

The First Trimester of Pregnancy

Weeks 1 through 12



The first three months are a rollercoaster of concerns, excitement, confusion, and change. In this packet you will find information concerning the growth of the baby in its first months, emotional changes, lifestyle changes, dangers to look out for in the surrounding environment, dietary changes, and keeping fit and healthy in your first trimester as a mother-to-be.

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Fetal Development: First Trimester

Week 1 & 2 - Gestational Age

The menstrual period has just ended and your body is getting ready for ovulation. For most women, ovulation takes place about 11 - 19 days from the first day of the last period. During intercourse, millions of sperm are released in the vagina. Sperm travel through the cervix and into the fallopian tube. If conception takes place, one sperm will penetrate an egg and create a single set of 46 chromosomes called a *zygote*— the basis for a new human being. The fertilized egg will then spend a couple of days traveling through the fallopian tube toward the uterus, dividing into more and more cells. At this point, the bundle of cells is called a *morula*. The *morula* becomes a *blastocyst* and will eventually end up in the uterus. Anywhere from day 6-10 since conception, the *blastocyst* will imbed into the uterine lining and begin the embryonic stage.

Week 3 - Gestational Age (Fetal Age - Week 1)

The embryo is going through lots of rapid growth at this time, with the beginning development of the brain, spinal cord, heart and gastrointestinal tract.

Week 4 & 5 - Gestational Age (Fetal Age - Weeks 2 & 3)

Arm and leg buds are visible, but not clearly distinguishable. The heart is now beating at a steady rhythm. The placenta has begun to form and is producing some important hormones including hCG. There is movement of rudimentary blood through the main vessels. The early structures that will become the eyes and ears are forming. The embryo is $\frac{1}{4}$ inch long by the end of these weeks.

Week 6 - Gestational Age (Fetal Age - Week 4)

The formation of the lungs, jaw, nose and palate begin now. The hand and feet buds have webbed-like structures that will become the fingers and toes. The brain is continuing to form into its complex parts. A vaginal ultrasound could detect an audible heartbeat at this time. The embryo is about a $\frac{1}{2}$ inch in length.

Week 7 - Gestational Age (Fetal Age - Week 5)

At 7 weeks gestation, every essential organ has begun to form in the embryo's tiny body even though it still weighs less than an aspirin. The hair and nipple follicles are forming, and the eyelids and tongue have begun formation. The elbows and toes are more visible as the trunk begins to straighten out.

Week 8 - Gestational Age (Fetal Age - Week 6)

The ears are continuing to form externally and internally. Everything that is present in an adult human is now present in the small embryo. The bones are beginning to form, and the muscles can contract. The facial features continue to mature, and the eyelids are now more developed. The embryo is at the end of the embryonic period and begins the fetal period. The embryo is about 1 inch long and is the size of a bean.

Weeks 9 thru 13 - Gestational Age (Fetal Age - Weeks 7 thru 11)

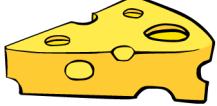
The fetus has grown to about 3 inches in length and weighs about an ounce. The genitalia have clearly formed into male or female, but still could not be seen clearly on an ultrasound. The eyelids close and will not reopen until the 28th week of pregnancy. The fetus can make a fist, and the buds for baby teeth appear. The head is nearly half the size of the entire fetus.

