

# Your Pregnancy Guide



**CONGRATULATIONS** on your recent pregnancy!

Finding out that you are pregnant can be a bit of an emotional roller coaster. You may be feeling excited, anxious, happy, and overwhelmed all at the same time. Many women wonder how they will cope with pregnancy never mind caring for a newborn. Don't worry it is normal to have these feelings. The purpose of this guide is to let you know what to expect and how to handle some of the issues that might arise. Your specific monitoring scheme is designed to meet your needs and may vary somewhat from what is described below.

What happens now?

Every patient always wants to know, “How soon can I have a scan to see the baby?” Your first scan is usually scheduled about 2-3 weeks after your pregnancy test. Remember, by convention you are already about 4 weeks pregnant at the time of your positive pregnancy test. Therefore, you will have your first obstetrical ultrasound when you are 6-7 weeks pregnant. This will be a transvaginal ultrasound, just like you’ve been having, except we will be concentrating on the uterus and what’s inside it, instead of your ovaries.

During your first scan, we most likely will be able to see a gestational sac, which looks like a dark, round area within the uterine cavity. Oftentimes we will also see a ring-like structure within the sac, called the yolk sac. Next to the yolk sac, a careful evaluation often reveals a tiny structure, which is the fetal “pole”; this is the fetus! Sometimes, we are lucky enough to see a tiny flicker within the fetal pole, which is the fetal heartbeat.

Our preference is to do an ultrasound scan every week or two throughout your first trimester, to monitor the continuing development of your baby. There are no known risks of ultrasound in pregnancy.

Which hormones play a role in my pregnancy?

Human Chorionic Gonadotropin (HCG) - HCG is the hormone of pregnancy. When you become pregnant, your pregnancy starts producing its own HCG. We expect your first HCG level to be 30 mIU/mL or greater at the time of a positive pregnancy test. Occasionally, we will see a level lower than 30 mIU/mL that can still result in a viable pregnancy.

Two days after your pregnancy test, we will check your HCG the level again. Ideally, this second test will show that the level of HCG has increased by at least 66 percent, indicating normal development at this point. Even though it is difficult to suppress your excitement, it may be wise to refrain from sharing your pregnancy news until after your ultrasound scan (about two-three weeks after your initial pregnancy test), when we can observe a heartbeat.

Your HCG levels will continue to rise for quite a while into your pregnancy before leveling off, but by that time we are no longer monitoring the levels. Unfortunately, HCG levels monitored this early in the pregnancy cannot tell us if the baby is normal, if it is a boy or a girl, or if the pregnancy will continue without complications.

Progesterone - Progesterone is the “pro-gestational” hormone. It is a critical hormone which allows an embryo to implant in the uterus and then nourishes the developing embryo. In a natural cycle, progesterone is produced when ovulation occurs and changes the endometrial lining to make it more receptive to the arriving embryo. Various, but not all, clinical situations and fertility treatment protocols will require progesterone supplementation.

We will check your progesterone level the week after your embryo transfer or ovulation/insemination to make sure your pregnancy is exposed to enough progesterone in order to sustain it. We prefer your level to be around 15-20 ng/mL. Higher levels are fine, but lower levels may be inadequate to achieve and maintain a pregnancy.

In some cases you may be required to continue progesterone support through the first trimester of your pregnancy. At about 7-8 weeks of pregnancy, your placenta begins to take over production of progesterone, and by 10-12 weeks of gestation supplements will no longer be necessary.

Estrogen - Estrogen is another hormone that is important during pregnancy. Throughout the fertility process, medications that we use for ovarian stimulation drive your estrogen level up. By the time your first trimester ends, your placenta will take over all of the necessary hormone support your pregnancy should need, and you will discontinue the estrogen along with the progesterone. Remember, not all fertility treatments will require estrogen supplementation.

Do I need hormonal supplementation during this part of my pregnancy?

