

NorthShore Obstetrics
and Gynecology

Pregnancy and Postpartum Care Guide





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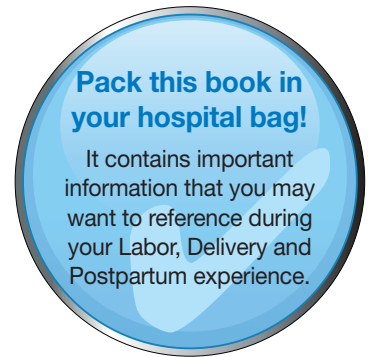
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Welcome

Welcome to our NorthShore University HealthSystem (NorthShore) Medical Group for all of your prenatal care! We're honored that you've chosen us as your healthcare providers during this exciting time in your lives and hope this will be the start of many years of caring for your growing family.



In this Prenatal guide, you'll find useful information about pregnancy in general, our hospitals, convenient digital health communication through *NorthShoreConnect*, and specialized advice about our group's services and recommendations for pregnancy. We recommend that you keep this guide handy as a trusted resource, so you can refer to this information whenever you have a question or need a refresher on a particular topic.

Our team is committed to giving you individualized care. We want to help you feel comfortable with us—so first, let's start with a brief description of how our physicians will work with you. You'll rotate with each physician throughout your prenatal visits. The physician on call the day you go

into labor will likely deliver your baby. Likewise, if you have an emergency during your pregnancy, the physician on call will take care of you.

If you have questions or concerns, please contact us at any time by calling our office or by accessing the *NorthShoreConnect* patient portal through your computer and our mobile app. If you haven't yet set up your *NorthShoreConnect* account, visit northshoreconnect.org and follow the instructions. There's additional information about the benefits and use of *NorthShoreConnect* in the Online Maternity Pre-Registration and *NorthShoreConnect* sections of this guide.

NorthShoreConnect

NorthShoreConnect:

To better manage your and your baby's ongoing care, we request that you enroll in *NorthShoreConnect*, our secure online portal. If you have a *NorthShoreConnect* account when you come to the hospital for delivery, your baby's medical record will automatically be linked to your account, giving you immediate access from your computer or mobile device to care instructions and hospital discharge information for both you and your newborn.

NorthShoreConnect allows you to:

- Schedule NorthShore physician visits
- Review test results
- Receive email and text message reminders for upcoming appointments
- Use Family Access to manage your loved ones' health
- Pay NorthShore medical bills and view balances
- Review your medical records

To sign up for *NorthShoreConnect*, please visit northshoreconnect.org, ask your provider at your next appointment or call (847) 425-3900.



Pregnancy and Postpartum
Care Guide

Introduction





Emmi[®] Health Education Programs

After you leave your doctor's office, you may have additional questions that arise surrounding your pregnancy. Often, there's a lot of new information to absorb in order to be best prepared. This Prenatal guide is filled with information to use as a resource throughout your pregnancy. In addition, we'd like to tell you about additional, excellent resources known as Emmi programs.

NorthShore strives to help patients take an active role in their healthcare, which is why we're proud to offer a unique, engaging, educational program for our patients. Emmi programs take complex health topics and make them easy to understand for you and your family. The programs help educate you on what to expect with your pregnancy and childbirth.

How Does It Work?

The programs are entirely web-based, so you can view them at your own pace—in the comfort of your own home—and you can share them with friends or loved ones anywhere in the world. You may view them as many times as you like. Each program takes about 20 minutes to watch. Your physician will provide you with an access code to kick off your Emmi program. The programs are free of charge.

Available Programs

Emmi programs are available for each trimester of your pregnancy, as well as delivery.

9 weeks:

- Pregnancy Symptoms: 1st Trimester
- Prenatal Genetic Testing
- Nutrition and Exercise During Pregnancy
- Pregnancy Pitfalls after Age 35
- High Risk Pregnancy

24 weeks:

- Pregnancy Symptoms: 2nd Trimester
- Gestational Diabetes
- Cord Blood Storage Options
- Newborn Circumcision
- Preterm Labor
- Lowering Your Risk of Preterm Labor

28 weeks:

- Breast Feeding
- VBAC: Labor and Delivery
- Pregnancy Symptoms: 3rd Trimester

34 weeks:

- Medication for Pain Management During Labor
- Preparing for Childbirth
- Cesarean Section
- Epidural for Pain Management During Labor

37 weeks:

- Patient Satisfaction: Hospital or Birth Center
- Labor and Delivery Expectations
- Your Newborn Baby
- Newborn Feeding

38 weeks:

- Newborn Care and Basics
- Newborn Health and Safety
- Postpartum Depression

View Your Program:

If you've already received your access code from your physician, click on the Emmi button to begin on the NorthShore website at northshore.org/health-resources/patient-education.



Online Maternity Pre-Registration

Maternity patients can complete Maternity Pre-Registration Forms online, using a personal computer. The NorthShore Admitting Office created this service to minimize problems with forms that are lost or delayed in the mail, and to help ensure that patients are pre-registered prior to their delivery.

When to Pre-Register:

Please complete your pre-registration 3 months prior to your expected due date.

How to Pre-Register Online:

From any computer that has internet access:

1. Go to northshore.org/maternityservices.
2. Click on "Pre-Register for Your Delivery."
3. Enter the requested information and click "Submit."

Insurance Information:

The Admitting Office will need photocopies of your insurance ID card(s) in addition to the information you submit online. Please send or fax the photocopies to the Admitting Office at the appropriate hospital prior to delivery.

Evanston Hospital Admitting Office

2650 Ridge Avenue
Room 1222
Evanston, IL 60201
Phone: (847) 570-2130
Fax: (847) 733-5364

Highland Park Hospital Admitting Office

777 Park Avenue West
Highland Park, IL 60035
Phone: (847) 480-3779
Fax: (847) 480-3946

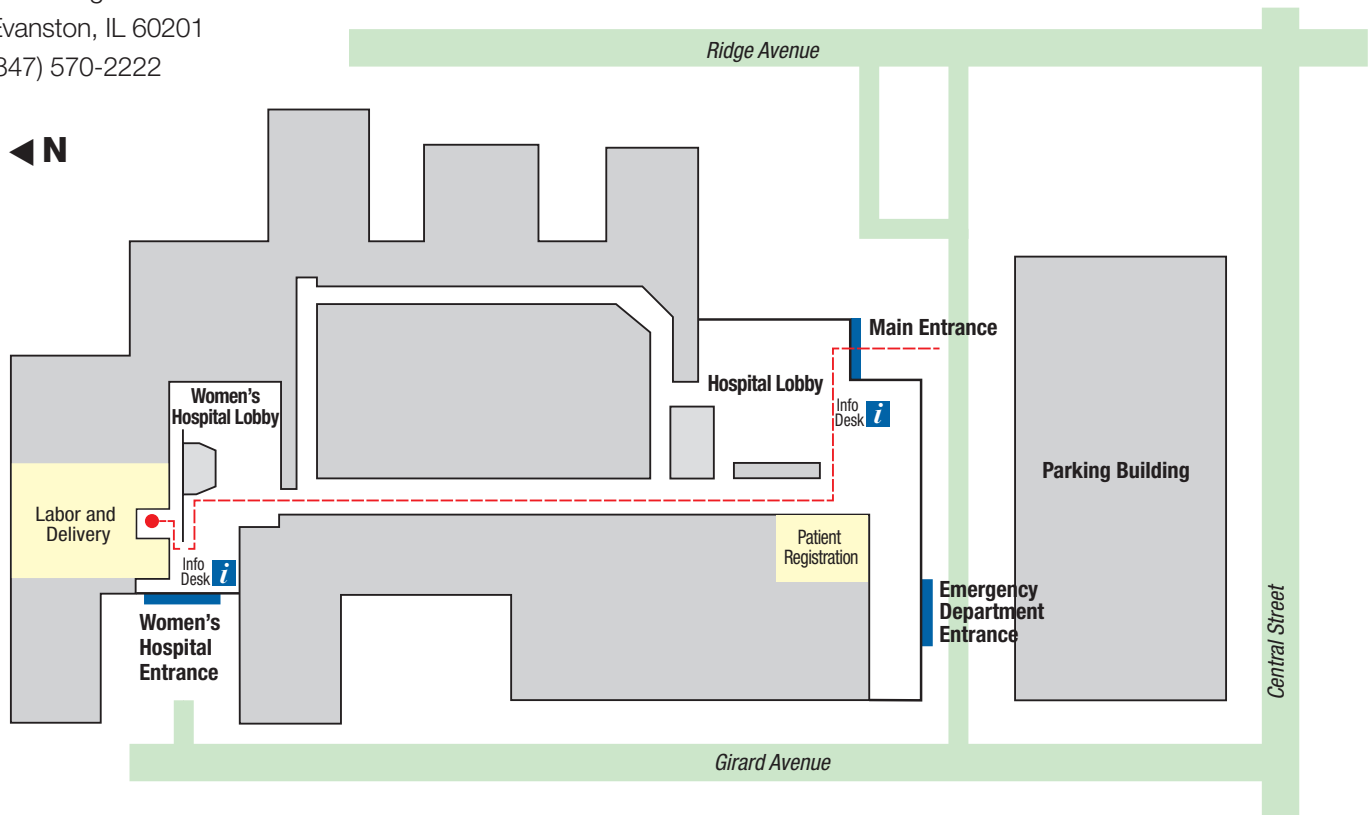
If you have questions about the pre-registration process, please call the phone number listed above for the hospital where you plan to deliver.



Labor and Delivery Locations

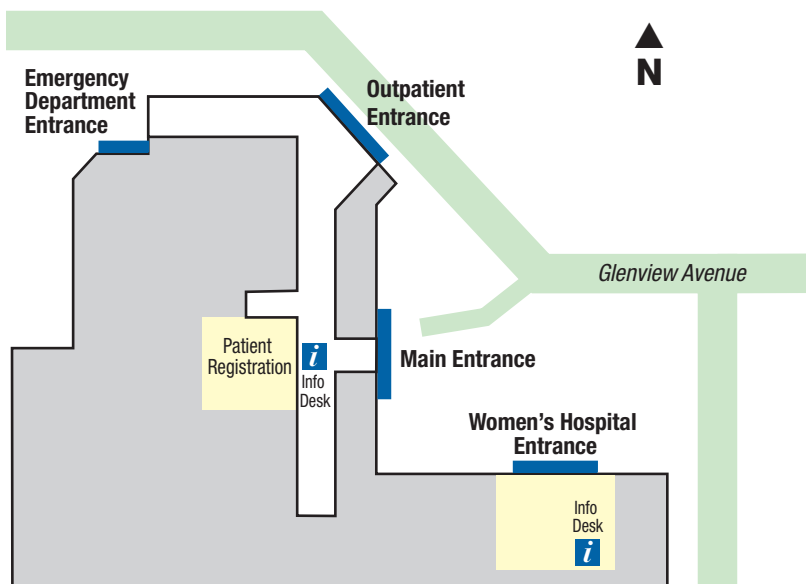
Evanston Hospital

2650 Ridge Avenue
Evanston, IL 60201
(847) 570-2222



Highland Park Hospital

777 Park Avenue West
Highland Park, IL 60035
(847) 480-3714





Pregnancy and Postpartum
Care Guide

Prenatal Care





Testing, Immunizations, Nutrition and Health Issues

Routine Prenatal Testing:

At your first prenatal visit or soon after, we ask that you proceed with some routine blood and urine tests, generally recommended for all women in the United States. These include:

- A complete blood count
- Blood type, RH factor, and antibody testing for blood cell antibodies
- Blood testing for syphilis
- HIV screen
- Screen for immunity to rubella (German measles)
- Hepatitis B and C virus screen
- Urine sample
- If no Pap smear has been done in the past 3–5 years, this will also be done.

Rhogam

We'll check your blood type at the beginning of your pregnancy. If you have an "Rh negative" blood type (A negative, B negative, AB negative or O negative), then you'll need a shot of a medicine called Rhogam at 28 weeks. We'll check the baby's blood type after birth and give you an extra dose if the baby has an "Rh positive" blood type. We may also give extra doses during pregnancy if you experience any bleeding or trauma during the pregnancy. This medicine will prevent you from developing an immune reaction against your baby's blood type.

Immunizations:

Before becoming pregnant, a woman should be up to date on routine adult vaccines. This will help protect her and her child. Live vaccines should be given a month or more before pregnancy. Inactivated vaccines can be given before or during pregnancy, if needed.

Flu Vaccine

It's safe, and very important, for a pregnant woman to receive the inactivated flu vaccine. You can receive the flu vaccine at any time during the flu season. A pregnant woman who gets the flu is at risk for serious complications and hospitalization. To learn more about preventing the flu, visit the CDC website at cdc.gov/flu.

Tdap Vaccine

Women should get adult tetanus, diphtheria and acellular pertussis vaccine (Tdap) during each pregnancy. Ideally, the vaccine should be given between 27 and 36 weeks of pregnancy.

Travel

Many vaccine-preventable diseases, rarely seen in the United States, are still common in other parts of the world. A pregnant woman planning international travel should talk to her health professional about vaccines. Information about travel vaccines can be found at CDC's traveler's health website at cdc.gov/travel.

Childhood Vaccines

Pregnancy is a good time to learn about childhood vaccines. Parents-to-be can learn more about childhood vaccines from the CDC parents guide and from the child and adolescent vaccination schedules. This information can be downloaded and printed at cdc.gov/vaccines.

It's safe for a woman to receive routine vaccines right after giving birth, even while she's breastfeeding. A woman who has not received the new vaccine for the prevention of tetanus, diphtheria and pertussis (Tdap) should be vaccinated right after delivery. Vaccinating a new mother against pertussis (whooping cough) reduces the risk to her infant, too. Also, a woman who is not immune to measles, mumps and rubella and/or varicella (chicken pox) should be vaccinated before leaving the hospital. If inactivated influenza vaccine was not given during pregnancy, a woman should receive it now because it will protect her infant. Live attenuated influenza vaccine (LAIV) may be an option.