FIRST TRIMESTER TESTS

HEMOGLOBIN (HGB) & HEMATOCRIT (HCT)	<p>These two tests are used to screen for anemia in pregnancy. Anemia exists when there are not enough red blood cells (RBCs) to meet the oxygen needs of the body. Hemoglobin measures the number of Red Blood Cells (RBCs) present in a sample of blood. Hematocrit measures the percentage of RBCs in your blood. The Hgb and Hct are checked at the beginning of the pregnancy and again in the third trimester.</p>	<p>Pregnant women are often slightly anemic when compared to non-pregnant women and this is usually normal. The mother's blood volume increases during the pregnancy to meet the needs of the growing baby and uterus. As it does, the plasma (fluid part of the blood) expands by 50% and the RBCs by only 30%. The net result is that the blood is diluted slightly, which makes for a lower Hgb and Hct.</p> <p>If anemia is present, these tests can indicate if it is mild or severe. However, anemia can have many causes including inadequate iron stores, an inherited blood disorder, or other rare health problems. The tests won't tell you the type of anemia. Further tests will be ordered to clarify the cause and how best to treat it.</p>
RED BLOOD CELL INDICES MEAN CORPUSCULAR VOLUME: MEAN CORPUSCULAR HEMOGLOBIN CONCENTRATION	<p>The Red Blood Cell Indices measure specific characteristics of the RBC. MCV is the average volume of the RBC; MCH is the weight of the RBC; MCHC is the proportion of the RBC volume that comes from the hemoglobin.</p>	<p>These tests can help to differentiate the possible causes of anemia. Normal RBC Indices combined with a low Hgb & Hct may indicate iron deficiency anemia.</p>
WHITE BLOOD CELLS (WBCS) & WBC DIFFERENTIAL	<p>The White Blood Cells (WBCs) are an important part of the body's immune system. There are different types of WBCs and the Differential counts the percentage of each type.</p>	<p>An elevated WBC count may indicate that the body is fighting some kind of infection, usually bacterial in nature. There are many other, less common, causes for both high and low WBC counts. The test alone does not tell you the cause of these abnormal levels. The differential may give further clues as it shows which types of WBCs are active.</p>
PLATELET COUNT	<p>Platelets are the blood component responsible for your ability to clot your blood when you bleed. The test measures the number of platelets in the blood sample. Since it is normal to have bleeding after the birth, it is very important to have the ability to clot blood.</p>	<p>This test will tell you if you have the normal number of platelets. If they are low, it will be important to determine why and to watch platelet levels closely in pregnancy. If they are high (rare) further tests may be ordered to determine the cause.</p>
BLOOD TYPE	<p>The test determines your specific blood type. It tells you if you are type "O," "A," "B," or "AB." For example, in the total population, 46% are "O," 41% are "A," 9% are "B;" and 4% are "AB."</p>	<p>This is important information to know if you ever need a blood transfusion. Also, if the father of the baby is a different type than you, then the baby may be a different type also. In most cases, this is not a problem. Occasionally something called ABO Incompatibility happens. This can occur when the baby is "A," "B," or "AB" and the mother has a different blood type. In this case the infant has an increased risk of getting jaundice in the early newborn period.</p>
RH FACTOR	<p>Rh Factor refers to the "Rhesus" factor in the blood. If a certain group of factors are absent, you are "Rh negative." If they are present, you are "Rh positive."</p>	<p>If you and the father of the baby are Rh negative, the baby will also be negative — and there is no problem. If mom is Rh positive and the baby is negative, it is again fine. However, if the mom is negative and the baby is positive, there is a risk for sensitization — where the mother's blood makes antibodies against the baby's blood (see next test).</p>
ANTIBODY SCREEN	<p>The antibody screen checks for the presence of antibodies to other blood types in the mother's blood supply. This test is done on all mothers at the beginning of their care. For Rh negative mothers, it will also be repeated at 28 weeks.</p>	<p>If you are Rh negative, the test tells you whether you have ever been sensitized against another blood type. It does not tell you when or how that occurred. Antibodies against Rh positive could attack infant blood cells when the two blood supplies connect during birth. This causes a breakdown of those cells, called hemolysis. Broken down red blood cells release bilirubin which causes jaundice. Too much bilirubin at once can make the baby sick and he/she will require extra medical care.</p>
RUBELLA TITRE	<p>Rubella is also called "German measles," a virus. This test measures if antibodies to the virus are present and how many. A positive antibody titre means you have antibodies (immune), a negative means you don't (non-immune). It is possible to have an equivocal (indiscreetive) result, in which case you will be treated as if you are non-immune. If a mother gets Rubella during pregnancy, there can be very serious effects on the baby.</p>	<p>The test will tell you if you have been exposed to Rubella before. Most people are immune to Rubella because they received childhood vaccinations to prevent it. If they actually had Rubella, they would also be immune. However, it is important to remember that vaccinations do not guarantee permanent immunity and even someone who was vaccinated may become non-immune. If you are non-immune during your pregnancy you will be cautioned to avoid any possible exposure to the measles and your provider will recommend Rubella Vaccine for you after the baby is born.</p>
VDRL OR RPR TITRE	<p>The VDRL (Venereal Disease Research Laboratory) and the RPR (Rapid Plasma Reagins) tests measure for the presence of antibodies to syphilis. Syphilis is a sexually transmitted infection (STI) and can have devastating effects on both the mother and the baby.</p>	<p>The test can possibly tell you if you have been exposed to syphilis. The problem is that the antibodies that are measured can sometimes be present in response to other illnesses as well. This means there can be false-positives. Therefore, the tests are used for screening only. If these initial tests show the presence of antibodies, then secondary tests will be ordered which actually look for the presence of Treponema Pallidum - the organism that causes syphilis. A diagnosis cannot be made without multiple tests proving positive.</p>
HEPATITIS B HEPATITIS C	<p>There are two different tests which measure for antibodies to the Hepatitis B and C viruses. Hepatitis B and C can seriously affect the mother's health and, depending on the viral count of the mother, may be transmitted to the baby at birth.</p>	<p>The presence of antibodies can indicate that you have been exposed to the virus. It will not tell you when you were exposed, nor if you actually had/have an active form of the illness. Further testing can check for active hepatitis and determine if your liver function has been affected.</p>
HIV	<p>The HIV test screens for the presence of antibodies to the Human Immunodeficiency Virus which can lead to AIDS. The HIV virus can be transmitted to the baby.</p>	<p>The test most accurately reflects exposures that occurred over 6 months ago. If you have been exposed to the virus more recently than that — the test may have a false negative because you don't yet have enough antibodies to detect. Repeat testing 6 months after a negative test is recommended if you are at risk.</p>
URINALYSIS	<p>There are two versions of urinalysis: a sample sent to a lab for analysis and the "dipstick" version done at the location of the prenatal visit. This second version will be repeated at every prenatal visit. Both tests check for the presence of protein, sugar, ketones, WBCs, RBCs and nitrates in the urine. The test sent to the lab can also detect the presence of bacteria. When a urinalysis suggests the presence of bacteria, a urine culture will be performed to give information on the specific bacteria, the number of organisms present and which antibiotics will be the most useful for treatment.</p>	<p>No one abnormal urine test is conclusive and often the presence of small amounts of these elements are normal. Further tests would be needed to diagnose the possible problem. The main reasons the urine is tested are: A large amount of protein is one possible symptom of Pregnancy Induced Hypertension (PIH) which is also known as pre-eclampsia or toxemia. A large amount of sugar may indicate diabetes. Ketones in the urine indicate the body is rapidly breaking down fat stores and high ketone levels are toxic for mother & baby. WBCs, RBCs, nitrates and bacteria may be signs of a urinary tract infection (UTI) or a kidney infection. UTIs in pregnancy can lead to serious problems such as kidney infections and premature labor. The accuracy of the test can be easily affected by contamination — where other bacteria get into the sample that were not actually from the woman's urinary tract. In addition, if not refrigerated properly during transport, an abnormally high number of organisms may grow — making it look like there is an infection when there is not (false positive). The best indication of a true infection is when WBCs, nitrates and sometimes RBCs are present in conjunction with a high bacterial count.</p>
PAP SMEAR	<p>The Pap smear test makes it possible to take a microscopic look at the cells around the outside of and the inside of the cervix. Disorders of the cervix may have no symptoms and without this test, may not be caught.</p>	<p>Upon close examination, the lab reading the test can assess whether the cells look normal or not. There are many possible causes of abnormal cells ranging from mild inflammation caused by a vaginal infection like yeast, to a viral infection from Human Papilloma Virus (the virus that causes Genital Warts), to cancer. Depending on the severity of the findings, follow-up Pap smears may be needed or a procedure called a colposcopy which allows for a microscopic look at the cervix.</p>
GONORRHEA CULTURE CHLAMYDIA CULTURE	<p>Done at the same time as the Pap smear, gonorrhea and chlamydia cultures will show the presence of the bacteria that cause these infections. Both infections can possibly go undetected due to lack of symptoms in the mother, and both have serious consequences for the infant, mother and partner if untreated.</p>	<p>The test can tell you if you have the infection. It cannot tell you when you got it or whom you may have gotten it from. This is especially true with chlamydia, often called "the silent infection." The results are only as good as the performance of the test and the ability to swab the areas affected. False negatives can occur where the infection is present, but not detected. False positives are rare. Pregnant women who are positive will be treated and then re-tested to confirm the infection(s) is/are gone.</p>
WET MOUNT	<p>A wet mount is a slide taken from swabbing the walls of the vagina. It may or may not be done routinely in pregnancy. It tests for the possibility of an overgrowth of normal vaginal yeast and bacteria. It can also detect certain signs of infections. It is usually performed in response to a woman's complaints about itching, vaginal burning, unusual discharge etc.</p>	<p>Most commonly, the test is used to determine if there is an overgrowth of yeast in the vagina (a yeast infection) or an overgrowth of bacteria called bacterial vaginosis (BV). BV has been associated with an increased risk for preterm labor and the wet mount may also be done throughout the pregnancy when the woman has a history of premature labor in prior pregnancies.</p>