Many of our pregnant patients may be on progesterone during the early portion of the pregnancy. Other patients (such as patients who underwent in vitro fertilization, egg-donor recipients, and recipients of frozen-thawed embryos) may also be on estrogen as well. If you are not on progesterone (or estrogen) it is because it has been determined by blood tests that you do not need it. The progesterone and estrogen that are taken are natural progesterone and estrogen. Progesterone can be given by intramuscular injection, vaginal capsule, vaginal suppository, or vaginal gel. Estrogen can be given orally, by patch, or by injection.

The FDA has placed warnings on all reproductive hormone use during pregnancy. This is because some synthetic hormones have been associated with birth defects. However, no harmful effects to the mother or the fetus are presently known to medical science from the use of natural progesterone or estrogen. Failure to take the progesterone (or estrogen) as directed could result in miscarriage. As your pregnancy progresses, your dose may be modified in response to how well the placenta is making the hormones. Do not stop the hormones unless told to do so by your doctor or nurse.

What can I expect early blood tests and ultrasounds to tell me about my pregnancy?

In most cases, after the initial pregnancy test, the HCG level is repeated 2 days later. For most normal pregnancies, the initial level will roughly double during that time period. Your progesterone level may also be checked twice to make sure that it is adequate and supplementation will be ordered if it is not.

The next appointment after a positive pregnancy test is typically two weeks later, at roughly 4 weeks after conception. You are now considered "6 weeks pregnant". This is because by convention, pregnancies are dated from the date of the theoretical last menstrual period (and not from the date of conception), which would have been

roughly 6 weeks ago. At this visit, we will perform an ultrasound. A pregnancy at this stage will appear as a gestational sac (or sacs) on the ultrasound scan. The purpose of this visit is to identify the number of sacs and verify that it/they are in the uterus. If a fetal pole can be seen, viability can often also be established. Your progesterone and HCG level may be checked again and on each subsequent visit.

At 7 weeks, the embryo will be measured again in order to verify normal growth. The “crown-rump length” of the embryo will be measured and compared to the expected size. Of course, the heart rate will be checked again. Less than 10% of pregnancies that have progressed to this point will end in miscarriage.

You can expect to have approximately two additional obstetrical visits with us beyond the seventh week of gestation. If all is well, at approximately 12 weeks, you will be transferred to your OBGYN physician for ongoing prenatal care.

How do I calculate my due date?

A full-term pregnancy typically lasts a total of 40 weeks from the first day of your last period. But in cases of assisted reproduction, your cycle is oftentimes controlled with medications and you may not have had a “normal” period before your treatment cycle. As a result, you need to count backwards 14 days, or two weeks, from your egg retrieval day (in the case of IVF), or ovulation day (in the case of a timed intercourse or an insemination cycle), to mark the day that represents the beginning of your last period. In simpler terms, you have just completed four weeks of gestation when your first pregnancy test at our office after fertility treatment is positive. That means you are beginning week five of your 40-week term.

Please remember, a twin gestation will on average deliver one month earlier than the due date, at 36 weeks gestation; while a triplet gestation will deliver on average two months prior to the due date, at 32 weeks gestation.

What are the chances of miscarriage? What happens if my numbers do not increase normally?

No one wants to think about the possibility of miscarriage, and the fact that you achieved this pregnancy through assisted reproduction does NOT increase your risk of miscarriage. Miscarriages are the loss of an early intrauterine pregnancy. They represent about 15-25% of all of the pregnancies that occur. There is an increased pregnancy loss rate with increasing maternal age. Most of these early losses are due to abnormalities of the embryo’s chromosomes. Treatment includes allowing the pregnancy to pass naturally, or inducing the pregnancy to pass with oral or vaginal medications. Sometimes, a minor surgical procedure to evacuate the pregnancy, called a D&C (dilatation and curettage), becomes necessary.

