FIRST TRIMESTER
Routine Tests in Pregnancy

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- Glossary

Why are tests done during pregnancy?
A number of lab tests are suggested for all women as part of routine prenatal care. These tests can help find conditions that can increase the risk of complications for you and your fetus.

What tests are done early in pregnancy?
The following lab tests are done early in pregnancy:

- Complete blood count (CBC)
- Blood type
• Urinalysis
• Urine culture
• Rubella
• Hepatitis B and hepatitis C
• Sexually transmitted diseases (STDs)
• Human immunodeficiency virus (HIV)
• Tuberculosis (TB)

What is a CBC and what can the results show?
A CBC counts the numbers of different types of cells that make up your blood. The number of red blood cells can show whether you have a certain type of anemia. The number of white blood cells shows how many disease-fighting cells are in your blood, and the number of platelets can reveal whether you have a problem with blood clotting.

What is blood typing and what can the results show?
Results from a blood type test can show if you have the Rh factor. The Rh factor is a protein that can be present on the surface of red blood cells. Most people have the Rh factor—they are Rh positive. Others do not have the Rh factor—they are Rh negative. If your fetus is Rh positive and you are Rh negative, your body can make antibodies against the Rh factor. In a future pregnancy, these antibodies can damage the fetus's red blood cells.

What is a urinalysis and what can the results show?
Your urine may be tested for red blood cells (to see if you have urinary tract disease), white blood cells (to see if you have a urinary tract infection), and glucose (high levels may be a sign of diabetes). The amount of protein also is measured. The protein level early in pregnancy can be compared with levels later in pregnancy. High protein levels in the urine may be a sign of preeclampsia, a serious complication that usually occurs later in pregnancy or after the baby is born.

What is a urine culture test and what can the results show?
A urine culture tests your urine for bacteria, which can be a sign of a urinary tract infection.

What is rubella and what do test results for this disease show?
Rubella (sometimes called German measles) can cause birth defects if a woman is infected during pregnancy. Your blood is tested to check whether you have had a past infection with rubella or if you have been vaccinated against this disease. If you have not had rubella previously or if you have not been vaccinated, you should avoid anyone who has the disease while you are pregnant because it is highly contagious. If you have not had the vaccine, you should get it after the baby is born, even if you are breastfeeding. You should not be vaccinated against rubella during pregnancy.

What are hepatitis B and hepatitis C and what do test results for these diseases show?
Hepatitis B and hepatitis C viruses infect the liver. Pregnant women who are infected with hepatitis B or hepatitis C virus can pass the virus to their babies. All pregnant women are tested for hepatitis B virus infection. If you have risk factors, you also may be tested for the hepatitis C virus.

Which STD tests are done in pregnant women?
All pregnant women are tested for syphilis and chlamydia early in pregnancy. Syphilis and chlamydia can cause complications for you and your baby. If you have either of these STDs, you will be treated during pregnancy and tested again to see if the treatment has worked. If you have risk factors for gonorrhea (you are aged 25 years or younger or you live in an area where gonorrhea is common), you also will be tested for this STD.

Why are all pregnant women tested for HIV?
If a pregnant woman is infected with HIV, there is a chance she can pass the virus to her baby. HIV attacks cells of the body's immune system and causes acquired immunodeficiency syndrome (AIDS). If you are pregnant and infected with HIV, you can be given medication and take other steps that can greatly reduce the risk of passing it to your baby.

Which pregnant women should be tested for TB?
Women at high risk of TB (for example, women who are infected with HIV or who live in close contact with someone who has TB) should be tested for this infection.

What tests are performed later in pregnancy?
The following tests are done later in pregnancy:
• A repeat CBC
• Rh antibody test
• Glucose screening test
• Group B streptococci (GBS)

When will I be tested for Rh antibodies?
If you are Rh negative, your blood will be tested for Rh antibodies between 28 weeks and 29 weeks of pregnancy. If you do not have Rh antibodies, you will receive Rh immunoglobulin. This shot prevents you from making antibodies during the rest of your pregnancy. If you have Rh antibodies, you may need special care.

What is a glucose screening test and what can the results show?
This screening test measures the level of glucose (sugar) in your blood. A high glucose level may be a sign of gestational diabetes. This test usually is done between 24 weeks and 28 weeks of pregnancy. If you have risk factors for diabetes or had gestational diabetes in a previous pregnancy, screening may be done in the first trimester of pregnancy.

What is GBS and why are pregnant women tested for it?
GBS is a type of bacteria that lives in the vagina and rectum. Many women carry GBS and do not have any symptoms. GBS can be passed to a baby during birth. Most babies who get GBS from their mothers do not have any problems. A few, however, become sick. This illness can cause serious health problems and even death in newborn babies. GBS usually can be detected with a routine screening test that is given between 35 weeks and 37 weeks of pregnancy. For this test, a swab is used to take samples from the vagina and rectum.

What happens if my GBS screening test result is positive?
If your GBS test result is positive, antibiotics can be given during labor to help prevent the baby from becoming infected.

What is the difference between screening tests and diagnostic tests for birth defects?
Screening tests are done during pregnancy to assess the risk that the fetus has certain common birth defects. A screening test cannot tell whether the baby actually has a birth defect. There is no risk to the fetus with having screening tests.

Diagnostic tests actually can detect many, but not all, birth defects caused by defects in a gene or chromosomes (see FAQ094 Genetic Disorders). Diagnostic testing may be done instead of screening if a couple has a family history of a birth defect, belongs to a certain ethnic group, or if the couple already has a child with a birth defect. Diagnostic tests also are available as a first choice for all pregnant women, including those who do not have risk factors. Some diagnostic tests carry risks, including a small risk of pregnancy loss.

What is the first step in screening for birth defects?
Screening for birth defects begins by assessing your risk factors. Early in your pregnancy, your health care provider may give you a list of questions to find out whether you have risk factors, such as a personal or family history of birth defects, belonging to certain ethnic groups, maternal age of 35 years or older, or having preexisting diabetes. In some situations, you may want to visit a genetic counselor for more detailed information about your risks.

What is a carrier test?
A carrier test can show if you or your partner carry a gene for a certain disorder, such as cystic fibrosis. Carrier tests can be done before or during pregnancy. Carrier testing often is recommended if you or your partner have a genetic disorder, have a child with a genetic disorder, have a family history of a genetic disorder, or belong to an ethnic group that has an increased risk of specific disorders. Also, cystic fibrosis carrier screening is offered to all women of reproductive age because it is one of the most common inherited disorders.

What are other types of screening tests for birth defects that can be performed during pregnancy?
Screening tests include an ultrasound exam in combination with blood tests that measure the levels of certain substances in the mother’s blood.

What are the types of diagnostic tests for birth defects that can be performed during pregnancy?
Diagnostic tests for birth defects include amniocentesis, chorionic villus sampling, and a targeted ultrasound exam.

Can I choose whether or not to have testing for birth defects?
Whether you want to be tested is a personal choice. Knowing beforehand allows the option of deciding not to continue the pregnancy. If you choose to continue the pregnancy, it can give you time to prepare for having a child with a particular disorder and to organize the medical care that your child may need. Your health care provider or a genetic counselor can discuss the options with you and help you decide.
Glossary

**Acquired Immunodeficiency Syndrome (AIDS):** A group of signs and symptoms, usually of severe infections, occurring in a person whose immune system has been damaged by infection with Human Immunodeficiency Virus (HIV).

**Amniocentesis:** A procedure in which a needle is used to withdraw and test a small amount of amniotic fluid and cells from the sac surrounding the fetus.

**Anemia:** Abnormally low levels of blood or red blood cells in the bloodstream. Most cases are caused by iron deficiency, or lack of iron.

**Antibiotics:** Drugs that treat certain types of infections.

**Antibodies:** Proteins in the blood produced in reaction to foreign substances, such as bacteria and viruses that cause infection.

**Bacteria:** One-celled organisms that can cause infections in the human body.

**Carrier:** A person who shows no signs of a particular disorder but could pass the gene on to his or her children.

**Cells:** The smallest units of a structure in the body; the building blocks for all parts of the body.

**Chlamydia:** A sexually transmitted disease caused by bacteria that can lead to pelvic inflammatory disease and infertility.

**Chorionic Villus Sampling:** A procedure in which a small sample of cells is taken from the placenta and tested.

**Chromosomes:** Structures that are located inside each cell in the body and contain the genes that determine a person's physical makeup.

**Cystic Fibrosis:** An inherited disorder that causes problems in digestion and breathing.

**Diabetes:** A condition in which the levels of sugar in the blood are too high.

**Fetus:** The developing organism in the uterus from the ninth week of pregnancy until the end of pregnancy.

**Gene:** A segment of DNA that contains instructions for the development of a person's physical traits and control of the processes in the body. Genes are the basic units of heredity and can be passed down from parent to offspring.

**Genetic Counselor:** A health care professional with special training in genetics and counseling who can provide expert advice about genetic disorders and prenatal testing.

**Gestational Diabetes:** Diabetes that arises during pregnancy.

**Glucose:** A sugar that is present in the blood and is the body's main source of fuel.

**Gonorrhea:** A sexually transmitted disease that may lead to pelvic inflammatory disease, infertility, and arthritis.

**Human Immunodeficiency Virus (HIV):** A virus that attacks certain cells of the body's immune system and causes acquired immunodeficiency syndrome (AIDS).

**Preeclampsia:** A condition of pregnancy in which there is high blood pressure and protein in the urine.

**Prenatal Care:** A program of care for a pregnant woman before the birth of her baby.

**Rh Factor:** A protein that can be present on the surface of red blood cells.

**Rh Immunoglobulin:** A substance given to prevent an Rh-negative person's antibody response to Rh-positive blood cells.

**Sexually Transmitted Diseases (STDs):** Diseases that are spread by sexual contact, including chlamydia, gonorrhea, human papillomavirus infection, herpes, syphilis, and infection with Human Immunodeficiency Virus (HIV, the cause of acquired immunodeficiency syndrome [AIDS]).

**Syphilis:** A sexually transmitted disease that is caused by an organism called *Treponema pallidum*; it may cause major health problems or death in its later stages.

**Trimester:** Any of the three 3-month periods into which pregnancy is divided.

**Tuberculosis (TB):** A contagious infection that usually affects the lungs in humans.

**Ultrasound Exam:** A test in which sound waves are used to examine internal structures. During pregnancy, it can be used to examine the fetus.

If you have further questions, contact your obstetrician–gynecologist.

FA0133: Designed as an aid to patients, this document sets forth current information and opinions related to women's health. The information does not dictate an exclusive course of treatment or procedure to be followed and should not be construed as excluding other acceptable methods of practice. Variations, taking into account the needs of the individual patient, resources, and limitations unique to the institution or type of practice, may be appropriate.

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How Your Baby Grows During Pregnancy

- How does pregnancy begin?
- How long does a normal pregnancy last?
- How does the uterus change during pregnancy?
- What happens during the first month of pregnancy?
- What happens during the second month of pregnancy?
- What happens during the third month of pregnancy?
- What happens during the fourth month of pregnancy?
- What happens during the fifth month of pregnancy?
- What happens during the sixth month of pregnancy?
- What happens during the seventh month of pregnancy?
- What happens during the eighth month of pregnancy?
- What happens during the ninth month of pregnancy?
- Glossary

How does pregnancy begin?

Fertilization, the union of an egg and a sperm, is the first step in a complex series of events that leads to pregnancy. Fertilization takes place in the fallopian tube. During the next few days, the fused egg and sperm move through the fallopian tube to the lining of the uterus. There it implants and starts to grow.

