

Anemia During Pregnancy

In most pregnancies, your blood supply increases during the pregnancy to accommodate the growth and development of the baby. If your blood supply, including hemoglobin (the protein in blood that carries oxygen), is low, then you are considered to be anemic or have anemia. Good nutrition is especially important during pregnancy to help produce the needed increase of blood. Vitamins help contribute to a healthy body and pregnancy. Smoking alters the absorption of nutrients and can contribute to anemia. Other factors that increase the risk of anemia include Poor nutrition, low iron and vitamin intake, alcohol consumption, and certain medications such as anti-seizure drugs.

Symptoms may include:

Shortness of breath, weakness, fainting, or tiredness – Pale skin or jaundiced (yellowish) skin – Possible changes in heartbeat – Headaches or forgetfulness – Nausea or abdominal pain.

What your doctor can do:

- Diagnose the disease by asking about your symptoms and medical history, performing a physical exam, and ordering laboratory blood tests.
- Prescribe prenatal multivitamins with supplemental iron.

What you can do:

- Increase the amount of iron and folic acid in your diet.
- Eat foods high in iron such as beef, liver, eggs, whole grain breads, cereals, and dried fruit.
- Take iron supplements with vitamin C to help with absorption. Orange juice is an excellent source of vitamin C.
- DO NOT drink milk when taking your iron pill. It prevents the absorption of iron.
- Protect yourself from injury and bleeding.



Bleeding during pregnancy

Bleeding during pregnancy has many possible causes, some minor, and others that may pose a serious risk for you or the fetus. The causes of bleeding are typically quite different in early and late pregnancy. All bleeding during pregnancy should be evaluated by your doctor.

Pregnancy occurs when a sperm and an egg are united in one of the two fallopian tubes, the tubes that carry the eggs from each ovary to the uterus. This fertilized egg then travels down the tube to the uterus where it attaches to the endometrium, the lining of the uterus. Some minor bleeding, called implantation bleeding, may occur at this time, and is not considered a problem. Following implantation, the endometrium thickens, becomes engorged with blood, and the placenta begins to grow. This is the organ that connects the fetus to the mother (via the umbilical cord) and through which the fetus obtains nourishment during the pregnancy.

Miscarriage, which is the spontaneous loss of the fetus and placenta, occurs in about 15% of pregnancies, typically in the first 3 months. It is thought to be the body's way of ending a pregnancy that is not progressing normally. It does not mean that you are unable to become pregnant again or that you are in any way unhealthy. Symptoms include vaginal bleeding, possibly mixed with some tissue, and on and off cramping low in the abdomen. Symptoms may stop and the pregnancy continue as normal. Also, the bleeding and cramping could become worse and loss of the fetus occur.

Ectopic pregnancy occurs when the fertilized egg, rather than traveling to the uterus, becomes embedded elsewhere, typically in the fallopian tube (tubal pregnancy). It is a type of miscarriage. As the fertilized egg grows, it can rupture the tube causing vaginal and internal bleeding, pain, weakness, and even shock. Immediate medical attention is necessary. Risk increases for ectopic pregnancy in women who have had infection in the fallopian tubes (such as pelvic inflammatory disease). Though a miscarriage does not indicate a health problem, repeated miscarriages should be discussed with your doctor in case there is a problem that can be corrected. Diagnostic tests may include a pelvic exam, pregnancy test, and ultrasound. If an ectopic pregnancy seems likely, a laparoscopy may be performed. This procedure allows your doctor to view inside your lower abdomen with a telescope-like instrument.

Treatment varies, depending on the diagnosis and situation. In miscarriage, no treatment may be necessary. However, if some tissue remains in the uterus, it can cause continued bleeding or other complications. This tissue can be removed by either gentle scraping or suctioning in a surgical procedure called dilation and curettage (D&C). In ectopic pregnancy, surgery is necessary. If the tube has ruptured or is in immediate danger of rupturing, surgery will be done immediately.

Bleeding during the last half of pregnancy requires that you contact your doctor immediately. Though the cause may be minor, (i.e., passage of the blood-tinged mucous plug from the cervix, known as "bloody show"), it may indicate one of two serious problems: placenta previa or abruption placentae. In abruption placentae, the placenta detaches from the uterine wall. The fetus can be endangered by the loss of oxygen and nutrients. Placenta previa occurs when the placenta is very low in the uterus, either partially or totally covering the cervix. Both conditions may cause heavy vaginal bleeding, abdominal pain, or both. Both may require early delivery and/or hospitalization to protect the health of you and your baby.

Contact your doctor anytime bleeding occurs during pregnancy. Though it may only indicate a minor condition, it may also be the first sign of a serious problem requiring immediate treatment.

Ectopic Pregnancy

A pregnancy that develops outside the uterus (womb) is called an ectopic pregnancy. The most common site for an ectopic pregnancy is the fallopian tube (the tubes connecting the ovaries to the uterus). The ovary, cervix (bottom of the uterus), or abdominal cavity may also be a site. The uterus was designed as the site for developing babies, which can accommodate the growth of the baby. An ectopic pregnancy cannot accommodate the growth of the baby without causing harm to the mother and the baby.

Symptoms may include:

A missed period – Heavy or light spotting – Lower abdominal pain, mild to severe – Dizziness or faintness – Cramps.

What your doctor can do:

- Diagnose an ectopic pregnancy by doing a pelvic exam, pregnancy test, and ultrasound.
- A laparotomy (open surgery to find or explore the ectopic pregnancy) may be needed before a definite diagnosis can be made.
- The only treatment is the removal of the ectopic pregnancy. This requires a surgical procedure called a laparoscopy (insertion of a small telescope-like instrument through an incision).

What you can expect:

- You will need to rest for several days following the surgery. It is possible that you will feel close to normal within a few days.
- If the fallopian tube ruptured, you may be very ill for a period of time.
- Complications that can arise with a ruptured tube may include: internal bleeding, infection, shock, or loss of reproductive ability.