During the first few weeks of pregnancy, about 80% of normal pregnancies will show doubling of the HCG levels each 48 hours. If your numbers do not increase normally, there are 3 possibilities: you could have a normal pregnancy that is in the “slowest” 20%; the pregnancy could be abnormal and in the uterus; the pregnancy could be outside of the uterus (ectopic). In this case, we will follow your HCG levels quite closely, and may perform several early pelvic ultrasounds (before the 6 week mark),

until we can determine which of these scenarios is true. In the case of an ectopic pregnancy, medical treatment can oftentimes be administered to achieve a safe resolution to the pregnancy, without the need for surgical intervention.

Miscarriages and ectopic pregnancies can be devastating to experience, especially after going to great lengths to achieve a pregnancy through assisted reproduction. Patient support counseling and other resources are available through our office to help couples deal with such a sudden and unexpected loss.

Rest assured, we will do everything in our power to prevent a miscarriage. If a miscarriage occurs, we will discuss with you possible causes and may recommend various tests to try to elucidate a cause. Oftentimes, various interventions can be implemented to increase the chance for a live birth in your next pregnancy.

What do I do if I see bleeding?

First of all, do not panic. About 25-30% of women will experience an episode of bleeding or spotting during the first trimester. As the embryo's blood supply is being established, it is not uncommon to see some bleeding or staining due to the growth of the placenta into the uterine tissue. If you notice bleeding, please notify us. You will probably be instructed to come in to the office so that we can examine you and perform an ultrasound. Once we have verified that the pregnancy is okay, you may be placed on bed rest or restricted activity until the bleeding stops. It is important to remember that in the vast majority of cases, first-trimester bleeding does not lead to, or suggest, a miscarriage, even in cases where a blood clot (hematoma) is seen on ultrasound.

What should I eat or not eat?

You should eat a well-balanced diet supplemented with daily prenatal vitamins. The FDA recommends that a healthy diet consists of 2-3 servings of dairy and meat products, 3-5 servings of vegetables, 2-4 servings of fruit, and 6-11 servings of grains, daily. The FDA also recommends that fats, sweets and oils be used sparingly. Avoid beverages containing caffeine or alcohol, as well as herbal remedies and/or supplements, except those approved by your physician. You should also avoid foods made with unpasteurized dairy products or raw shellfish and raw meats. Because of the risk of mercury contamination, which can affect the developing fetal nervous system, the FDA suggests that pregnant women avoid swordfish, tilefish, shark, and mackerel. You should also limit your consumption of other fish, including tuna and salmon, to less than 12 oz per week. Because of the risk of hepatitis and/or parasitic infection, any uncooked seafood should be avoided including oysters, clams and raw sushi or sashimi. Although not considered harmful in pregnancy, spicy and oily foods may lead to annoying heartburn, which you are already more likely to experience due to your pregnancy and some of the hormonal supplements (progesterone) you are taking; and it is therefore advisable to cut back on such foods.

What can I do about nausea?

If you are experiencing nausea and vomiting commonly associated with pregnancy, remember to eat small frequent meals and to stay hydrated. Nausea tends to be worst

when you are quite hungry or full and you will need to experiment to see which foods are better tolerated. Small, frequent meals and snacks are therefore preferred to infrequent large meals. For many women, bland starchy foods such as crackers, noodles, soup, etc are well tolerated. It may also be helpful to try an acupressure band – these are commonly sold in drug stores for treatment of seasickness. Some women find ginger to be helpful. Vitamin B6 (Pyridoxine), at doses of up to 75 g per day, may help some women.

Lack of weight gain is not uncommon in the first trimester. However, persistent vomiting leading to weight loss should be treated aggressively, and may require hospitalization. Today, multiple safe, effective, and well-tolerated medications are available to treat nausea and vomiting, which can be administered to make your first trimester of pregnancy a more pleasant experience.

Can I have sex?

The answer is, “Yes! You CAN have sex during pregnancy!” Intercourse is both normal and healthy for a pregnant couple. The only exception is when a pregnant woman is bleeding or cramping. Also, if concerns exist about going into premature labor, your doctor may advise against intercourse. But in a normally developing pregnancy, sex is fine.