The cluster of cells that reaches the uterus will become the fetus and the placenta. The placenta functions as a life-support system during pregnancy. It delivers oxygen, nutrients, and hormones from mother to fetus.

How long does a normal pregnancy last?

A normal pregnancy lasts about 280 days (about 40 weeks), counting from the first day of your last menstrual period. A normal range, however, is from as few as 259 days to as many as 294 days (37–42 weeks). The 40 weeks of pregnancy are divided into three trimesters. Each trimester lasts about 12–13 weeks each (or about 3 months).

How does the uterus change during pregnancy?

During pregnancy, the lining of a woman's uterus thickens and its blood vessels enlarge to nourish the fetus. As pregnancy progresses, the uterus expands to make room for the growing baby. By the time your baby is born, your uterus will be many times its normal size.

What happens during the first month of pregnancy?

During the first month of pregnancy, the following occurs:

- The fertilized egg attaches to the lining of the uterus. Some of these cells will grow into a baby. Other cells will form the placenta.
- Arms and legs begin to form.
- The brain and spinal cord begin to form.
- The heart and lungs begin to develop. The heart begins to beat near the end of this month.
What happens during the second month of pregnancy?
During the second month of pregnancy, the following occurs:
- Eyelids form, but remain closed.
- The inner ear begins to develop.
- Bones appear.
- Ankles, wrists, fingers, and toes form.
- The genitals begin to develop.
- By the end of the month, all major organs and body systems have begun to develop.

What happens during the third month of pregnancy?
During the third month of pregnancy, the following occurs:
- Twenty buds for future teeth appear.
- All internal parts are formed, but are not fully developed.
- Fingers and toes continue to grow. Soft nails begin to form.
- Bones and muscles begin to grow.
- The intestines begin to form.
- The backbone is soft and can flex.
- The skin is almost transparent.
- The hands are more developed than the feet.
- The arms are longer than the legs.

What happens during the fourth month of pregnancy?
During the fourth month of pregnancy, the following occurs:
- Eyebrows, eyelashes, and fingernails form.
- Arms and legs can flex.
- External sex organs are formed.
- The skin is wrinkled and the body is covered with a waxy coating (vernix) and fine hair (lanugo).
- The placenta is fully formed.
- The outer ear begins to develop.
- The fetus can swallow and hear.
- The neck is formed.
- Kidneys are functioning and begin to produce urine.

What happens during the fifth month of pregnancy?
During the fifth month of pregnancy, the following occurs:
- The sucking reflex develops. If the hand floats to the mouth, the fetus may suck its thumb.
- The fetus is more active. You may be able to feel movement.
- The fetus sleeps and wakes regularly.
- Nails grow to the tips of the fingers.
- The gallbladder begins producing bile, which is needed to digest nutrients.
- In girls, the eggs have formed in the ovaries.
- In boys, the testicles begin to descend from the abdomen into the scrotum.

What happens during the sixth month of pregnancy?
During the sixth month of pregnancy, the following occurs:
- Real hair begins to grow.
- The brain is rapidly developing.
- The eyes begin to open.
- Finger and toe prints can be seen.
- The lungs are fully formed, but not yet functioning.
What happens during the seventh month of pregnancy?
During the seventh month of pregnancy, the following occurs:
- The eyes can open and close and sense changes in light.
- Lanugo begins to disappear.
- The fetus kicks and stretches.
- The fetus can make grasping motions and responds to sound.

What happens during the eighth month of pregnancy?
During the eighth month of pregnancy, the following occurs:
- With its major development finished, the fetus gains weight very quickly.
- Bones harden, but the skull remains soft and flexible for delivery.
- The different regions of the brain are forming.
- Taste buds develop and the fetus can taste sweet and sour.
- The fetus may now hiccup.

What happens during the ninth month of pregnancy?
During the ninth month of pregnancy, the following occurs:
- The fetus usually turns into a head-down position for birth.
- The skin is less wrinkled.
- The lungs mature and are ready to function on their own.
- Sleeping patterns develop.
- The fetus will gain about ½ pound per week this month.

Glossary
*Egg*: The female reproductive cell produced in and released from the ovaries; also called the ovum.

*Fertilization*: Joining of the egg and sperm.

*Fetus*: The developing offspring in the uterus from the ninth week of pregnancy until the end of pregnancy.

*Hormones*: Substances produced by the body to control certain functions.

*Placenta*: Tissue that provides nourishment to and takes waste away from the fetus.

*Sperm*: A male cell that is produced in the testes and can fertilize a female egg cell.

If you have further questions, contact your obstetrician–gynecologist.

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Nutrition During Pregnancy

- How can I plan healthy meals during pregnancy?
- How does MyPlate work?
- What are the five food groups?
- Are oils and fats part of healthy eating?
- Why are vitamins and minerals important in my diet?
- How can I get the extra amounts of vitamins and minerals I need during pregnancy?
- What is folic acid and how much do I need daily?
- Why is iron important during pregnancy and how much do I need daily?
- Why is calcium important during pregnancy and how much do I need daily?
- Why is vitamin D important during pregnancy and how much do I need daily?
- How much weight should I gain during pregnancy?
- Can being overweight or obese affect my pregnancy?
- Can caffeine in my diet affect my pregnancy?
- What are the benefits of including fish and shellfish in my diet during pregnancy?
- What should I know about eating fish during pregnancy?
- How can food poisoning affect my pregnancy?
- What is listeriosis and how can it affect my pregnancy?
- Glossary

How can I plan healthy meals during pregnancy?

Planning healthy meals during pregnancy is not hard. The United States Department of Agriculture has made it easier by creating www.choosemyplate.gov. This web site helps everyone from dieters and children to pregnant women learn how to make healthy food choices at each mealtime.

How does MyPlate work?

With MyPlate, you can get a personalized nutrition and physical activity plan by using the “SuperTracker” program. This program is based on five food groups and shows you the amounts that you need to eat each day from each group during each trimester of pregnancy. The amounts are calculated according to your height, prepregnancy weight, due date, and how much you exercise during the week. The amounts of food are given in standard sizes that most people are familiar with, such as cups and ounces.
What are the five food groups?
1. Grains—Bread, pasta, oatmeal, cereal, and tortillas are all grains.
2. Fruits—Fruits can be fresh, canned, frozen, or dried. Juice that is 100% fruit juice also counts.
3. Vegetables—Vegetables can be raw or cooked, frozen, canned, dried, or 100% vegetable juice.
4. Protein foods—Protein foods include meat, poultry, seafood, beans and peas, eggs, processed soy products, nuts, and seeds.
5. Dairy—Milk and products made from milk, such as cheese, yogurt, and ice cream, make up the dairy group.

Are oils and fats part of healthy eating?
Although they are not a food group, oils and fats do give you important nutrients. During pregnancy, the fats that you eat provide energy and help build many fetal organs and the placenta. Most of the fats and oils in your diet should come from plant sources. Limit solid fats, such as those from animal sources. Solid fats also can be found in processed foods.

Why are vitamins and minerals important in my diet?
Vitamins and minerals play important roles in all of your body functions. During pregnancy, you need more folic acid and iron than a woman who is not pregnant.

How can I get the extra amounts of vitamins and minerals I need during pregnancy?
Taking a prenatal vitamin supplement can ensure that you are getting these extra amounts. A well-rounded diet should supply all of the other vitamins and minerals you need during pregnancy.

What is folic acid and how much do I need daily?
Folic acid, also known as folate, is a B vitamin that is important for pregnant women. Taking 400 micrograms of folic acid daily for at least 1 month before pregnancy and 600 micrograms of folic acid daily during pregnancy may help prevent major birth defects of the baby's brain and spine called neural tube defects. It may be hard to get the recommended amount of folic acid from food alone. For this reason, all pregnant women and all women who may become pregnant should take a daily vitamin supplement that contains the right amount of folic acid.

Why is iron important during pregnancy and how much do I need daily?
Iron is used by your body to make a substance in red blood cells that carries oxygen to your organs and tissues. During pregnancy, you need extra iron—about double the amount that a nonpregnant woman needs. This extra iron helps your body make more blood to supply oxygen to your baby. The daily recommended dose of iron during pregnancy is 27 milligrams, which is found in most prenatal vitamin supplements. You also can eat iron-rich foods, including lean red meat, poultry, fish, dried beans and peas, iron-fortified cereals, and prune juice. Iron also can be absorbed more easily if iron-rich foods are eaten with vitamin C-rich foods, such as citrus fruits and tomatoes.

Why is calcium important during pregnancy and how much do I need daily?
Calcium is used to build your baby's bones and teeth. All women, including pregnant women, aged 19 years and older should get 1,000 milligrams of calcium daily; those aged 14–18 years should get 1,300 milligrams daily. Milk and other dairy products, such as cheese and yogurt, are the best sources of calcium. If you have trouble digesting milk products, you can get calcium from other sources, such as broccoli; dark, leafy greens; sardines; or a calcium supplement.

Why is vitamin D important during pregnancy and how much do I need daily?
Vitamin D works with calcium to help the baby's bones and teeth develop. It also is essential for healthy skin and eyesight. All women, including those who are pregnant, need 600 international units of vitamin D a day. Good sources are milk fortified with vitamin D and fatty fish such as salmon. Exposure to sunlight also converts a chemical in the skin to vitamin D.

How much weight should I gain during pregnancy?
The amount of weight gain that is recommended depends on your health and your body mass index before you were pregnant. If you were a normal weight before pregnancy, you should gain between 25 pounds and 35 pounds during pregnancy. If you were underweight before pregnancy, you should gain more weight than a woman who was a normal weight before pregnancy. If you were overweight or obese before pregnancy, you should gain less weight.

Can being overweight or obese affect my pregnancy?
Overweight and obese women are at an increased risk of several pregnancy problems. These problems include gestational diabetes, high blood pressure, preeclampsia, preterm birth, and cesarean delivery. Babies of overweight and obese mothers also are at greater risk of certain problems, such as birth defects, macrosomia with possible birth injury, and childhood obesity.

Can caffeine in my diet affect my pregnancy?
Although there have been many studies on whether caffeine increases the risk of miscarriage, the results are unclear. Most experts state that consuming fewer than 200 milligrams of caffeine (one 12-ounce cup of coffee) a day during pregnancy is safe.
What are the benefits of including fish and shellfish in my diet during pregnancy?

Omega-3 fatty acids are a type of fat found naturally in many kinds of fish. They may be important factors in your baby's brain development both before and after birth. To get the most benefits from omega-3 fatty acids, women should eat at least two servings of fish or shellfish (about 8–12 ounces) per week and while pregnant or breastfeeding.

What should I know about eating fish during pregnancy?

Some types of fish have higher levels of a metal called mercury than others. Mercury has been linked to birth defects. To limit your exposure to mercury, follow a few simple guidelines. Choose fish and shellfish such as shrimp, salmon, catfish, and pollock. Do not eat shark, swordfish, king mackerel, or tilefish. Limit white (albacore) tuna to 6 ounces a week. You also should check advisories about fish caught in local waters.

How can food poisoning affect my pregnancy?

Food poisoning in a pregnant woman can cause serious problems for both her and her baby. Vomiting and diarrhea can cause your body to lose too much water and can disrupt your body's chemical balance. To prevent food poisoning, follow these general guidelines:

• Wash food. Rinse all raw produce thoroughly under running tap water before eating, cutting, or cooking.
• Keep your kitchen clean. Wash your hands, knives, countertops, and cutting boards after handling and preparing uncooked foods.
• Avoid all raw and undercooked seafood, eggs, and meat. Do not eat sushi made with raw fish (cooked sushi is safe). Food such as beef, pork, or poultry should be cooked to a safe internal temperature.