Nutrition Essentials for Moms-to-Be

WHAT, WHY and WHERE

Protein <p>The amino acids found in protein are the building blocks of your baby's body.</p>	<p>Get the daily recommended amount of 60 grams from any 3 of the following servings:</p> <ul style="list-style-type: none"> 1 egg 2 to 3 ounces cooked meat 8 oz skim milk 1 cup yogurt 1 oz hard cheese 2 tablespoons peanut butter ½ cup cooked dried beans.
Carbohydrates <p>Complex carbs such as those found in whole grains and certain vegetables, provide long-lasting energy and fiber, which helps prevent constipation. Avoid simple carbs – found in white sugar, white flour, and the foods that contain them (cakes, white bread) – because they are nutritionally empty and fattening.</p>	<p>You'll need a whooping 9 servings a day, which might come from:</p> <ul style="list-style-type: none"> 1 slice whole wheat bread 1 tortilla, ½ bagel 1 oz cold cereal ½ cup cooked pasta or rice 1 medium potato ½ cup corn
Fats <p>Fats are important source of energy, and they help you metabolize vitamins A, D, E and K. Still fats supply a lot of calories, so limit them to no more than one-third of your daily count.</p> 	<p>Have 4 of the following servings daily:</p> <ul style="list-style-type: none"> 2 oz cheese 2 tbsp peanut butter ¾ cup tuna salad 2 tbsp Parmesan cheese 1 tbsp mayonnaise 3-4 oz lean meat 1 egg or egg yolk ½ small avocado 1 tbsp butter <p>When cooking stick to the more healthful unsaturated fats, including olive, canola, and peanut oil. Avoid less desirable saturated fats, found in meat and dairy products, as well as palm and coconut oil.</p>

Folic Acid

Folic acid – what is it all about?

Folic acid is a B vitamin. The body uses folic acid to help make red blood cells and other new cells. The folic acid is found naturally in food is sometimes called “folate.”

Why is folic acid important?

People who do not get enough folic acid in their diet can get anemia – their blood does not carry oxygen well, and they feel very tired and weak. Children who do not get enough folic acid may grow poorly. Not having enough folic acid can also increase the risk of heart disease, colon cancer and stroke.

Getting enough folic acid is really important in pregnancy. Taking folic acid from the very beginning of pregnancy can help prevent some neural tube defects in your baby. Neural tube defects are problems of the spine and brain, such as spina bifida. Severe neural tube defects can cause death or make it hard for your baby to walk. Cleft lip or palate (a gap in the lip or roof of the mouth) can also be caused by deficiency of folic acid.

How much Folic acid do I need?

Most people need to have about 400 micrograms (mcg) of folic acid in their diet every day. Pregnant women need 600 mcg a day.

You should take 400 mcg of extra folic acid every day if you:

- are pregnant
- could become pregnant – neural tube defects occur in the very first month of pregnancy, when most women don't even know they are pregnant.

It is not a good idea to take more than 1,000 mcg of extra folic acid. Too much folic acid can be dangerous for your health.

Who else should take extra folic acid?

- smokers
- people who take a lot of aspirin
- people who take some drugs for cancer treatment and for arthritis

Folic acid in Your Food

The word folate comes from the same root as the word “foliage,” so leafy green vegetables are very good sources of folic acid. Folic acid is also found in cooked dry beans, nuts, and seeds. Enriched grains, such as bread, pasta, and rice, and fortified breakfast cereals, are also good source of folic acid. Check food labels to be sure that these foods have been enriched with folic acid.

Excellent sources– provide 100 mcg or more per ½ cup serving

- asparagus
- turnip greens, mustard greens
- okra
- fortified breakfast cereals
- cooked dry beans, such as pinto beans, kidney beans, lentils and black-eyed peas
- Liver (2 oz, cooked)

Good sources– provide 40 –100 mcg per ½ cup serving

- | | |
|---|--|
| <ul style="list-style-type: none">• broccoli• spinach• green peas• fresh beets, cooked | <ul style="list-style-type: none">• spaghetti, pasta• rice• tofu |
|---|--|