Testing, Immunizations, Nutrition and Health Issues

Course of Prenatal Care:

Pregnancy is a time of many changes, which can be both exciting and intimidating. As your care team, we want to help you know what to expect so you'll feel comfortable and informed. Below is a brief outline of what to anticipate during your pregnancy. We suggest that you refer to this handy reminder list periodically.

First prenatal visit—Here, a medical history is reviewed, and a physical exam and laboratory tests are performed. The doctor will review some of the information in this guide, mainly that which you need to know early on. An ultrasound to confirm your due date may be performed.

11–12 weeks—Usually can hear the heartbeat for the first time. Chorionic villus sampling (CVS) is done if indicated.

11–14 weeks—First trimester genetic screen can be done only during this time period.

15–16 weeks—Amniocentesis is done at this time if indicated.

15–18 weeks—Alpha-fetoprotein (AFP) test or multiple marker AFP for Down syndrome can be done.

18–22 weeks—Mid-trimester ultrasound to evaluate fetal growth and anatomy is performed.

24–28 weeks—Blood test for diabetes, blood count and antibody testing (if Rh negative). A shot of Rhogam will also be given at about 28 weeks for Rh negative individuals. During this month, a brief survey will be given to you to screen for postpartum depression risk factors.

27–35 weeks—Tdap will be administered at this time.

36–38 weeks—Group B Streptococcus culture will be collected.

After your first prenatal appointment, visits will be about every 4 weeks. Beginning at 30 weeks, visits will be about every 2 weeks. Beginning at 36 weeks, visits will be weekly until delivery.

A full-term pregnancy lasts about 40 weeks. If you don't deliver by about a week after this date passes, your physician will discuss further testing, more frequent visits or induction of labor with you.

Nutrition and Weight Gain:

As you've probably noticed, your appetite has changed since you became pregnant. You still need a nutritious, well-balanced diet, but minor alterations may be needed. Once you overcome your nausea, you may be hungry more frequently, but you'll feel full more quickly; thus, you'll feel best if you eat small frequent meals and snacks. The absolute calorie requirement during pregnancy is only 300 additional calories a day, so try not to go overboard.

Dietary requirements are similar to a typical food pyramid, but here are a few requirements that are unique to pregnancy:

- Your calcium requirement is much higher—about 1,200 milligrams (mg) a day. An 8-ounce glass of milk has about 300 mg, a 4-ounce glass of calcium-fortified orange juice or 4 ounces of cottage cheese has 150 mg, and 1 ounce of hard cheese has about 175 mg. There are other great sources of dietary calcium, but if you're unable to get this in your diet, we do advise a supplement.
- The Environmental Protection Agency (EPA) recommends limiting certain fish intake during pregnancy due to potentially high levels of mercury. You should completely avoid Bigeye tuna, swordfish, shark, tilefish and king mackerel. Limit chunk light or brown tuna to 6 ounces per week.
- All animal proteins should be cooked. Any red meat should be cooked to at least medium, and be sure pork and poultry are thoroughly cooked.

A specific type of food poisoning called listeriosis (*Listeria*) is very dangerous to developing fetuses. *Listeria* is a harmful bacterium that can be found in refrigerated, ready-to-eat foods (meat, dairy), and in produce harvested from soil contaminated with *Listeria*. It's recommended that you avoid all soft cheeses made from unpasteurized milk and cold deli salads and luncheon meats. If there's a *Listeria* outbreak reported, avoid this food as well. If you think you've been exposed to *Listeria* and feel ill (high fever, body aches, diarrhea), please contact your doctor.



Testing, Immunizations, Nutrition and Health Issues

Advice About Eating Fish:

What Pregnant Women and Parents Should Know

Fish and other protein-rich foods have nutrients that can help your child's growth and development.

For women of childbearing age (about 16–49 years old), especially pregnant and breastfeeding women, and for parents and caregivers of young children.

- Eat two or three servings of fish a week from the “Best Choices” list OR one serving from the “Good Choices” list.
- Eat a variety of fish.
- Serve one or two servings of fish a week to children, starting at age 2.

What is a serving?



For an adult
4 ounces



For children,
ages 4 to 7
2 ounces

To find out, use the palm of your hand!

- If you eat fish caught by family or friends, check for fish advisories. If there's no advisory, eat only one serving and no other fish that week.

Use this chart!

You can use the chart below to help you choose which fish to eat, and how often to eat them, based on their mercury levels. The “Best Choices” have the lowest levels of mercury.

Best Choices EAT 2 TO 3 SERVINGS A WEEK			OR	Good Choices EAT 1 SERVING A WEEK		
Anchovy	Herring	Scallop		Bluefish	Monkfish	Tilefish (Atlantic Ocean)
Atlantic croaker	Lobster, American and spiny	Shad		Buffalofish	Rockfish	Tuna, albacore/white tuna, canned and fresh/frozen
Atlantic mackerel	Mullet	Shrimp		Carp	Sablefish	Tuna, yellowfin
Black sea bass	Oyster	Skate		Chilean sea bass/Patagonian toothfish	Sheepshead	Weakfish/seatrout
Butterfish	Pacific chub mackerel	Smelt		Grouper	Snapper	White croaker/Pacific croaker
Catfish	Perch, freshwater and ocean	Sole		Halibut	Spanish mackerel	
Clam	Pickering	Squid		Mahi mahi/dolphinfish	Striped bass (ocean)	
Cod	Plaice	Tilapia				
Crab	Pollock	Trout, freshwater				
Crawfish	Salmon	Tuna, canned light (includes skipjack)				
Flounder	Sardine	Whitefish				
Haddock		Whiting				
Hake						
Choices to Avoid HIGHEST MERCURY LEVELS						
				King mackerel	Shark	Tilefish (Gulf of Mexico)
				Marlin	Swordfish	Tuna, bigeye
				Orange roughy		

*Some fish caught by family and friends, such as larger carp, catfish, trout and perch, are more likely to have fish advisories due to mercury or other contaminants. State advisories will tell you how often you can safely eat those fish.

www.FDA.gov/fishadvice
www.EPA.gov/fishadvice



THIS ADVICE REFERS TO FISH AND SHELLFISH COLLECTIVELY AS "FISH." / ADVICE UPDATED JANUARY 2017



Testing, Immunizations, Nutrition and Health Issues

Toxoplasmosis Precautions:

Toxoplasmosis is a disease that can be transmitted to a pregnant woman and thus to her fetus. It has been found in cat feces, especially from outdoor cats. It's recommended that someone else clean and change the cat litter in your home if you own a cat, and you should consider getting tested for immunity to toxoplasmosis. This can also be transmitted through undercooked meat.

Sexual Activity:

Sexual activity is usually safe during pregnancy, but your physician may ask you to restrict sexual activity under certain circumstances. If you have vaginal bleeding, premature labor, premature cervical dilation or placenta previa, usually nothing is allowed in the vagina.

Exercise:

Most healthy pregnant women can and should exercise regularly. Regular exercise helps reduce pregnancy aches and pains, gets women in condition for the “marathon” of labor and can help keep weight gain in a healthy range. Be sure to stay well-hydrated. Excellent forms of exercise include:

- Walking
- Biking—stationary or recreational, not extreme
- Swimming
- Prenatal exercise classes
- Yoga or tai chi

Since you're pregnant, your joints and ligaments loosen and your center of gravity shifts. Falls as well as ankle, knee, hip and back problems can be triggered by an overly ambitious exercise program. We recommend caution. Due to balance and risk of injury, skiing and some competitive sports should be approached with caution and discussed with your physician. Under no circumstances should a pregnant woman go scuba diving.

Exercise Precautions: If you develop severe shortness of breath, joint or back pain, abdominal cramping, or vaginal bleeding, stop the exercise—this is your body telling you that you're overdoing it. Most pregnant women feel a little short of breath just from being pregnant, and some uterine crampiness during pregnancy is normal. Bleeding or painful regular cramping should be reported to your physician promptly. Women with high-risk pregnancies

should discuss special restrictions with their caregivers. Also, avoid elevation of core body temperature, which can occur in hot tubs, saunas or with extreme, prolonged exercise.

Environmental or Work Hazards:

Please let your doctor know if you have any unusual hazardous exposure in the workplace, such as toxic materials or solvents. Some of these may be harmful to a developing fetus and may need to be avoided. If you suspect that your home is an at-risk area for toxic chemicals, you should arrange for an inspection. This is also a good time to make sure you have fresh batteries in your smoke and carbon monoxide detectors.

Some professions may also pose risks, such as teaching young children. Please make sure that you've either had chickenpox or the vaccine—and if not, please stay away from school children if there's an outbreak. If you hear of an outbreak of Fifth Disease (also known as Parvovirus), let us know as soon as possible as this may have some risks that can potentially be prevented.

This is an incomplete list. Please consider any hazards that may be in your environment.

Travel:

Whether for business or pleasure, many women will need to travel during their pregnancy. As long as no significant risks exist, this can be done safely until the last several weeks. One concern to remember is that high estrogen levels during pregnancy can increase the risks of blood clots, so prolonged sitting should be avoided.

If in a plane or a car, make sure you get up every 90 minutes to stretch your legs and walk around. Wearing compression socks may also help to increase blood flow during flights. Airplane travel can dehydrate you, so drink extra fluids.

A short trip is usually safe until one month before your due date, but be sure to avoid traveling on cruise ships after 20 weeks, long trips after 32 weeks, and travel to places where the Zika virus is reported.

If in the sun, use sunscreen. If in a warm climate, use bug spray with DEET. Your physician can give you more personalized instructions for specific travel needs.



Self-Care

Tobacco, Alcohol and Recreational Drug Use:

If you smoke, the best advice is to quit. If you're unable to quit, cut down as much as possible. Smoking is detrimental to pregnancy, and continued smoking after pregnancy is detrimental to your child via secondhand smoke. If your husband or partner is a smoker, both you and your child are being subjected to secondhand smoke, so they should also quit. We're happy to help you in any possible way.

Alcohol is one of a few drugs proven to cause birth defects. There's no amount of alcohol that one can safely consume. Fetal Alcohol Syndrome has been known to result from as few as two drinks a day. Advise your physician about any alcohol you've consumed to date and avoid it for the rest of your pregnancy.

Recreational drugs are not safe during pregnancy. One marijuana cigarette contains several times the amount of cancer-causing chemicals as one standard cigarette, and cocaine has been shown to cause strokes in fetuses and induce premature labor. We don't want you using these substances, but we do ask you to be honest with us about their use. We're your advocates and can help in many ways.

Caffeine:

Moderate use of caffeine (less than 200 mg—equal to approximately one 12-ounce cup of coffee, depending on strength, daily) has not been linked to any adverse pregnancy outcomes. Be wary of caffeinated beverages that can also be high in sugar or sodium.

How much caffeine?

	12 oz soft drink 30 to 40 mg
	8 oz green or black tea 30 to 50 mg
	8 oz coffee 80 to 100 mg
	8 oz energy drink 40 to 250 mg

Dental Work:

It's OK to go to the dentist. You should in fact have normal dental care and get your teeth checked on a regular schedule. If you can avoid the first trimester, that's preferred. Gums can get swollen in pregnancy and are more likely to need regular brushing, and flossing helps. If you need X-rays, ask the dentist or dental technician to shield your abdomen.

Hair Care:

There are no studies that show harmful affects to hair coloring or perms. Waiting until the second trimester is preferred.

Medications:

The following are recommended during pregnancy:

Prenatal Vitamins: Prenatal vitamins can be either prescription or over-the-counter and should be taken once daily. A supplement of DHA—a fatty acid—also should be taken once daily. This is in some prenatal vitamins, but can also be found as a supplement (one brand is Expecta). Some women may need to take additional supplements such as iron, but we'll advise you if this is necessary.

Prescription Drugs: In general, you should avoid unnecessary medications. Almost any medication you take is passed on to your developing fetus, so we advise that you review any and all medications with your Obstetrician or Nurse Midwife at your initial visit (even better, review them with a pregnancy plan before you get pregnant). Any other prescribing physicians should be prescribing medications to childbearing-aged women only with a full review of potential risks during pregnancy, and plan for both planned and unplanned pregnancy. Do not either initiate or stop prescription medications during pregnancy without specific advice from the prescribing physician and/or your Obstetrician or Nurse Midwife. For some medications, there can be greater risk in stopping abruptly than in using them at all. A rating system used by the FDA categorizes risk of drugs during pregnancy in the following classes:

Category	Risk
A	Human studies indicate no risk. (Very few drugs have been formally studied.)
B	No evidence of human risk; no controlled human studies. (Many drugs are in this category.)
C	Risk to humans has not been ruled out. (Common with new drugs, this does not necessarily mean there's a problem.)
D	Evidence of risk to humans from human and/or animal studies.
X	Contradicted in pregnancy; known risks exist.

There are a number of problems with this categorization. Many class C drugs are widely used and one class X drug has been widely used to help prevent miscarriage, though that's not the drug's approved use by the FDA. A new system is being developed, but the current system gives physicians and consumers a general sense of a medication's safety for use during pregnancy. Specific medication questions can be addressed via TOXLINE, National Library of Medicine at (800) 638-8480, or several other online services.