What is listeriosis and how can it affect my pregnancy?

Listeriosis is a type of food-borne illness caused by bacteria. Pregnant women are 13 times more likely to get listeriosis than the general population. Listeriosis can cause mild, flu-like symptoms such as fever, muscle aches, and diarrhea, but it also may not cause any symptoms. Listeriosis can lead to miscarriage, stillbirth, and premature delivery. Antibiotics can be given to treat the infection and to protect your unborn baby. To help prevent listeriosis, avoid eating the following foods during pregnancy:

• Unpasteurized milk and foods made with unpasteurized milk
• Hot dogs, luncheon meats, and cold cuts unless they are heated until steaming hot just before serving
• Refrigerated pate and meat spreads
• Refrigerated smoked seafood
• Raw and undercooked seafood, eggs, and meat

Glossary

Antibiotics: Drugs that treat certain types of infections.

Body Mass Index: A number calculated from height and weight that is used to determine whether a person is underweight, normal weight, overweight, or obese.

Cesarean Delivery: Delivery of a baby through surgical incisions made in the mother's abdomen and uterus.

Gestational Diabetes: Diabetes that arises during pregnancy.

Macrosomia: A condition in which a fetus grows very large.

Miscarriage: Loss of a pregnancy that occurs before 20 weeks of pregnancy.

Neural Tube Defects: Birth defects that result from incomplete development of the brain, spinal cord, or their coverings.

Nutrients: Nourishing substances supplied through food, such as vitamins and minerals.

Preeclampsia: A condition of pregnancy in which there is high blood pressure and protein in the urine.

Preterm: Born before 37 weeks of pregnancy.

Trimester: Any of the three 3-month periods into which pregnancy is divided.

If you have further questions, contact your obstetrician–gynecologist.

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Morning Sickness

- What is morning sickness?
- What causes morning sickness?
- How long should I expect morning sickness to last?
- What are the effects of morning sickness on pregnancy?
- When is morning sickness considered severe?
- Is there a cure for morning sickness?
- What can I do to ease my symptoms of morning sickness?
- Are there any herbal supplements that can help?
- How are severe symptoms of morning sickness treated?
- Glossary

What is morning sickness?
Nausea and vomiting that happen during pregnancy, especially during the first part of pregnancy, often are called "morning sickness." Despite its name, morning sickness can occur at any time of the day.

What causes morning sickness?
Although no one is certain what causes morning sickness, increasing levels of hormones during pregnancy may play a role.

How long should I expect morning sickness to last?
In most women, symptoms of nausea and vomiting are mild and go away after the middle of pregnancy.

What are the effects of morning sickness on pregnancy?
Most mild cases of nausea and vomiting do not harm your health or your baby's health. Morning sickness does not mean your baby is sick.

When is morning sickness considered severe?
Morning sickness is considered severe if you cannot keep any food or fluids down and begin to lose weight. This condition is called hyperemesis gravidarum.

Is there a cure for morning sickness?
There is no cure for morning sickness. Some research suggests that women who are taking a multivitamin supplement regularly at the time they become pregnant are less likely to have severe cases of morning sickness.

What can I do to ease my symptoms of morning sickness?
If you experience morning sickness, there are several things you can do that might help you feel better. You may need to try more than one of these remedies:
- Get plenty of rest.
- Avoid smells that bother you.
- Eat five or six small meals each day instead of three large meals.
• Eat a few crackers before you get out of bed in the morning to help settle your stomach.
• Eat small snacks high in protein (such as a glass of milk or a cup of yogurt) throughout the day.
• Avoid spicy foods and fatty foods.

**Are there any herbal supplements that can help?**

Ginger may be helpful for some women. Taking three 250-milligram capsules of ginger a day plus another capsule right before bed may help relieve nausea. Remember to talk with your health care provider before taking any herbal medication or supplement or trying any treatment. You also can try ginger ale or ginger tea made with real ginger.

**How are severe symptoms of morning sickness treated?**

Your health care provider will first find out whether your nausea and vomiting are due to morning sickness or if there is another medical cause. If other causes are ruled out, certain medications can be given. Vitamin B₆ may be suggested first. Doxylamine, a medication found in over-the-counter sleep aids, may be added if vitamin B₆ alone does not relieve symptoms. Drugs that combat nausea and vomiting may be prescribed. If you are dehydrated from loss of fluids, you may need to receive fluids through an intravenous (IV) line.

**Glossary**

*Hormones:* Substances produced by the body to control the functions of various organs.

*Hyperemesis Gravidarum:* Severe nausea and vomiting during pregnancy that can lead to loss of weight and body fluids.

**If you have further questions, contact your obstetrician–gynecologist.**

**FAQ126:** Designed as an aid to patients, this document sets forth current information and opinions related to women’s health. The information does not dictate an exclusive course of treatment or procedure to be followed and should not be construed as excluding other acceptable methods of practice. Variations, taking into account the needs of the individual patient, resources, and limitations unique to the institution or type of practice, may be appropriate.

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Exercise During Pregnancy

- What are some of the benefits of exercise during pregnancy?
- What changes occur in the body during pregnancy that can affect my exercise routine?
- What forms of exercise are safe during pregnancy?
- What forms of exercise should be avoided?
- What should I be aware of when exercising during pregnancy?
- What are the warning signs that I should stop exercising?
- How can I get back into exercising after the baby is born?
- Glossary

What are some of the benefits of exercise during pregnancy?
Becoming active and exercising at least 30 minutes on most, if not all, days of the week can benefit your health during pregnancy in the following ways:

- Helps reduce backaches, constipation, bloating, and swelling
- May help prevent or treat gestational diabetes
- Increases your energy
- Improves your mood
- Improves your posture
- Promotes muscle tone, strength, and endurance
- Helps you sleep better

Regular activity also helps keep you fit during pregnancy and may improve your ability to cope with labor. This will make it easier for you to get back in shape after the baby is born.

What changes occur in the body during pregnancy that can affect my exercise routine?
The hormones produced during pregnancy cause the ligaments that support your joints to become relaxed. This makes the joints more mobile and more at risk of injury. The extra weight in the front of your body during pregnancy shifts your center of gravity and places stress on joints and muscles, especially those in the pelvis and lower back. This can make you less stable, cause back pain, and make you more likely to lose your balance and fall, especially in later pregnancy. The extra weight you are carrying will make your body work harder than before you were pregnant.

What forms of exercise are safe during pregnancy?
Certain sports are safe during pregnancy, even for beginners:

- Walking is a good exercise for anyone.
- Swimming is great for your body because it works so many muscles.
- Cycling provides a good aerobic workout.
- Aerobics is a good way to keep your heart and lungs strong.
- If you were a runner before you became pregnant, you often can keep running during pregnancy, although you may have to modify your routine.
What forms of exercise should be avoided?
In general, activities in which there is a high risk of falling, such as gymnastics, water skiing, and horseback riding, should be avoided. Some racket sports also increase the risk of falling because of your changing balance. Other sports to avoid include the following:

- **Downhill snow skiing**—Your change in balance may put you at greater risk of injuries and falls. Also, you may be at risk of altitude sickness, an illness caused by breathing air that contains less oxygen.
- **Contact sports, such as hockey, basketball, and soccer**—These sports can result in harm to you and your baby.
- **Scuba diving**—Scuba diving can put your baby at risk of decompression sickness, a serious illness that results from changes in the pressure surrounding the body.

What should I be aware of when exercising during pregnancy?
The changes in your body can make certain positions and activities risky for you and your baby. While exercising, try to avoid activities that call for jumping, jarring motions, or quick changes in direction that may strain your joints and cause injury.

There are some risks from becoming overheated during pregnancy. This may cause loss of fluids and lead to dehydration and problems during pregnancy.

When you exercise, follow these general guidelines for a safe and healthy exercise program:

- **After the first trimester of pregnancy, avoid doing any exercises on your back.**
- **If it has been some time since you have exercised, start slowly.** Begin with as little as 5 minutes of exercise a day and add 5 minutes each week until you can stay active for 30 minutes a day.
- **Avoid brisk exercise in hot, humid weather or when you have a fever.**
- **Wear comfortable clothing that will help you to remain cool.**
- **Wear a bra that fits well and gives lots of support to help protect your breasts.**
- **Drink plenty of water to help keep you from overheating and dehydrating.**
- **Make sure you consume the daily extra calories you need during pregnancy.**

What are the warning signs that I should stop exercising?
Stop exercising and call your health care provider if you have any of these symptoms:

- Vaginal bleeding
- Dizziness or feeling faint
- Increased shortness of breath
- Chest pain
- Headache
- Muscle weakness
- Calf pain or swelling
- Uterine contractions
- Decreased fetal movement
- Fluid leaking from the vagina

How can I get back into exercising after the baby is born?
Walking is a good way to get back into exercising. Brisk walks several times a week will prepare you for more strenuous exercise when you feel up to it. Walking has the added advantage of getting both you and the baby out of the house for exercise and fresh air. As you feel stronger, consider more vigorous exercise.

Glossary

**Gestational Diabetes:** Diabetes that arises during pregnancy; it results from the effects of hormones and usually subsides after delivery

If you have further questions, contact your obstetrician–gynecologist.
Skin Conditions During Pregnancy

- What are some of the common skin changes that occur during pregnancy?
- What causes these skin changes during pregnancy?
- Why do dark spots and patches appear on the skin during pregnancy?
- What are stretch marks?
- Is acne common during pregnancy?
- How can I treat my skin if I get acne during pregnancy?
- Can over-the-counter medications be used during pregnancy to treat acne?
- Can prescription medications be used during pregnancy to treat acne?
- What causes spider veins?
- What causes varicose veins?
- Can I prevent varicose veins?
- What changes to my hair may occur during pregnancy?
- What hair changes may I experience after childbirth?
- What nail changes can I expect during pregnancy?
- What are some uncommon skin changes that can occur during pregnancy?
- What is pruritic urticarial papules and plaques of pregnancy (PUPPP)?
- What is prurigo of pregnancy?
- What is pemphigoid gestationis?
- What is intrahepatic cholestasis of pregnancy (ICP)?
- Glossary

What are some of the common skin changes that occur during pregnancy?

Many women notice changes to their skin, nails, and hair during pregnancy. Some of the most common changes include the following:

- Dark spots on the breasts, nipples, or inner thighs
- Melasma—brown patches on the face around the cheeks, nose, and forehead
- Linea nigra—a dark line that runs from the navel to the pubic hair
- Stretch marks
- Acne
- Spider veins
- Varicose veins
- Changes in nail and hair growth
What causes these skin changes during pregnancy?
Some are due to changes in hormone levels that occur during pregnancy. For most skin changes, however, health care providers are not sure of the exact cause.

Why do dark spots and patches appear on the skin during pregnancy?
Dark spots and patches are caused by an increase in the body's melanin—a natural substance that gives color to the skin and hair. Dark spots and melasma usually fade on their own after you have the baby. Some women, however, may have dark patches that last for years. To help prevent melasma from getting worse, wear sunscreen and a wide-brimmed hat every day when you are outside.

What are stretch marks?
As your belly grows during pregnancy, your skin may become marked with reddish lines called stretch marks. By the third trimester, many pregnant women commonly have stretch marks on the abdomen, buttocks, breasts, or thighs. Using a heavy moisturizer may help keep your skin soft, but it will not help get rid of stretch marks. Most stretch marks fade after the baby is born, but they may never disappear completely.

Is acne common during pregnancy?
Many women have acne during pregnancy. Some already have acne and notice that it gets worse during pregnancy. Other women who may have had clear skin will develop acne while they are pregnant.