Can I exercise?

Moderate and safe exercise during pregnancy can help you feel good, tone your muscles and increase endurance. The BEST exercises for pregnant women are swimming, biking, and walking. Aerobic exercise typically is fine as long as it is low impact and a routine you have been doing for a while. The following guidelines for exercise in pregnancy are provided by the American College of Obstetricians and Gynecologists (ACOG):

- Regular exercise (at least 3 times per week) is preferable to sporadic activity.
- Vigorous exercise should not be performed in hot, humid weather or during illness.
- Strenuous exercise should not exceed 15 minutes. Additionally, exercise should be preceded by a 5 minute muscle warm-up and followed with a cool down period.
- Activities that require jumping or rapid changes in direction should be avoided because of joint instability.
- A pregnant woman’s heart rate should not exceed 120 beats per minute.
- Women should drink fluids before, during and after exercise to prevent dehydration.

Women with a history of miscarriage, premature labor, multiple pregnancies, vaginal bleeding or heart disease should consult with their physician about exercise during pregnancy.

Please remember that many fertility treatments may lead to ovarian cyst formation, which can sometimes persist well into the first trimester of pregnancy. Although such

cysts almost always eventually resolve spontaneously within a few weeks, while present, cysts can rupture or lead to a twisting of the ovary (a surgical emergency called ovarian torsion) following aggressive aerobic exercise. Your doctor will advise you against such exercise if you have ovarian cysts.

How about Jacuzzis/Saunas/Hot tubs?

You should avoid very long, hot baths or Jacuzzis as there is a theoretical risk of slightly increasing the chance of neural tube defects with prolonged elevations of the core body temperature.

What medications can I take?

As a general rule, never take any medication during pregnancy without first consulting your physician. This includes “over the counter” medications that you can get at any store without a prescription. However, there are some medications that are safe to take during pregnancy. Unfortunately, that list is too long to mention. The following is a partial list of the prescription and over the counter drugs about which we are most commonly asked and which *are safe* for use in pregnancy:

- Pain - Tylenol, Tylenol #3, Percocet. Do not take Motrin, Advil or Nuprin
- Coughs, cold, flu - Sudafed, Robitussin (not Robitussin DM)
- Allergies - Benadryl, Zyrtec
- Constipation - Colace, Metamucil, Fibercon, Miralax, Senokot
- Heartburn - Tums
- Asthma - Inhalers are safe for an asthmatic attack (including inhaled steroids)
- Yeast infection - over the counter preparations (Monistat, Mycelex)
- Upper respiratory tract/urinary tract infection - Penicillin, Amoxicillin, Erythromycin, Nitrofurantoin

What are the health risks of smoking and drinking alcoholic drinks?

Smoking and being around smokers both are very dangerous for a pregnancy. In addition to the well-known risks to your health, smoking increases your risk of miscarriage, stillbirth and low newborn birth weights. Babies of mothers who smoke also are more likely to die from SIDS (sudden infant death syndrome or “crib death”) and will be more likely to suffer from asthma and respiratory infections. Get serious about quitting if you smoke. Your baby’s future depends on it.

Avoid drinking alcoholic beverages during pregnancy. Consumption of alcohol may cause low birth weight, birth defects and mental retardation (fetal alcohol syndrome) in the fetus. No one has ever determined a “safe” amount of alcohol that can be ingested during pregnancy, so we recommend that you eliminate alcohol altogether.

What about microwaves and other types of radiation exposures?

Whether or not exposure to microwaves is harmful is still controversial. It is believed that two types of human tissue, the developing fetus and the eye, are particularly vulnerable to the effects of microwaves because they have a poor capacity to dissipate the heat the waves generate. The following precautions should take place:

1. Be sure your oven does not leak.
2. Do not stand in front of the oven when it is in operation.
3. Follow the manufacturer's directions to the letter.