Contact your doctor – If you are pregnant and experience symptoms that could indicate an ectopic pregnancy:

- Fever or chills
- Headache
- Dizziness
- Heavy spotting/bleeding

If you have had surgery for an ectopic pregnancy and experience:

Symptoms of infection (fever; foul drainage from the incision site) – Pain not controlled by medication prescribed – Any unexpected or worsening symptoms



Fetal Sonogram

This procedure (also called ultrasound or sonography) allows the doctor to see the fetus inside the uterus without the risk of exposure to x-ray. It is most commonly used to determine the size and estimated age of the baby, to look for suspected multiple gestation (twins or more), to determine the position of the baby or placenta, to determine causes of vaginal bleeding, and may be used to guide the needle for amniocentesis.

Procedure:

- Depending on the stage of your pregnancy, you may be instructed to drink lots of water just before the test. Expanding the bladder with urine allows clearer images of the baby.
- The sonogram is obtained by gently pressing an ultrasound transducer (a type of sensor) on different parts of the skin over the uterus.
- The procedure usually lasts from 10 to 20 minutes.

Risks:

- There may be some discomfort holding a very full bladder during the test, especially in later stages of pregnancy.
- Occasionally, temporary back discomfort occurs from lying on the exam table for the duration of the procedure.

Heartburn During Pregnancy

Acid reflux, or heartburn, often occurs during pregnancy. It is not associated with a heart problem. Heartburn occurs when acid from the stomach backs up into the esophagus, the tube that carries food from the mouth to the stomach. The acid irritates the lining of the esophagus and causes a burning sensation in the chest and upper abdomen. The muscle that controls the opening and closing of the esophagus, located just above the stomach, is called the lower esophageal sphincter. Especially during late pregnancy, when the enlarged womb presses on the stomach, the sphincter may relax and allow the stomach acid to flow backwards. Risk increases with overeating, bending over, eating just before lying down, smoking, and alcohol consumption. Certain foods may aggravate it including caffeine, chocolate, fatty foods, and peppermint. Some people think very hot or very cold beverages make heartburn worse.

Symptoms may include:

A dull ache or burning discomfort in the chest – A burning feeling in the upper abdomen and throat – An unpleasant taste in the mouth – Painful swallowing.

What you can do:

- Treatment is based on preventing or reducing episodes of heartburn by avoiding the behaviors and substances that can worsen it.
- Most medications for heartburn should be avoided during pregnancy.
- Eat several small meals a day rather than 3 larger meals.
- Try not to eat within 2 hours of bedtime.
- Try elevating the head of your bed about 3 to 4 inches to reduce acid backflow.
- Avoid caffeine and other “trigger” foods listed above. DO NOT smoke or drink alcohol.
- Wear clothing loose around the waist and avoid bending over from the waist.

What you can expect:

- Although uncomfortable, it is temporary and harmless. It usually disappears after the baby is born.
- Complications usually only occur with long-term heartburn. These can include severe irritation of the lower esophagus, painful swallowing, and erosion of the esophageal lining.

Contact your doctor if heartburn is not relieved with self-care, if symptoms worsen, or if symptoms continue after your baby is born.

Hyperemesis Gravidarum

Hyperemesis gravidarum is persistent nausea and vomiting during the early phase in pregnancy. It is a serious condition if untreated because it can cause dehydration and drastic body chemistry changes (mostly in the blood). It is not the same thing as regular morning sickness. Morning sickness is thought to be caused by the increase in Human Chorionic Gonadotropin (a hormone secreted during pregnancy). The cause of hyperemesis gravidarum is unknown. However, some pregnant women are at higher risk: multiple gestation (more than one baby such as twins, triplets, etc.), previous history of hyperemesis gravidarum or, hydatidiform mole (not a true pregnancy but abnormal tissue growth).

Symptoms may include:

Severe, persistent nausea with or without vomiting – Weight loss or failure to gain weight during the pregnancy – Lightheadedness, fainting, tiredness, headache – Possible dehydration (loss of water from the body).

What your doctor can do:

- Diagnose the problem by asking about your symptoms, doing a physical exam, and ordering laboratory blood tests and urine tests.
- Possibly order eye exams to check for retinal bleeding.
- Prescribe any of several anti-emetic medications to stop nausea and vomiting.
- If severe dehydration has occurred, admit you to the hospital to replace fluids and restore electrolytes (essential body salts) with intravenous therapy (IV).

What you can do:

- Avoid greasy, fried, or spicy foods that may cause nausea.
- Drink plenty of fluids to avoid dehydration, especially if vomiting. Sports drinks (Gatorade, Power Burst, etc.) may be helpful in replacing lost electrolytes if vomiting.
- Eat healthy foods such as those high in protein (lean meats, poultry, or fish). These are thought to be less likely to stimulate nausea.
- Eat small amounts of food every 2-3 hours throughout the day rather than 2-3 large meals per day.
- Take only the medication your doctor prescribes. Avoid taking any over-the-counter medications unless you check with your doctor.

What you can expect:

A full recovery by the 20th week. Most women feel better by the 2nd trimester (13th -14th week).

Contact your doctor if you are experiencing severe nausea and vomiting, if your condition worsens, or symptoms do not improve.



Labor Signs

The onset of labor signs marks the end of pregnancy and the beginning of labor and eventually delivery. No one knows what triggers it, but some research shows that baby hormonal changes may stimulate increased production of a hormone known as corticotropin-releasing hormone. This leads to changes in the mother's hormones, a softening/thinning of the cervix, and contractions. Knowing what to expect can help you prepare as your due date approaches.

Symptoms may include:

Lightening – Early signs – Baby drops or settles in the lower pelvis – The mother is less short of breath; the baby has moved and this gives more room for the mother's lungs to expand – Increased pressure in the pelvis and urinary bladder leads to an increased urge to urinate – In the first pregnancy, lightening may start several weeks prior to the delivery; with subsequent pregnancies, it may happen hours before delivery or not all.

Ripening of Cervix – Effacement – Cervix lining begins to soften and thin

- Opening of Cervix – Dilation
- This is measured in centimeters from 0–10.
- Opening may progress slowly, e.g. 2–3 centimeters for days or weeks before labor.
- Once labor has begun, you will dilate more frequently.

Bloody Show Discharge

- The cervix softens/thins and starts to dilate (open up) in anticipation of delivery. Small blood vessels burst and this causes a pink or brown vaginal discharge.
- Mucus plug dislodges from the cervix.
- Bloody show may take place hours before delivery or up to several weeks before.

Nesting Instinct

- Burst of energy a few days prior to labor.
- Urge to clean house and organize baby's clothing, crib, or room.
- May occur months before the due date.
- Strongest sense just before delivery.