How can I treat my skin if I get acne during pregnancy?
If you get acne during pregnancy, take these steps to treat your skin:
• Wash your face twice a day with a mild cleanser and lukewarm water.
• If you have oily hair, shampoo every day and try to keep your hair off your face.
• Avoid picking or squeezing acne sores to lessen possible scarring.
• Choose oil-free cosmetics.

Can over-the-counter medications be used during pregnancy to treat acne?
Over-the-counter products containing the following ingredients can be used during pregnancy:
• Topical benzoyl peroxide
• Azelaic acid
• Topical salicylic acid
• Glycolic acid
If you want to use an over-the-counter product that contains an ingredient not on this list, contact your health care provider.

Can prescription medications be used during pregnancy to treat acne?
Some prescription acne medications should not be used while you are pregnant:
• Hormonal therapy—Several medications that block specific hormones can be used to treat acne. Their use during pregnancy is not recommended due to the risk of birth defects.
• Isotretinoin—This drug is a form of vitamin A. It may cause severe birth defects in fetuses, including intellectual disabilities, life-threatening heart and brain defects, and other physical deformities.
• Oral tetracyclines—This antibiotic can cause discoloration of the baby's teeth if it is taken after the fourth month of pregnancy and also can affect the growth of the baby's bones as long as the medication is taken.
• Topical retinoids—These medications are a form of vitamin A and are in the same drug family as isotretinoin. Unlike isotretinoin, topical retinoids are applied to the skin, and the amount of medication absorbed by the body is low. However, it is generally recommended that use of these medications be avoided during pregnancy. Some retinoids are available by prescription. However, other retinoids can be found in some over-the-counter products. Read labels carefully.

What causes spider veins?
Hormonal changes and the higher amounts of blood in your body during pregnancy can cause tiny red veins, known as spider veins, to appear on your face, neck, and arms. The redness should fade after the baby is born.

What causes varicose veins?
The weight and pressure of your uterus can decrease blood flow from your lower body and cause the veins in your legs to become swollen, sore, and blue. These are called varicose veins. Varicose veins also can appear on your vulva and in your vagina and rectum (usually called hemorrhoids). In most cases, varicose veins are a cosmetic problem that will go away after delivery.
Can I prevent varicose veins?
Although you cannot prevent them, there are some things you can do to ease the swelling and soreness and prevent varicose veins from getting worse:

- Be sure to move around from time to time if you must sit or stand for long periods.
- Do not sit with your legs crossed for long periods.
- Prop your legs up on a couch, chair, or footstool as often as you can.
- Exercise regularly—walk, swim, or ride an exercise bike.
- Wear support hose.
- Avoid constipation by eating foods high in fiber and drinking plenty of liquids.

What changes to my hair may occur during pregnancy?
The hormone changes in pregnancy may cause the hair on your head and body to grow or become thicker. Sometimes women grow hair in areas where they do not normally have hair, such as the face, chest, abdomen, and arms. Your hair should return to normal within 6 months after giving birth.

What hair changes may I experience after childbirth?
About 3 months after childbirth, most women begin to notice hair loss from the scalp. This happens because hormones are returning to normal levels, which allows the hair to return to its normal cycle of growing and falling out. Your hair should grow back completely within 3-6 months.

What nail changes can I expect during pregnancy?
Some women find that their nails grow faster during pregnancy. Others notice that their nails split and break more easily. Like the changes to your hair, those that affect your nails will ease after birth.

What are some uncommon skin changes that can occur during pregnancy?
Certain uncommon skin conditions can arise during pregnancy. They can cause signs and symptoms, including bumps and itchy skin.

What is pruritic urticarial papules and plaques of pregnancy (PUPPP)?
In this condition, small, red bumps and hives appear on the skin later in pregnancy. The bumps can form large patches that can be very itchy. These bumps usually first appear on the abdomen and can spread to the thighs, buttocks, and breasts. It is not clear what causes PUPPP. It usually goes away after you give birth.

What is prurigo of pregnancy?
With prurigo of pregnancy, tiny, itchy bumps that look like insect bites can appear almost anywhere on the skin. This condition can occur anytime during pregnancy and usually starts with a few bumps that increase in number each day. It is thought to be caused by changes in the immune system that occur during pregnancy. Prurigo can last for several months and may even continue for some time after the baby is born.

What is pemphigoid gestationis?
Pemphigoid gestationis is a rare skin condition that usually starts during the second and third trimesters of pregnancy or sometimes right after childbirth. With this condition, blisters appear on the abdomen, and in severe cases, the blisters can cover a wide area of the body. It is thought to be an autoimmune disorder. There is a slightly increased risk of pregnancy problems with this condition, including preterm birth and a smaller-than-average baby.

What is intrahepatic cholestasis of pregnancy (ICP)?
Intrahepatic cholestasis of pregnancy (ICP) is the most common liver condition that occurs during pregnancy. The main symptom of ICP is severe itching in the absence of a rash. Itching commonly occurs on the palms of the hands and soles of the feet, but it also can spread to the trunk of the body. Symptoms usually start during the third trimester of pregnancy but often go away a few days after childbirth. ICP may increase the risk of preterm birth and other problems, including, in rare cases, fetal death.

Glossary
**Antibiotic:** A drug that treats certain types of infections.

**Autoimmune Disorder:** A condition in which the body attacks its own tissues.

**Hormone:** A substance made in the body by cells or organs that controls the function of cells or organs. An example is estrogen, which controls the function of female reproductive organs.

**Immune System:** The body's natural defense system against foreign substances and invading organisms, such as bacteria that cause disease.

**Linea Nigra:** A line running from the navel to pubic hair that darkens during pregnancy.
Melasma: A common skin problem that causes brown to gray-brown patches on the face. Also known as “chloasma” or “mask of pregnancy.”

Rectum: The last part of the digestive tract.

Trimester: Any of the three 3-month periods into which pregnancy is divided.

Uterus: A muscular organ located in the female pelvis that contains and nourishes the developing fetus during pregnancy.

Vagina: A tube-like structure surrounded by muscles leading from the uterus to the outside of the body.

Vulva: The external female genital area.

If you have further questions, contact your obstetrician–gynecologist.

FAQ169: Designed as an aid to patients, this document sets forth current information and opinions related to women's health. The information does not dictate an exclusive course of treatment or procedure to be followed and should not be construed as excluding other acceptable methods of practice. Variations, taking into account the needs of the individual patient, resources, and limitations unique to the institution or type of practice, may be appropriate.

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Travel During Pregnancy

- When is the best time to travel during pregnancy?
- What should I know about planning long car trips during pregnancy?
- What should I know about airplane travel while pregnant?
- What should I know when planning a trip on a ship during pregnancy?
- How can I prepare for a trip out of the country while pregnant?
- What should I be aware of when traveling out of the country?
- What health care preparations should I make before traveling while pregnant?

When is the best time to travel during pregnancy?
The best time to travel is probably the middle of your pregnancy—between weeks 14 and 28. Most common pregnancy emergencies usually happen in the first and third trimesters. After 28 weeks, it may be harder for you to move around or sit for a long time.

What should I know about planning long car trips during pregnancy?
During a car trip, make each day’s drive brief. Try to limit driving to no more than 5 or 6 hours each day. Be sure to wear your seat belt every time you ride in a motor vehicle, even if your car has an air bag (see the FAQ Car Safety for You and Your Baby). Plan to make frequent stops to move around and stretch your legs.

What should I know about airplane travel while pregnant?
Some domestic airlines restrict travel during the last month of pregnancy or require a medical certificate; others discourage travel after 36 weeks of pregnancy. If you are planning an international flight, the cutoff point for traveling with international airlines is often earlier.

When traveling by air, you can take the following steps to help make your trip as comfortable as possible:

- If you can, book an aisle seat, so that it is easy to get up and stretch your legs during a long flight.
- Avoid gas-producing foods and carbonated drinks before your flight.
- Wear your seatbelt at all times. The seatbelt should be belted low on the hipbones, below your belly.
- If you are prone to nausea, your health care provider may be able to prescribe anti-nausea medication.

What should I know when planning a trip on a ship during pregnancy?
It may be a good idea, just in case, to ask your health care provider about which medications are safe for you to carry along to calm seasickness. Seasickness bands are useful for some people, although there is little scientific evidence that they work. These bands use acupressure to help ward off an upset stomach.

Another concern for cruise ship passengers is norovirus infection. Noroviruses are a group of viruses that can cause severe nausea and vomiting for 1 or 2 days. They are very contagious and can spread rapidly throughout cruise ships. People can become infected by eating food, drinking liquids, or touching surfaces that are contaminated with the virus. Before you book a cruise, you may want to check whether your ship has passed a health and safety inspection conducted by the Centers for Disease Control and Prevention (CDC).
How can I prepare for a trip out of the country while pregnant?

If you are planning a trip out of the country, your health care provider can help you decide if travel outside the United States is safe for you and advise you about what steps to take before your trip. The CDC also is a good resource for travel alerts, safety tips, and up-to-date vaccination facts for many countries. While you are pregnant, you should not travel to areas where there is risk of malaria, including Africa, Central and South America, and Asia.

What should I be aware of when traveling out of the country?

When travelling out of the country, make sure to follow these tips:

- The safest water to drink is tap water that has been boiled for 1 minute (3 minutes at altitudes higher than 6,000 feet). Bottled water is safer than unboiled tap water, but because there are no standards for bottled water, there is no guarantee that it is free of germs that can cause illness. Carbonated beverages and drinks made with boiled water are safe to drink.
- Do not put ice made from unboiled water in your drinks. Do not drink out of glasses that may have been washed in unboiled water.
- Avoid fresh fruits and vegetables unless they have been cooked or if you have peeled them yourself.
- Do not eat raw or undercooked meat or fish.

What health care preparations should I make before traveling while pregnant?

If you are traveling in the United States, locate the nearest hospital or medical clinic in the place you are visiting. If you are traveling internationally, the International Association for Medical Assistance to Travelers (IAMAT) has a worldwide directory of doctors. The doctors in the country you are visiting may not speak English, so bring a dictionary of the language spoken with you. Another tip is to register with an American embassy or consulate after you arrive at your destination. These agencies may be helpful if you need to leave the country because of an emergency.

If you have further questions, contact your obstetrician–gynecologist.

FAQ055: Designed as an aid to patients, this document sets forth current information and opinions related to women's health. The information does not dictate an exclusive course of treatment or procedure to be followed and should not be construed as excluding other acceptable methods of practice. Variations, taking into account the needs of the individual patient, resources, and limitations unique to institution or type of practice, may be appropriate.

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Bleeding During Pregnancy

- What can cause bleeding during pregnancy?
- How is bleeding during early pregnancy checked?
- When does miscarriage happen?
- What are the signs and symptoms of miscarriage?
- Is treatment needed after a miscarriage?
- What is an ectopic pregnancy?
- What risks are associated with ectopic pregnancy?
- How common are ectopic pregnancies and who is at risk?
- What causes bleeding late in pregnancy?
- What is placental abruption?
- What is placenta previa?
- Can bleeding be a sign of labor?
- Glossary

What can cause bleeding during pregnancy?
Vaginal bleeding or spotting during pregnancy can have many causes. Some are serious and some are not. Bleeding may occur early or late in pregnancy.

Many women have vaginal spotting or bleeding in the first 12 weeks of pregnancy. Bleeding of the cervix may occur during sex. An infection of the cervix also can cause bleeding. Slight bleeding often stops on its own.

However, bleeding during pregnancy may mean something more serious. You may have a higher chance of going into labor too early (preterm labor), having an infant who is born too small, or having a miscarriage.

