

CONGRATULATIONS! You Are Pregnant!

The Fertility Center wants you to be well informed about the development of your long-awaited baby. This book is a resource for the early weeks of your pregnancy and includes information about hormone levels, progesterone, estrogen, ultrasound scans, due dates, miscarriage, exercise, nutrition, health risks, sex and medications.

Our office will provide care for you through your first trimester of pregnancy (up to 12 weeks) before referring you on to an OB/GYN physician. If your pregnancy is considered high risk, we will refer you to a perinatologist.

The fact that your pregnancy was achieved through in vitro fertilization does not make it a "high-risk" pregnancy, but the following conditions can put you in a high-risk category:

- A multiple pregnancy – twins, triplets or quadruplets
- A previous history of multiple miscarriages
- A history of diabetes, high blood pressure or other medical problems
- Becoming pregnant at age 40 or older
- Continuing to smoke while pregnant

We love to hear from you after you have left our care and hope that you will keep us informed about your progress. Please share reports about your baby's gender and send pictures when he or she makes a debut. We also hope you'll stop by the office with your little one so we can say "hello."

If you have any questions or concerns that aren't addressed in this book, please feel free to give our office a call at (423) 899-0500 or (865) 692-3433.

PREGNANCY HORMONE LEVELS

Human chorionic gonadatropin (hCG) is the hormone of pregnancy. It is also the hormone that you took just prior to your egg retrieval. The life of hCG in your body from an injection is up to 10 days. When you become pregnant and the embryo implants, your body starts producing its own hCG. We schedule your pregnancy test two weeks after your egg retrieval to insure that the hCG that shows up in the pregnancy test is truly from a pregnancy and not from your hCG injection.

We expect your first hCG level to be 40 or greater in a positive pregnancy test. Occasionally, we will see a level lower than 40 that still becomes a viable pregnancy, but those cases are few and far between.

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.

If the first test is less than 40 and/or the levels don't increase by at least 66 percent two days later, there is a good chance that this pregnancy will end in miscarriage.

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 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 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 a critical hormone which allows an embryo to implant in the uterus and then nourishes that 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. Because we aspirated the eggs from your ovaries along with the fluid contained in the follicles, we must replace the progesterone that we removed so that your lining will be prepared for the arrival of the embryos at transfer time. This is why we start the progesterone in oil injections on the day after your egg retrieval with a planned progression to oral and/or vaginal progesterone supplementation. We want the endometrial lining changes with supplemented progesterone to be "in sync" with the developing embryos so that implantation can occur after the embryos are transferred to your uterus.

We will check your progesterone level the week after your embryo transfer to make sure you are metabolizing enough progesterone to change that endometrial lining. We prefer your level to be at least 20. Higher levels are fine, but lower levels may be inadequate to achieve and maintain a pregnancy.

You will continue progesterone support through the first trimester of your pregnancy. At about 12 weeks of pregnancy, your placenta should take over production of progesterone, and supplements will no longer be necessary.

ESTROGEN

Estrogen is another hormone that is critical during pregnancy. Throughout the IVF process, medications that we use for stimulation drive your estrogen level up. There are benefits that we see with increased estrogen levels, one being a "fluffier" endometrial lining. But when we aspirate the egg follicles of the follicular fluid during your egg retrieval, we remove whatever estrogen is contained therein. To help prevent a "crash" of your estrogen level after stimulation and your egg retrieval, we prescribe estrogen patches to help support your lining and your estrogen level.

There is also some evidence that pregnancy rates are higher when estrogen levels are supplemented. The naturally-derived estrogen in Vivelle patches is the same kind of estrogen that your own ovaries produce.

You will wear two patches at a time on your lower abdomen, changing them every third day through your first trimester. By the time your second trimester begins, your placenta will take over all of the necessary hormone support your pregnancy should need, and you will discontinue the patches along with the progesterone.

ULTRASOUND SCANS

Every patient always wants to know, "How soon can I have a scan to see the baby?"

In order for us to be able to see anything on an ultrasound scan, your hCG level must be over 5000. It doesn't take your body very long to build up to that count, since your level doubles every couple of days. Your first scan is usually scheduled about 3 weeks after your pregnancy test.

This will be a transvaginal ultrasound, just like you've been having, except we will be looking at the uterus instead of your ovaries. During your first scan, we most likely will only be able to see a gestational sac. It looks like a dark, round area within the uterine cavity. Sometimes we are lucky enough to also see a ring-like structure within the sac, which is called the "yolk sac."

A week or so later during your second scan, we should be able to see a tiny flicker near the yolk sac that is the heartbeat.

Our preference is to do a scan every week or two throughout your first trimester to monitor the continuing development of your baby.

DUE DATE CALCULATIONS

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 controlled with medications and you may not have had a period before your IVF cycle. As a result, you need to count backwards 14 days or two weeks from your egg retrieval day to mark the day that represents that beginning of your last period.

In simpler terms, you have just completed four weeks of gestation if your first pregnancy test in our lab after an IVF transfer is positive. That means you are beginning week five of your 40-week term.

MISCARRIAGE

No one wants to think about the possibility of miscarriage, and the fact that you achieved this pregnancy through an IVF cycle does NOT increase your risk of miscarriage. However, nearly 1 out of every 4 pregnancies ends in miscarriage.

The risk of loss is higher if you are over the age of 35 since as many as half of all miscarriages are the result of abnormal chromosomes. With age, the quantity and the quality of eggs diminish. Older eggs are also less likely to produce normal pregnancies. However, the risk of miscarriage is significantly decreased when donor eggs are used by women who are in their late 30s or early 40s.

Up to 15 percent of miscarriages may be caused by uterine abnormalities, such as polyps, septums or an incompetent cervix. Treatments are available to help address these problems.