Water Breaks – Rupture of membranes

- The amniotic sac that cushions the baby breaks or leaks.
- A small amount of fluid or gush appears.
- Risk of developing a bacterial infection.

Nausea and diarrhea – Increased hormone levels and changes may cause nausea, upset stomach, abdominal cramping and diarrhea.

Contractions

- Occur more regularly and frequently.
- Are stronger, more intense, and closer together.
- Last more than 30 seconds at first; last longer and become stronger.
- Continue regardless of position changes or activity level.
- Increase with activity like walking.

What your doctor can do:

- Perform regular assessments during prenatal visits.
- Create a plan for what to do when labor begins.
- Recommend a childbirth class.
- Provide educational materials regarding labor signs and symptoms.
- Provide educational materials regarding false labor signs and symptoms.
- Schedule delivery at a birthing center or hospital.
- Examine the cervix for signs of effacement (softening and thinning of lining) and dilation (opening) with a vaginal exam.
- Recommend options for delivery including vaginal delivery or cesarean section.

What you can do:

- Keep all regularly scheduled prenatal visits.
- Review your labor and delivery plan with your doctor, spouse (significant other), birth partner, friend, or family member who will be assisting you during this process.
- Attend a childbirth class.
- Monitor your baby's activity and movements; consider keeping a written journal.
- Have a bag packed and readily available at home and in your car. Do not pack jewelry or other valuables.
- Have a map, address, and phone number of the hospital or birthing center. Plan a route and alternate route; take into consideration traffic, time of day, and transportation options (private car, taxi, etc...).
- Get a baby car seat for the trip home.
- Schedule a babysitter for older siblings if necessary.
- Keep your doctor's office phone number readily available.
- Get plenty of rest even if you feel that you have a burst of energy; save your energy for labor and delivery.
- Contact your doctor's office if you experience any loss of fluid, either leaking or gushing as this may be your water-breaking.
- Go to the hospital if you suspect labor has begun.

What you can expect:

False labor consists of:

a. Contractions that are irregular, that decrease with activity like walking, that may ease by changing position, and/or that do not change in frequency or intensity.

b. Pain may only occur in the lower abdomen

False alarms are common, especially during first-time pregnancies. True labor consists of:

a. the rupture of membranes (water breaks)

b. contractions that are regular, stronger, and 5 minutes apart and do not respond to position changes or activity.

c. a sudden increase or decrease in your baby's movement and activity.

d. a pain high in the abdomen that radiates throughout the abdomen and lower back.

NOTE: If you have not had a rupture of membranes and you are experiencing any of the other True Labor symptoms listed above, please contact your doctor for advice.

100% effacement (cervix that is completely thinned out) indicates that you are ready for a vaginal delivery

Timing contractions can help to distinguish between True and False Labor.

a. Use a stopwatch or second hand of a watch.

b. Write down the time that each contraction starts and stops. This is known as the duration.

c. Write down the time between the stopping of one contraction and the beginning of another. This is known as the interval.

d. Generally, strong, regular contractions lasting about 45–60 seconds and occurring 3–4 minutes apart indicate that you are in active labor. Call your doctor or hospital for advice.

Consult with your doctor if you are pregnant and have begun to experience any of the labor signs and symptoms noted previously.

Seek immediate medical advice if you experience any signs of vaginal bleeding i.e. spotting or changes in your baby's activity or movements.

Placenta Previa

In most pregnancies, the placenta is high up on the inside of the uterus (womb). In placenta previa, the placenta is low, towards the cervix (opening of the uterus). A potential problem exists in that the baby cannot pass through the birth canal with the placenta in the way. Also, the placenta can start to separate from the uterus before the baby is born. This happens as the cervix effaces (softens) prior to delivery. The baby needs the blood supplied by the placenta until just after being born. If the placenta comes out first, the baby is without any blood or oxygen. Premature delivery or fetal death are potential complications, as is serious blood loss. Risk factors include previous episodes of placenta previa, previous uterine surgery, breech position of baby, age over 35 years, diabetes mellitus, fibroid tumor in the uterus, smoking, and previous multiple pregnancies.

Symptoms may include:

Increase or change of type of vaginal discharge, which may include vaginal bleeding – Sudden and painless bleeding during the 3rd trimester.

What your doctor can do:

- The goal is to prevent any complications during the delivery of the baby.
- Cesarean delivery is often necessary.
- Careful monitoring during prenatal visits is done.

What you can do:

- Keep all prenatal appointments with your doctor.
- If you smoke, stop now.
- Maintain good control over diabetes or other chronic illnesses.



Overdue Pregnancy

An overdue or postdate pregnancy is one that is longer than 42 weeks. Most pregnancies are 38–42 weeks long. The cause of overdue pregnancy is unknown but most are believed to be an error in the calculation from the date of the last menstrual period (LMP). Complications may develop from an overdue pregnancy that is not due to miscalculated dates. They include insufficient amniotic fluid (not enough fluid in the bag of waters), meconium (baby's first stools) in the amniotic fluid, stillbirth or fetal death, high birth weight (greater than 9 lbs. 14 oz.), uterine infection, vaginal and rectal tears (lacerations), and vaginal bleeding. Risk increases in women who have had a previous overdue pregnancy.

What your doctor can do:

- Evaluate your condition to ensure you or your baby have not developed any complications. This includes doing a pelvic exam.
- Perform certain laboratory tests to check for potential problems.
- Monitor the baby for any distress.
- Initiate labor for the delivery of the baby.

What you can do:

- Take as good care of yourself as possible.
- Get plenty of rest.
- Do see your doctor for your regular prenatal visits. Tell your doctor of any problems that you are experiencing.
- Continue to eat well and get plenty of fluids.

What you can expect: The delivery of your baby very soon! It's almost time, be patient just a bit more.

Contact your doctor if you have any vaginal bleeding, your water breaks (fluid leakages), you have a severe headache that will not go away with acetaminophen (Tylenol), or you have not felt your baby move for more than 2-3 hours.

