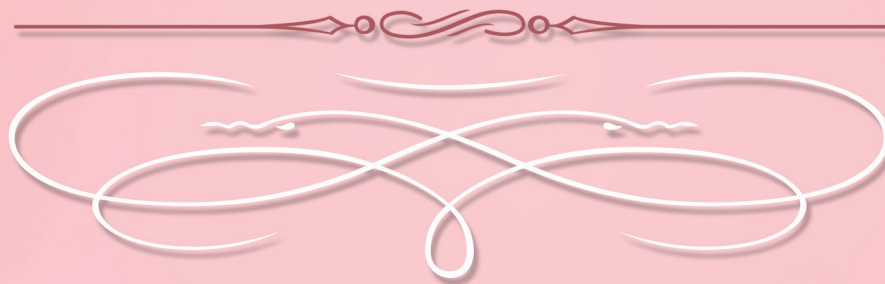




Second Edition

# Trying *to* Conceive



**Overcoming Infertility**  
to Start the Family  
You've Always Wanted

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## What Are the Signs of Infertility?



Month after month, the test still says negative. You are trying to be positive on the test and about your chances, but you are starting to have doubts. Plus you find yourself asking, “Do I have a fertility issue?”

You have questions that need answers. If you are over 35, you need those answers as soon as possible. Here are some questions you can ask yourself to see if you might be having infertility issues:

### How is your period?

One of the best indicators for women who want to know if they can conceive without the help of specialist is to evaluate their last few menstrual cycles. These should have a regular blood flow, be 28 to 30 days apart, and cause no more than minor discomfort. If the cycle has been irregular, has been extra long or short in duration, and has had heavier than normal bleeding, it could be a sign of a hormonal imbalance that is affecting your fertility.

Hormonal imbalances show many other symptoms as well. Sometimes they manifest in the form of weight changes, either up or down, without significant changes in diet. More than the usual amount of facial hair growth can also occur. Also, sudden severe acne or mid-cycle spotting can be indicators of the imbalance.

If you notice any of these symptoms, or notice any irregularities in your monthly cycle, it may be time to call a fertility specialist.

### How old are you?

Many women were not prepared to have a child in when they were 20-something. They waited for various reasons to start a family, like building a career or waiting to meet the right partner. Unfortunately for many women, starting a family later can be more difficult because our eggs age with us. This means our “ovarian reserve” is older and that time for conception is of the essence.

This should not, however, discourage a woman who is older from trying to get pregnant. We do suggest that if a woman over 35 has tried for 6 months or more without success that they should seek help sooner rather than later. Furthermore, if you are over 40, it might be prudent to seek a fertility specialist even before you try for a few months to further increase your chance of success.

## How is your health in general?

Seeing a doctor for a general physical is a good idea for a couple that are trying to get pregnant. These appointments can often reveal other health issues that might be affecting a couple's fertility. Some other common health issues that affect fertility include: thyroid issues, being underweight or overweight, diabetes, autoimmune disease (lupus), smoking, hypertension, heavy exposure to environmental pollution, long-term use of over-the-counter medication and prescription medication. If you have been trying for a while without success, it's a good idea to see if another medical condition is getting in your way.

If any of the answers to these questions is pointing to an issue, make an appointment to see your doctor or a consultation with a fertility expert. Simple tests can identify most major issues and give you a treatment plan that can lead to success. Both partners should go in for tests because the male partner is almost 50% as likely to be a contributor to the fertility issue.

A consultation can reveal for women several common conditions. These include Poly Cystic Ovarian Syndrome (PCOS), blocked ovarian tubes, hormonal imbalances, or endometriosis.

Likewise a consultation can reveal several common problems for men. Most common problems for men include poor sperm health characterized by low sperm count and poor motility, or ability to swim past barriers. Men can also suffer from a hormonal imbalance that manifests as a low libido, erectile dysfunction, irregular heartbeat or accumulation of body fat in the mid-section.

If your consultation does reveal any red flags, the good news is that most fertility issues can be treated successfully. Treatments can range from stress-relief strategies like acupuncture and massage to high-tech treatments like in-vitro fertilization (IVF).

## What Could Be Causing Your Fertility Issue?

A couple's infertility can be caused by many different factors. If you have tried to get pregnant for six months or more without success, your best next step is to check in with a fertility specialist to see if you can determine the cause of your infertility.