It is clear that diagnostic x-rays rarely pose a threat to the embryo or fetus, however, it is usually recommended that elective x-rays be postponed until after delivery. Radiological tests involving computerized tomography (CT scans), or those utilizing injected or ingested radio-contrast material, should be avoided during pregnancy. Magnetic resonance imaging (MRI) is considered safe.

How about household cleaners/chemicals/etc.?

Household Cleaning Products - no correlation has ever been noted that using household cleaning products causes birth defects. The following are guidelines in screening out potentially hazardous chemicals:

- If the product emits a strong odor or fumes, don't breathe it in directly
- Use pump sprays instead of aerosols
- Never mix ammonia with chlorine-based products
- Try to avoid using products such as oven cleaners and dry-cleaning fluids
- Wear rubber gloves and mask when you're cleaning

Insecticides - Some chemical insecticides have been linked to birth defects. Whenever possible, take the natural approach to pest control. The chemicals are only dangerous when the fumes linger.

Paint Fumes - it has been reported that latex paints contain unsafe amounts of mercury. Federal regulations now require that paints be reformulated so they don't contain mercury. But because you don't know what hazard may turn up in paint next, painting should be avoided during pregnancy. While painting is being done, try to arrange to be out of the house. Make sure there is adequate ventilation. Avoid exposure to paint removers.

Should I be concerned about handling my pets?

No, in general you should not be concerned about having pet(s) while pregnant. However, various precautions should be routinely used when handling some pets to ensure that your pregnancy is not harmed.

Dogs - be sure that your dog doesn't jump on your belly while you're sitting or lying down. If your dog is heavy and in the habit of jumping on you, it would be prudent to train your dog not to do so. In addition, wash your hands thoroughly after handling your dog or the dog litter to avoid parasitic infections. Furthermore, make sure your dog is treated with parasitic infection prevention measures.

Cats - be careful of toxoplasmosis when handling your cat. Toxoplasmosis is an infection caused by a parasite that can be carried by cats. You can get toxoplasmosis by cleaning kitty litter or touching dirt where cats might have been, including garden soil.

Many people who get toxoplasmosis never have any symptoms. However, this illness can cause serious complications in pregnancy, such as birth defects or even loss of the pregnancy. If a pregnant mom becomes infected with toxoplasmosis for the first time just before or during pregnancy, she has a 1 in 2 chance of passing the illness to her baby. Pregnant women can lower their chance of getting toxoplasmosis by avoiding cleaning out the litter box every day or better yet letting others clean the box, wearing gloves while handling cat litter, keeping cats indoors, staying away from stray cats, and washing hands thoroughly with running water and soap after coming in contact with the cat's stool or after gardening.

Rodents - these animals may carry a virus called lymphocytic choriomeningitis (LCMV). Pregnant moms can lower their chance of getting LCMV by keeping pet rodents in a separate part of the home, asking another family member to care for the pet and to clean its cage, washing hands with soap and water after handling pet rodents, keeping rodent cages clean and free of soiled bedding, and cleaning the cage in a well-ventilated area or outside.

Reptiles and amphibians - be especially careful of salmonella which is linked to reptiles and amphibians (lizards, iguanas, turtles, frogs, snakes). Exposure to the feces of some reptiles can lead to a salmonella infection. A family expecting a child should remove any pet reptile from the home before the infant arrives. If removal of the reptile is not possible, it is important to wash your hands thoroughly before and after handling of reptiles or their cages, and to refrain from letting reptiles/amphibians near the kitchen or while preparing food.

Can I color my hair?

While all the available research suggests that coloring your hair during pregnancy is safe (there's no data suggesting that it increases the risk of birth defects or miscarriage), it's a good idea to schedule appointments after your first trimester just to be on the extra-safe side. By then, most major fetal organ development is complete. It's important for women to feel good about themselves during pregnancy. If you choose to color your own hair, wear gloves and work in a well-ventilated space to minimize your exposure to the chemicals used in the coloring process. Don't leave the dye on any longer than necessary, and thoroughly rinse your scalp at the end of the process.