Miscarriage

Miscarriage is the loss of the pregnancy before the 20th week. Most miscarriages occur during the 1st trimester and are a result of abnormal chromosomes (genetic code) in the fetus. Usually, there is nothing wrong with you or your partner. Miscarriages occur in 15–20% of all pregnancies. It can be difficult to deal with physically and emotionally. Often, there is no reason found for miscarriage. If you have had a miscarriage, you still have a very good chance for a future normal pregnancy. Risk factors include stress of all kinds; hormone imbalance; disorders of the immune system; abnormal uterus or intrauterine infection; environmental and lifestyle factors such as smoking, use of alcohol or cocaine; and uncontrolled diabetes.

Symptoms and warning signs may include:

Vaginal bleeding or spotting, usually without pain – Heavy bleeding with cramping or abdominal pain – “Water gushing”, indicating your water broke (ruptured membranes) – Passage of any tissue from your vaginal area – Fever and chills.

What your doctor can do:

- Perform a physical exam to determine if a miscarriage has occurred.
- Often, no medical treatment is necessary as the body may pass all the tissue from the pregnancy by itself.
- Treatment may include a procedure called a D&C (dilation and curettage), one way to remove any remaining tissue from the pregnancy. This procedure may be performed in the office, emergency room, or surgical center.

What you can do:

- Allow yourself to grieve. DO NOT blame yourself for the miscarriage as this only punishes you. You need and deserve support, love, and reassurance during this time.
- There is help available for you to deal with your grief from this miscarriage. If you need assistance, talk with your doctor or nurse or request a referral to a counselor or local support group.

What you can expect:

- Miscarriages are seldom an indication of a problem with you or your partner. There is still a very good chance for a future normal pregnancy when you are ready.
- Emotionally, you may require a period of time to accept the miscarriage and get back to your life in a way that is healthy.
- Possible physical complications of a miscarriage include infection, blood loss, and missed or incomplete miscarriage in which parts of tissues or the fetus remain inside the uterus (womb).

Pre-Natal Visit

Pregnancy is an important time in your life. Your body will change as your baby grows and develops. It is an exciting time of growth and development for both you and your baby. Throughout your pregnancy, consider the baby's health since everything you do and eat affects the baby.

Most pregnancies last from 38–42 weeks, the average being 40 weeks or 9 months (three trimesters). The first 13 weeks are called the 1st trimester, weeks 13–26/27 are referred to as the 2nd trimester, and weeks 26/27–40 are referred to as the 3rd trimester. You were 2 weeks pregnant when you missed your last period. Your due date is determined by your last menstrual period. After conception, the fertilized egg travels down the fallopian tube and implants on the uterine wall. The placenta and the amniotic sac (water sac) begin to form at this time. The placenta is what connects the baby to the mother. Nutrients and oxygen pass from your bloodstream to the placenta. The placenta then exchanges nutrients and oxygen and goes to the baby's side of the placenta traveling via the umbilical cord to the baby. There is no exchange of the mother's blood and the baby's blood. Waste products travel from the baby to the mother in the reverse order. Thirty percent of all pregnancies end in miscarriage and most do so during the first trimester. Often there is no medical reason found for the miscarriage.

What your doctor can do:

- The prenatal visits are usually once a month until the seventh or eighth month when they increase to every other week, and finally, every week during the ninth month.
- Your doctor may change the schedule of prenatal visits based on your health.
- A physical exam to follow growth and development and to detect any health problems early. At times, this may include a pelvic exam to determine the size of your uterus and your bone structure (pelvis).
- Urine tests to make sure your kidneys are not overworked during pregnancy.
- Blood tests, primarily to make sure you are not anemic (low blood count) and you are immunized against Rubella (German measles, a dangerous disease to get while you are pregnant).
- Check blood pressure.
- Record your weight. You should gain about 24–32 pounds during your pregnancy. Every woman is different and every pregnancy is different. Some women may gain as little as 15 pounds, some as much as 40 or more.
- Measure your belly to determine the size of your uterus. Your uterus grows as your baby grows.
- Check the baby's heartbeat. This is heard with a Doppler (an instrument to listen to sounds like heartbeats). A baby normally has a fast heartbeat.
- An ultrasound may be done to better determine your due date, determine the location of the placenta, and check the baby's brain, heart, and other organs for development.

What you can do:

- Use the time with your doctor to discuss any questions you have concerning your pregnancy.
- Nutrition is an important part of your pregnancy. Your baby receives all of her nutrients from you. It is important that you eat wisely by choosing healthy foods. Your baby is completely dependent on the nutrition choices you make during your pregnancy. She needs good nutrition for good growth and development.
- Your doctor may prescribe prenatal vitamins during your pregnancy as well as an iron supplement.
- Avoid eating raw meat, drinking alcohol, smoking cigarettes, or taking any unnecessary medication or drug, including illicit drugs and over-the-counter medicines. Consult your doctor prior to taking ANY medication. Some medications can have harmful effects on the developing baby.
- Exercise is very important during your pregnancy. If you have been on an exercise program prior to your pregnancy, continue with that program if your doctor says it is okay.
- If you were not on an exercise program prior to your pregnancy, you can begin one during your pregnancy. Your doctor will give you instructions on which type of exercises you may perform.
- As in many things, moderation is the best rule. Avoid high-impact, bouncy, or sudden/jerky exercises during your routine.
- While you are in the car, be sure to wear your seatbelt low, below the uterus.
- Avoid straining or lifting things that are very heavy during your pregnancy.
- Avoid cleaning cat litter boxes or gardening/digging in soil that cats may have used. There are microorganisms in these items that can cause harmful effects to your baby that are lifelong.
- Avoid the use of Jacuzzis and saunas during pregnancy because the heat can be harmful.
- Be sure that you do not have any X-rays during your pregnancy.
- Taking acetaminophen (Tylenol) is normally safe. However, aspirin, ibuprofen (Advil, Motrin), and naproxen (Aleve) should not be used during your pregnancy unless your doctor has approved it.
- Travel during your pregnancy is generally fine as long as your health permits. Be sure to stretch your feet during long trips.
- During the last 4–6 weeks, you should not travel more than one hour's distance from your doctor or hospital.

Contact your doctor if you develop any problems during your pregnancy. Seek immediate medical assistance if you develop any of the following:

- Spotting (like a light period)!
- Any weight loss!
- Possible dehydration because of severe vomiting!
- Fever greater than 100!
- Severe headache not relieved with acetaminophen (Tylenol)!
- Abdominal Cramps!
- Sudden swelling of hands or feet!
- Fluid leakage (water breaks)!
- Regular contractions that get closer with time!
- If you do not feel your baby move for 2–3 hours (during the last trimester).