Other good sources– provide 40 – 100 mcg per serving

- | | |
|--|--|
| <ul style="list-style-type: none">• tomato juice (3/4 cup)• orange (1)• avocado (1/4)• sunflower seeds (1 oz) | <ul style="list-style-type: none">• peanut butter (2 tbsp)• enriched bread (1 slice)• flour tortilla (one 10" round) |
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Calcium <p>Calcium is critical in building your baby's bones and teeth. If a baby does not get an adequate amount of calcium from mother's diet, the fetus may draw calcium from the mother's bones. Calcium deficiency in pregnancy may result in osteopenia (decreased bone density) in the mother.</p> 	<p>To get the necessary 1,200 mg, consume at least 4 of the following servings:</p> <ul style="list-style-type: none"> 1 cup milk – 290-300 mg 1 oz (slice) Swiss cheese – 250-270 mg ½ cup cottage cheese – 80-100 mg 1 oz American cheese – 165-200 mg 1 cup yogurt – 240-400 mg ½ cup ice cream – 90-100 mg 3-4 oz canned salmon or sardines 1 cup Broccoli – 160-180 mg 4 oz tofu – 145-155 mg ½ cup turnip greens or kale (cooked) 1 cup raw dark green leafy vegetables (salad greens, broccoli, spinach, kale) 2 ½ in. square corn bread – 80-90 mg 1 medium egg – 55 mg <p>*also calcium fortified foods such as bread, cereals, fruit juices.</p>
Iron <p>Most of the iron is needed during the last three months of pregnancy, when baby is accumulating it for use during early life. Moms also need this extra iron to replenish their red blood supply and to accommodate the demand created by increased blood volume.</p> <p>Inadequate iron during pregnancy may lead to anemia, which makes the mother less able to fight off infection and less able to tolerate hemorrhaging during childbirth.</p>	<p>Pregnant women need twice as much iron – about 30 mg/day – so your midwife may prescribe prenatal vitamins that contain iron. You should also try to eat some of the following foods daily:</p> <p>Meat: liver, chicken, turkey, pork, beef, veal, lamb</p> <p>Bread and grains: 1 serving Cream of wheat – 25 mg 1 cup Bran Flakes – 12.3 mg 1 cup Bran Flakes with raisins – 17.7 mg</p> <p>Fruits: ½ cup dried Apricots – 3.6 mg ½ cup Raisins – 2.9 mg 8'x4' wedge Watermelon – 2.1 mg</p> <p>Vegetables: ½ cup (cooked) spinach – 2.0 mg 1 whole Artichoke – 1.4 mg 6 stalks Asparagus – 1.3 mg</p> <p>Nuts: ¼ cups almond – 1.7 mg ¼ cup walnuts – 1.9 mg ½ cup Beans (any) – 2.5 mg ½ cup Peas – 1.8 mg</p>

Vitamin C	This nutrient is essential because it helps in the manufacture of collagen, a protein that provides structures to your baby's bones, cartilage, muscles, and blood vessels. Vitamin C is also an antioxidant, which means that it helps prevent disease.	Your body can't store vitamin C so it is crucial that you consume the necessary 65 mg daily. Get it by eating 2-3 of the following servings: ½ citrus-fruit juice ½ grapefruit 1 medium orange ½ cup cantaloupes ½ cup shredded cabbage or coleslaw 2/3 cup cooked broccoli ¾ cup cooked cauliflower 1 ½ large tomatoes
Vitamin A	This nutrient is vital to healthy skin, bones, and eyes and helps to create the cells that will make up your baby's internal organs.	You'll get all you need each day (800 mg) with just 4 servings of the following: ¾ cup vegetable juice ¾ cup dark yellow vegetables 8 oz milk, ½ cantaloupe 1 large peach or nectarine 1 cup dark leafy vegetables. Caution: Excessive levels of vitamin A – over 10,000 IU – can be harmful to you and your baby; so don't over do it with supplements.
Vit D	Vitamin D helps build bone, tissue and teeth. It also enables your baby to use calcium and phosphorus.	Your four 8-oz servings of skim milk are about the best source of the 10 mg you need daily. Egg yolks, sardines, and canned salmon also provide vitamin D. Or get a little sunshine, which helps your skin manufacture it.
Zinc	This new addition to the must-have pregnancy diet has recently proved to aid fetal growth	You can get the necessary 20mg a day in your recommended amount of whole grains, meat, and milk, as well as oysters, shellfish, and other seafood.
Fluids	Water is essential for developing new cells, maintaining blood volume, and processing other nutrients. It also minimizes swelling, constipation, and your risk of urinary tract infections.	Drink at least eight 8-oz glasses of fluid / day, including milk, juices, and tea.

Foods to Avoid During Pregnancy

Raw Meat: Uncooked seafood, rare or uncooked beef or poultry should be avoided because of the risk of contamination with coliform bacteria, toxoplasmosis, and salmonella.

Deli Meat: Deli meats have been known to be contaminated with Listeria, which can cause miscarriage. Listeria has the ability to cross the placenta and may infect the baby leading to infection, or blood poisoning, which may be life threatening. If you are pregnant and you are considering eating deli meats, make certain that you reheat the meat until it is steaming.

Fish with Mercury: Fish that contain high levels of mercury should be avoided. Mercury consumed during pregnancy has been linked to developmental delays and brain damage. A sample of these types of fish include: shark, swordfish, king mackerel, fresh tuna, sea bass, and tilefish. Canned, chunk, light tuna generally has less amounts of mercury than other tuna, but still should only be eaten in moderation. Certain types of fish used in sushi should also be avoided due to high levels of mercury. Please see Mercury in Fish for specific types of fish and further information on how to calculate mercury levels.

Raw Shellfish: The majority of seafood borne illness is caused by undercooked shellfish, which include oysters, clams, and mussels. Cooking helps prevent some types of infection, but it does not prevent the algae-related infections that are associated with red tides. Raw shellfish pose concern for everybody and they should be avoided altogether during pregnancy.

Raw Eggs: Raw eggs or any foods that contain raw eggs should be avoided because of the potential exposure to salmonella. Some Caesar dressings, mayonnaise, homemade ice cream or custards, and Hollandaise sauces may be made with raw eggs. Unpasteurized eggnog should also be avoided.

Soft Cheeses: Imported soft cheeses may contain bacteria called Listeria, which can cause miscarriage. Listeria has the ability to cross the placenta and may infect the baby leading to infection, or blood poisoning, which can be life threatening. The soft cheeses to avoid include: brie, camembert, Roquefort, feta, gorgonzola and Mexican style cheeses that include queso blanco and queso fresco. Soft non-imported cheeses made with pasteurized milk are safe to eat.

Unpasteurized Milk: Unpasteurized milk may contain bacteria called Listeria, which can cause miscarriage. Listeria has the ability to cross the placenta and may infect the baby leading to infection, or blood poisoning, which can be life threatening. Make sure that any milk that you drink is pasteurized.

Caffeine: Although most studies show that caffeine intake in moderation is okay, there are others that show that caffeine intake may be related to miscarriages. Avoid caffeine during the first trimester to reduce the likelihood of a miscarriage. As a general rule in later stages of your pregnancy, caffeine should be limited to fewer than 300 mg per day. Caffeine is a diuretic, which means it helps eliminate fluids from the body. This can result in water and calcium loss. It is important that you are drinking plenty of water, juice, and milk rather than caffeinated beverages. Some research shows that large amounts of caffeine are associated with miscarriage, premature birth, low birth weight, and withdrawal symptoms in infants. The safest thing is not to consume caffeine.