How is bleeding during early pregnancy checked?
If you are bleeding in early pregnancy, your health care provider may do a pelvic exam. You will be asked how much blood you have passed and how often bleeding has occurred. Your health care provider also will ask whether you have had any pain, and if so, its location and severity.

A blood test may be done to measure human chorionic gonadotropin (hCG). This substance is made by your body during pregnancy. You may have more than one test because hCG levels increase throughout pregnancy. Your blood type also will be checked to see if you need treatment for Rh sensitization. Ultrasound may be used to find the cause of the bleeding. Sometimes the cause is not found.

When does miscarriage happen?
Miscarriage can occur any time in the first half of pregnancy. Most often it occurs in the first 13 weeks. It happens in about 15–20% of pregnancies.

What are the signs and symptoms of miscarriage?
The following signs and symptoms may indicate a miscarriage:
- Vaginal bleeding
- Cramping pain felt low in the abdomen (often stronger than menstrual cramps)
- Tissue passing from the vagina

Many women who have vaginal bleeding have little or no cramping. Sometimes the bleeding stops and pregnancy goes on. Other times the bleeding and cramping may become stronger, leading to miscarriage.

**Is treatment needed after a miscarriage?**

If some tissue stays in the uterus, bleeding often continues. Your health care provider may then recommend one or more treatment options. Medication may be used to help you pass the tissue. The tissue may be removed by **dilation and curettage (D&C)**. It also may be removed by a suctioning device. This is called suction curettage. Sometimes more than one option is needed.

**What is an ectopic pregnancy?**

An **ectopic pregnancy** occurs when the fertilized egg does not implant in the uterus. Instead, it implants somewhere else, often in one of the **fallopian tubes**. An ectopic pregnancy causes pain and bleeding early in pregnancy.

**What risks are associated with ectopic pregnancy?**

A major risk with this type of pregnancy occurs if the fallopian tube ruptures. A rupture needs prompt treatment. There may be internal bleeding. Blood loss may cause weakness, fainting, pain, shock, or death.

**How common are ectopic pregnancies and who is at risk?**

Ectopic pregnancies are much less common than miscarriages. They occur in about 1 in 60 pregnancies. Women are at a higher risk if they have had

- an infection in the fallopian tubes (such as pelvic inflammatory disease)
- a previous ectopic pregnancy
- tubal surgery

**What causes bleeding late in pregnancy?**

Common problems that cause light bleeding include an inflamed cervix or growths on the cervix. These may be treated with medication.

Heavy bleeding usually involves a problem with the **placenta**. The two most common causes at this time are placental abruption and placenta previa. Preterm labor also can cause such bleeding.

**What is placental abruption?**

The placenta is attached to the uterine wall. It may detach from the wall before or during labor. This may cause vaginal bleeding. It often causes pain, even if bleeding is light or not seen. When the placenta becomes detached, the fetus may get less oxygen. Prompt care is needed.

**What is placenta previa?**

When the placenta lies low in the uterus, it may cover the cervix. That means it partly or completely blocks the opening. This is called placenta previa. It may cause vaginal bleeding. This type of bleeding often occurs without pain.

**Can bleeding be a sign of labor?**

Late in pregnancy, vaginal bleeding may be a sign of labor. A small amount of mucus and blood is passed from the cervix just before or at the start of labor. This is called “bloody show.” It is common. It is not a problem if it happens within 3 weeks of your due date. If it happens earlier, you may be going into preterm labor. Other signs of preterm labor include the following:

- Vaginal discharge
- Change in type of discharge (watery, mucus, or bloody)
- Increase in amount of discharge
- Pressure in the pelvis or lower abdomen
- Low, dull backache
- Stomach cramps, with or without diarrhea
- Regular contractions or uterine tightening

If you have any of these signs or symptoms, contact your health care provider right away.

**Glossary**

**Cervix**: The lower, narrow end of the uterus, which protrudes into the vagina.

**Dilation and Curettage (D&C)**: A procedure in which the cervix is opened and tissue is gently scraped or suctioned from the inside of the uterus.
**Ectopic Pregnancy:** A pregnancy in which the fertilized egg begins to grow in a place other than inside the uterus, usually in one of the fallopian tubes.

**Fallopian Tubes:** Tubes through which an egg travels from the ovaries to the uterus.

**Human Chorionic Gonadotropin (hCG):** A hormone produced during pregnancy; its detection is the basis for most pregnancy tests.

**Miscarriage:** Early pregnancy loss.

**Placenta:** Tissue that provides nourishment to and takes waste away from the fetus.

**Rh Sensitization:** A condition in which an Rh-negative mother makes antibodies that attack the Rh factor, a protein on red blood cells.

**Ultrasound:** A test in which sound waves are used to examine internal structures. During pregnancy, it can be used to examine the fetus.

**Uterus:** A muscular organ located in the female pelvis that contains and nourishes the developing fetus during pregnancy.

If you have further questions, contact your obstetrician–gynecologist.

FAQ083: Designed as an aid to patients, this document sets forth current information and opinions related to women's health. The information does not dictate an exclusive course of treatment or procedure to be followed and should not be construed as excluding other acceptable methods of practice. Variations, taking into account the needs of the individual patient, resources, and limitations unique to institution or type of practice, may be appropriate.

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Tobacco, Alcohol, Drugs, and Pregnancy

- Why is smoking dangerous during pregnancy?
- How can smoking during pregnancy put my baby at risk?
- How can secondhand smoke affect my baby during pregnancy?
- What help is available if I want to quit smoking?
- Can I use nicotine gum or the patch to help me quit smoking when I am pregnant?
- Why is drinking during pregnancy dangerous for my baby?
- What are fetal alcohol spectrum disorders?
- What is fetal alcohol syndrome?
- What amounts of alcohol can cause FAS?
- Is there an amount of alcohol that is safe to drink during pregnancy?
- What is illegal drug use?
- How can my drug use affect my baby during pregnancy?
- How can drug use affect my baby after he or she is born?
- Why is it important to tell my health care provider if I have used drugs during pregnancy?
- Will the results of my drug tests be kept confidential?
- What are some of the problems related to substance abuse?
- What is addiction?
- Why is it important for pregnant women who are addicted to certain drugs, including pain medications and narcotics, to seek treatment to quit rather than quit on their own?
- Can I take my prescription medication during pregnancy?
- Can I take over-the-counter medications during pregnancy?
- Glossary

Why is smoking dangerous during pregnancy?
If you smoke during pregnancy, your baby is exposed to harmful chemicals such as tar, nicotine, and carbon monoxide. Nicotine causes blood vessels to constrict, so less oxygen and nutrients reach the fetus. Carbon monoxide decreases the amount of oxygen the baby receives.

How can smoking during pregnancy put my baby at risk?
The risks of preterm birth and problems with the way the placenta attaches to the uterus are increased in women who smoke during pregnancy. Also, infants born to women who smoke during pregnancy tend to be
smaller than those born to nonsmokers. They are more likely to have asthma, colic, and childhood obesity. They also have an increased risk of dying from sudden infant death syndrome (SIDS).

**How can secondhand smoke affect my baby during pregnancy?**

Breathing secondhand smoke—smoke from cigarettes smoked by other people nearby—can increase the risk of having a low birth weight baby by as much as 20%. Infants who are exposed to secondhand smoke have an increased risk of SIDS and are more likely to have respiratory illnesses than those not exposed to secondhand smoke.

**What help is available if I want to quit smoking?**

If you are pregnant and you smoke, tell your health care provider. He or she can help you find support and quitting programs in your area. You also can call the national "quit line" at 1-800-Quit-Now.

**Can I use nicotine gum or the patch to help me quit smoking when I am pregnant?**

Nicotine replacement (such as nicotine gum or the patch) or prescription medications for quitting smoking need to be used with caution during pregnancy. Over-the-counter nicotine replacement products should be used only if other attempts to quit have not worked and you and your health care provider have weighed the known risks of continued smoking against the possible risks of these products. Smokeless tobacco, electronic cigarettes, and nicotine gel strips are not safe substitutes for cigarettes.

**Why is drinking during pregnancy dangerous for my baby?**

When a pregnant woman drinks alcohol, it quickly reaches the fetus through the placenta. In an adult, the liver breaks down the alcohol. A baby's liver is not fully developed and is not able to break down alcohol.

**What are fetal alcohol spectrum disorders?**

"Fetal alcohol spectrum disorders" is a term that describes different effects that can occur in infants when a woman drinks during pregnancy. These effects may include physical, mental, behavioral, and learning disabilities that can last a lifetime.

**What is fetal alcohol syndrome?**

**Fetal alcohol syndrome (FAS)** is the most severe alcohol spectrum disorder. FAS can cause growth problems, mental or behavioral problems, and abnormal facial features.

**What amounts of alcohol can cause FAS?**

FAS is most likely to occur in infants whose mothers drank heavily (3 or more drinks per occasion or more than 7 drinks per week) and continued to drink heavily throughout pregnancy, but it also can occur with lesser amounts of alcohol use. Even moderate alcohol use during pregnancy (defined as one alcoholic drink per day) can cause lifelong learning and behavioral problems in the child.

**Is there an amount of alcohol that is safe to drink during pregnancy?**

There is no safe level of alcohol use during pregnancy. Alcohol can affect the fetus throughout pregnancy. It is best not to drink at all while you are pregnant. If you did drink alcohol before you knew you were pregnant, you can reduce the risk of further harm to the baby by stopping drinking.

**What is illegal drug use?**

Illegal drug use includes the use of heroin, cocaine, methamphetamines, and marijuana and use of prescription drugs for a nonmedical reason.

**How can my drug use affect my baby during pregnancy?**

A drug's effects on the fetus depend on many things: how much, how often, and when during pregnancy it is used. The early stage of pregnancy is the time when main body parts of the fetus form. Using drugs during this time in pregnancy can cause birth defects and miscarriage. During the remaining weeks of pregnancy, drug use can interfere with the growth of the fetus and cause preterm birth and fetal death.

**How can drug use affect my baby after he or she is born?**

Drugs used after the baby is born can be passed to the baby through breast milk.

**Why is it important to tell my health care provider if I have used drugs during pregnancy?**

It is important to be honest so that you get the help you need for yourself and your unborn baby. Drug testing of your hair or urine during pregnancy or during labor may be done if your health care provider suspects that you have used certain substances and if you have a complication during pregnancy or delivery that suggests drug use. The baby also can be tested after birth.
Will the results of my drug tests be kept confidential?
Some states consider drug use during pregnancy to be a form of child abuse. In some states, if a drug test result shows that you have used certain substances, it must be reported to state authorities. You should be informed about this testing and consent to it before it is done. How your consent is obtained also varies from state to state.

What are some of the problems related to substance abuse?
These problems include work, relationship, and family issues; drunk-driving arrests and car crashes; or medical problems caused by the substance. Substance abuse can lead to dependence (addiction).

What is addiction?
Addiction is a disease with three or more of the following signs and symptoms:

- Tolerance—Not having the same effect with continued use of the same amount and the need to use greater amounts of the substance to get "high"
- Withdrawal symptoms after stopping use of the substance
- Using larger amounts of the substance or using it over a longer period
- Desire or unsuccessful attempts to cut down or control substance use
- Spending a great deal of time using or obtaining the substance or recovering from its use
- Reducing or giving up important social, work, or recreational activities because of substance use
- Continuing to use the substance despite knowing that you have a problem
- Making excuses to continue using the drug instead of meeting your home or work responsibilities

Why is it important for pregnant women who are addicted to certain drugs, including pain medications and narcotics, to seek treatment to quit rather than quit on their own?
Withdrawal from these drugs can cause miscarriage or other harm to the fetus.