Medication Use

Over-the-Counter (OTC) Medications: Several OTC medications are generally regarded as safe to take during pregnancy at standard doses. You may want to post the following table on your refrigerator for quick reference:

Problem	Medication	Comments
Acne	Any standard OTC agent, following instructions	Benzoyl peroxide, salicylic acid and resorcinol can all be absorbed through the skin but are not hazardous in standard doses.
Constipation	Stool softeners (Senokot, Metamucil), Docusate Sodium (Colace)	Minimally absorbed and OK to use on a regular basis. Some prenatal vitamins contain stool softeners.
	Mineral oils and castor oils	Minimally absorbed but could interfere with vitamin absorption if used regularly.
Contact Dermatitis	Cortisone creams	While cortisone is absorbed, the low concentration in OTC products makes these agents safe with standard use.
Cough	Dextromethorphan, Guaifenesin (Robitussin), Calcium carbonate	These agents are not associated with pregnancy problems when used at standard doses.
Heartburn	(Tums, Rolaids) Calcium carbonate with magnesium (Mylanta)	Use at moderate doses up to twice a day (1000 mg). Supplemental calcium is an extra benefit.
Heartburn, Acid Reflux	Cimetidine (Tagamet), Pepcid, Prilosec, Nexium	Widely used at higher than OTC doses for women with ulcers; reasonable levels of OTC use is fine.
Hemorrhoids	(Preparation H, Anusol, Tucks) with or without hydrocortisone	Hemorrhoids are common during pregnancy. A high-fiber diet, plenty of fluid and OTC products can be used to alleviate discomfort and bleeding. These can all be used safely as creams, ointments or suppositories.
Minor Diarrhea	Imodium A-D, standard OTC	Use as directed.
Nasal Congestion, Allergies	Pseudoephedrine (Sudafed)	Commonly used decongestant not associated with congenital abnormalities. Class C, but extensive epidemiological studies do not indicate any problems. Can raise your blood pressure and may keep you up at night.
	Chlorpheniramine (Chlor-trimeton), Diphenhydramine (Benadryl, Zyrtec, Claritin)	No evidence that these drugs cause any problem at standard doses. Class B. Antihistamines may make you sleepy.
	Nasal sprays (Afrin), saline Budesonide (Rhinocort)	Minimally absorbed; safe at standard doses.
Pain Fever <100.4	Acetaminophen (Tylenol)	No records of problems during pregnancy with standard doses (up to 8x 500mg tablets/day). Overdose or use in conjunction with excessive alcohol can result in liver or kidney failure.
Vaginal Yeast Infection	Monistat	Can be used during pregnancy. Report unusual vaginal symptoms so your doctor can check for other infections if indicated.

Avoid aspirin and nonsteroidal anti-inflammatory drugs (Bayer, Advil, ibuprofen, Naprosyn, Aleve) as well as Alka-Seltzer and Pepto-Bismol (contains aspirin or aspirin like drugs) **unless specifically directed for obstetrical reasons.**



Common Medical Complaints

Herbals: While herbal remedies have been widely used in many cultures for thousands of years, the manufacturing standards for herbs are not as tightly regulated as those for pharmaceutical agents. Therefore, the potential for contaminants and toxins is greater with herbal remedies than with pharmaceutical agents. We have no philosophic objections to herbal use, but it's probably safest to avoid herbal drugs during pregnancy. If you insist on using such drugs, do so under the guidance of an experienced herbalist who knows you're pregnant and use reputable manufacturers' products at recommended doses.

Miscellaneous: "Diet" drinks, aspartame, saccharine: While none of these items have nutritional value, there has been no indication that modest use poses any risk to pregnancy.

Treatment of Common Medical Complaints:

During this time, you may be so focused on the physical changes from pregnancy, you may forget that common illnesses and ailments may still occur. When you catch a cold or get a headache while pregnant, it's important to think about how to help yourself feel better and recover, but also how any remedies may affect your baby. The following are helpful guidelines for treating common ailments while pregnant.

Colds: First line of treatment is fluids, a humidifier at your bedside and lots of rest. It's alright to use recommended doses of acetaminophen (Tylenol) for aches and to keep your temperature under 100.4. You can use Robitussin, Robitussin DM or similar, for congestion and cough, and simple decongestants as needed. Call us for advice if your temperature is 102 degrees or higher, the cold seems to be running an unexpectedly severe course, or you have significant shortness of breath or wheezing. Women with asthma or lung disease need prompt care for asthma attacks not controlled by their usual medications.

Constipation: Constipation is very common during pregnancy. It can be combated with lots of fluids, a high-fiber diet, and stool softeners such as Metamucil, Colace or Senekot. Avoid stimulants and cathartics as they can cause cramping. Some prenatal vitamins include stool softeners.

Headaches: Headaches are common during pregnancy, especially at times when hormone levels may be very high (9–11 weeks) or your body is going through rapid fluid shifts (16–18 and 26–28 weeks). Staying well rested, drinking plenty of fluids, reducing stress and moderate acetaminophen use are sufficient for most women. Women with migraines should consult their physician about appropriate medications. Severe new onset headaches in later pregnancy can be a sign of pre-eclampsia, high blood pressure or even an impending stroke. Please call us immediately to report unusually severe or worsening frequent headaches, especially if you're close to term.

Stomach Flu: Simple stomach upsets (commonly called "the flu") are characterized by aches, nausea, vomiting and diarrhea. Most of these illnesses do not pose unusual risks to the mother or fetus, and simply pushing fluids, taking acetaminophen for aches, and waiting a day to let it pass is fine. We do want you to call if you're unable to keep anything down for more than 24 hours (you may need intravenous hydration) and/or it seems like a more serious illness than the normal upset stomach.

Viral Influenza: Viral influenza carries higher-than-usual risk of life-threatening complications in pregnant women, and may also cause premature labor and delivery. Therefore, the Centers for Disease Control and Prevention (CDC) recommends that a flu vaccine be given to all pregnant women, especially those with chronic medical conditions or immune system compromise, and individuals likely to be exposed occupationally or by



Common Medical Complaints

household members. Flu vaccine may be given during breastfeeding. Contraindications to flu vaccine include allergy to eggs, and any active infection or unstable neurological condition. Please discuss the advisability of flu vaccine with your physician if you're pregnant during the months of September–December. Additional information can be obtained from the CDC at (800) CDC-INFO (232-4636) or at cdc.gov/flu/protect/vaccine/pregnant.htm.

Nausea and Vomiting:

The incidence of nausea and vomiting in pregnancy has been estimated at 80 percent. Although there are many theories, the exact cause is unknown. Symptoms usually occur around 7 weeks into the pregnancy and usually begin to subside in the second trimester (after 12 weeks). If you are unable to keep any food, liquids, or medications down due to nausea and vomiting, please call your doctor to let them know.

Here are some helpful ideas you may consider:

- Temporarily discontinue your prenatal vitamin. Sometimes the vitamins can make the nausea worse. You should resume taking vitamins when you're able to tolerate it.
 - Do not allow yourself to become overly hungry or overly full. Eating smaller amounts more frequently may help alleviate nausea.
 - Eat low-fat foods. Low-fat foods move through your body more quickly, which can reduce nausea and help your body get the nutrients it needs. This includes foods high in carbohydrates such as bread, cereal and potatoes. Avoid fast food and pizza.
 - Food should be either very hot or very cold. Lukewarm foods are not usually well tolerated.
- Drink liquids between meals, and limit fluid intake during meals. Drinking liquid with meals makes the stomach expand and can increase nausea.
 - Put plain crackers, popcorn, dry cereal or vanilla wafers in a container next to your bed. Eat something when you wake up, before you get out of bed. Get up slowly in the morning, and avoid sudden movement.
 - Avoid heavy spices such as garlic, pepper or chili powder.
 - Avoid cooking odors.
 - Eat high-protein snacks (meat, cheese, eggs) before bedtime to stabilize blood sugar.
 - Sipping on Kool-Aid during the day and if you get up in the middle of the night may help.
 - Drinking ginger tea or ginger ale may help.
 - Take vitamin B6 (50 mg 1–3 times daily) and/or Doxylamine (Unisom) (half a tablet every 12 hours). Take caution as Doxylamine (Unisom) may make you drowsy.
 - If the symptoms are severe, contact your physician for medical advice.

Foods that are usually well-tolerated include:

Animal crackers, bread sticks, dry cereal (excluding granola cereal), fresh fruit, frozen yogurt, fruit juice bars, graham crackers, hard candy (especially Sweet Tarts), hot baked potato, milk shakes made with yogurt and skim milk, plain hard rolls or French bread, plain toast, English muffins, bagels with a small amount of jelly, popcorn, popsicles, pop tarts, pretzels, rice, vanilla wafers, warm pasta with a small amount of parmesan, and frozen slush drinks.



Safety

Ultrasound:

Ultrasounds may be indicated at any time during pregnancy—your provider will discuss this with you. An early ultrasound will often be done if dating of the pregnancy is uncertain, such as a woman with irregular cycles. Bleeding during pregnancy may also prompt us to order an ultrasound. We usually recommend one “routine” scan in the middle of pregnancy to assess growth, anatomy and placental location. High-risk conditions, unusual growth patterns and multiple fetuses are some reasons for ultrasounds later on. Please note that only certain insurers will cover these tests. Make sure you know your insurance policy requirements. Additionally, we may recommend an ultrasound or any other test that your insurance company doesn’t cover. These are still your financial responsibility, so please always know your coverage.

Domestic Violence:

Domestic battery is the most obvious form of abuse, but subtler forms can occur. These can include not allowing you to go out with friends or to doctor appointments without your partner, withholding financial support, not allowing you to function independently and emotional abuse. Abuse is often more severe during pregnancy and the immediate postpartum period. Please discuss any concerns with your doctor. The National Domestic Violence Hotline is **800.799.SAFE (7233)**

Seat Belt Use:

During your pregnancy, the lap belt goes across your waist and under your belly, and you should use the shoulder belt. If you’re not already using seat belts every time you’re in a car, now is the time to be 100 percent compliant. Although we know seat belt injuries can occur in an accident, the chance of a fatal accident is much higher without them.

Depression:

It’s common for women to have emotional changes during and after pregnancy. These changes range from anxiety to mild or severe depression. Baby blues are mild changes in mood and are short-lived. Depression, whether mild or severe, should be addressed. On rare occasions, depression can include psychosis. There is help available for any level of emotional change you may experience. At NorthShore, patients are screened twice—once during pregnancy and once postpartum. Please let us know at any time if you’re noticing any uncomfortable emotional changes. We have support groups, individual counseling and medication if needed. Our MOMS hotline number is **(866) 364-MOMS (6667)**.



Pregnancy and Postpartum
Care Guide

Prenatal Screening





Screening and Testing Protocol

Genetic Testing:

In general, there are three types of tests offered to assess your baby's risk for a genetic condition: **carrier screening**, **prenatal genetic screening** and **prenatal diagnostic testing**. Some are done by outside labs and not performed by NorthShore. As such, each of these requires independent insurance verification to see if you're covered. You may choose to have any of the genetic testing or screening options; however, insurance may not cover all of these tests.

For more information about prenatal screening and testing options, please feel free to consult your healthcare provider or call the Genetic Counseling Office at (847) 570-2864.

Carrier Screening:

Carrier screening is a test on you, the patient, to see if you are a carrier for any genetic mutations that you can pass on to the baby. Carrier screening is recommended to be offered to all women who are planning a pregnancy or are currently pregnant. Carriers generally have no symptoms and no family history of the specific condition. If you and your partner are both carriers of the same genetic condition, there's an increased chance for each pregnancy together to be affected with that condition. The following options are simple blood tests:

Fundamental Panel—Tests for three genetic conditions: cystic fibrosis, spinal muscular atrophy (SMA) and hemoglobinopathies (red blood cell disorders such as sickle cell anemia, Beta-thalassemia, or Alpha-thalassemia). In general, the risk of being a carrier for cystic fibrosis is about 1 in 25 and the risk of being a carrier for SMA is about 1 in 50.

Expanded Panel—Tests for up to 176 genetic conditions with a wide range of severity, including all the conditions tested in the Fundamental Panel. This panel is recommended for couples who want to have the most comprehensive carrier screening available or for couples who have at least one partner with Ashkenazi Jewish ancestry.

Individual Tests—In certain circumstances, screening for individual conditions may be ordered, but in general, panel screening is recommended.

How to Obtain Carrier Screening

Please let us know if you're interested in one of the carrier screening options listed above.

Here are some important things about carrier screening that you should know:

- You only need to do this testing once in your lifetime. If you've been tested before and know the results—you do not need to repeat the test. However, as technology improves, we may have the ability to offer screening for new conditions.
- If carrier screening is desired, our group believes that it's of "medical necessity" that all of our pregnant patients, regardless of their ethnic or racial background, should at least receive the Fundamental Panel.
- If you're of Ashkenazi Jewish background, the Expanded Panel is the "medically necessary" test that you should receive.
- You may start with only testing yourself. If you are NOT identified as a carrier, then the risk of your baby being affected is extremely low, and the father of the baby does not need to be screened.
- If you test POSITIVE as a carrier for a condition, it does not mean that your baby will be affected. However, the next step will be testing the father of the baby to see if he's a genetic carrier of the same condition. If he's found to be a carrier of the same condition, there's a 25 percent chance the baby will be affected. This will be the risk for any future pregnancies as well.
- In rare cases, you may still be a carrier of a condition even though your testing results were normal.



Screening and Testing Protocol

Prenatal Genetic Screening:

You have the option of screening to see if your baby is at higher risk for an abnormality in the number of chromosomes such as Down syndrome. The normal number of chromosomes is 46. With prenatal genetic screening, we can screen for up to five of the most common disorders of chromosome numbers:

- Down syndrome (Trisomy 21): 47 chromosomes
- Trisomy 18: 47 chromosomes
- Trisomy 13: 47 chromosomes
- Turner Syndrome: 45 chromosomes
- Triploidy: 69 chromosomes

The following are **screens**. It's important to know that screening cannot give you a yes-or-no answer. Instead, it tells you whether the fetus is at low risk or high risk for the condition. If you're found to be at high risk, there are other tests that are available to you to provide a definitive answer (prenatal diagnostic testing). It's generally recommended that a woman only have one, not all, of these screens during pregnancy.