Pregnancy And Travel

Traveling while pregnant is generally safe and enjoyable in a normal pregnancy up until shortly before the due date. By using common sense, paying attention to your body's signals, and following a few simple guidelines, you can ensure the health of your baby and yourself. If you are having problems with your pregnancy, have other medical conditions to consider, or are nearing your due date; discuss your travel plans with your doctor.

The best time of pregnancy for any type of travel is usually during the second trimester (14-28 weeks). This is when most women feel the best. During this time, morning sickness is usually no longer a problem, your body is better adjusted to the pregnancy, and your energy level is back to normal. As your pregnancy moves into the last few weeks, it will be more difficult for you to move around and less comfortable to sit or ride for very long.

What your doctor can do:

- Provide you with the name of another doctor at your destination point, in case of emergency.
- Give you a medical release, especially if it is late in your pregnancy.

What you can do:

- Plan to walk every 1-2 hours. Stretching and moving will reduce swelling and keep you more comfortable. Wear comfortable, well-fitting shoes.
- Be prepared for temperature and humidity changes. Wear layered clothing that does not bind and is comfortable.
- Take a few light snacks to reduce nausea and hunger, and drink plenty of water and other liquids.
- Carry your medical records with you if you will be far from home.
- Consider any medications you might need, such as stool softeners, or motion-sickness pills. Discuss these with your doctor before you leave. Avoid prescription and over-the-counter medicines unless your doctor has told you they would be safe to use.
- If you will be away for several weeks, schedule your prenatal visits no more than a few days before leaving and a few days after you return.
- If you plan to travel close to your due date, consider the possibility of early labor. Check with your doctor before making definite plans.
- Be flexible with your plans. That way, if problems develop, either before you leave or while you are away, you will be better prepared to make changes.
- Always wear a seat belt when you travel by car. It is not true that a seat belt will hurt the baby if there is an accident. The best way to protect the baby is to protect yourself since your body provides the best protection of the baby. Place the lap belt over the lower abdomen or upper thighs and the shoulder belt between the breasts and across the shoulder. Adjust your seat to be certain the shoulder belt is not against your neck.
- To be comfortable and enjoy the trip, try to limit riding to no more than 5-6 hours each day.
- Flying is generally safe during pregnancy. US airlines typically allow air travel for pregnant women up to 36 weeks of pregnancy. You may be asked to show proof of your health status and the status of your pregnancy.
- Boat travel can be a great way to relax but may also cause nausea. Pregnancy may not be a good time for your first cruise.
- If you are traveling by bus, be prepared for the narrow aisles and small bathrooms.
- Travel by train allows you to move around more but maintaining your balance, especially in late pregnancy, may be difficult. Bumpy rides, however, do not induce labor.
- Especially for travel abroad, consider how you will avoid contaminated food or drink; the availability of medical facilities, and the need for immunizations.

Contact your doctor for any unanswered questions to ensure your comfort and the health and safety of you and your baby.

Pregnancy Changes In Mother And Baby

Most pregnancies last for 9 months or 38–42 weeks. There are many changes occurring in your body and that of your developing baby. Throughout your pregnancy, you will gain 24–35 pounds. Pregnancy is a time of change. As your body changes, your emotions change. You may feel more sensitive, grumpy, weepy, excited, happy, or sad. Your moods may change suddenly and frequently. This is all to be expected and will most likely go back to normal during the second trimester. There is a lot of planning to do before the baby comes. A baby is a big responsibility. There are many resources available to help you. Here are some of the highlights of the changes you and your baby will experience:

Month 1: You are beginning your first trimester of pregnancy. You miss your period and your body is making new hormones for the pregnancy. You might experience morning sickness (mild to severe nausea and vomiting associated with pregnancy) from the hormones. Morning sickness can occur at any time of the day and usually stops by the 3rd or 4th month. Eating saltine crackers before getting out of bed may help with the morning sickness. Eat small, frequent meals, about 6 a day, and snacks as needed. Having something in your stomach usually reduces morning sickness. Your breasts may enlarge and become tender. Your baby receives all his nutrients from you. It is important that you eat wisely, choosing healthy foods, since he needs good nutrition for good growth and development. You need to take a prenatal vitamin. If you are smoking, drinking alcohol, or using any unnecessary drugs, you need to stop. Having sex during the first trimester is safe. Your sex drive may go up or down during the pregnancy. Set up an appointment for a prenatal visit with your doctor. Your baby is called an embryo because he is not yet fully formed. His limbs are buds that will grow into arms and legs. His organs are beginning to form, his heart will start to beat, and his brain is forming. He is about 1/2 inch long and weighs less than one ounce.

Month 2: You may still experience morning sickness and feel tired. It is important to rest and take naps as needed. Your blood supply is increasing along with your cardiac output (blood flow). Your breasts may enlarge and become tender, requiring a good support bra or sports bra. The nipple area (areola) may darken. You may urinate more frequently as the enlarging uterus is crowding out your bladder. Your baby is continuing to form. Eyelids are sealed shut, ears are forming, and the limb buds are maturing into ankles and wrists, fingers and toes. She moves around in the water sac quite comfortably. By the end of this month, she looks more like a person, is about 1 inch long, and weighs about 1 ounce.

Month 3: The end of this month will complete your first trimester. Morning sickness may still be present as well as being tired. Your normal clothing may be getting tight around the waist and breasts as you are beginning to show. Wear pants with elastic waistbands and pullover tops. Maternity clothing may be too big at this time. You may develop a dark line down the center of your belly called linea nigra. This will lighten after you deliver your baby. Your baby is now called a fetus. He now has “buds” that eventually will become his baby teeth. It is possible to hear the baby’s heartbeat with an instrument called a Doppler. Babies normally have fast heartbeats. He is about 4 inches long and weighs a little over 1 ounce.

Month 4: You are now in your 2nd trimester. You are starting to show as your belly grows. You should begin to feel more energetic. Morning sickness is usually gone by this time. Constipation (caused by hormonal changes and increased pressure in your lower abdomen) may be present. You may start to feel your baby move inside. She may move all around, kick, stretch, and move her arms; she swallows and hears your voice. She is 6–7 inches long and weighs about 5 ounces.