Some miscarriages happen for no apparent reason, and these losses can be the most frustrating. Unfortunately, whether a pregnancy is threatening to miscarry because of poor implantation or chromosomal abnormality, there is little we can do to prevent the loss.

Most miscarriages occur in the first trimester, which is why we monitor you so closely during the first three months of your pregnancy. Some couples wait to share their exciting pregnancy news with family and friends until after 12 weeks when the likelihood of loss is much lower. The decision, of course, is up to you.

The symptoms of an impending miscarriage may include bleeding (bright, red blood) and cramping. If this occurs, we recommend getting off of your feet and contacting our office or the on-call physician as soon as possible.

You can take Tylenol for pain, but please avoid other medications. You may just be "spotting" after overextending yourself or doing too much, and a little extra rest may be all that you need. We will most likely check your progesterone level since a drop in that hormone can cause spotting.

There has been evidence to suggest that taking one baby aspirin (80-81 mg) a day may help to prevent some miscarriages, so your doctor may have added baby aspirin to your medication protocol.

Miscarriages 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.

EXERCISE DURING PREGNANCY

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 and walking. Aerobic exercise typically is fine as long as it is low impact and a routine you have been doing for a while.

If you have a question about a specific kind of exercise, please ask your doctor.

NUTRITION DURING PREGNANCY

Don't try to lose weight during pregnancy. Continue your prenatal vitamins throughout your pregnancy and on through your postpartum period or six weeks after delivery. If you plan to breastfeed, continue your prenatal vitamins as long as you breastfeed. Eat a healthy, well-balanced diet that includes adequate protein, vegetables and fruit, grains and dairy products.

You should expect to gain only about five pounds in your first trimester. You will gain most of your weight in the later stages of your pregnancy.

HEALTH RISKS DURING PREGNANCY

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 upper 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.

SEX DURING PREGNANCY

The answer to the million dollar question 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 you are threatening to go into premature labor, your doctor may advise against intercourse. But in a normally developing pregnancy, sex is fine.

MEDICATIONS DURING PREGNANCY

As a general rule, never take ANY medication during pregnancy without consulting your physician. This includes “over the counter” medications that you can get at any store without a prescription. Some of the most dangerous medications for pregnancy are “over the counter” drugs.

A few medications (listed below) are safe during pregnancy if taken within the RECOMMENDED dosage:

Cold, Sinus, Congestion

Benadryl
Chlor-Trimeton
Dimetapp
Robitussin
Sudafed
Tavist
Triaminic
Tylenol, Cold & Sinus
Vicks Vapor Rub

Constipation

Citrucel
Fibercon
Metamucil
Milk of Magnesia

Diarrhea

Imodium -AD
Kaopectate

Fever Blisters

Blistex

Gas

Gas-X
Mylicon

Headache

Extra-Strength Tylenol
Tylenol

Heartburn

Pepcid
Rolaids
Tagamet
Tums
Zantac

Hemorrhoids

Anusol HC
Preparation H
Tucks

Nausea

Unisom at bedtime
Vitamin B-6, 100mg twice a day

Vaginal Yeast Infection

Gyne-Lotrimin
Monistat
Mycelex 7

DEVELOPMENT OF BABY

Weeks 1-3	Endometrium develops. Egg retrieval, fertilization and embryo transfer occur. Embryo implants in lining of uterus. Heart begins to pump.
Week 4	Placenta develops. Embryo grows head and tail. Spinal cord and muscles are apparent.
Week 5	POSITIVE PREGNANCY TEST! Brain has three recognizable divisions. Eyes, fingers and toes begin to form.
Week 6	Brain grows rapidly. Major organs begin to develop. Nose, palate and eyelids appear. Heart function may be visible on ultrasound.
Week 7	Intestines, liver, kidneys and lungs take shape.
Week 8	Tip of nose is visible, and teeth are forming. Ovaries and testes form. Muscles begin to move.
Week 9	Embryo becomes a fetus. All organ systems are in place. Bones, cartilage and ear structures form. Fingers are formed but webbed.
Weeks 10-13	Growth and movements are visible on ultrasound. Chest rises and falls with breathing movements. Vocal chords begin to develop. Shoulders, elbows, wrist, knees, ankles, feet and toes form. Fingers grow nails, and eyes develop irises. Kidneys function, and intestines contract. The liver secretes bile, and the pancreas produces insulin. Fetus swallows amniotic fluid and excretes urine. Bone marrow, liver and spleen produce red blood cells. Fuzzy, white hair forms on head.
Weeks 14-16	Genitals may visible on ultrasound. Lanugo (fine hair) forms all over body.
Weeks 17-20	Mother may feel fetus moving.
Week 20-32	Scalp hair and vernix (creamy skin covering) forms. Fetus hiccups. Fatty layer forms, and organs mature.
Week 33-40	Fetus grows rapidly. Kidneys and lungs mature.

MOVING ON ...

Around 12 weeks, we will refer you on to your obstetrical physician for the remainder of your prenatal care and delivery. You will need to sign a records release so that we can forward your to-date pregnancy records to your new doctor.

In the event that you have not selected an OB doctor, we will be happy to give you a list of physicians that we recommend.

Please understand why we cannot follow you with care all the way to delivery. Because the primary nature of our practice is infertility care, we feel it would be too difficult for our infertile couples to constantly see pregnant people in the lobby and office.

We truly wish we could help you bring your baby into the world, but we know you will be in good hands. Please come back and let us see you periodically. And, of course, we want to hear when you deliver! Send us pictures and birth weights and all the details. We also expect to meet your little miracle once he or she has arrived. Those moments are why we do what we do.

Best wishes to you and your growing family from the Fertility Center!