The screens that are available are as follows:

Non-Invasive Prenatal Screening (NIPS)—This test can be done as early as 10 weeks to screen for the five most common chromosome disorders. It involves a simple blood test and measures fetal DNA that's in your blood stream. It poses no risk to you or your baby. It is 94 to 99 percent sensitive, and you may also be able to determine the sex of the baby based on the results. If you weigh more than 200 lbs., there's an increased chance that the lab may not be able to get enough fetal DNA to run the test, and you may need to repeat the test or do a different test. The blood test can be done at any NorthShore outpatient lab and requires paperwork provided by your healthcare provider. *The CPT code for the test is 81420 or 81507, depending on your insurance plan.* You may contact the performing lab if you have additional billing questions.

Nuchal Translucency Ultrasound and First Trimester Screening (BUN Screen)—This test can only be performed from 11 weeks 3 days until 13 weeks 6 days gestation to screen for three chromosome disorders (Down syndrome, Trisomy 18 and Trisomy 13). It involves an early ultrasound to measure the skin fold thickness of the fetal neck and to determine the presence of a nasal bone, as well as a finger stick blood test from you to measure three chemical markers. This test has a sensitivity of 90 to 96 percent. It also poses no risk to you or the

baby. *The CPT codes for the ultrasound portion of this test are 76813 and 76801, and the CPT codes for the blood portion of this test are 84163 and 84704.*

Quad Screen—This test is done between 15 to 21 weeks to screen for Down syndrome, Trisomy 18 and spina bifida. It involves a simple blood test and involves no risk to you or the baby. The test has a sensitivity of 60 to 75 percent. *The CPT code for the test is 81511.*

Insurance Coverage

These tests may or may not be covered by your insurance. Some insurance plans cover all the tests, some may cover one or two of the tests, and some do not cover any of them. Medical insurance plans are specialized and unique and are dependent on what your specific employer negotiated and contracted as part of your coverage. It's up to you to learn whether these tests are covered by your insurance.

When it comes to insurance coverage for pregnancy, the following statements are generally observed, but are not true for everyone across the board:

- The BUN Screen and Quad Screen are generally covered by most insurance plans regardless of your age.
- NIPS is often covered by insurance plans if you'll be age 35 or older at the time of delivery.
- NIPS may be covered by your plan even if you're younger than 35—you'll need to call your insurance to determine coverage.

NIPS, if You're Under Age 35

NIPS may be covered by your insurance even if you're younger than 35. You need to call your insurance company and ask whether NIPS (*CPT code 81420 or 81507, depending on your plan*) is covered for you. Some insurance companies will ask for a letter stating "medical necessity" in order to cover the NIPS test. We'll issue a letter stating medical necessity for the following conditions:

- Moms 35 years or older at the time of expected delivery (due date)
- Abnormal BUN Screen or Quad Screen
- Abnormal ultrasound
- Prior pregnancy with an outcome of abnormal chromosomes

If you do not meet one of these conditions, we can issue a letter stating it's "medically appropriate" for you to have NIPS as a prenatal screen. If you would like to pay for NIPS on your own, we can order the test for you and you can call the company that performs the test to discuss payment options.



Screening and Testing Protocol

continued >

Diagnosis Codes

When checking on insurance coverage, you can use the following diagnosis code that is appropriate to you:

Z34.90—If you're less than 35 years old

O09.529—If you'll be 35 years or older at the time of delivery

How to Obtain Prenatal Genetic Screening

Please let us know that you're interested in receiving one of the prenatal genetic screening tests.

NIPS—This test can be ordered by either your provider or a genetic counselor. You'll be required to bring paperwork with you to the lab. Let your provider know if you're interested in this screen, and they'll provide you with the paperwork or refer you to genetic counseling.

BUN Screen—Your provider will place an order for the test, and you'll need to call Fetal Diagnostics at (847) 570-2860 to schedule the ultrasound and blood work. Be prepared to tell them your estimated due date and they'll give you a range of dates and locations. You'll meet with a genetic counselor at the time of this appointment.

Quad Screen—This blood test can be drawn at a routinely scheduled prenatal visit between 15 and 21 weeks. No other arrangements need to be made.

Prenatal Diagnostic Testing:

Developed for pregnancies at "high risk" for a chromosome abnormality or other genetic disorder, diagnostic testing can provide a yes-or-no answer about whether the fetus is affected. Women who are considered at "high risk" to have a baby with a chromosome disorder include women who will be 35 years or older at the time of delivery, women who have had an abnormal screening result (NIPS, BUN or Quad Screen), and pregnancies in which abnormalities are identified on ultrasound.

Diagnostic testing is considered invasive, and therefore there's an increased rate of miscarriage associated with these procedures (0.3–0.5 percent risk). Diagnostic tests for chromosome abnormalities include:

Chorionic Villus Sampling (CVS)—This procedure is performed between 10 and 13 weeks of pregnancy. During the procedure, a small sample of the placenta is removed under ultrasound guidance. The cells from the placenta can be studied to analyze the fetal chromosomes. There's a small increased risk of miscarriage associated with CVS, which is thought to be approximately 1 in 200 (0.5 percent) above the background risk of miscarriage in the first trimester.

Amniocentesis—This procedure is performed after 15 weeks' gestation. During the procedure, a small sample of amniotic fluid is removed with a needle under ultrasound guidance. The sample contains fetal cells floating in the amniotic fluid, which can be studied to analyze fetal chromosomes. There's a small increased risk of miscarriage associated with amniocentesis, which is thought to be approximately 1 in 300 or less (<0.3 percent) above the background risk of miscarriage. In addition to testing fetal chromosomes, the amniotic fluid can also be tested to measure the amount of alpha-fetoprotein (AFP), which can detect the presence of open neural tube defects (such as spina bifida).

Any woman may elect diagnostic testing if desired, regardless of being at a high or low risk. If you're interested in a CVS or amniocentesis, your provider can place an order for you and you must call (847) 570-2860 to schedule the procedure. On the day of the procedure, you'll also meet with a genetic counselor.



Pregnancy and Postpartum
Care Guide

Wellness Support





Frequently Asked Questions About Mood During and After Pregnancy

What are the baby blues?

Most women get the baby blues after they deliver. Because they're so common, the baby blues are considered a normal part of the postpartum experience. A woman experiencing the baby blues feels mostly happy, but also may experience the following symptoms:

- Mood swings
- Crying for no particular reason
- Irritability
- Exhaustion
- Restlessness
- Anxiety

This typically begins about 3 or 4 days after delivery and lasts for up to 2 weeks. The suspected reason for getting the baby blues is that your body and mind are making you more emotional so that you can bond with and take care of the baby. Symptoms of baby blues that do not get better after 2 weeks or so—or become worse over time—are more likely a sign of postpartum depression or anxiety.

What is postpartum depression?

Women can experience depression during and after pregnancy. Depression after pregnancy is called “postpartum depression” and can start anytime during the year after delivery. Women with depression during pregnancy or postpartum may feel some of the following symptoms most of the day for at least 2 weeks:

- Irritability or crankiness
- Trouble sleeping even when you have the chance to sleep
- Trouble concentrating, remembering things or making decisions
- Frequent crying
- Loss of appetite, or overeating
- Withdrawal from family and friends
- Loss of pleasure or interest in things you used to enjoy
- Not feeling like yourself
- Showing too much, or not enough, concern for the baby (not bonding or forming an attachment)

Some women may also experience thoughts of harming themselves and/or their baby. For some women, the thoughts come and go; for others, the thoughts may be more serious and may require help.



Frequently Asked Questions About Mood During and After Pregnancy

Do women also experience anxiety during pregnancy and postpartum?

Most women experience some degree of anxiety about becoming a mother, but some women develop anxiety disorders during this time. Women may experience:

- Panic attacks
- So much worrying or nervousness that you can't do day-to-day tasks
- Compulsive behavior like excessive cleaning and hand washing
- Fears of intentionally or accidentally harming the fetus or baby

How long does depression or anxiety during pregnancy or postpartum last?

This greatly depends on how quickly women seek treatment. If you're concerned that you may be experiencing symptoms of depression or anxiety, contact your doctor or midwife or **(866) 364-MOMS (6667)** as soon as possible to discuss how you are feeling and ways you can be supported.

Remember that you are not alone and that you are not to blame if this is happening to you. This is not a personal weakness and does not make you a bad mother. It is very important that you get the help you deserve so you can feel better. And you CAN feel better with help.

What is postpartum psychosis?

Postpartum psychosis is a much rarer—and more serious—disorder that affects about one or two in 1,000 new mothers. Women with postpartum psychosis may experience:

- Hallucinations (seeing or hearing things that aren't really there)
- Delusions (strange or unusual beliefs about their baby, themselves or others)
- Insomnia
- Confusion, disorientation or illogical thoughts
- Extreme anxiety and agitation
- Rapid mood swings
- Thoughts of harming themselves and/or the baby

These symptoms usually begin within the first 2 to 3 weeks after giving birth. A woman with postpartum psychosis may have times when the symptoms seem better. Postpartum psychosis is an emergency and it's important to get help as quickly as possible by calling 911 or going to the nearest emergency room.

Why do women get depression or anxiety during pregnancy and postpartum?

There are many theories about what causes depression or anxiety during and after pregnancy. Research suggests that some women may be naturally more vulnerable to becoming depressed or anxious when they're experiencing the stressors of adjustment to pregnancy or motherhood. Other women may be vulnerable to depression or anxiety as a result of the hormonal changes that occur in pregnancy and in the postpartum time, regardless of their stress level.



Frequently Asked Questions About Mood During and After Pregnancy

If women have a history of depression, what are the chances of getting postpartum depression?

Women with a family history or personal history of depression or anxiety have an increased risk of developing postpartum depression or anxiety. Women with a history of bipolar disorder have an increased risk of developing postpartum psychosis. If you're concerned about your risk, let your doctor or midwife know so you can receive all the support you deserve during pregnancy and the postpartum period.

What can women do to prevent or cope with postpartum depression or anxiety?

Unfortunately, there's no way to prevent it, but there are some things you can do to decrease your risk:

- You may want to begin counseling so that you'll have some extra support during pregnancy and the postpartum time.
- Talk to your partner, friends and family about getting support from them both during and after pregnancy.
- Consider joining play groups or parent support groups.
- For some women who have a history of depression, talking with your doctor or midwife about starting or continuing antidepressant medication during pregnancy or immediately postpartum can help decrease risk.

What treatment resources are available?

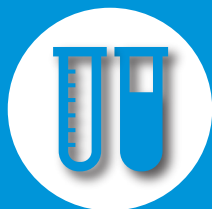
The good news about depression or anxiety during pregnancy and postpartum is that it is treatable. Treatment options include:

- Medication
- Counseling
- Support groups

Besides these treatment options, changes in diet, sleep and exercise can also help alleviate depression or anxiety. Talk to your doctor or midwife about changes you can make to help yourself feel better. Let your spouse or partner, family, friends and others know what you need and how they can help.

If your mood is affected in pregnancy or postpartum, you are not alone. Help is available. Call **(866) 364-MOMS (6667)**. This hotline is staffed by mental health professionals who are there to provide comfort and referrals.

The information in this document comes from a number of original sources. Any reproduction of this document must include source citations.



Pregnancy and Postpartum
Care Guide

Cord Blood





Cord Blood Banking

Cord blood is the blood remaining in a newborn's umbilical cord following birth. It is a rich source of special cells, called hematopoietic stem cells, that can only be collected at the time of delivery.

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

Today, cord blood stem cells are used to treat more than 70 types of diseases. Patients with diseases of the immune system, genetic disorders, neurologic disorders, and some forms of cancer, including leukemia and lymphoma, have benefited from stem cell therapies. For some diseases, stem cells are the primary treatment. For other conditions, stem cells may be considered when standard therapies fail to work. Experimental research programs also use stem cells to develop and test new and more effective treatments.

Advantages of Cord Blood

Bone marrow cells can be used for similar treatment purposes as cord blood stem cells. But cord blood offers some unique advantages, including:

- Safe, easy, painless collection for both mother and baby
- Potential matching to a larger number of people
- Long-term storage

Limitations of Cord Blood

Umbilical cord blood does not contain a high volume of stem cells, and sometimes a variety of circumstances may arise during labor and delivery that prevent adequate collection. Adult patients needing a transplant will often require cord blood stem cell units combined from several different donors.

How Is Cord Blood Collected?

After the baby is born, but before the placenta is delivered, a medical professional will insert a needle connected to a blood bag into the umbilical vein. The blood flows into the bag by gravity. The blood bag is clamped, sealed, labeled and shipped by courier to a processing lab. The collection itself typically takes about 2 to 4 minutes.

Public Donation Versus Private Use

There are two options for preserving umbilical cord blood: "public banking" and "private banking." Deposits to a public stem cell bank resemble voluntary blood donations made by adults. They do not cost the donor anything and are available to any patients who may need them. Private banks collect fees (initial blood collection and ongoing storage) from parents. Families store the cord blood for their own specific use. Currently, public cord blood donations cannot be made at NorthShore hospitals.

Banking Your Baby's Cord Blood

Privately banking umbilical cord blood for your own child's or family's future use is a personal choice. As the field of stem cell transplantation rapidly evolves, there are several factors to consider in your decision:

- **Providing treatment for an ill family member.**
If you have a family member with a medical condition (malignant or genetic) who could potentially benefit from cord blood transplantation, banking your baby's cord blood might offer a better donor match. However, such a match is not guaranteed, and as the public banks grow, the likelihood will increase that a good match will be found for a person who needs it.
- **Donors can't always use their own blood.**
Umbilical cord blood collected from a newborn may not be appropriate for treatment of a genetic disease or malignancy in that same individual. All of the stem cells would contain the same DNA coding that caused the condition being treated.
- **Privately banked blood may never be used.**
The chance of your child using their own cord blood is slim. The estimated lifetime probability of that happening ranges from 1 in 400 to 1 in 2,500.