Month 5: Your uterus is at the level of your navel at 20 weeks. Your heart is beating faster and you still may need additional rest during the day. If you are not getting enough calcium, you may have leg cramps. Your joints and muscles are softening to allow for the passage of the baby. You may notice a “waddle” or loosening in your walk. Your baby is more active as he continues to develop and you feel his movements. He has fingernails, eyebrows, eyelashes, hair, regular sleep, and wake cycles, and moves side to side, up and down. He is 8–12 inches long and weighs 1/2 to 1 pound.

Month 6: Your baby kicks a lot. You may feel the weight of your pregnancy on your back. Your uterus continues to stretch. Your baby has fine, soft hair all over her body. Her skin is red and wrinkled. She opens her eyes. Her fingerprints and toe prints can be seen. She has a good chance of survival with intensive care if she were born now. Her chance for survival increases the longer your pregnancy continues. She is 11–14 inches long and weighs 1 to 1-1/2 pounds.

Month 7: You are now in your third trimester. You may experience swelling in your ankles and hands throughout the day. Rest with your feet up during the day. Stretch marks may appear on your belly, hips, buttocks, or breasts. Braxton-Hicks contractions may be felt. These are practice contractions for your uterus as it prepares for labor. They are irregular and do not get closer together over time. The top of your uterus is several inches above your navel. Your breasts continue to enlarge. Having sex during the third trimester is safe unless your doctor tells you otherwise. Your baby gains most of his weight during the third trimester. He can suck his thumb, see light, hear the sound, and cry. He is about 15 inches long and weighs about 3 pounds.

Month 8: Your breasts may leak colostrum (the first milk). This is normal. Wearing a breast pad will help prevent your bra from becoming wet. Finding a comfortable sleeping position may be a challenge. Your belly is large and you may need to urinate often. You might feel short of breath and need to rest during the day. Avoid lying on your back when sleeping because the weight of the baby and your uterus can put too much pressure on your major blood vessels, possibly causing problems with your blood pressure and blood flow. The Braxton-Hicks contractions continue preparing your uterus for labor. Your baby continues to grow rapidly producing the needed baby fat. Her skin is not as wrinkled as during the second trimester. She is 18 inches long and weighs about 5 pounds.

Month 9: You are in your last month of pregnancy! The baby is pushing on your bladder causing you to urinate often. Finding a comfortable sleeping position continues to be a challenge. Swelling of your ankles and hands is common. Braxton-Hicks contractions continue. The baby moves down into your pelvis as he prepares for labor. You may be able to breathe easier as he “drops” down into your pelvis. Your cervix begins to dilate (open up) and efface (thin out) to make preparations for the birth. Your baby is full-term. He will turn into the birthing position (head down) around 34–36 weeks. His lungs are mature. He continues to grow rapidly, putting on about one ounce every day or 1/2 pound per week. He is 18–21 inches long and weighs between 6–9 pounds.

Contact your doctor if you develop any problems during your pregnancy.

Seek immediate medical assistance if you develop any of the following:

Spotting (like a light period) – Weight loss and possible dehydration because of severe vomiting – Fever greater than 100 – Severe headache not relieved with acetaminophen (Tylenol) – Cramps – Sudden swelling of hands or feet – Fluid leakage (water breaks) – Regular contractions that get closer with time – If you do not feel your baby move for 2–3 hours (during the last trimester).

Pregnancy Induced Hypertension

Pregnancy Induced Hypertension (PIH) refers to high blood pressure that occurs during pregnancy.

Blood pressure is necessary for transporting blood from the heart to the entire body through a system of blood vessels, arteries, and veins. It is created every time the heart squeezes (contraction) and pumps blood into the arteries. When the heart relaxes, veins return the blood. Blood pressure consists of 2 numbers, for example, 120/60. Systolic pressure, the first number, refers to the pressure in the arteries during the heart's contraction. Diastolic pressure, the second number, refers to the pressure in the arteries when the heart relaxes in between contractions.

It is not known what causes PIH. Women at risk for developing PIH include:

- First-time pregnancies.
- History of high blood pressure during a previous pregnancy.
- History of chronic high blood pressure.
- Mother or sister(s) had a previous history of PIH.
- Multiple baby pregnancies (twins, triplets, etc...).
- Teenage mother.
- 35 years old and older.
- History of kidney disease or diabetes or certain immune disorders like lupus or blood diseases.
- Obesity.
- African American descent.

PIH can limit blood flow to the placenta. If the placenta is not receiving sufficient blood, the developing baby will receive less and less oxygen and nutrients. This can result in low birth weights in the developing baby.

Symptoms may include:

Mild

- High blood pressure (>140 systolic or >90 diastolic) – Protein found in urine – Retaining water (swelling) in hands and face – Rapid weight gain.

Severe

- Severely High blood pressure (>160 systolic, >110 diastolic) – Severe persistent headaches – Sensitivity to bright lights, seeing spots, blurred vision, double vision – Severe tiredness, and shortness of breath – Pain to the abdomen in the middle or on the right upper side near the ribs – Increased bruising and/or bleeding – Excessive weight gain or swelling – Baby movements have slowed down – Passing small amounts of urine.

What your doctor can do:

- Diagnose the problem by asking about your symptoms and performing a physical exam.
- Monitor blood pressure, weight, and urine at each prenatal visit.
- Order laboratory tests including urinalysis, kidney function, and blood clotting tests.
- Order diagnostic tests such as an ultrasound to monitor the baby's growth and a Doppler scan to evaluate the placenta's blood flow.
- The prescribed treatment is based on how far along the pregnancy has progressed.
- Baby at Full-Term and Mild or Severe Hypertension.
- – Deliver the baby as soon as possible either by natural labor or by cesarean delivery.
- Baby not at Full-Term and Mild Hypertension.
- Bed Rest – Lying on the left side to keep the weight of the baby off of major blood vessels.
- Prenatal checkups – Increase visits.
- Diet – Decrease salt intake.
- Fluids – Consume 8 glasses of water per day.
- Baby not at Full-Term and Severe Hypertension.
- Previous recommendations for Mild Hypertension.
- Prescribed Blood Pressure medicines as needed.

What you can do:

- Before becoming pregnant.
- Have your blood pressure checked.
- Control blood pressure if you have high blood pressure.
- Follow a prescribed program of diet and exercise to lose weight if necessary.
- Take all prescribed blood pressure medicines.
- Discuss your blood pressure control plan during pregnancy with your doctor including what medications are safe to take.