Can I take my prescription medication during pregnancy?
Some prescription medications are safe to take during pregnancy. Others have known risks. If you are taking a prescription medication and become pregnant, tell your health care provider. Do not stop taking a medication prescribed for you without first talking to your health care provider.

Can I take over-the-counter medications during pregnancy?
Medicines sold over the counter, including herbal supplements and vitamins, can cause problems during pregnancy. Pain relievers such as aspirin and ibuprofen may be harmful to a fetus. Check with your health care provider before taking any over-the-counter drug.

Glossary
Fetal Alcohol Syndrome (FAS): A pattern of physical, mental, and behavioral problems in the baby that are thought to be due to alcohol abuse by the mother during pregnancy.
Fetus: The developing organism in the uterus from the ninth week of pregnancy until the end of pregnancy.
Miscarriage: Loss of a pregnancy that occurs before 20 weeks of pregnancy.
Nutrients: Nourishing substances supplied through food, such as vitamins and minerals.
Oxygen: A gas that is necessary to sustain life.
Placenta: Tissue that provides nourishment to and takes waste away from the fetus.
Preterm: Born before 37 weeks of pregnancy.
Sudden Infant Death Syndrome (SIDS): The unexpected death of an infant in which the cause is unknown.
Uterus: A muscular organ located in the female pelvis that contains and nourishes the developing fetus during pregnancy.

If you have further questions, contact your obstetrician–gynecologist.
A Father’s Guide to Pregnancy

- How long does pregnancy last?
- What is a “due date”?
- What happens during the first trimester?
- What happens during the second trimester?
- What happens during the third trimester?
- Is sex OK during pregnancy?
- What if I smoke?
- Should I attend my partner’s prenatal care visits?
- What tests will my partner have at her first prenatal care visit?
- When is an ultrasound exam done?
- What other tests may be included in prenatal care visits?
- What can I do to help prepare for labor and delivery?
- What should I expect during labor?
- How can I help my partner during labor and delivery?
- What will my partner experience during the postpartum period?
- What is postpartum depression?
- What are symptoms of postpartum depression?
- How can I bond with the baby during breastfeeding?
- When can I and my partner have sexual intercourse after the baby is born?
- Glossary

How long does pregnancy last?

Pregnancy lasts about 40 weeks, which is equal to 9 months. The 9 months of pregnancy are divided into three 3-month periods called trimesters.

What is a “due date”?

The due date that you are given by your partner’s health care provider is only an estimate of when the baby will be born. To calculate a due date, try this simple formula: take the date of the first day of your partner’s last menstrual period and subtract 3 months. Then add 7 days to get the due date.

What happens during the first trimester?

During the first trimester, most women need more rest. Women in early pregnancy also may have symptoms of nausea and vomiting. Although commonly known as “morning sickness,” these symptoms can occur at any time during the day or night.
What happens during the second trimester?
For most women, the second trimester of pregnancy (weeks 14–28) is the time they feel the best. As the woman’s body adjusts to being pregnant, she usually begins to feel better physically. Her energy level improves, and morning sickness usually goes away.

What happens during the third trimester?
In the third trimester of pregnancy (weeks 28–40), your partner may feel some discomfort as the baby grows larger and her body gets ready for the birth. She may have trouble sleeping, walking quickly, and doing routine tasks.

Is sex OK during pregnancy?
Unless your partner’s health care provider has told her otherwise, you and your partner can have sex throughout the entire 9 months. Also, there are other ways to be intimate during her pregnancy. Cuddling, kissing, fondling, mutual masturbation, and oral sex can fill the void until you can have intercourse again.

What if I smoke?
Not smoking around your partner is important because the chemicals in secondhand cigarette smoke can harm your baby before and after it is born. Babies exposed to secondhand smoke have an increased risk of developing asthma and sudden infant death syndrome.

Should I attend my partner’s prenatal care visits?
It may be helpful for you to go to some of your partner’s prenatal visits. At one of the early visits, you and your partner will be asked about your personal and family health histories. If you have a strong family history of a certain disease, you may have a gene for the disease that can be passed to your baby. Be sure that your partner knows your history if you cannot be there.

What tests will my partner have at her first prenatal care visit?
Your partner may have these tests and exams at the first visit:
- Complete physical exam with blood and urine tests
- A pelvic exam
- Blood pressure, height, and weight measurements

All pregnant women are tested for human immunodeficiency virus (HIV) and syphilis. Many women also receive routine tests for other sexually transmitted diseases.

When is an ultrasound exam done?
Most women receive an ultrasound examination at 18–20 weeks of pregnancy. This exam gives an estimate of the actual age of the fetus and checks the baby’s development. It also may be possible to find out the baby’s sex.

What other tests may be included in prenatal care visits?
Later prenatal care visits may include the following tests and exams:
- Checking the baby’s heart rate
- Measuring your partner’s blood pressure
- Testing her urine for signs of gestational diabetes
- Measuring her weight
- Measuring the height of the uterus to gauge the baby’s growth
- Checking the position of the fetus
- Screening tests for birth defects
- Blood test to screen for gestational diabetes
- Screening test for group B streptococcus

What can I do to help prepare for labor and delivery?
You can help prepare for labor and delivery by taking the following steps:
- Enroll in childbirth classes.
- Take a tour of the hospital.
- Install an infant car seat.

What should I expect during labor?
Labor happens in three stages. It may last between 10 hours and 20 hours. If an emergency occurs during labor or delivery, you may be asked to leave the room. Although there may not be time to explain why at that moment, someone will explain the reasons to you later.
How can I help my partner during labor and delivery?

Although your partner is the one giving birth, there is plenty you can do to help during labor and in the delivery room:

- Help distract your partner during the first stage of labor.
- Unless she has been told to stay in bed, take short walks with your partner.
- Time her contractions.
- Offer to massage her back and shoulders between contractions.
- Help her with the relaxation techniques you learned in childbirth class.
- Encourage her during the pushing stage.

What will my partner experience during the postpartum period?

The postpartum period is the first 6 weeks after birth. Most women will feel tired and sore for a few days to a few weeks after childbirth. Women who have had a cesarean delivery may take longer to heal. Also, having a new baby in the house can be stressful. You, your partner, and any other children you have need to adjust to a new lifestyle.

What is postpartum depression?

It is very common for new mothers to feel sad, upset, or anxious after childbirth. Many new mothers have mild feelings of sadness called postpartum blues or “baby blues.” When these feelings are more extreme or last longer than a week or two, it may be a sign of a more serious condition known as postpartum depression. Postpartum depression also can occur several weeks after the birth. Women with a history of depression are at greater risk of this condition.

What are symptoms of postpartum depression?

A new mother may be developing—or already have—postpartum depression if she has any of the following signs and symptoms:

- The baby blues do not start to fade after about 1 week, or the feelings get worse.
- She has feelings of sadness, doubt, guilt, or helplessness that seem to increase each week and get in the way of normal functions.
- She is not able to care for herself or her baby.
- She has trouble doing tasks at home or on the job.
- Her appetite changes.
- Things that used to bring her pleasure no longer do.
- Concern and worry about the baby are too intense, or interest in the baby is lacking.
- Anxiety or panic attacks occur. She may be afraid to be left alone with the baby.
- She fears harming the baby.
- She has thoughts of self-harm or suicide.

How can I bond with the baby during breastfeeding?

Some fathers feel left out when watching the closeness of breastfeeding. But if your partner has chosen to breastfeed, there are ways you can share in these moments:

- Bring the baby to her for feedings.
- Burp and change the baby afterward.
- Cuddle and rock the baby to sleep.
- Help feed your baby if your partner pumps her breast milk into a bottle.

When can I and my partner have sexual intercourse after the baby is born?

There is no set “waiting period” before a woman can have sex again after giving birth. Some health care providers recommend waiting 4–6 weeks. The chances of a problem occurring, like bleeding or infection, are small after about 2 weeks following birth. If your partner has had an episiotomy or a tear during birth, the site may be sore for more than a week and she may be told to not have intercourse for a while.

Glossary

*Episiotomy*: A surgical incision made into the perineum (the region between the vagina and the anus) to widen the vaginal opening for delivery.

*Gene*: A DNA “blueprint” that codes for specific traits, such as hair and eye color.

*Gestational Diabetes*: Diabetes that arises during pregnancy.
**Human Immunodeficiency Virus (HIV):** A virus that attacks certain cells of the body's immune system and causes acquired immunodeficiency syndrome (AIDS).

**Pelvic Exam:** A physical examination of a woman's reproductive organs.

**Sexually Transmitted Diseases:** Diseases that are spread by sexual contact, including chlamydial infection, gonorrhea, human papillomavirus infection, herpes, syphilis, and infection with human immunodeficiency virus (HIV, the cause of acquired immunodeficiency syndrome [AIDS]).

**Syphilis:** A sexually transmitted disease that is caused by an organism called *Treponema pallidum*; it may cause major health problems or death in its later stages.

**Trimesters:** The three 3-month periods into which pregnancy is divided.

**Ultrasound:** A test in which sound waves are used to examine internal structures. During pregnancy, it can be used to examine the fetus.

**Uterus:** A muscular organ located in the female pelvis that contains and nourishes the developing fetus during pregnancy.

If you have further questions, contact your obstetrician–gynecologist.

**FAQ032:** Designed as an aid to patients, this document sets forth current information and opinions related to women's health. The information does not dictate an exclusive course of treatment or procedure to be followed and should not be construed as excluding other acceptable methods of practice. Variations, taking into account the needs of the individual patient, resources, and limitations unique to the institution or type of practice, may be appropriate.

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Later Childbearing

- Why is there a concern about having a child later in life?
- How does age affect fertility?
- What specific health concerns are there for later childbearing?
- How can high blood pressure affect pregnancy?
- How can diabetes affect pregnancy?
- Do older women have an increased risk of having a child with a birth defect?
- What kinds of testing can be done during pregnancy to detect birth defects in the fetus?
- Are older women at greater risk of having a multiple pregnancy?
- What risks are associated with multiple pregnancy?
- What are the possible complications during labor and delivery for older women?
- What can I do before pregnancy to increase my chances of having a healthy baby?
- What can I do during pregnancy to increase my chances of having a healthy baby?
- Glossary

Why is there a concern about having a child later in life?

Becoming pregnant after age 35 years can present a challenge. Also, having a child later in life has certain risks. These risks may affect a woman's health as well as her baby's health.

How does age affect fertility?

Fertility in women starts to decrease at age 32 years and becomes more rapid after age 37 years. Women become less fertile as they age because they begin life with a fixed number of eggs in their ovaries. This number decreases as they grow older. Eggs also are not as easily fertilized in older women as they are in younger women. Problems that can affect fertility, such as endometriosis and uterine fibroids, become more common with increasing age as well.

What specific health concerns are there for later childbearing?

Older women are more likely to have pre-existing health problems than younger women. For example, high blood pressure is a condition that is more common in older women (see the FAQ Preeclampsia and High Blood Pressure During Pregnancy). If you are older than 35 years, you also are more likely to develop high blood pressure and related disorders for the first time during pregnancy. The risk of developing diabetes or gestational diabetes increases with age as well (see the FAQ Gestational Diabetes).

How can high blood pressure affect pregnancy?

High blood pressure poses risks that include problems with the placenta and the growth of the fetus.

How can diabetes affect pregnancy?

If you have diabetes, you are at greater risk of having a child with birth defects. The risks of high blood pressure, miscarriage, and macrosomia, a condition in which the fetus grows too large, are increased as well.
Do older women have an increased risk of having a child with a birth defect?
The overall risk of having a child with a birth defect is small. However, the risk of having a child with a birth defect caused by missing, damaged, or extra chromosomes is increased in older women.