Alcohol: There is NO amount of alcohol that is known to be safe during pregnancy, and therefore alcohol should be avoided during pregnancy. Prenatal exposure to alcohol can interfere with the healthy development of the baby. Depending on the amount, timing, and pattern of use, alcohol consumption during pregnancy can lead to Fetal Alcohol Syndrome or other developmental disorders. If you consumed alcohol before you knew you were pregnant, stop drinking now. Alcohol should continue to be avoided during breastfeeding. Exposure to alcohol as an infant poses harmful risks, and alcohol does reach the baby during breastfeeding.

Playing It Safe!

Smoking

Pregnant women who smoke or who are exposed to secondhand smoke (from other people's cigarettes) have a greater risk of delivering a premature or low-weight baby because the amount of oxygen available to the fetus is reduced, inhibiting its growth. And of course, smoking puts your own health at risk as well. If you or your partner need help to stop smoking, talk to your health care provider at a prenatal visit.

Illegal Drugs

Drug use during pregnancy is a tragedy. Infants may be born addicted, suffer withdrawal, and die. Take cocaine (and its derivative crack cocaine): if a woman uses it only once during pregnancy, she can cause miscarriage, fetal stroke, brain damage, even death. Babies who do survive may be born premature and underweight. Tremendous harm is done by other drugs as well. Drugs also interfere with pregnant woman's ability to take care of herself and tend to her nutritional needs, which cause further injury to the developing fetus. If she shares intravenous needles with other drug users, she may contract HIV, the virus that causes AIDS, and pass it to her baby. It's crucial that you speak frankly with your health care provider about drug use. He or she can refer you to a treatment program if you need assistance.

Over-the-Counter Medications

Some of the most seemingly minor remedies – aspirin, decongestants, acne ointments, even vitamin supplements – can pose an unnecessary threat to a developing fetus. Large doses of vitamin A, for example can cause birth defects. Others may be safe, but before you reach for any non-prescriptive remedy, check with your health provider. And always take any midwife-approved remedies in precisely the recommended amounts.

Prescription medications

Your health care provider needs to know about any prescription medications you're taking when you become pregnant. Some may be teratogens – substances that can cause birth defects. These include the acne medication Accutane, the antibiotics streptomycin and tetracycline, anticonvulsants such as Coumadin. Don't let another healthcare provider prescribe anything for you during these months without first consulting your midwife/obstetrician.

Infections

There are number of illnesses that could pose a risk to your baby if contracted during pregnancy. Many are rare, but you still need to take special care to avoid exposure or confirm your immunity to them. They include:

- Sexually transmitted infections such as syphilis, gonorrhea, herpes and others
- Chicken pox – in first trimester it can cause deformities of the baby's arms and legs, and damage the brain and eyes.
- German measles (rubella) – can cause severe damage to the baby's brain, heart, eyes, and ears. Immunity can be confirmed by a blood test.
- Toxoplasmosis – caused by a microorganism that is carried by cats, and is also present in raw or undercooked meats. This illness can damage your baby's brain and eyes.

On-the-Job Hazards

If your occupation exposes you to chemicals like lead or mercury, you'll need to talk to your supervisor about ways to avoid them. A job that requires physical effort or a lot of standing or walking will become increasingly difficult. You may need to cut back on your hours, transfer to a less demanding assignment, or consider taking an early maternity leave.

Should You or Shouldn't You?

- Perm or color your hair? It's your call. Experts agree that it's ok to use these products while pregnant. In fact, the biggest risk may be losing money: hormonal changes may prevent a perm from even taking.
- Soaking in a hot tub or sauna? Sorry but no way. High temperatures (102F and up) are potentially hazardous to the developing fetus
- Microwave your food? You needn't pull the plug. Current research shows that the type of radiation emitted by microwave ovens, TVs and video display terminals – called nonionizing radiation – isn't harmful.
- Clean the house? Just use common sense: wear rubber gloves, open windows for added ventilation, opt for spray bottles over aerosols, avoid products with toxicity warnings, such as oven cleaners, and never mix cleaners, which may create dangerous gases.
- Paint the nursery? Hand over that paintbrush. It's not a good idea to expose yourself to the fumes and chemicals in paint, stains, and varnishes, especially if your home predates 1978 when lead paint was outlawed.

Get Moving

Exercise – being physically active- is very important for all women. Being active can help women:

- Lose weight
- Have more energy
- Sleep better
- Look younger
- Live longer
- Enjoy sex more
- Feel happier
- Avoid heart disease and high blood pressure
- Avoid bone injuries and hot flashes if you getting older

How active do I have to be?

Studies show that as little as 15 minutes of moderate exercise –like fast walking or dancing– 3 times a week can improve the health of your heart. If you want to really feel good, try to increase your activity to at least 30 minutes, 5 times a week. If you have a serious health problem, be sure to talk with your health care provider before starting an exercise program.

The best sports while you're pregnant

- Swimming– low risk of injury, low impact, keeps body cool, relieves late-term leg swelling.
- Walking– easy to do, provides good overall conditioning
- Yoga– improves flexibility, muscle control, breathing, and body awareness (all important during labor)
- Stationary cycling – provides a non-weight-bearing cardiovascular workout
- Prenatal exercise classes – offers light calisthenics for toning and stretching plus low-impact aerobics to increase stamina

Waist twists

While sitting or standing turn from side to side slowly from the waist. Look over one shoulder, then the other. Allow your arms to move freely, and think of your spine as being light and rising upward. Repeat a little faster and with more of a swinging movement.



Standing backstretch

Stand with your feet about 12 inches apart. Roll your head and torso down toward the floor, bending your knees as you go. Then roll up smoothly through your spine until you reach a standing position. Repeat.

Sitting back stretch

Sit on the floor with your legs stretched out in front of you. Slowly drop your head toward your knees and stretch your fingers along your legs toward your feet. Straighten up slowly, imagining that your torso is filling with air like a balloon. Repeat.