When Pregnant

- Keep all scheduled prenatal visits.
- Learn to measure your own blood pressure. Self-monitor your blood pressure if diagnosed with PIH.
- Do not add salt to meals; talk to your doctor about substitutes.
- Limit junk foods and fried foods in your diet.
- Get plenty of rest.
- Talk to your doctor about an exercise program.
- Keep feet elevated several times daily.
- Avoid alcoholic beverages.
- Avoid caffeine-containing beverages.
- Take only medications and/or supplements prescribed by your doctor.

What you can expect:

- Regular prenatal visits can detect PIH early.
- Early treatment can lead to delivery of healthy, full-term babies.
- In some cases, you may need to be admitted to the hospital to monitor the blood pressure and baby.
- Severe PIH can lead to a condition known as eclampsia. In this case the mother's kidneys, liver, brain, heart and eyes can be damaged. Seizures may also occur.

Consult with your doctor if you are planning on becoming pregnant; if you are planning on becoming pregnant and have high blood pressure, and/or if you are at risk for developing PIH during pregnancy.

Seek immediate medical advice if you check your blood pressure and it is equal to or above 160/110 mm Hg, if you have any vision changes like double vision or see spots, if you have abdominal pain, or if you experience any vaginal bleeding.

Pregnancy Nutrition

Pregnancy nutrition is vital for a healthy mother and baby. During pregnancy, the mother's diet is the primary source of nutrients for the developing baby and her.

Grains – Provides necessary carbohydrates, and contains fiber, iron, B vitamins, minerals, and protein. 6–9 servings are recommended daily.

One serving suggestion:

- 6 crackers
- 1 slice of bread
- ½ small bagel
- ½ to 1 cup cold cereal (some cereals contain necessary folic acid supplement)
- ½ English muffin
- ½ cup cooked cereal, pasta or rice
- Products must be listed as whole-wheat or whole-grain

Fruits and Vegetables – Provides necessary vitamins minerals and fiber for digestion. 3+ servings of fruit and 4+ servings of vegetables are recommended daily.

One serving suggestion:

Fruit

- ½ cup fruit juice*
- ½ cup medium-sized fruit
- ½ cup fresh, frozen or canned fruit
- ¼ cup dried fruit

Vegetable

- ½ cup vegetable juice
- 1 cup raw, leafy vegetables
- ½ to 1 cup cooked or other raw vegetables
- 1 small baked potato

*Limit daily servings of fruit juice as it can lead to unnecessary weight gain
Other non-standard fruit examples include apricots, mangos and pineapples
Other non-standard vegetable examples include sweet potatoes, winter squash, or asparagus



Protein (meat, poultry, fish, eggs, and beans) – Provides necessary protein, B vitamins and iron supplements. During the 2nd and 3rd trimesters, protein is very crucial for a developing baby. 2+ servings of protein-rich foods are recommended daily.

One serving suggestion:

- 2 tablespoons of peanut butter
- ½ cup cooked dried beans
- 1/3 cup nuts
- 2–3 ounces of cooked lean meat, poultry or fish
- ½ cup tofu
- 1 egg

Examples may include peanut butter toast, scrambled eggs/omelet, salmon fillet, chickpeas/black beans, or soy nuts.



Dairy Products – Provides necessary vitamin A, vitamin D and calcium for developing baby’s teeth and bones. 4+ servings are recommended daily

One serving suggestion:

- 1 cup calcium-fortified soy milk
- 1 cup skim milk
- 2 ounces of processed cheese
- 1 cup yogurt
- 2 ounces of natural cheese
- For those with lactose intolerance to dairy products, try calcium-fortified orange juice, lactose-free products, or use a lactase enzyme when eating or drinking dairy products

Fats and sweets – There are no minimum requirements. Watch portion sizes to avoid unnecessary weight gain

Sources	Key Nutrients	Benefits for Mother and Baby
Milk, cheese, yogurt, sardines	Calcium – 1000mg	Healthy teeth and bones
Green peas, lima beans, roccoli green peas, lean red meat, fish and poultry	Iron – 27mg	Builds red blood cells for oxygen
Sweet potatoes; carrots; dark, leafy greens	Vitamin A – 770mcg	Promotes bone growth, healthy skin and eyesight
Broccoli, tomatoes, citrus fruits	Vitamin C – 85mg	Helps with iron absorption; healthy teeth, bones and gums
Bananas; pork, liver, beef, ham; whole-grain cereals, breads	Vitamin B6 – 1.9mg	Builds red blood cells and helps body to use carbohydrates, fat and protein
Milk, fish, poultry, meat, liver	Vitamin B12 – 2.6mcg	Protects nervous system; helps to build red blood cells
Legumes and nuts; dark yellow fruits and vegetables; liver; green, leafy vegetable	Folic Acid – 400mcg	Produces blood and protein; Assists with enzyme functions

What your doctor can do:

- Diagnose pregnancy and perform a physical exam.
- Prescribe a prenatal vitamin, iron, and folic acid supplement.
- Recommend a balanced diet to include Grains, Fruits and Vegetables, Protein, and Dairy products.
- Recommend small snacks and small meals throughout the day to help reduce nausea symptoms.
- Monitor weight gain throughout pregnancy.
- Refer to a nutritionist for meal planning.
- Monitor chronic medical conditions related to diet like diabetes mellitus.
- Recommend an exercise program.

What you can do:

- Visit with your doctor BEFORE becoming pregnant.
- Follow up with your doctor regularly; keep all prenatal visits.
- Eat a variety of foods daily to ensure that you receive the necessary nutrients. Refer to the food pyramid developed by the USDA for the latest recommendations (www.mypyramid.gov).
- Avoid alcoholic beverages, illegal drugs, or medications/supplements not.

Prescribed by your physician.

- Avoid eating fish that may contain large levels of mercury like shark, swordfish, king mackerel, tilefish, or albacore tuna while pregnant. The high levels of mercury can be harmful to the developing baby.
- Avoid eating foods that may cause a bacterial infection called listeriosis like unpasteurized milk or soft cheeses; raw or undercooked meat, poultry, or shellfish; or prepared meats like hot dogs or deli meats unless reheated to steaming hot.
- Wash all fresh fruits and vegetables before eating to prevent bacterial infections.