Can I get dental care?

Preventive dental cleanings and annual exams during pregnancy are not only safe, but are recommended. The rise in hormone levels during pregnancy causes the gums to swell, bleed, and trap food causing increased irritation to your gums. Preventive dental work is essential to avoid oral infections such as gum disease, which has been linked to preterm birth.

When it comes to regular dental work such as a cavity filling, root canal or tooth extraction, it's recommended to treat emergency cases after the first trimester and postpone all unnecessary dental work or elective treatments such as teeth whitening and other cosmetic procedures, until after the birth. It is best to avoid exposing the developing baby to any unnecessary risks, even if they are minimal.

Should I get the flu shot?

Yes. Not only is it safe, but it is also important. The Centers for Disease Control and Prevention (CDC), the American College of Obstetricians and Gynecologists (ACOG), the American College of Nurse-Midwives, the American Academy of Pediatrics, and many other organizations all strongly recommend the flu shot for pregnant women - typically November through January or even later; unless you've had a severe reaction to a previous flu vaccination.

Pregnancy puts extra stress on your heart and lungs and can also affect your immune system. These factors increase the risk not only of getting the flu but of developing serious complications of the flu, such as pneumonia and respiratory distress. In turn, flu complications increase the risk of premature labor, preterm birth and other pregnancy complications. A flu shot can help prevent these potential problems.

Having a flu shot during pregnancy can also help protect your baby after birth. Infants are at high risk of complications from the flu, but childhood flu vaccines are not administered before age 6 months. If you have a flu shot during pregnancy, however, the antibodies you develop will pass through the placenta. In turn, these antibodies help protect your baby from the flu.

When you get your flu shot, be sure to request the flu shot and not the nasal spray vaccine. The flu shot is made from an inactivated virus, so it's safe for both mother and baby during any stage of pregnancy. The nasal spray vaccine is made from a live virus, which makes it less appropriate during pregnancy.

When should I get prenatal testing done to rule-out Down's syndrome and other fetal problems?

Prenatal tests are designed to screen/test against fetal chromosomal problems (Down's syndrome, Trisomy 18...) and congenital defects (cardiac defects, neural tube defects...). Prenatal testing typically does not begin prior to the 10<sup>th</sup> week of gestation. Most pregnant women are candidates for having a first-trimester non-invasive test called nuchal translucency (NT) screening, performed between 10-13 weeks gestation. This test involves a careful fetal ultrasound and a blood test, and does not pose any risk to the pregnancy. In some instances, an invasive test called chorionic villus sampling (CVS), will be recommended. This test involves sampling the fetal placenta (using an ultrasound-guided needle which is passed through the cervix or the abdomen) and removal of cells for the purpose of chromosomal testing. Because of the invasive nature of the test, there is a small risk of miscarriage (typically less than 1%) following this test. The test is done between 10-13 weeks of gestation, under certain clinical conditions.

Since we will be monitoring your pregnancy in the first trimester, we will have a comprehensive discussion with you about the risks and benefits of each first trimester prenatal test, and refer you to the appropriate physician for testing at the appropriate time.

Remember, additional non-invasive prenatal tests (quadruple marker screening blood test and level 2 ultrasound evaluation), as well as invasive prenatal tests (amniocentesis) are available in the 2<sup>nd</sup> trimester (and 3<sup>rd</sup> trimester) of pregnancy, as well. The choices regarding 2<sup>nd</sup> trimester prenatal tests will be discussed with you at length with your obstetrician.

When will I begin care with my OBGYN?

We will continue monitoring your pregnancy during the first 10-11 weeks. Most OBGYN doctors will receive patients for their first obstetrical visit between 12-14 weeks gestation. Upon executing a release of information document, we will forward your pertinent medical records as well as a summary letter of your progress to your OBGYN doctor, in a timely fashion. If you do not have an obstetrician, please notify us so that we can recommend one of our excellent physician colleagues to you.

*Good luck!*

**MOVING ON ...**