Shoulder circles

While sitting or standing, circle your shoulder forward up, back. And down in the largest circle you can make. Keep movements soft and relaxed. Repeat in the same direction, and then reverse the motion.



Head circles

While sitting or standing, lengthen your neck and bend your head down and forward. Roll your head to the side and look up (don't drop your neck back or you may strain a muscle). Roll your head to the other side, then bend the head forward again. Repeat in the other direction.



Pelvic tilt

Kneel on all fours with the pelvis and head in a straight line. Curve the center of your back upward, then lower it until it's straight. Repeat.



Leg Lift

Lie on your side with your head on a pillow or towel. Keep your right leg straight and bend your left leg at the knee and hip, bracing yourself with the palm of your right hand against the floor. Stretch your right leg long, toes pointed, as you lift it off the floor. Lower it to the floor. Repeat 4 times, and then do the other side.

Pregnancy and Dental Work

Routine dental cleanings during pregnancy are not only safe but are recommended. The hormone rise during pregnancy causes the gums to swell, bleed, and trap food causing increased irritation to your gums. Routine dental cleanings can help you have healthier gums during your pregnancy and help reduce irritation created by swelling. Regular dental work such as cavity fillings should be postponed until at least after the 1st trimester, which is the most crucial time of development for the baby. If dental work is done during pregnancy, it is best during the second trimester. Once you reach the third trimester, it may be very difficult to lie on your back for an extended period of time, while dental work is done. Sometimes emergency dental work is needed such as root canals or extraction of wisdom teeth. X-rays are necessary to perform these procedures, but they should be kept to a minimum. X-rays used in dental work raises little concern of potential exposure to the baby. If X-rays cannot be postponed until after delivery, the second trimester is the best time to have these procedures done.

What about medications used in dental work during pregnancy?

Currently, there are no studies documenting adverse affects on the developing baby from medications used during dental work. No problems have been identified when using local anesthetics such as Novocain or Lidocaine. The amount of anesthesia administered should be as little as possible, but still enough to make you comfortable. Dental work often requires antibiotics for preventing or treating infections. Antibiotics such as penicillin, amoxicillin, and clindamycin have shown to be acceptable during pregnancy, however you should avoid tetracycline.

Suggestions for Addressing Your Dental Needs During Pregnancy:

- Pregnant women should eat a balanced diet, brush their teeth thoroughly with an ADA-approved fluoride toothpaste twice a day, and floss daily.
- Have routine exams and cleanings during your pregnancy.
- Let your dentist know you are pregnant.
- Postpone other regular dental work until the second trimester or until after delivery.
- Elective procedures should be postponed until after delivery.
- Help keep your circulation moving by keeping your legs uncrossed while you are sitting in the dentist's chair.

Sex Myths You Shouldn't Believe

Well, that's how you got here, isn't it? Ironically, many people tend to think of intercourse and pregnancy as mutually exclusive. But just look at yourself: what could be sexier? Your partner no doubt thinks so, too. And you certainly don't have to worry about birth control at this time. Put the following fears aside and go for it. In spite of your changing body, it's going to be a lot easier to pull off now than after the baby arrives (trust us)!

Myth 1: It will hurt the baby. Your fetus is so well protected in the amniotic sac that virtually none of the sexual gymnastics you two may be capable of will affect it. Nor will your partner's penis be able to reach the baby. Even if he were that well endowed, the cervix is tightly clamped shut.

Myth 2: It will hurt you. Though you probably don't want your mate sprawled across your belly at this point, experimenting with other positions (you on top, sitting on the side of the bed while he stands in front of you, or sitting on his lap) may give you greater enjoyment than ever before. Some women even experience their first orgasms during pregnancy. Why? The genitals are engorged, the nerve endings more sensitive, and oxytocin, the hormone that maintains a pregnancy, is known to ignite lust.

Myth 3: It will cause premature labor. There's no evidence that sex causes labor. Stimulation of the breasts does speed up the production of oxytocin, which can cause contractions when you're near term. But, as you will no doubt discover, you can experience lots of contractions without going into labor. There are only a few high-risk situations in which your health care provider would recommend abstaining from sex – a history of premature labor, premature cervical dilation, or premature rupture of membranes; placenta previa (when the placenta covers the cervix and could be damaged); vaginal bleeding; and after your water has broken, leaving the fetus unprotected.

Myth 4: Oral sex is out. Thankfully, that's not the case, and it will become a convenient option when you get too uncomfortable to have actual intercourse. Just don't let your partner blow air forcefully and directly into your vagina. Doing so could cause a life-threatening air bubble in the bloodstream.

Pregnancy and Travel

As long as there are no identified complications or concerns with your pregnancy, it is generally safe to travel at all times during your pregnancy. The ideal time to travel during pregnancy is during the second trimester. In most cases you are past the morning sickness from the first trimester, but you will have an easier time getting around than you will in your third trimester.

Whether you are traveling by car, bus or train, it is generally safe to travel while you are pregnant. However, there are some things to consider making your trip safer and more comfortable. It is essential to buckle-up every time you ride in a car. Make sure that you use both the lap and shoulder belts for the best protection of you and your baby. Keep the air bags turned on. The safety benefits of the air bag outweigh any potential risk to you and your baby. Try to limit the amount of time you are cooped up in the car, bus or train. Seek to keep travel time around five to six hours. Take short walks and stretches to keep the blood circulation going.

Traveling by air is considered safe for women while they are pregnant; however the following ideas might make your trip safer and more comfortable. Most airlines allow pregnant women to travel up through their eighth month. Traveling during the ninth month is usually allowed if there is permission from the healthcare provider. Most airlines have narrow aisles and smaller bathrooms, which makes it more challenging to walk and more uncomfortable when using the restroom. Because of potential turbulence, which could shake the plane, make sure you are holding on to the seat backs while you are navigating the aisle. You may want to choose an aisle seat, which will allow you to get up easier to reach the restroom or just to stretch your legs and back.

How to make the best of your travels during pregnancy?