Most professional societies have given the opinion that unless there is a known family illness that would benefit from cord stem cell transplantation, public umbilical cord blood banking remains the recommended method for preserving umbilical cord.



Pregnancy and Postpartum
Care Guide

Signs of Labor



When to Call Your Caregiver, Types of Labor

If you've never given birth before, you may assume that you'll just "know" when the time has arrived to have your baby. In reality, onset of true labor is not always easy to identify, and events leading up to it can go on for days.

Remember, too, that your due date is simply a point of reference—it's normal for labor to start any time between 3 weeks before and 2 weeks after this date.

So how will you know that labor is starting? First, you'll need to understand the birth process. In a nutshell, here's what happens during labor: The uterus repeatedly contracts (tightens and relaxes), causing the cervix to thin (efface) and open up (dilate), so you can push your baby into the world.

Calling Your Caregiver:

Let your healthcare provider know when regular contractions are about 5 minutes apart. These may feel like your uterus is "knotting up" and be relatively painless at first, but gradually build in intensity, starting at the top of your uterus radiating through your belly and lower back. Your caregiver will want to know what other symptoms you're feeling, how far apart your contractions are and whether you can talk during them.

Also notify your provider if your bag of water breaks (either a large gush or a consistent small leak) or if you have bleeding similar to a period (or more).

Once labor has started in earnest, when should you go to the hospital? Every situation is different, so talk to your caregiver well ahead of delivery day about the best plan for you. In general, though, expectant mothers should head to the hospital when their contractions are too painful to talk, last 60 seconds or more, and have been coming 3 to 5 minutes apart for at least an hour. If you're not sure, call your healthcare provider and talk about when to come in.

Labor May Be Nearing if You Notice One or More of These Signs:

- **Bloody show:** If you have blood-tinged or brownish vaginal discharge, it means your cervix has dilated enough to expel the mucus plug that sealed it for the last 9 months. This is a good sign, but active labor may still be days away.

False Labor:

Most expectant mothers feel mild contractions before they're actually in labor. These are called "Braxton Hicks" contractions. It can be hard to distinguish Braxton Hicks contractions from the real deal, especially if you're near your due date. If contractions aren't causing your cervix to dilate, though, it's known as "false" labor. While true labor contractions get longer, stronger and closer together as time goes on, false labor contractions tend to be:

- **Irregular:** Braxton Hicks contractions are sporadic, have no predictable pattern, and usually stop if you rest or change positions.
- **Felt in your belly and your groin:** True labor contractions, on the other hand, usually "wrap around" from your back to your belly. If Braxton Hicks contractions are making you uncomfortable, take a warm bath and drink plenty of fluids to ease discomfort.

Preterm Labor:

Sometimes contractions cause the cervix to efface and dilate before 37 weeks of pregnancy. This is called preterm labor. A uterine or vaginal infection, or a host of other health problems, can bring on preterm labor. For unknown reasons, some women are more prone to it than others.

The symptoms of preterm labor are similar to the symptoms of labor that begins at term. If you notice any of the labor signs listed above or feel strong, regular contractions before 37 weeks, call your caregiver right away. After examining you to see if your cervix is effacing or dilating, it may be recommended that you avoid intercourse, exertion and stress, and get as much rest as possible to stave off further contractions. In some cases, you may be admitted to the hospital for observation or medications.



Pregnancy and Postpartum
Care Guide

Feeding



Breastfeeding Education

Breast milk is the ideal food for infants. It is safe, clean and readily available. It also contains antibodies that help protect against many common childhood illnesses. The World Health Organization (WHO) and the American Academy of Pediatrics (AAP) recommend that you begin breastfeeding your baby within an hour of birth, exclusively breastfeed for the first six months of your baby's life and continue breastfeeding while introducing complementary foods for at least the first year. Exclusive breastfeeding means you provide no other food, liquid or water. Breastmilk provides all the energy and nutrients your baby needs early on to promote optimal growth, brain development and good health.

Breastfeeding is natural but requires that you and your baby work together to learn these new skills. Ask for assistance from the nursing staff or lactation consultant while you're in the hospital to help you achieve your goals for successful breastfeeding.

Getting Started:

- Place your baby skin-to-skin on your chest immediately after birth.
- Breastfeed in the first few hours, when your baby is alert and active.
- Continue skin to skin holding as often as possible.
- Avoid pacifiers, bottles and supplements, unless medically necessary.

Safe Skin-to-Skin Contact: “Pink and Positioned”

There are many benefits of holding your baby skin-to-skin in-between and during breastfeeding. It naturally puts your baby in a laid back position ideal for feeding. This calming bodily contact helps stabilize your baby's heart rate, blood sugar level and temperature. It also increases your milk production and reduces any pain you or your baby may have. The AAP advises that healthy and stable babies be positioned in this way immediately after delivery and until the first feeding is finished (or longer, if desired.) An infant's sense of smell helps them easily find the breast and nipple shortly after birth.

For safe skin-to-skin contact, semi-recline with your baby chest-to-chest with their arms and legs flexed. The baby's face can be seen, with the head turned so that the nose and mouth are not covered. Placing the baby's head in a “sniffing” position with their chin slightly elevated helps maintain open airways. To ensure a safe and satisfying breastfeeding experience:

- Look to see that your baby's color is a healthy pink.
- Cover your baby's back with a blanket to keep them warm.
- Focus on your baby while holding them in this position or breastfeeding. Don't let yourself get distracted.
- Place your baby “back to sleep” in their crib if you feel sleepy or groggy from medications and if no other alert adult is in the room.



Breastfeeding Education

Establishing a Milk Supply

During your pregnancy, you may have noticed some changes to your breasts as your body prepared to make milk. By the second trimester, your breasts began to produce a small amount of colostrum. A thick clear or yellow liquid, colostrum is high in protein and contains a large quantity of infection-fighting antibodies. It coats your baby's gastrointestinal tract to protect from foreign proteins. Serving as a laxative, it also helps your baby pass meconium: the first bowel movement. The volume of colostrum is low but is concentrated to meet your baby's needs in the first few days of life.

As your baby continues to breastfeed, your colostrum will change to transitional milk. It will increase in volume and calories. The milk continues to change to mature milk between the third and fifth day after delivery. Mature milk contains the proteins, fats and carbohydrates that your baby needs for energy and growth.

Regular, effective removal of milk from the breasts stimulates milk production. Unrestricted nursing will ensure your baby gets enough nutrition as their appetite increases in the early weeks. The frequency and length of feedings may vary in the early days. Keep feeding intervals close and offer the breast when you notice feeding cues like sucking of fists, rooting and/or moving and wriggling.

Hand Expressing Breast Milk

If your baby is sleepy or not nursing well in the early days, you can hand express and offer your colostrum to the baby using a syringe or spoon. Hand expression can be used alone or in combination with pumping.

Follow these steps to safely hand express breast milk:

- Wash your hands with soap and water.
- Use a clean container such as a spoon, syringe or bottle to collect the milk.
- Gently massage your breasts, starting from the outer edges toward the nipple. You may also use a warm compress.
- Place your fingers wide, behind the areola, in a "C" hold.
- Press back toward the chest wall.
- Compress your fingers together to express milk and then relax your hand.
- Repeat this action in a rhythmic motion; do not pull the skin tight.
- Express your milk for a few minutes and then rotate your fingers to a different position, working around the breast like a clock.
- Collect expressed milk and offer it to the baby.

Feeding Cues/Light Sleep Cues

Babies have their own communication, especially when it comes to eating and sleeping. Your baby may be ready to nurse, if you notice:

- Sucking on hands.
- Smacking lips, thrusting tongue or licking.
- Stretching and yawning.
- Rooting with mouth open and searching.
- Rapid eye movement under closed lids.

Crying is a late sign that your baby wants to feed or sleep—now! Keeping your baby in your room at the hospital and at home (aka rooming-in) in the early weeks will help you anticipate your baby's cues and meet their needs quickly. The baby will cry less and you will get more rest if the baby stays close. Rooming in will help boost your confidence as you get to know your baby.



Breastfeeding Education

Latching On

Your baby's ability to latch on to the nipple is essential for successful and comfortable breastfeeding. Here are some helpful steps:

- Choose a comfortable position for both you and your baby.
- Hand express drops of colostrum for your baby to smell and taste.
- Start with the nipple between the baby's nose and upper lip, and stroke down.
- Hold your breast with your thumb and fingers in a "C" or "U" hold with fingers behind the areola for a deep mouthful of breast tissue.
- Wait for the baby's mouth to open wide and their head to slightly tip back.
- Direct your nipple upward, aiming toward the roof of the baby's mouth.
- Bring the baby into your breast quickly, so their chin is touching the breast.

A successful latch should be asymmetrical, with the baby's mouth covering the entire nipple and the lower portion of the areola. The baby's lips should be flanged outward and their tongue over the lower gum line. Effective jaw movement is important for the baby to transfer milk. You should feel a tug but not pinching or pain. It may take several attempts before your baby achieves and sustains a comfortable latch. If you feel pain, break the seal by sliding your finger in between your breast and the corner of the baby's mouth. Try again for a deeper latch.

Breastfeeding Positions

Breastfeeding works best when you and your baby are comfortably settled and well supported. Proper positioning helps to achieve the best latch and will prevent sore nipples and muscle fatigue. Use pillows or a nursing pillow to support your arms and back as needed.

Positions for safe and effective breastfeeding include:

Laid Back: The mother is semi-reclined with the baby snuggled close, chest-to-chest.

- Rest the baby's cheek on your breast.
- Let your baby search for your nipple. They may start rooting with their mouth and bobbing their head.
- Allow the baby to lead. When their chin touches your breast, they may open their mouth and latch on.
- Stay relaxed as your baby finds their way to latch deeply on your nipple and areola.





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Cradle Hold: The mother is sitting with the baby lying on a pillow on her lap.

- Hold the baby in your lap at breast height and facing you.
- Cradle your baby's head in the bend of your elbow, with your forearm down the baby's back supporting their neck, back and bottom.
- Position your baby so their ear, shoulder and hip are in alignment.



Football Hold: The baby is tucked under the mother's arm on the same side they are feeding from.

- Place a pillow vertically behind your back, allowing for extra room for the baby's feet and enough pillows on your side so the baby is at breast height.
- Use your forearm to support the baby's back. Your hand will support the back of the baby's neck.
- Use your other hand to support and shape the breast for a deep latch.



Cross Cradle Hold: The mother is sitting with the baby lying on a pillow on her lap. The mother's arms are positioned opposite of the cradle hold.

- Hold the baby in your lap at breast height and facing you.
- Cradle your baby with the opposite arm of the breast they are nursing, while supporting the back of their head and neck.
- Use your other hand to help shape the breast like a "sandwich" to allow a deeper latch.



Side Lying Hold: Mother and baby lie on their sides facing each other with a pillow supporting the mother's back and under her head. (This is a good position if your bottom is sore or if you need to rest.)

- Bring the baby close to you.
- Support your baby's back with your forearm or a rolled towel.
- *Do not fall asleep with your baby in this position.*

Each of these positions follows the same basic principles. Your baby is at breast level, with their body facing you and their nose opposite the nipple. The baby's ear, shoulder and hip are in a straight line.





Breastfeeding Education

First 24 Hours

After birth, the baby is usually alert and wakeful for the first few hours and then sleepy for the next 12 to 24 hours. Your baby may not want to nurse right away. This is completely normal. Sometimes newborns feel full from drinking amniotic fluid and are still recovering from the delivery—just like you.

The first day, hold your baby skin-to-skin whenever possible while you are awake. Watch for light sleep or feeding cues and attempt to feed your baby at those times. Hand express your colostrum and offer it to the baby with a spoon or syringe if they are not nursing well.

The Second Day and After

Now days older, the baby may have sleepy stretches and then become more wakeful and “cluster feed” throughout the day and night. They may be fussy and want to be held more than the first day as they adjust from life in utero to the outside world. Nurse your baby a minimum of eight times in 24 hours so they get the calories they need. By 48 to 72 hours in the life of the baby, they may be hungrier and feed more frequently.

Signs of effective milk transfer:

- Seeing active jaw movement; ears will wiggle.
- Sensing tugging without pain.
- Noting bursts of sucks and pausing in the early days. Once your milk volume increases, you will actually hear your baby swallowing with more consistent sucking.
- Feeling your breast become softer as the baby removes milk.

Cuddle the baby skin-to-skin in-between and during feedings as needed. Tickle under their chin or feet, or compress your breast to keep the baby engaged in the feeding. Your baby should wet at least as many diapers as they are days old. The baby should pass one to two meconium stools (looking black or green and tarry) daily. The stools will eventually change to transitional green and/or brown colored stools.

If the baby is not staying awake and nursing well, hand express or start pumping to stimulate milk production and provide expressed milk. Giving these extra calories will help make your baby more alert and improve breastfeeding.

Contact your pediatrician and/or lactation consultant if feedings are not improving after discharge from the hospital.

After Day 4

By this time, your baby should be nursing well for a minimum of eight to 12 times daily. Wake the baby if needed to feed and ensure they are getting enough milk. The baby should be softening at least one breast with each feeding to get to the hind milk or higher fat. Once that happens, burp the baby and offer the second breast.

Six or more wet diapers and a few dirty diapers daily are good signs that your baby is getting enough milk. Bowel movements will change to a yellow color and seedy texture. If all is going well, your baby should feel content and relaxed after feeding.

Most babies lose about 5 to 7 percent of their body weight in the first few days of life. By the fourth day and after, your baby's weight should stabilize. They should start to gain weight as milk production increases.