What you can expect:

- Morning sickness may change your eating habits.
- Food cravings for certain foods.
- Periods of increased or decreased appetite.
- Weight gain.

Consult with your doctor if you are thinking about becoming pregnant or if you are pregnant and need assistance with healthy food choices and meal planning.

Seek immediate medical attention if you are pregnant and are experiencing periods of uncontrolled nausea/vomiting, a severely decreased appetite, or any unexpected weight loss or weight gain.

Pregnancy Weight Gain

During pregnancy, a healthy weight gain is necessary for promoting the growth and development of the unborn baby. It also supports the mother's health needs during pregnancy. For most normal-weight women, a healthy weight gain is about 25-35 pounds for most women. This is usually accomplished by eating 150-200 calories a day during the first few months of pregnancy and about 300 calories more a day in the 2nd or 3rd trimester. Weight gain is usually distributed as follows:

Baby – 7 to 8 pounds

Mother:

- Breast growth – 1-3 pounds
- Protein and fat stores – 6 to 8 pounds
- Placenta – 1.5 pounds
- Uterus growth – 2 pounds
- Amniotic fluid – 2 pounds
- Mother's blood volume – 3 to 4 pounds
- Mother's body fluids – 2 to 3 pounds

Normal-weight women do not need to gain much weight during the first trimester. Consistent weight gain is necessary during the 2nd and 3rd trimesters, usually 3 to 4 pounds a month until delivery. This, of course, will vary if women are underweight, overweight, obese, or carrying multiples:

- If underweight, should gain between 28-40 pounds
- If overweight, should gain between 15-25 pounds
- If obese, should gain at least 15 pounds
- If carrying twins or triplets, should gain between 35-45 pounds

Symptoms may include: Positive pregnancy test

What your doctor can do:

- Diagnose pregnancy and perform a physical exam.
- Prescribe a prenatal vitamin, iron, and folic acid supplement.
- Recommend a balanced diet to include Grains, Fruits and Vegetables, Protein, and Dairy products.
- Recommend small snacks and small meals throughout the day to help reduce nausea symptoms.
- Monitor weight gain throughout pregnancy.
- Refer to a nutritionist for meal planning.
- Monitor chronic medical conditions related to diet like diabetes mellitus.
- Recommend an exercise program.

What you can do:

- Visit with your doctor BEFORE becoming pregnant.
- Follow up with your doctor regularly; keep all prenatal visits.
- Eat a variety of foods daily to ensure that you receive the necessary nutrients. Refer to the food pyramid developed by the USDA for the latest recommendations (www.mypyramid.gov).
- Talk to your doctor about your weight gain goals. This may vary if pregnant with multiple babies (twins, triplets, etc...).

What you can expect:

- Morning sickness may change your eating habits.
- Food cravings for certain foods.
- Periods of increased or decreased appetite.
- Gaining more weight than recommended during pregnancy and failing to lose the extra pounds within six months after delivery can lead to obesity.
- If underweight, gaining weight during the 2nd and 3rd trimesters is important to prevent premature birth and low birth weights.

Consult with your doctor if you are thinking about becoming pregnant or if you are pregnant and need assistance with healthy food choices and meal planning.

Seek immediate medical attention if you are pregnant and are experiencing periods of uncontrolled nausea/vomiting, a severely decreased appetite, or any unexpected weight loss or weight gain.

Premature Labor

In most pregnancies, labor begins during the 38th to 42nd week. Premature or pre-term labor starts before the end of the 37th week of pregnancy. If labor begins too early in the pregnancy, the baby may be born premature, which can be problematic for the baby. If premature labor can be stopped early enough, the baby has a better chance of being healthier.

Risk factors may include:

- Previous premature labor with this pregnancy or other pregnancies.
- Pregnant with twins, triplets, or more.
- Abnormal uterus (womb).
- Previous cocaine usage.
- Infrequent or no prenatal care.
- Bleeding during 2nd or 3rd trimesters.
- Infection while pregnant.
- Surgery during this pregnancy, especially abdominal.
- Previous abortions during the 2nd trimester.

Symptoms may include:

Increase or change of type of vaginal discharge, which may include vaginal bleeding – Regular contractions – Pressure in the pelvis, back, or lower abdominal area, or cramping of the abdomen – Ruptured membranes or your water breaks.

What your doctor can do:

- The goal of preterm labor is to stop the labor until the baby is mature enough to be born. Your health is considered in this goal as well.
- Order bed rest or limited activity. This and avoiding dehydration can sometimes be enough to stop contractions.
- Prescribe certain drugs to stop contractions.

Contact your doctor if you have any of the symptoms listed above or a history of any of the risk factors.



Rubella And Pregnancy

Rubella is a contagious illness that is usually very mild. It can affect anyone but is most common in children. It is spread when the germs are passed from one infected person to another. The greatest danger of rubella is to the unborn baby of a pregnant woman who develops the disease. In pregnant women, it can cause the loss of the baby or serious birth defects including deafness, heart disease, blindness, or brain damage.

Symptoms may include:

A red rash for 1-2 days – Swollen glands – Mild fever.

A person is considered contagious (can pass the disease on to someone else) for 1 week before, during, and for 1 week after the rash is present.

Immunization can prevent rubella:

- Widespread immunization has greatly reduced the number of miscarriages and birth defects related to rubella.
- The risks involved in immunization are very small compared to the risks to the fetus if you contract the disease during pregnancy.
- Immunization is recommended for nearly all children at 12-15 months of age and again at 4-6 years old or before middle school.

Recommendations for women of childbearing age:

- Non-pregnant women of childbearing age should be immunized if they have not had rubella or have already been immunized.
- If you are pregnant now, wait until you are no longer pregnant to be immunized.
- DO NOT get pregnant for 3 months after immunization. Talk to your doctor about birth control, if needed.
- If you do not know whether or not you have had rubella, have a blood test done by your doctor or local health department to find out.
- You are considered to be exposed if you have had contact with an infected person 1 week before, during, or within 1 week after the rubella rash is present. Your doctor will inform you of certain risks and treatments available including gamma globulin injection.

Contact your doctor or health department staff for further information.

Contact your doctor immediately if you are pregnant, are exposed to rubella, and have not had the disease or the vaccine!