What kinds of testing can be done during pregnancy to detect birth defects in the fetus?
Screening tests assess the risk that a baby will be born with certain disorders. All pregnant women should be offered screening tests for birth defects. Diagnostic tests show whether the baby actually has a certain disorder. Diagnostic tests are available for some, but not all, inherited defects and many chromosomal disorders. They include a targeted ultrasound exam, amniocentesis, and chorionic villus sampling. Diagnostic tests can be done instead of screening if a couple is at increased risk of certain birth defects based on age or personal or family history.

Are older women at greater risk of having a multiple pregnancy?
Older women have a higher risk of multiple pregnancy than younger women. In addition, some fertility treatments carry an increased risk of multiple pregnancy.

What risks are associated with multiple pregnancy?
Multiple pregnancy can cause serious problems, including preterm birth, preeclampsia, fetal growth problems, and gestational diabetes. The risk and severity of these problems increase with the number of babies.

What are the possible complications during labor and delivery for older women?
Older women are at increased risk of preterm labor and preterm birth (see the FAQs Preterm [Premature] Labor and Birth and Early Preterm Birth). Babies born preterm can have serious short-term and long-term health problems. The risk of stillbirth also is greater in women who are older than 35 years.

Women who are in their 30s are more likely to need a cesarean delivery than women who are in their 20s. Like any major surgery, cesarean delivery involves risks. Risks include infection, injury to organs such as the bowel or bladder, and reactions to the anesthesia used. These problems occur in a small number of women and usually are easily treated (see the FAQ Cesarean Birth).

What can I do before pregnancy to increase my chances of having a healthy baby?
- See your health care provider for a preconception care checkup (see the FAQ Good Health Before Pregnancy: Preconception Care).
- Eat a healthy diet.
- Take 0.4 milligrams of folic acid daily to help reduce the risk of having a baby with a neural tube defect.
- Exercise regularly.
- Lose weight if you are overweight or obese.
- Stop smoking, drinking alcohol, and taking illegal drugs.
- Avoid contact with substances in your home or workplace that could be harmful during pregnancy.

What can I do during pregnancy to increase my chances of having a healthy baby?
Continue to take good care of yourself during pregnancy, and get early and regular prenatal care. At each prenatal care visit, your health care provider will monitor your health and your baby's health and manage any problems as they arise.

Glossary
Amniocentesis: A procedure in which a needle is used to withdraw and test a small amount of amniotic fluid and cells from the sac surrounding the fetus.
Cesarean Delivery: Delivery of a baby through incisions made in the mother's abdomen and uterus.
Chorionic Villus Sampling: A procedure in which a small sample of cells is taken from the placenta and tested.
Chromosomes: Structures that are located inside each cell in the body and contain the genes that determine a person's physical makeup.
Diabetes: A condition in which the levels of sugar in the blood are too high.
Endometriosis: A condition in which tissue similar to that normally lining the uterus is found outside of the uterus, usually on the ovaries, fallopian tubes, and other pelvic structures.
Fetus: The developing offspring in the uterus from the ninth week of pregnancy until the end of pregnancy.
Fibroids: Benign growths that form in the muscle of the uterus.
Gestational Diabetes: Diabetes that arises during pregnancy.
Miscarriage: Early pregnancy loss.
Neural Tube Defect: A birth defect that results from incomplete development of the brain, spinal cord, or their coverings.
**Ovaries:** Two glands, located on either side of the uterus, that contain the eggs released at ovulation and that produce hormones.

**Placenta:** Tissue that provides nourishment to and takes waste away from the fetus.

**Preeclampsia:** A condition of pregnancy in which there is high blood pressure and protein in the urine.

**Prenatal Care:** A program of care for a pregnant woman before the birth of her baby.

**Preterm:** Born before 37 weeks of pregnancy.

**Stillbirth:** Delivery of a dead baby.

**Ultrasound:** A test in which sound waves are used to examine internal structures. During pregnancy, it can be used to examine the fetus.

If you have further questions, contact your obstetrician–gynecologist.

FAQ060: Designed as an aid to patients, this document sets forth current information and opinions related to women’s health. The information does not dictate an exclusive course of treatment or procedure to be followed and should not be construed as excluding other acceptable methods of practice. Variations, taking into account the needs of the individual patient, resources, and limitations unique to the institution or type of practice, may be appropriate.

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Vaginal Birth After Cesarean Delivery: Deciding on a Trial of Labor After Cesarean Delivery

- What is a vaginal birth after cesarean delivery (VBAC)?
- What is a trial of labor after cesarean delivery (TOLAC)?
- What are the some of the benefits of a TOLAC?
- What are the risks of a TOLAC?
- Why is the type of uterine incision used in my previous cesarean delivery important?
- What other factors should be considered when deciding whether to have a TOLAC?
- Whatever I decide, are there things that can happen during pregnancy or labor that may change my delivery plan?
- Glossary

What is a vaginal birth after cesarean delivery (VBAC)?
If you have had a previous cesarean delivery, you have two choices about how to give birth again:
- You can have a scheduled cesarean delivery
- You can give birth vaginally. This is called a vaginal birth after cesarean delivery (VBAC).

What is a trial of labor after cesarean delivery (TOLAC)?
A trial of labor after cesarean delivery (TOLAC) is the attempt to have a vaginal birth after cesarean delivery.

What are the some of the benefits of a TOLAC?
Compared with a planned cesarean delivery, a successful TOLAC is associated with the following benefits:
- No abdominal surgery
- Shorter recovery period
- Lower risk of infection
- Less blood loss

If you want to have more children, VBAC may help you avoid problems linked to multiple cesarean deliveries. These problems include hysterectomy, bowel or bladder injury, and certain problems with the placenta.

What are the risks of a TOLAC?
With TOLAC, the risk of most concern is the possible rupture of the cesarean scar on the uterus or the uterus itself. Although a rupture of the uterus is rare, it is very serious and may harm both you and your baby. If you are at high risk of rupture of the uterus, TOLAC should not be tried.

Why is the type of uterine incision used in my previous cesarean delivery important?
Some types of uterine incisions are more likely to cause rupture of the uterus than others. Low transverse (side to side) incisions carry the least chance of rupture. Women who have had one or two previous cesarean deliveries with this type of
incision can try TOLAC. High vertical (up and down) incisions carry the most chance of rupture. Women who have this type of incision should not try TOLAC.

What other factors should be considered when deciding whether to have a TOLAC?

In deciding whether to have a TOLAC, you should consider several factors in addition to the type of incision. These factors include whether you want more children, whether you have certain complications, and the hospital where the birth will take place:

- Future deliveries—Multiple cesarean deliveries are associated with additional potential risks.
- Prior uterine rupture—If you had this complication in a previous pregnancy, TOLAC is not advised.
- A pregnancy problem or a medical condition that makes vaginal delivery risky
- Type of hospital—The hospital in which you have a TOLAC should be prepared to deal with emergencies that may arise.

Whatever I decide, are there things that can happen during pregnancy or labor that may change my delivery plan?

Be prepared for changes to your delivery plan. If you have chosen TOLAC, things can happen during pregnancy and labor that alter the balance of risks and benefits. For example, you may need to have your labor induced, which can reduce the chances of a successful vaginal delivery and perhaps increase the chance of complications during labor. In the event that circumstances change, you and your health care provider may want to reconsider your decision.

If you have chosen a repeat cesarean delivery, in some situations, TOLAC may be advised. For example, if you have planned a cesarean delivery but go into labor before your scheduled surgery, it may be best to consider TOLAC if you are far along in your labor and your baby is healthy.

Glossary

Cesarean Delivery: Delivery of a baby through incisions made in the mother's abdomen and uterus.

Hysterectomy: Removal of the uterus.

If you have further questions, contact your obstetrician—gynecologist.

FA0078: Designed as an aid to patients, this document sets forth current information and opinions related to women's health. The information does not dictate an exclusive course of treatment or procedure to be followed and should not be construed as excluding other acceptable methods of practice. Variations, taking into account the needs of the individual patient, resources, and limitations unique to institution or type of practice, may be appropriate.

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**Immunization & Pregnancy**

Vaccines help keep a pregnant woman and her growing family healthy.

**Before pregnancy**

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.

**During pregnancy**

- **Flu Vaccine**
  It is safe, and very important, for a pregnant woman to receive the inactivated flu vaccine. 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 www.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 www.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 www.cdc.gov/vaccines.

**After pregnancy**

It is safe for a woman to receive routine vaccines right after giving birth, even while she is 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 newborn 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. LAIV may be an option.

Visit CDC's website at www.cdc.gov for more information. Or get an answer to your specific question by e-mailing cdcinfo@cdc.gov or calling 800-CDC-INFO (232-4636) English or Spanish.

National Center for Immunization and Respiratory Diseases
Immunization Services Division

CS230036A 03/2013
What You Need to Know About Mercury in Fish and Shellfish: EPA and FDA Advice For Women Who Might Become Pregnant, Women Who are Pregnant, Nursing Mothers

March 2004
EPA-823-R-04-005

Fish and shellfish are an important part of a healthy diet. Fish and shellfish contain high-quality protein and other essential nutrients, are low in saturated fat, and contain omega-3 fatty acids. A well-balanced diet that includes a variety of fish and shellfish can contribute to heart health and children's proper growth and development. So, women and young children in particular should include fish or shellfish in their diets due to the many nutritional benefits.

However, nearly all fish and shellfish contain traces of mercury. For most people, the risk from mercury by eating fish and shellfish is not a health concern. Yet, some fish and shellfish contain higher levels of mercury that may harm an unborn baby or young child's developing nervous system. The risks from mercury in fish and shellfish depend on the amount of fish and shellfish eaten and the levels of mercury in the fish and shellfish. Therefore, the Food and Drug Administration (FDA) and the Environmental Protection Agency (EPA) are advising women who may become pregnant, pregnant women, nursing mothers, and young children to avoid some types of fish and eat fish and shellfish that are lower in mercury.

By following these 3 recommendations for selecting and eating fish or shellfish, women and young children will receive the benefits of eating fish and shellfish and be confident that they have reduced their exposure to the harmful effects of mercury.

1. Do not eat Shark, Swordfish, King Mackerel, or Tilefish because they contain high levels of mercury.
2. Eat up to 12 ounces (2 average meals) a week of a variety of fish and shellfish that are lower in mercury.
   - Five of the most commonly eaten fish that are low in mercury are shrimp, canned light tuna, salmon, pollock, and catfish.
   - Another commonly eaten fish, albacore ("white") tuna has more mercury than canned light tuna. So, when choosing your two meals of fish and shellfish, you may eat up to 6 ounces (one average meal) of albacore tuna per week.
3. Check local advisories about the safety of fish caught by family and friends in your local lakes, rivers, and coastal areas. If no advice is available, eat up to 6 ounces (one average meal) per week of fish you catch from local waters, but don't consume any other fish during that week.

Follow these same recommendations when feeding fish and shellfish to your young child, but serve smaller portions.
Frequently Asked Questions about Mercury in Fish and Shellfish:

1. "What is mercury and methylmercury?"
   Mercury occurs naturally in the environment and can also be released into the air through industrial pollution. Mercury falls from the air and can accumulate in streams and oceans and is turned into methylmercury in the water. It is this type of mercury that can be harmful to your unborn baby and young child. Fish absorb the methylmercury as they feed in these waters and so it builds up in them. It builds up more in some types of fish and shellfish than others, depending on what the fish eat, which is why the levels vary.

2. "I'm a woman who could have children but I'm not pregnant - so why should I be concerned about methylmercury?"
   If you regularly eat types of fish that are high in methylmercury, it can accumulate in your blood stream over time. Methylmercury is removed from the body naturally, but it may take over a year for the levels to drop significantly. Thus, it may be present in a woman even before she becomes pregnant. This is the reason why women who are trying to become pregnant should also avoid eating certain types of fish.