Keep your baby awake and engaged during the feedings. Offer both breasts with each feeding as this helps establish the milk supply. If the baby won't take the second breast, then you may need to pump that side for your comfort. At each feeding, start on the side you ended with during the prior feeding. Try to alternate the breast that begins each feeding.

Burping

Not all babies burp in the early days of nursing when the milk flow is low, but you should try for a few minutes. Sit the baby in your lap and support their chin with your hand. Lean the baby forward and pat in between the baby's shoulder blades. Alternative ways to burp the baby include holding them over your shoulder or laying them belly down across your lap.

Engorged Breasts: Prevention and Treatment

It is normal for your breasts to feel full or engorged three to five days after childbirth. The changes in colostrum from transitional and then to mature milk causes this sensation. The breasts feel heavy and warm. They may become tender as the milk volume increases, and there is more circulation to the breasts. Mild swelling is common. However, if the baby is not nursing frequently or is not adequately draining the breast, the breasts can become swollen. When this happens the breast may feel hard and/or lumpy. You may have tight, stretched skin, and the nipple may be taut. This situation may cause the baby to have more difficulty latching. The swelling usually decreases within 24 to 48 hours if treated properly.



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The secret to minimizing engorgement is frequent, unrestricted nursing.

Keep breastfeeding your baby eight to 12 times daily. If they are sleepy, wake them to feed at least every two to three hours. Avoid pacifiers, bottles and formula supplementation in the early days.

Hand express or pump for a few minutes to soften the nipple/areola if the baby is having difficulty sustaining a deep latch. Use warm compresses and massage for a few minutes before nursing to help soften and increase milk flow from the breasts. If the baby does not nurse the second breast and it is full and uncomfortable, pump that side to soften as needed but avoid overstimulation.

After nursing, apply cold compresses to the breast (bag of frozen peas or corn work well) for 15 to 20 minutes to help decrease the swelling. Cold cabbage leaves are an alternative but should only be used a maximum of four times daily; more frequent use may decrease milk production. Take ibuprofen every six hours as ordered by your physician.

If your engorgement is severe, the breasts may become painful or reddened. You may need to pump if the baby is too sleepy or not nursing well. Prolonged engorgement can lead to decreased milk production. More frequent and effective breastfeeding helps establish a better milk supply.

Plugged Ducts and Mastitis

A plugged duct is similar to a clogged drain: the milk cannot flow. Plugged ducts can feel like a jellybean or lump and often are tender to touch. They often develop as a result of severe engorgement, pressure on an area of the breast (such as constrictive clothing like an improper fitting bra) or from poor drainage if the baby is not nursing well.

To treat a plugged duct:

- Apply a warm moist compress to the area or gently massage the breast before and during feeding.
- Nurse your baby frequently, starting with the affected breast.
- Alternate positions with feeding, pointing the baby's chin in the direction of the plug.
- Get extra rest, stay hydrated and take care of yourself.

You may need to repeat some or all of these tips for several feedings to help loosen the plugged duct.

If clogged for too long, a plugged duct can become inflamed and lead to a type of breast infection called mastitis. Mastitis can also occur if nipples are damaged from improper latching. It is not the breast milk that is infected, but the tissue surrounding the blockage. Symptoms may include a red, swollen, painful, hardened

area on the breast, flu like symptoms with fever (greater than 100.4 degrees) and chills. If your symptoms don't go away in two to three days, call your physician for possible antibiotic treatment and advice.

By 2 Weeks

Your baby should be back to their birth weight by this time. Nursing eight to 12 times daily, they will be wetting six or more diapers and having frequent yellow, seedy stools each day. Happy and full, your baby should be relaxed and sleepy after feedings. The baby will continue weight gain of approximately four to eight ounces weekly in their first months of life.

Breastfeeding Difficulties

You may have some challenges in the first few weeks of breastfeeding. Be kind to yourself and your baby. With time and patience, you will feel more confident. Don't hesitate to seek help from an outpatient lactation consultant if you continue to have difficulties.

Common concerns of many breastfeeding mothers:

Sore Nipples:

Some tenderness in the first few days is normal. It is often caused by the baby stretching the nipple deep in their mouth. If nipple tenderness continues, it may be due to improper positioning or latch.

Use a warm compress for a few minutes before latching the baby to help soften the irritated nipple. Start feeding on the least sore side. In the first few minutes of feeding, try to relax by taking deep breaths. Make sure the baby's lips are flanged outward. Wait for their mouth to be wide open and direct your nipple to the roof of the baby's mouth.

Always break the suction before removing the baby from your breast. After nursing, hand express your breast milk and apply to the nipple (let the nipple air dry). Apply purified lanolin, olive oil or coconut oil-based ointment to the sore nipple(s). Use hydrogel pads to help soothe the pain.

Call your healthcare provider or lactation consultant if you're experiencing cracked or bleeding nipples.

Growth Spurts:

There will be days when your baby is nursing more than usual and cluster feeding throughout the day or night. Your baby is telling your body to make more milk to supercharge their growth. Growth spurts occur at



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predictable times: around two weeks, six weeks, three months and six months. Or, the baby may have random days of insatiable hunger.

Growth spurts can cause your baby to be fussier than normal. Follow your baby's feeding cues. This frequent nursing will increase your milk production. After a day or two, your baby should be more content and go back to their "normal" pattern of nursing. Signs like softened breasts, frequent swallowing and normal output will indicate that your milk supply is meeting your baby's needs.

Supplementing a Breastfeeding Infant

The American Academy of Pediatrics (AAP) recommends avoiding supplementing breastfed infants with anything other than the mother's breastmilk. With early initiation of breastfeeding after birth, lactation assistance in the hospital and ongoing education, most mothers successfully breastfeed. Often new parents feel their baby is not getting enough milk. Or, the mother is not producing any milk in the first couple of days. They choose to supplement with formula. While well meaning, providing "extra" nourishment in this non-breast way may jeopardize successful breastfeeding in the early days.

Some risks of formula supplementation:

- Introducing an artificial bottle nipple may lead to troubles latching on to the breast. For your baby, sucking at a breast is different than on a bottle nipple.
- Feeding from a bottle, the baby may take in too much milk because of the faster flow of liquid. This could cause them to be sleepy for their next feeding.
- Deeply stimulating to the palate, the artificial nipple may become more appealing to the baby than the breast.
- Substituting a bottle for the breast means the baby is not feeding from the breast which could result in delayed milk production.
- Feeding with formula changes the baby's gut flora. This can decrease the healthy bacteria that protects against viral infections.
- Supplementing with formula can often lead to decreased duration or early cessation of breastfeeding.

If there is a medical reason for supplementing the baby, then the first option would be to hand express or pump to provide milk for the baby. (Please see sections on hand

expression and using a breast pump.) If this is not possible, then formula supplementation may be your best alternative.

Possible reasons for feeding healthy, term infants with formula, according to the American Academy of Breastfeeding Medicine Protocols:

- Documented hypoglycemia (low blood sugar) that is not responding to frequent breastfeeding.
- Weight loss of more than 10 percent by day 5 or later.
- Poor feeding and/or lethargy that does not improve with proper management of breastfeeding.
- Decreased urine output and bowel movements.
- Jaundice with high bilirubin levels.
- Delayed or poor milk production from the mother because of insufficient glandular tissue.
- Prior breast surgery affecting milk production and inadequate intake by the baby.
- Painful breastfeeding that is not relieved by interventions.
- Temporary separation of mother and baby.

If you experience difficulty with breastfeeding or establishing an adequate milk supply at home, contact your baby's pediatrician and outpatient lactation services for additional evaluation and support.

For questions after discharge, you may call the Highland Park Hospital Lactation Consultant **(847) 480-3702**.

Breast Milk Expression using a Breast Pump

Pumping your breast milk shortly after the baby's birth may occur for several reasons. Breastfeeding may not be possible if the baby is born early or you and your newborn are separated. In these cases and others, it is important to initiate pumping using a hospital grade breast pump in the first few hours after delivery.

If your baby continues to be sleepy and not interested in breastfeeding in the early days, pumping can help establish milk production. It also can provide a supplement of your expressed milk. However, if your baby is nursing well, try focusing on feeding the baby directly at the breast.

As time passes you may want to pump to have extra milk in the refrigerator or freezer. Pumping will also allow you to



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prepare a stockpile to go back to work or school. There are a variety of breast pumps available. Read the directions on how to use your pump and clean the pump pieces prior to first using.

Basic pumping tips:

- Take a few minutes to relax and massage your breasts before pumping.
- Make sure that the breast shields (flanges) fits comfortably with the size of your nipples.
- Hold the breast shield so that your nipple is well centered and moves freely in the funnel.
- Pump for about 15 to 20 minutes to stimulate milk production and/or soften the breast if you have full milk production.
- Massage your breasts while pumping may yield more milk. This can be done with a hands-free pumping bra or sports bra with holes cut out to attach pump pieces.

Nutrition for Breastfeeding Mothers:

Exclusively breastfeeding mothers need on average about 300 to 500 calories more than their regular diet in the early months after childbirth. No need to count calories but do listen to your body. Feeling hungry? Need an energy boost? Then eat nutritious snacks in-between your main meals. Your calorie intake will also depend on your activity level.

Follow the same nutrient-rich well-balanced diet that you consumed during pregnancy. Take a prenatal vitamin as suggested by your physician. There are no special foods that you must eat or avoid while breastfeeding. Unless you notice an obvious reaction in your baby, most foods you consume should be fine. Stay hydrated by drinking to satisfy thirst and have drinking water close by during nursing.

Consume caffeine in moderation: higher doses can make the baby more irritable and/or restless, or effect their sleep cycles. Eat certain large fish (tuna, shark or swordfish) in moderation as they may contain potentially high mercury levels.

Visit www.ChooseMyPlate.gov for helpful meal planning.

CDC Guidelines for Breast Milk Storage

Human Milk Storage Guidelines

TYPE OF BREAST MILK	STORAGE LOCATIONS AND TEMPERATURES		
	Countertop 77°F (25°C) or colder <i>(room temperature)</i>	Refrigerator 40 °F (4°C)	Freezer 0°F (-18°C) or colder
Freshly Expressed or Pumped	Up to 4 Hours	Up to 4 Days	Within 6 months is best Up to 12 months is acceptable
Thawed, Previously Frozen	1–2 Hours	Up to 1 Day <i>(24 hours)</i>	NEVER refreeze human milk after it has been thawed
Leftover from a Feeding <i>(baby did not finish the bottle)</i>	Use within 2 hours after the baby is finished feeding		

These guidelines are for healthy full-term babies and may vary for premature or sick babies. Check with your health care provider.

Find more breastfeeding resources at: WICBreastfeeding.fns.usda.gov
www.cdc.gov/breastfeeding/



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The Centers for Disease Control (CDC) and Prevention report that the safest option for breastfeeding mothers is to avoid alcohol. “Generally, moderate alcohol consumption by a breastfeeding mother (up to one standard drink per day) is not known to be harmful to the infant, especially if the mother waits at least two hours after a single drink before nursing. Exposure greater than that could be harmful to the baby’s development, growth and sleep patterns. It could also impair a mother’s judgement and ability to safely care for her baby.”¹

Some babies may be sensitive to certain proteins that pass into the mother’s milk through her bloodstream. Breast milk is not affected, however, by what is in the mother’s digestive tract.

Medications and Other Substances

Medications:

Most medications pass into your breastmilk in varying degrees. Some medications can affect your baby and others can affect your milk supply. Check with your healthcare provider or the baby’s pediatrician if you are not sure about the safety of your prescribed or over-the-counter medication. You can also look up information on the LactMed website: <https://www.ncbi.nlm.nih.gov/books/NBK501922>

Smoking:

Nicotine passes into breast milk and can decrease the milk supply. It can also increase a baby’s risk of Sudden Infant Death Syndrome (SIDS) and other respiratory illnesses. Tobacco can allow harmful chemicals to pass through to babies via breastmilk or second-hand exposure.

Marijuana:

Although now legalized in many states, marijuana use poses a potential concern for breastfeeding moms. Little is still known about how it can affect the baby. According to the CDC: “Present data are insufficient to assess effect of exposure of infants to maternal marijuana use during breastfeeding. As a result, maternal use while breastfeeding is discouraged. It can also impair a mother’s judgement and ability to care for her baby.”²

Illicit drugs:

Substances such as amphetamines, cocaine and heroin can pass through breast milk and are harmful to the baby.

1. <https://www.cdc.gov/breastfeeding/breastfeeding-special-circumstances/vaccinations-medications-drugs/alcohol.html>

2. <https://www.cdc.gov/breastfeeding/breastfeeding-special-circumstances/vaccinations-medications-drugs/marijuana.html>

Returning to Work or School

If you will be returning to work or school, pumping will allow you to continue to provide breast milk for your baby. Ease into the transition away from home. Give yourself a few weeks to prepare in advance. Your breast pump will become your best friend. Become familiar with how it works and how to clean the pump pieces.

Start pumping to introduce a bottle of expressed milk to the baby at least four to six weeks after childbirth. Use relaxation techniques and look at a picture or video of your baby while pumping. A “hands free” pumping bra will allow you to massage your breasts while pumping.

To provide breast milk to store in refrigerator or freezer:

- Pump in the morning, about an hour after the baby has nursed.
- Pump the second breast if your baby has only nursed from one side.
- Pump immediately after several of the feedings throughout the day to obtain the hind milk. You can combine these expressions of milk once they are all cold.
- Using manual expression before or after pumping may yield more milk.

Make sure your childcare provider knows how to store breastmilk and what is normal output for a breastfed baby. Talk with your employer about a place to pump at work and the number of times you plan to pump throughout your work day. If you’re working full time, try to start back either part time the first couple of weeks or midweek if possible. Have a “practice” day or two before going back to work or school. Organize all essential items for your pumping bag, cooler to transport your milk and diaper bag for the baby. Wake up early that first day so you are not rushed.

