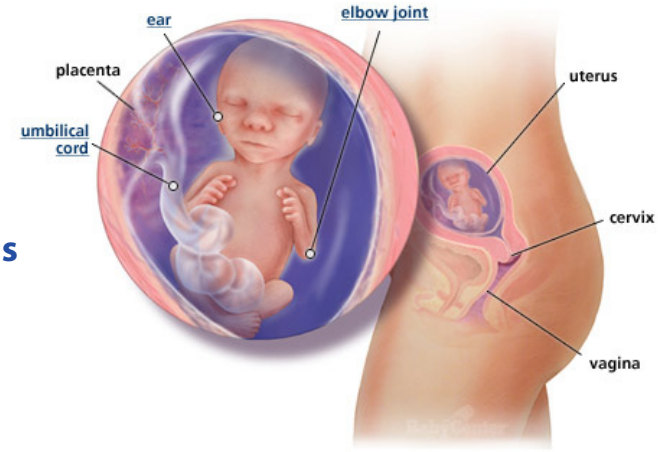
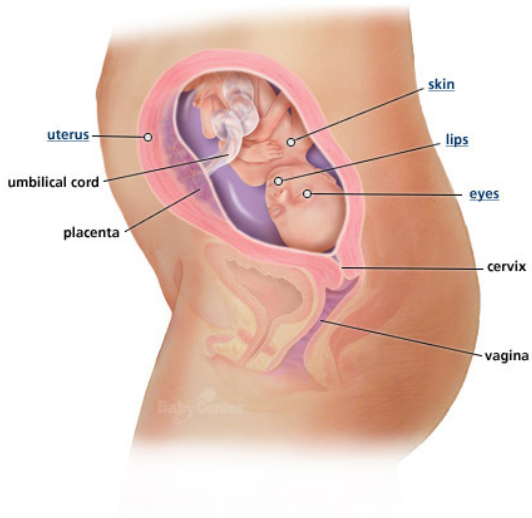



**3 Months**

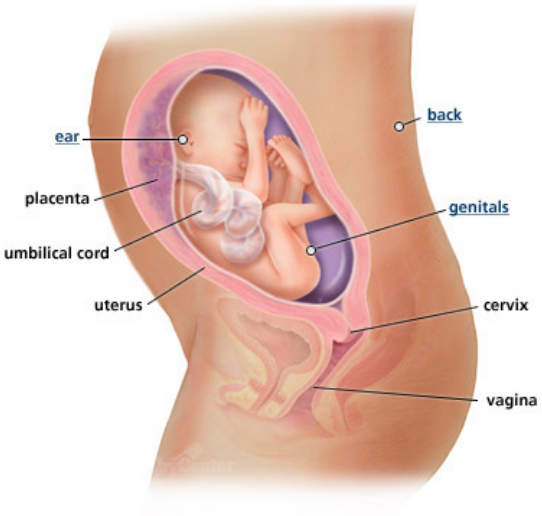
## 4 Months




## 5 Months




## 6 Months

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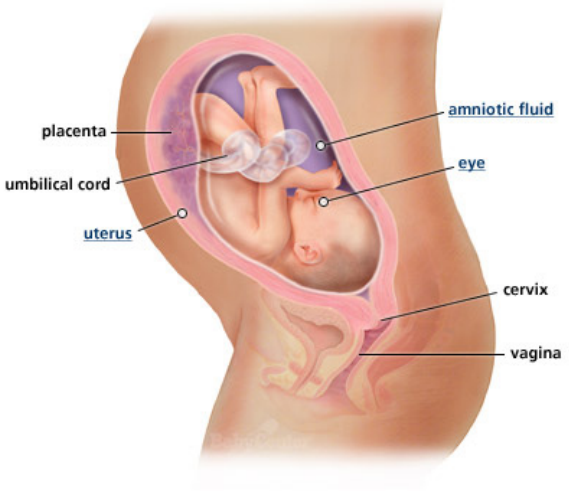
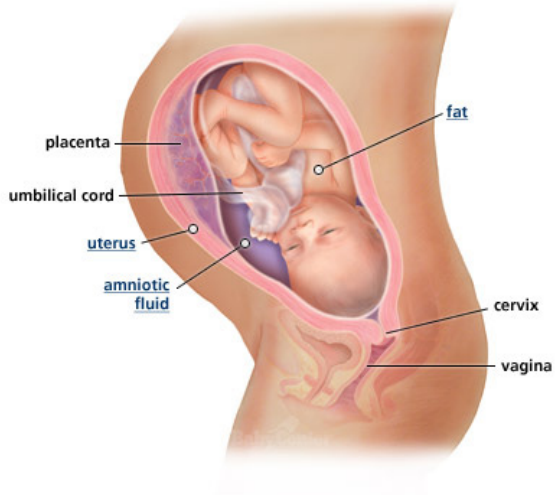
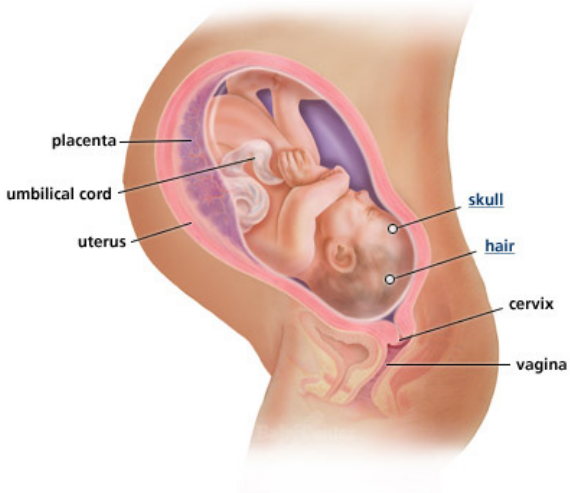



## 7 Month




## 8 Months




## 9 Months

## Notes