3. "Is there methylmercury in all fish and shellfish?"
   Nearly all fish and shellfish contain traces of methylmercury. However, larger fish that have lived longer have the highest levels of methylmercury because they've had more time to accumulate it. These large fish (swordfish, shark, king mackerel and tilefish) pose the greatest risk. Other types of fish and shellfish may be eaten in the amounts recommended by FDA and EPA.

4. "I don't see the fish I eat in the advisory. What should I do?"
   If you want more information about the levels in the various types of fish you eat, see the [FDA food safety](https://www.fda.gov) website or the [EPA website](https://www.epa.gov).

5. "What about fish sticks and fast food sandwiches?"
   Fish sticks and "fast-food" sandwiches are commonly made from fish that are low in mercury.

6. "The advice about canned tuna is in the advisory, but what's the advice about tuna steaks?"
   Because tuna steak generally contains higher levels of mercury than canned light tuna, when choosing your two meals of fish and shellfish, you may eat up to 6 ounces (one average meal) of tuna steak per week.

7. "What if I eat more than the recommended amount of fish and shellfish in a week?"
   One week's consumption of fish does not change the level of methylmercury in the body much at all. If you eat a lot of fish one week, you can cut back for the next week or two. Just make sure you average the recommended amount per week.

8. "Where do I get information about the safety of fish caught recreationally by family or friends?"
   Before you go fishing, check your Fishing Regulations Booklet for information about recreationally caught fish. You can also contact your local health department for information about local advisories. You need to check local
advisories because some kinds of fish and shellfish caught in your local waters may have higher or much lower than average levels of mercury. This depends on the levels of mercury in the water in which the fish are caught. Those fish with much lower levels may be eaten more frequently and in larger amounts.

For further information about the risks of mercury in fish and shellfish call the U.S. Food and Drug Administration's food information line toll-free at 1-888-SAFEFOOD or visit FDA's Food Safety website.

For further information about the safety of locally caught fish and shellfish, visit the Environmental Protection Agency's Fish Advisory website or contact your State or Local Health Department. For information on EPA's actions to control mercury, visit EPA's mercury website.

U.S. Food and Drug Administration
10903 New Hampshire Avenue
Silver Spring, MD 20993
Ph. 1-888-INFO-FDA (1-888-463-6332)
State of New Jersey Department of Health

New Born Screening

Frequently Asked Questions

What is Newborn Screening?

Newborn screening is a comprehensive program that includes testing, follow-up of results, and if necessary, examination and treatment by a qualified specialist. Early detection and treatment of the disorders on the newborn screening panel can prevent life long disabilities, including mental retardation, developmental disabilities, and life threatening infections. Without treatment permanent disability, and even death, can occur.

Is Newborn Screening testing required?

All babies born in New Jersey are required by law to be tested for fifty-four (54) disorders within 48 hours of birth. One heel prick provides enough blood to test for all fifty-four disorders.

Is Newborn Screening a new program?

No. New Jersey began testing for Phenylketonuria (PKU), a metabolic disease, in 1964. Since that time, newborn screening has expanded to include detection for more than fifty disorders. Currently, all U.S. states mandate newborn testing for PKU, Congenital Hypothyroidism, Congenital Adrenal Hyperplasia, Galactosemia, and Sickle Cell Anemia.

How is the screening performed?

All screening tests are performed on a tiny blood sample, obtained by pricking the heel of your baby. Samples are usually taken at the hospital before your baby is discharged home. The sample is allowed to air dry and is then submitted to the Newborn Screening Laboratory for testing. Any abnormal results are reported to the Newborn Screening and Genetic Services program for follow-up activities.

What are the limitations?

The tests performed are ‘screening’ tests and are different from diagnostic tests. The screen cannot detect all inborn errors of metabolism. The test may fail to identify some babies with these disorders, and some babies who test positive may not actually have the disorder. Sometimes babies who are born prematurely, who are underweight at birth, or who may have received a blood transfusion can test positive, but not have the disorder. Your baby’s doctor may want to repeat the newborn screening test or do other testing to check the results.
What if my baby needs a retest? Does that mean that my baby has the disorder?

Not necessarily. There are several reasons why your baby may need to be retested. Some of those reasons may include:

- Your baby was less than 24 hours old at the time the first blood sample was taken
- The blood sample was collected while the baby was receiving special formula or was on medication
- The sample did not contain enough blood or the blood was not taken properly
- Your baby was premature or underweight
- The results were very close to normal and a retest is needed to rule out the disorder

How will I learn my baby’s results?

Make sure that your birth hospital and your baby's doctor have your correct address and phone number. Your baby's test results will be sent to your baby’s doctor and to the hospital where the sample was taken. You should ask your baby’s doctor for the test results when you bring the baby in for his/her first checkup. If your baby needs a retest you will be notified by your baby’s doctor or you will get a letter from the Newborn Screening Laboratory or the Newborn Screening Follow-up Program. If your baby does need a retest, get it done right away.

Can I say NO to the test?

An exception is made when parents object on the grounds that the tests are against their religious beliefs or practices. A signed statement to this effect must be recorded in the baby’s hospital record.

How much does it cost me?

There is no charge to the patient for the state newborn screening test.

How can I get more information?

For more information on Newborn Screening in New Jersey you can contact the Newborn Screening Follow-up Program at (609) 292-1582.

The following websites have information regarding newborn screening:

CENTERS FOR DISEASE CONTROL AND PREVENTION
http://www.cdc.gov/

NATIONAL INSTITUTES OF HEALTH
www.nih.gov/health

MARCH OF DIMES
http://www.modimes.org/

NATIONAL NEWBORN SCREENING AND GENETIC RESOURCE CENTER
http://www.genes-r-us.uthscsa.edu/

SAVE BABIES THROUGH SCREENING FOUNDATION
What disorders are included on the newborn screening panel?

<table>
<thead>
<tr>
<th>Disorder Name</th>
<th>Abbreviation</th>
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<tbody>
<tr>
<td><strong>Fatty Acid Oxidation Disorders</strong></td>
<td></td>
</tr>
<tr>
<td>2,4-Dienoyl-CoA reductase deficiency</td>
<td>DERED</td>
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<tr>
<td>Carnitine palmitoyltransferase I deficiency</td>
<td>CPT I</td>
</tr>
<tr>
<td>Carnitine palmitoyltransferase II deficiency</td>
<td>CPT II</td>
</tr>
<tr>
<td>Carnitine/acetyl carnitine translocase deficiency</td>
<td>CACT</td>
</tr>
<tr>
<td>Carnitine uptake defect</td>
<td>CUD</td>
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<tr>
<td>Glutaric acidemia type II</td>
<td>GA II</td>
</tr>
<tr>
<td>Long chain 3-Hydroxyacyl-CoA dehydrogenase deficiency</td>
<td>LCHAD</td>
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<tr>
<td>Long chain acyl-CoA dehydrogenase deficiency</td>
<td>LCAD</td>
</tr>
<tr>
<td>Medium/Short chain 3-Hydroxy acyl-CoA dehydrogenase deficiency</td>
<td>M/SCHAD</td>
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<tr>
<td>Medium chain acyl-CoA dehydrogenase deficiency</td>
<td>MCAD</td>
</tr>
<tr>
<td>Medium chain ketoacyl-CoA thiolase deficiency</td>
<td>MCKAT</td>
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<tr>
<td>Short chain acyl-CoA dehydrogenase deficiency</td>
<td>SCAD</td>
</tr>
<tr>
<td>Trifunctional protein deficiency</td>
<td>TFP</td>
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<tr>
<td>Very long chain acyl-CoA dehydrogenase deficiency</td>
<td>VLCAD</td>
</tr>
<tr>
<td><strong>Organic Acidemia Disorders</strong></td>
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</tr>
<tr>
<td>2-Methyl-3-hydroxybutyric aciduria</td>
<td>2M3HBA</td>
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<tr>
<td>2-Methylbutyrylglycinuria</td>
<td>2MBG</td>
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<tr>
<td>3-Hydroxy-3-methylglutaryl-CoA lyase deficiency</td>
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<tr>
<td>3-Methylcrotonyl-CoA carboxylase deficiency</td>
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<tr>
<td>3-Methylglutaconic aciduria</td>
<td>3MGA</td>
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<tr>
<td>beta-Ketothiolase deficiency</td>
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<tr>
<td>Glutaric acidemia type I</td>
<td>GA I</td>
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<tr>
<td>Isobutyrylglycinuria</td>
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<td>Isovaleric acidemia</td>
<td>IVA</td>
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<tr>
<td>Malonic acidemia</td>
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<tr>
<td>Methylmalonic acidemia - Cobalamin A, B</td>
<td>CBL A, B</td>
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<tr>
<td>Methylmalonic acidemia - Cobalamin C, D</td>
<td>CBL C, D</td>
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<tr>
<td>Methylmalonic acidemia - Mutase</td>
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<tr>
<td>Multiple carboxylase deficiency</td>
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<td>Disorder</td>
<td>Abbreviation</td>
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<tr>
<td>Propionic acidemia</td>
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<td><strong>Amino Acid &amp; Urea Cycle Disorders</strong></td>
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<tr>
<td>Argininemia</td>
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<td>Argininosuccinic acidemia</td>
<td>ASA</td>
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<tr>
<td>Hyperphenylalanemia (benign)</td>
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<tr>
<td>Biopterin cofactor defect of biosynthesis</td>
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<tr>
<td>Biopterin cofactor defect of regeneration</td>
<td>BIOPT-REG</td>
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<tr>
<td>Citrullinemia type I</td>
<td>CIT I</td>
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<tr>
<td>Citrullinemia type II</td>
<td>CIT II</td>
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<tr>
<td>Homocystinuria</td>
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<tr>
<td>Hypermethioninemia</td>
<td>MET</td>
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<tr>
<td>Maple syrup urine disease</td>
<td>MSUD</td>
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<tr>
<td>Phenylketonuria</td>
<td>PKU</td>
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<tr>
<td>Tyrosinemia type I</td>
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<tr>
<td>Tyrosinemia type II</td>
<td>TYR II</td>
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<td>Tyrosinemia type III</td>
<td>TYR III</td>
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<tr>
<td><strong>Endocrine Disorders</strong></td>
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<tr>
<td>Congenital Adrenal Hyperplasia</td>
<td>CAH</td>
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<tr>
<td>Congenital Hypothyroidism</td>
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<tr>
<td><strong>Metabolic Disorders</strong></td>
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<tr>
<td>Biotinidase deficiency</td>
<td>BIOT</td>
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<tr>
<td>Classical galactosemia</td>
<td>GALT</td>
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<tr>
<td>Galactosepimerase deficiency</td>
<td>GALE</td>
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<tr>
<td>Galactokinase deficiency</td>
<td>GALK</td>
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<tr>
<td><strong>Other Disorders</strong></td>
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<tr>
<td>Cystic fibrosis CF</td>
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<tr>
<td>Hemoglobin S/Beta-thalassemia S/βThal</td>
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<tr>
<td>Hemoglobin S/C disease S/C</td>
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<tr>
<td>Other Hemoglobinopathies Var Hb</td>
<td>Var Hb</td>
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<tr>
<td>Sickle cell anemia S/S</td>
<td>S/S</td>
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</tbody>
</table>

You can get more information on these 54 disorders by clicking here.
http://www.acmg.net/resources/policies/ACT/condition-analyte-links.htm

or here:

http://www.savebabies.org/professionals/diseasedescriptions.html