In the beginning of your return to work, try to mimic your baby’s feeding schedule by pumping about every three hours. As your baby becomes older and starts stretching out their feedings, you may only have to pump a couple of times during your work day. The milk you pump on one day is often what your childcare provider will give to the baby the next day while you are away at work.

On the days that you are home with your baby, try to nurse as frequently as your baby wants. This will help maintain your milk production. Continue to take care of yourself: eat well, stay hydrated and get adequate rest. It can be challenging when you first start back to work as a new mother. You will find others who have gone before you will give you helpful advice!

Contact a lactation consultant if you have concerns about your milk supply or the transition back to work or school.



Formula Feeding Education

For the first year of life, infants need to get their food and nutrients from either breast milk or formula or a combination of the two. They are not able to digest cow's milk until after 12 months of age.

The three main types of formula are cow's milk-based, soy formula and specialized formula for certain situations. Your pediatrician will help you determine the best formula for your baby. Formula also comes in a variety of preparations: ready to feed, liquid concentrate and powdered.

In the early months of life, your baby's immune system and ability to fight off bacteria and viruses needs time to develop. Using clean bottles and other feeding items every time you bottle feed—formula or breastmilk—is essential to the health of your baby.

Preparing Clean Bottles:

- Wash your hands before preparing bottles and feeding your baby.
- Always sanitize bottles before the first use to keep your formula or breast milk germ-free. Using a dishwasher or washing by hand both work well for cleaning your baby's feeding items.
 - If using a dishwasher, make sure the feeding items are dishwasher safe. Separate all the bottle parts (nipples, caps, rings and valves) and rinse them under running water. Place the bottle parts and other feeding items in the dishwasher. If possible, run the machine using hot water and a heated drying cycle to help kill more germs. Wash your hands before removing the bottles and other feeding items from the dishwasher.
 - If washing by hand, wash your hands well with soap and water for 20 seconds. Separate all the bottle parts (nipples, caps, rings and valves) and rinse them under warm or cold running water. Do NOT place or wash them in the sink because it could transfer germs. Use a clean basin or container used only to clean infant feeding items. Fill the basin with hot water and add soap. Scrub items with a clean brush used only for infant feeding items. Squeeze water through nipple holes to be sure they get clean. Rinse the wash basin and brush, and wash them every few days either in a dishwasher (with hot water and a heated drying cycle for dish-washer safe items) or by hand with soap and warm water.
 - For extra protection, sanitize your baby's bottles and/or other feeding items by boiling them in water for five minutes in a large pot. Or use a microwave steamer or the sanitizing cycle on your dishwasher.

- Allow feeding and cleaning items to air dry on a clean, unused dish towel or paper towel.
- Sanitize feeding items once a day if your baby is premature, has a weakened immune system or is less than 3 months old.

Safe Formula Feeding

Feeding your baby formula is no different than feeding yourself or other family members. You want to provide safe and nutritious food for the health and wellness of all. Proper preparation and handling of formula reduces risk of illness.

Like any food, prepared formula can spoil. Always use infant formula before its expiration date. Keep opened ready-to-feed and prepared formula in the refrigerator and use it within 24 hours of opening. Do not leave formula unrefrigerated for more than 24 hours. Discard any formula left in the bottle after a feeding.

Many infants prefer feeding on room temperature or lukewarm formula. DO NOT use a microwave to warm up formula (or breast milk) for your baby. It may unevenly heat the formula and potentially leave hot spots that could scald your baby's mouth and throat. Safely warm the formula by running it under warm tap water for a few minutes, putting it in a bowl of hot water or using a bottle warmer.

Shake to mix the formula before offering it to your baby. Check the formula temperature with a few drops on your inner wrist before feeding. Do not give water to your baby in-between feedings.

Preparing Formula

Today, parents have many choices of infant formulas to fit their needs and budget. Ready to feed is most expensive but convenient. Just fill a bottle with the amount that your baby will need, and you are ready to feed your baby.

For powdered and liquid concentrate formulas, use water from a safe source such as bottled water or, for extra caution, boil water for one minute. Let the water cool for about 30 minutes before mixing it with the formula. Make sure to read the instructions on the infant formula container and use the recommended amount of water. Too much may make the formula less nutritious and not provide the calories and nutrients your baby needs. Not enough may make the formula hard for your baby's GI system to process, causing digestive or kidney problems.



Formula Feeding Education

If your baby is under 3 months old, premature or has a weakened immune system, take extra precautions in preparing the formula to prevent Cronobacter. Serious but rare, this infection has been linked to bacteria in powdered formula.

Storage Pointers:

- Store unopened, ready to use formula in a cool, dry place.
- Once powdered formula is opened, store in cool, dry place. Check label for how long it is safe to use. Helpful Tip: Write the date on lid of when you opened the container for the first time.

Bottle Feeding

Feeding time should be relaxed and enjoyable for you and your baby. Start bottle feeding by holding your baby in an upright position. The baby should never lie flat on their back or feed from a propped up bottle.

Take advantage of the baby's natural rooting reflex to get the nipple of the bottle into their mouth. Softly stroke the nipple against the baby's upper lip. As your baby opens their mouth, insert the nipple. Your baby should start sucking and swallowing once the nipple is in place.

Helpful Feeding Techniques:

- Keep the nipple filled with milk as you feed. This prevents the baby from swallowing excess air while sucking.
- Take the nipple out periodically to allow your baby to rest as needed
- Use slow flow nipples in early weeks and burp your baby frequently.
- If the formula is flowing too fast, pace the feeding by holding the bottle level and sitting your baby more upright.
- Use chin support if your baby is not sucking effectively.

Most babies will take ½ to 1 ounce (15 to 30 milliliters) of formula in the first couple of days after birth. The amount will then increase to 1 to 2 ounces by the time the baby is three or four days old. If the bottle is empty and your baby still is smacking their lips or opening their mouth, they may need more.

After the feeding, burp your baby on your shoulder, sitting in your lap with their chin cupped in your hand, or lying tummy down across your lap. Gently pat or rub your baby in-between their shoulder blades.

A happy, content baby after feeding is often a well-fed baby. Six or more wet diapers and a few dirty diapers in a 24-hour period are also good signs your baby is getting enough formula. Weight gain at a steady pace is further proof that the formula is providing the necessary nutrients a growing baby needs.



Pregnancy and Postpartum Care
Guide

Physicians





Choosing a Physician for Your Newborn

As your pregnancy progresses, choosing a physician for your newborn is another important step. If this is your first child, you need to understand the importance of this decision. A good physician is more than a person to call when your baby has a fever. It's someone who will chart your child's development, address concerns, answer questions about your child's health, and see your child regularly for well and sick visits.

There are multiple resources available for choosing a physician for your newborn. The best place to begin your journey for choosing a physician is with your Obstetrician or Nurse Midwife, physician, family, friends and colleagues. Ask them for recommendations and start gathering a list of names. After you collate this information, write up some

questions and call to set up an interview. When choosing a physician, you should take into account the following:

- Professional qualifications
- Healthcare viewpoints on various issues such as proactive/preventive medicine and nutrition
- Office hours—weekends, evenings, emergencies and after-hours answering service
- Physician cross-coverage and triage—who are the other physicians on the team when your physician is not available
- Location—more than one office
- Connection—online access to your child's medical records
- Health insurance coverage—HMO/PPO—how do you pay for the visits?

Please visit [northshore.org](https://www.northshore.org) to learn more about our physicians and services, and where you can view their video profiles and educational experience.



Pregnancy and Postpartum Care
Guide

Postpartum





Postpartum Recovery

Postpartum Recovery

As soon as you welcome your baby into the world, your body will begin the journey back to its pre-pregnancy state. This postpartum period usually lasts for about six weeks after delivery. During this time, you will need to take it easy. Listen to your body as it recovers. After all, you and your body have been hard at work.

What You May Experience

- **Afterbirth pains:** As your uterine muscles shrink back to their pre-pregnancy size, you may have cramps. They may be accompanied by a sudden gush of blood or heavier flow, particularly when you are breastfeeding. Even though uncomfortable, these cramps are normal and even beneficial, because they help your uterus shrink and prevent future blood loss. Emptying your bladder before breastfeeding and/or applying a warm compress to your abdomen can ease the discomfort. Taking ibuprofen about one half hour before nursing can also help.
- **Vaginal bleeding:** You will have a vaginal discharge called lochia for two to three weeks after delivery. At first it will appear red, gradually change to brown and then taper off to yellow or a clear mucous-like discharge. If you have abdominal pain and fever or your lochia becomes foul smelling, call your caregiver. Use your peri bottle filled with warm water every time you go to the bathroom until the lochia stops. If the flow has been darkening or has stopped for several days, then returns as a gush of heavy red bleeding, don't worry – that is normal. Pay attention to your body. It may be telling you that you are doing too much, too soon!
- **Swollen perineum:** Discomfort of the perineum—the area between your vaginal opening and rectum—is not uncommon. Pushing and delivery during the birthing process can stretch and bruise the perineum. You may have been given an episiotomy, a small cut made at the bottom of the vagina to widen the opening for the baby, or you may have had tears in the perineal tissue. Sitz baths once or twice daily offer relief for bothersome stitches that eventually dissolve within two to six weeks.
- **Hemorrhoids:** Irritated varicose veins inside or just outside the rectum, hemorrhoids sometimes occur in pregnancy. They can develop from pressure on rectal veins from the enlarged uterus or from pushing during delivery. They can be painful and may bleed and itch, especially after moving your bowels. Fortunately, they usually disappear completely, or become less of a problem, within the first two weeks after delivery.
- **Constipation:** Your first bowel movement after delivery may occur any time up to approximately five days after giving birth. This first movement need not be uncomfortable and should not damage your stitches. Avoid constipation by drinking plenty of fluids, adding high fiber food to your diet and taking a daily walk to get your body—and bowels—moving. Your care team may also recommend a stool softener to use daily until your bowel movements are regular.
- **Menstruation:** The length of time before your period resumes varies. Most women who are not breastfeeding menstruate within four to six weeks after delivery. Women who are giving their babies breast milk exclusively usually don't menstruate for the first two to three months after delivery, or they may not get a period for the entire time they are nursing. If you are combining breast milk with formula, when your period will resume is less predictable. Your first two to three periods may be irregular. The bleeding may stop and start. The flow may be very heavy or light. It may last longer than usual or for only a day or two. Ovulation may precede your first post-partum period, so remember: it is possible to get pregnant before you get your first period!



Postpartum Recovery

Cesarean Section Incision Care

If you had a cesarean section, you will need to take care of the incision so that it heals well. Be sure to practice good hygiene and keep the incision clean and dry. Avoid the use of powder or lotion during the six-week postpartum recovery period. Keep pets away from your incision until it is healed. You can take showers, but do not take tub baths until approved by your healthcare provider. If steri-strips were placed on your incision in the hospital, leave them in place until they fall off.

Watch for signs and symptoms of infection. Contact your healthcare provider if you have redness, swelling, tenderness, or yellow drainage (pus); localized pain; temperature greater than 100.4 degrees Fahrenheit (oral); chills, or your incision is separating, or if you do not feel well.

Diet and Exercise

Eating a well-balanced healthy diet is essential for fueling your body and helping it recover postpartum.

While it is tempting to start losing any baby weight, we do not recommend a weight-reducing diet for breastfeeding moms. If you are nursing, continue taking your prenatal vitamins and drink plenty of fluids (such as water and milk) each day.

Your healthcare provider will instruct you on safely exercising during the first few postpartum weeks. Exercise helps to increase calorie use as well as to tone and reshape your body. Check in with your physician or midwife before beginning any new exercise program. Exercise will not only help you return to your pre-pregnancy figure, but it will also aid muscle tone for future pregnancies.

Comprehensive Postpartum Visit

Your healthcare partners are here to help you with postpartum issues including bleeding, breastfeeding, emotional recovery, urinary concerns, or to check on a wound from vaginal or cesarean delivery. A comprehensive postpartum visit should be scheduled between 2-6 weeks and no later than 12 weeks after birth. Discuss the exact timing of the visit with your healthcare provider, as the recommendation varies based on your specific needs.

At this visit, your caregiver will assess your physical, social and psychological wellbeing, including:

- Physical recovery from birth
- Sleep and fatigue
- Mood and emotional well-being
- Chronic disease management
- Health maintenance
- Infant care and feeding
- Sexuality, contraception and birth spacing

During this appointment, please feel free to ask your caregiver any questions or discuss any concerns that you may have. Having a baby is a life-changing event. We offer many resources to support your postpartum recovery, no matter if your newborn is your first child or one of many.



Annual Well-Woman Exam

Top reasons why you should have an annual well-woman examination:



Birth Control

Learn about choosing the right birth control method for you. Some examples include the birth control pill, intrauterine device (IUD), patch, condom or implant.



Cancer Screening

Learn more about breast cancer, colon cancer or other types of cancer.



Vaccinations

Get vaccinations against the flu, human papillomavirus (HPV) and more.



Health Screening

Get screened for high blood pressure, diabetes, bone density for osteoporosis and more.



Depression Screening

Depression is a common but serious illness. It can be mild, moderate or severe. To diagnose depression, your obstetrician-gynecologist or other healthcare provider will discuss your symptoms, how often they occur and how severe they are.



Sexually Transmitted Infections Screening

Sexually transmitted infections (STIs), such as chlamydia, gonorrhea and genital herpes, are infections that are spread by sexual contact.



Concerns About Sex

Discuss what happens during intercourse, pain during sex, hormonal changes that change interest or response to sex, or different forms of sex.



Weight Control

Learn about body mass index (BMI), exercise, obesity, diet, surgery and health problems associated with being overweight.