- Dress comfortably in loose cotton clothing, and wear comfortable shoes
- Take your favorite pillow
- Plan for plenty of rest stops, bathroom breaks and stretches
- Carry snack foods with you
- If you are traveling any distance, make sure to carry a copy of your prenatal records
- Wear your seatbelt and take other safety measures
- Enjoy the trip

Surviving Morning Sickness

In the Morning: Allow yourself plenty of time to get out of bed. If you usually get up at 6, set your alarm for 5. It is a good idea to keep a stash of crackers or dry cereal by your bed so you can put something in your stomach as soon as you wake up. Get out of bed slowly as you start your day.

During the Day: Eat small meals throughout your day to avoid getting too full or too hungry. It is said that progesterone slows the speed of food passing through your digestive tract. To further prevent your stomach from getting too full or too empty, you should drink fluids a 1/2 hour before or after a meal, but not with your meals. DO drink fluids throughout your day to avoid dehydration. Get plenty of rest when you can. This is especially important if you have to get up early in the morning. But DON'T take a nap right after a meal. Eat whatever you feel like eating, whenever you feel you can. Trust your cravings, they won't let you down. Avoid being in warm places, which can increase your nausea.

In the Evening: For dinner avoid spicy, greasy foods. Prepare things that are bland and do not have a strong odor. You may have to avoid cooking in the kitchen for the first trimester. Oh, too bad! Most importantly, go to bed early! You need your rest to have the energy to get up early and do it all over again. If you happen to wake up in the middle of the night, to go to the bathroom and eat something from your bedside stash!

Meals to Eat:

- Cold foods (sandwiches, raw vegetables, salad when properly prepared to prevent Listeria)
- Bland foods (chicken soup, broth, plain baked potato)
- Anything that sounds good to you (go with your cravings UNLESS they are for non-edible items)
- Keep meals small, but eat as frequently as you need to.

Snacks to Eat:

- | | |
|--|--|
| <ul style="list-style-type: none">• Lemons (eat them, suck on them, sniff them)• Ginger (ginger ale soda, ginger tea, ginger jam on toast, ginger snaps)• Peppermint tea | <ul style="list-style-type: none">• Crackers• Flavored Popsicles• Pretzels |
|--|--|

Vaginal Discharge During Pregnancy

Normal vaginal discharge during pregnancy called *leukorrhea* is thin, white, milky and mild smelling. *Leukorrhea* is normal and nothing for you to worry about.

During pregnancy DO NOT:

- Use tampons (they can introduce new germs into the vagina)
- Douche (this can interrupt the normal balance and lead to a vaginal infection)
- Assume that it is a vaginal infection and treat it yourself

During pregnancy DO:

- Use panty liners if it makes you more comfortable
- Notify your health care provider at your appointment of any change

What is abnormal vaginal discharge? If the vaginal discharge is green or yellowish, strong smelling, accompanied by redness, or itching, you may have a vaginal infection. One of the most common vaginal infections during pregnancy is candidiasis, also known as a yeast infection. Your health care provider can easily treat vaginal infections. Other causes of abnormal discharge during pregnancy could also be a sign of an STD.

7 Health Concerns For Pregnant Women

1. Dehydration

When you're pregnant, the risk of dehydration is much more serious because your fluid intake affects every aspect of your life, from your energy to the health of your skin. Too little, and you could wind up with problems ranging from constipation to pre-term labor or miscarriage. Why so vital? Well, just consider that by the time you reach your 7th month, your blood volume has doubled and the amniotic fluid is replenishing itself at the rate of a cup an hour. The more you drink, the less stress you put on your kidneys, reducing your risk of kidney and urinary tract infections (UTI) so common during pregnancy. It is recommended that you drink at least six to eight 8oz glasses of water a day, in addition to any other liquid you consume. You'll need even more in hot weather when you exercise, and when you find yourself in higher altitudes or dry climates. By the time you feel thirsty, it's too late. So you should keep a glass or bottle of water with you at all times.

Warning signs for dehydration (if you experience any of these signs, call your health care provider immediately):

- Producing small amount of dark-colored urine
- Inability to keep down liquids
- Dizziness and fainting when you stand up
- Racing or pounding heart
- Vomiting blood

2. Urinary Tract Infections

Even before they get pregnant, many women are already familiar with the burning and constant need to urinate associated with UTIs. If you have history of UTI, you're more likely to experience at least one during pregnancy. That's because temporary changes in the shape and size of your urinary tract make bacteria more likely to enter your bladder or kidneys. If you have any signs of UTI or kidney infection – problems or pain urinating, frequency urination, dark, cloudy or foul-smelling urine, lower back or side pain, fever and nausea- contact your health care provider. Urinary tract or kidney infections are more than uncomfortable: They can bring on premature labor. You are at higher risk for UTI if you have diabetes or the sickle cell trait or have had many children.

To help prevent and treat UTIs:

- Drink several glasses of water each day (cranberry juice is also helpful)
- Wipe from front to back to prevent spread of intestinal bacteria from the rectum to the urinary tract
- Wash up and urinate after sexual intercourse to flush bacteria away from your bladder

Indigestion and Gas

It's not something you want to talk about in polite company, but have you noticed lately how you seem to be expelling gas from one end or the other? Blame it on hormones again! In early pregnancy, the hormone progesterone relaxes the muscle that seals off your esophagus from your stomach, allowing stomach acid to "reflux" back into your throat. Later in the pregnancy, the baby takes up so much space it pushes your internal organs up and out of the way, so there's less room in your stomach. Also, the progesterone slows your digestive system so you can absorb as many nutrients as possible from your food. But this means your food spends more time in the small and large intestine, which can result in gas and bloating.

For relief:

- Avoid greasy, spicy foods
- Stay upright after meals
- Walk after eating
- Don't overeat
- Raise the head of your bed by placing small blocks or bricks under the legs

Bathroom Issues

Frequent urination

If you've stopped drinking, then why do you have to pee so much? Early in pregnancy, you urinate all the time because your uterus is growing and pushing against your bladder, your kidneys begin operating more efficiently, and your overall volume of body fluids increases. This goes away in the middle of your pregnancy. Only to return toward the end when the baby drops further into your pelvis, again pressing against your bladder. There's not much you can do about it, other than make a mental note of the nearest bathroom at any given time. Don't restrict fluids. You and your baby need a lot of liquids.