Issues with Your Menstrual Period

Discuss premenstrual syndrome (PMS), painful periods, your first period, heavy bleeding or irregular periods.



Preconception Counseling

If you're planning to become pregnant, it's a good idea to have preconception counseling. Your obstetrician-gynecologist or health care provider will ask about your diet and lifestyle, your medical and family history, medications you take, and any past pregnancies.



Other Reasons

Get help with menopause symptoms, urinary incontinence, getting pregnant or relationship problems.



Your Body After Baby— Stay Fit and In Control

After having a baby, it's natural for all focus to be on the newborn, the new center of your universe. But it's important to remember your body has just gone through a major physical event. Did you know that between 30 to 50 percent of moms report some loss of bladder control by age 40? Or that 25 percent of women notice some change in sexual function after six-months postpartum? These are problems that can diminish quality of life at home, in the bedroom or at work. And in most cases, these problems are preventable. Now is the best time to take control of your body and optimize your pelvic and core fitness, starting with a better understanding of “what's going on down there.”

Pelvic Floor: A group of supportive muscles and connective tissues that keep your pelvic organs (uterus, bladder, bowels) in their proper positions.

A strong and healthy pelvic floor helps you maintain control over your bladder and bowels, and helps you to feel normal “tone.” Even during a “normal” pregnancy and delivery, the pelvic floor undergoes enormous strain and can become stretched and weakened. After childbirth, it's important to rehabilitate your pelvic floor.

What Happens When the Pelvic Floor is Injured or Weak?









- **Pelvic Organ “Prolapse”:** Weakened tissues can lead to a feeling of looseness, “dropping,” or pressure in the pelvic area and vagina.
- **Perineal Injury:** The perineum is the skin and muscle just below the vaginal opening. It has a lot of nerve endings and is sometimes affected by childbirth and/or episiotomy, leading to “looseness” or tenderness.
- **Stress Urinary Incontinence:** Accidental urine leakage occurring at the moment of a cough, sneeze, exercise or physical exertion. This impacts nearly 50 percent of moms by age 40, and if you have it—don't worry, just get help. Over 90 percent of cases can be completely cured.
- **Overactive Bladder (OAB):** Strong urges to urinate, frequent trips to the bathroom and, sometimes, leakage. Do you “map” the next bathroom when you're out of the house, anticipating the next sudden urge? If so, you may have OAB, a highly treatable condition.
- **Sexual Dysfunction:** Sexual changes after childbirth are common and often resolve with time and healing. But if not, there's help to be found, starting with a pelvic floor assessment.

We are here to help. If you have any of the above issues, please follow up with your physician.



Contraceptives

Your Temporary Birth Control Choices







Method	How well does it work?	How to Use	Pros	Cons
The Implant Nexplanon® 	> 99%	A health care provider places it under the skin of the upper arm It must be removed by a health care provider	Long lasting (up to 3 years) No pill to take daily Often decreases cramps Can be used while breastfeeding You can become pregnant right after it is removed	Can cause irregular bleeding After 1 year, you may have no period at all Does not protect against human immunodeficiency virus (HIV) or other sexually transmitted infections (STIs)
Progestin IUD Liletta®, Mirena®, Kyleena®, Skyla® 	> 99%	Must be placed in uterus by a health care provider Usually removed by a health care provider	Mirena® and Kyleena® may be left in place for 5 years Skyla® and Liletta® may be left in place up to 3 years No pill to take daily May improve period cramps and bleeding Can be used while breastfeeding You can become pregnant right after it is removed	May cause lighter periods, spotting, or no period at all Rarely, uterus is injured during placement Does not protect against HIV or other STIs
Copper IUD ParaGard® 	> 99%	Must be placed in uterus by a health care provider Usually removed by a health care provider	May be left in place for up to 12 years No pill to take daily Can be used while breastfeeding You can become pregnant right after it is removed	May cause more cramps and heavier periods May cause spotting between periods Rarely, uterus is injured during placement Does not protect against HIV or other STIs
The Shot Depo-Provera® 	94-99%	Get a shot every 3 months	Each shot works for 12 weeks Private Usually decreases periods Helps prevent cancer of the uterus No pill to take daily Can be used while breastfeeding	May cause spotting, no period, weight gain, depression, hair or skin changes, change in sex drive May cause delay in getting pregnant after you stop the shots Side effects may last up to 6 months after you stop the shots Does not protect against HIV or other STIs
The Pill 	91-99%	Must take the pill daily	Can make periods more regular and less painful Can improve PMS symptoms Can improve acne Helps prevent cancer of the ovaries You can become pregnant right after stopping the pills	May cause nausea, weight gain, headaches, change in sex drive – some of these can be relieved by changing to a new brand May cause spotting the first 1-2 months Does not protect against HIV or other STIs
Progestin-Only Pills 	91-99%	Must take the pill daily	Can be used while breastfeeding You can become pregnant right after stopping the pills	Often causes spotting, which may last for many months May cause depression, hair or skin changes, change in sex drive Does not protect against HIV or other STIs
The Patch Ortho Evra® 	91-99%	Apply a new patch once a week for three weeks No patch in week 4	Can make periods more regular and less painful No pill to take daily You can become pregnant right after stopping patch	Can irritate skin under the patch May cause spotting the first 1-2 months Does not protect against HIV or other STIs
The Ring Nuvaring® 	91-99%	Insert a small ring into the vagina Change ring each month	One size fits all Private Does not require spermicide Can make periods more regular and less painful No pill to take daily You can become pregnant right after stopping the ring	Can increase vaginal discharge May cause spotting the first 1-2 months of use Does not protect against HIV or other STIs

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Contraceptives

Your Temporary Birth Control Choices

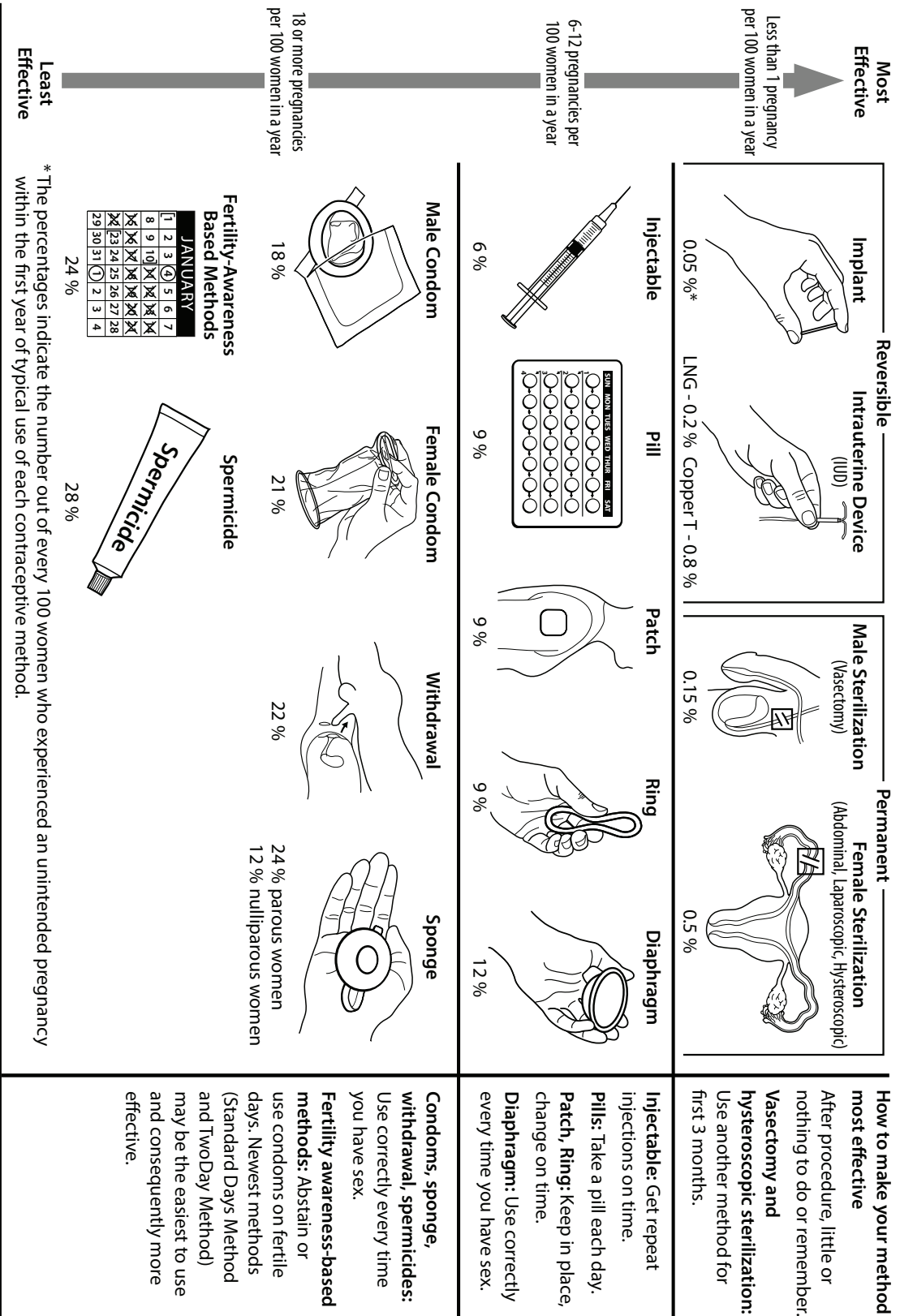
Method	How well does it work?	How to Use	Pros	Cons
Male/External Condom 	82-98%	Use a new condom each time you have sex Use a polyurethane condom if allergic to latex	<ul style="list-style-type: none"> Can buy at many stores Can put on as part of sex play/foreplay Can help prevent early ejaculation Can be used for oral, vaginal, and anal sex Protects against HIV and other STIs Can be used while breastfeeding 	<ul style="list-style-type: none"> Can decrease sensation Can cause loss of erection Can break or slip off
Female/Internal Condom 	79-95%	Use a new condom each time you have sex Use extra lubrication as needed	<ul style="list-style-type: none"> Can buy at many stores Can put in as part of sex play/foreplay Can be used for anal and vaginal sex May increase pleasure when used for vaginal sex Good for people with latex allergy Protects against HIV and other STIs Can be used while breastfeeding 	<ul style="list-style-type: none"> Can decrease sensation May be noisy May be hard to insert May slip out of place during sex
Withdrawal Pull-out	78-96%	Pull penis out of vagina before ejaculation (that is, before coming)	<ul style="list-style-type: none"> Costs nothing Can be used while breastfeeding 	<ul style="list-style-type: none"> Less pleasure for some Does not work if penis is not pulled out in time Does not protect against HIV or other STIs Must interrupt sex
Diaphragm 	88-94%	Must be used each time you have sex Must be used with spermicide	<ul style="list-style-type: none"> Can last several years Costs very little to use May protect against some infections, but not HIV Can be used while breastfeeding 	<ul style="list-style-type: none"> Using spermicide may raise the risk of getting HIV Should not be used with vaginal bleeding or infection Raises risk of bladder infection
Fertility Awareness Natural Family Planning 	76-95%	Predict fertile days by: taking temperature daily, checking vaginal mucus for changes, and/or keeping a record of your periods It works best if you use more than one of these Avoid sex or use condoms/spermicide during fertile days	<ul style="list-style-type: none"> Costs little Can be used while breastfeeding Can help with avoiding or trying to become pregnant 	<ul style="list-style-type: none"> Must use another method during fertile days Does not work well if your periods are irregular Many things to remember with this method Does not protect against HIV or other STIs
Spermicide Cream, gel, sponge, foam, inserts, film 	72-82%	Insert spermicide each time you have sex	<ul style="list-style-type: none"> Can buy at many stores Can be put in as part of sex play/foreplay Comes in many forms: cream, gel, sponge, foam, inserts, film Can be used while breastfeeding 	<ul style="list-style-type: none"> May raise the risk of getting HIV May irritate vagina, penis Cream, gel, and foam can be messy
Emergency Contraception Pills Progestin EC (Plan B® One-Step and others) and ulipristal acetate EC (ella®) 	58-94%	Works best the sooner you take it after unprotected sex You can take EC up to 5 days after unprotected sex If pack contains 2 pills, take both together	<ul style="list-style-type: none"> Can be used while breastfeeding Available at pharmacies, health centers, or health care providers: call ahead to see if they have it People of any age can get some brands without a prescription 	<ul style="list-style-type: none"> May cause stomach upset or nausea Your next period may come early or late May cause spotting Does not protect against HIV or other STIs If you are under age 17 you may need a prescription for some brands Ulipristal acetate EC requires a prescription May cost a lot

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Contraceptives



Effectiveness of Family Planning Methods



*The percentages indicate the number out of every 100 women who experienced an unintended pregnancy within the first year of typical use of each contraceptive method.

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Centers for Disease Control and Prevention

CONDOMS SHOULD ALWAYS BE USED TO REDUCE THE RISK OF SEXUALLY TRANSMITTED INFECTIONS.

Other Methods of Contraception

Lactational Amenorrhea Method: LAM is a highly effective, temporary method of contraception.

Emergency Contraception: Emergency contraceptive pills or a copper IUD after unprotected intercourse substantially reduces risk of pregnancy.

Adapted from: World Health Organization (WHO) Department of Reproductive Health and Research, Johns Hopkins Bloomberg School of Public Health/Center for Communication Programs (CCP). Knowledge for health project: Family planning: a global handbook for providers (2011 update). Baltimore, MD: Geneva, Switzerland: CCP and WHO; 2011; and Trussell J. Contraceptive failure in the United States. *Contraception* 2011;83:397-404.

Note: If pages are single, inserted in 3-ring binder or spiral bound, pages 49, 50 are not needed

If pages are stapled, pages 49, 50 are needed. Can be titled “Notes”





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