Constipation

Constipation is no fun – regardless of how much extra reading you get done. You can blame this pregnancy-related malady on hormones, too. Also, the extra iron in your prenatal vitamins makes your stool harder. To avoid constipation, drink 8-10 glasses of water a day, eat a high fiber diet with lots of fruits and vegetables, and exercise regularly.

Hemorrhoids

If you don't follow the advice above, you, like up to half of all pregnant women, may develop hemorrhoids. A hemorrhoid is a form of varicose vein, in which the veins around the rectum become swollen. Symptoms include itching, burning, pain, and bleeding. It's often caused by the straining that goes along with constipation. Try using medicated hemorrhoid pads instead of toilet paper; sitting on an ice bath or in a sitz bath with enough warm water to cover the hemorrhoids; using petroleum jelly to cool off your rectum and ease bowel movements; and avoiding sitting or standing for long periods of time, which can put pressure on your hemorrhoids.

Swelling

Also called edema, it is very common sign of pregnancy, with about 75% of women experiencing some swelling of their legs and ankles during pregnancy. Make sure you're drinking plenty of water, which helps flush your system of toxins and other waste products that contribute to the swelling. And while you shouldn't overdue the salt, neither should you avoid it completely. If your swelling is sudden, extreme, or also occurs in your face or hands, it may be serious. Let your health care provider know immediately.

Varicose Veins

Beyond stretch marks on the stomach, most women will carry another lifetime reminder of pregnancy – varicose veins. They occur when the valves in the veins in your leg, designed to keep blood flowing upwards to the heart, leak and some blood flows back down into the leg, overfilling and distending some of the veins under the skin. They're common in pregnancy because the growing uterus puts pressure on your veins, and hormones designed to relax the walls of the veins to allow more overall blood flow, also make it more likely that they'll leak.

To prevent them:

- Rest as much as possible, preferably with your feet up
- Sleep on your left side. The vena cava, the largest vein in your body, is on your right side. If you sleep on your left, thus elevating your right side, you decrease pressure on the vena cava
- Wear maternity support hose, putting them on even before you get out of bed in the morning. This prevents blood from pooling in your lower legs
- Stay physically active to maintain a healthy circulation and increase blood flow
- Don't cross your legs. This reduces blood flow.

Back Pain

Back pain is one of the most common discomforts you will experience during pregnancy. Your overall center of gravity has shifted, and the bulky uterus is straining your back muscles. Plus, your abdominal muscles, which typically work in conjunction with your back muscles to prevent back strain, aren't of much use these days. As if that wasn't tough enough, pregnancy related

hormones, like progesterone, are designed to relax your muscles. So they become looser, putting additional strain on your back.

To help prevent or ease back pain:

- Wear low-heeled (but not flat) shoes with good arch support
- Ask for help when lifting heavy objects
- Place one foot on a stool or box when standing for long periods
- Squat down, bend your knees and keep your back straight when picking things up. Don't bend over from the waist
- Sit in chair with good back support, or use a small pillow behind the low part of your back
- Try to sleep on your side with one or two pillows between your legs for support
- Apply heat or cold to the painful area or massage it

DO not ignore back pain if it gets worse. It's one of the main symptoms of preterm labor. If it continues or gets worse, call your health care provider.

Just For Dads

Finding out that you are going to be a father can be an exciting and confusing time. You may be asking yourself:

- How will having a baby change my life?
- How will I pay for all the things our baby will need?
- How can I be a good dad?
- What can I do to help during pregnancy?

What you need to know

While it's true that she's having the baby and she's the one whose belly is growing, there's lots for Dad to do during this exciting and sometimes confusing time.

What you can do

Be involved. Go with your partner to her preconception and prenatal visits.

- During the prenatal visit at the end of the first trimester (months 1–3 of the pregnancy), you can hear the baby's heartbeat.
- During the second trimester (months 4–6), go with your partner if she needs an ultrasound (a test that uses sound waves to take a picture of the baby). You'll be able to see your baby's head, arms, hands, legs and feet. You may even find out the sex of your baby. Your baby will start to seem very real to you.
- During a third-trimester (months 7–9) prenatal visit, ask the midwife how you can help during labor and delivery.

Watch, listen, browse and read. Watch videotapes, listen to audiotapes, check out the Internet, or read books about pregnancy, childbirth and being a parent.

Help plan for the baby. Talk to your partner about what you both want for the baby. Decide where the baby will sleep, and make that part of your home colorful and welcoming for the baby. Go shopping for baby things. Look together at your finances.

If you are worried about not having enough money, here are some tips:

- Ask family members and friends if you can borrow a crib, changing table, toys and baby clothes. Many people are between kids or don't plan to have any more kids and are glad to let you use their baby things
- Check out secondhand and thrift shops. They often have baby furniture, toys and clothes at low prices.
- Put a small amount of money aside each week to help pay for baby things. Even \$10 a week can add up to make things easier once the baby comes.

Learn. Go to childbirth education classes with your partner- you will learn how to help your partner during labor and delivery. Ask the midwife about childbirth classes near you.

Help your partner stay healthy during pregnancy. Help her eat healthy foods, exercise, quit smoking, stay away from alcohol and illegal drugs and avoid dangerous workplace and household hazards (such as paint thinner and weed killers). Quit smoking yourself. Secondhand smoke is bad for pregnant women and babies.

Understand the changes that are a normal part of pregnancy. Pregnancy causes many changes in how a woman feels and in her body. You may find that your partner is happy one minute and sad the next. These fast changes in feelings are called mood swings and are common during pregnancy. Your partner also may be tired a lot of the time. That's because it's hard work to carry a new and growing life inside of your body.

Continue to have sex if you and your partner wish to do so.

Your partner may want to have more sex or less sex than before she was pregnant. Her desire for sex may change as her body changes. Many people find that sex feels different during pregnancy. As her belly gets bigger, try different positions. Find one that's comfortable for both of you. Talk to each other about what feels good. Remember, as long as your health care provider says it's okay, it's safe to have sex during pregnancy. It won't hurt the baby.

Be supportive. If your partner chooses to breastfeed, support her decision.

Breastmilk is the best food for your baby. It has everything that your baby needs to grow and be healthy. Find out about breastfeeding together! Talk to your midwife or lactation consultant about breastfeeding.