Once you know what is causing the problem, you and your specialist can decide on treatment and course of action to get you and your partner on the path to parenthood. A specialist will do a basic infertility work-up, which includes a semen analysis and blood work for the female, to help determine the cause.

The good news is that most infertility problems can be treated successfully with any number of Assisted Reproductive Technologies and the care of a specialist. Some common causes of infertility include:

## Male Infertility

For many years, infertility was seen as strictly a female issue. In recent years, however, experts estimate that nearly half the infertility cases they have seen can be caused by male infertility. A semen analysis can be done to see if sperm can swim past the cervix, uterus, and fallopian tubes. If it is determined that the sperm are not capable of this, there are two recommended treatments: Artificial insemination (IUI) and In Vitro Fertilization (IVF).

## Anovulation

Anovulation is the absence of an egg in a woman's menstrual cycle. Nearly 40% of infertile women are diagnosed with this condition. Clomid, a common ovulation medication, will correct this problem.

## Low Ovarian Reserve

Low ovarian reserve occurs when there are fewer eggs overall and fewer quality eggs in a woman's ovaries. This condition contributes to lower successes with treatments like IVF. A simple hormone level detection test will show whether infertility treatments are a likely next step.

## Fallopian Tube Damage

Fallopian tube damage is responsible for almost 25% of all confirmed infertility cases in the U.S. Tubes are considered damaged when there is a blockage, either complete or partial, and/or scarring. A Hysterosalpingogram (HSG) is a dye test that takes an image of the uterus and the fallopian tubes to assess their condition. Reconstructive surgery has some success in more minor cases, but not if the tubes are seriously damaged. In these cases, IVF is the best course of treatment to achieve pregnancy.

## Uterine Fibroids

Uterine Fibroids are tumors that grow inside the uterus. While they are benign tumors, they can result in abnormal bleeding and infertility. A specialist can determine by the size and placement of the tumors if surgery is necessary to remove them. Once the fibroids are removed, a healthy pregnancy can be achieved.

Knowing the cause of your infertility is critical to know what to do next. It is important to let a specialist determine what is causing infertility and begin the best fertility treatment to achieve a successful and healthy pregnancy for you and your partner.

## Endometriosis

Woman experiencing heavy bleeding and pain during their period may be diagnosed with endometriosis, a common diagnosis for women struggling with infertility. In a regular menstruation cycle, the ovaries send hormones to the uterus that causes the cells that line the womb to thicken. These cells are then shed to begin a new cycle. When these endometrial cells grow outside the uterus, the diagnosis is endometriosis. While the growths can occur anywhere in the body, they are most commonly found in the pelvic area including the bowel, rectum, ovaries, and even the lining of the pelvic area. Experts have yet to identify how this affects fertility. The relationship between the two conditions, however, does show a connection.



## Poly Cystic Ovarian Syndrome (PCOS)

A common diagnosis for many women of childbearing years is PCOS, a condition that disrupts hormone levels and ovulation. While no one fully understands why the changes in hormone levels are linked to the condition, these changes affect a woman's ability to release a mature egg from her ovary. Ovulation, or the releasing of one or more eggs, occurs during menstruation normally. In cases of PCOS, the eggs are not released but instead develop into very small cysts in the ovary. Symptoms of PCOS vary, but can include breakthrough bleeding between periods, skin issues, weight gain, and abnormal hair growth.

## Low Sperm Count

Pregnancy is greatly affected by the number and quality of sperm present, as well as their ability to move. While many men are reluctant to be analyzed, this common condition can be easily identified by a simple test from an infertility expert. A complete testing panel of a sperm sample at an infertility clinic can help identify issues in numbers, movement or quality. These tests are superior to at-home tests as the home versions can only detect counts and cannot test for quality or movement.

## Undiagnosed Medical Issue

Infertility has been linked to women with thyroid irregularities and diabetes. Specialists can run standard tests that will identify any conditions that have not previously been diagnosed. Other medical issues that limit fertility are Celiac's disease, cervical stenosis, fibroids and previously undetected sexually transmitted diseases. Also when a couple is trying to conceive, it can be a good time to break some bad habits like smoking, drinking and overeating. Making healthy choices can be good strategy for combating infertility.

## Aging

As we age, our fertility decreases. A woman with a regular menstrual cycle can experience infertility due to the age of her eggs. Common treatments for older couples trying to conceive include changes in folic acid intake, limiting caffeine consumption, and making better choices for their diet. Because time is of the essence when treating fertility after age 35, it is important to seek help with a fertility expert after trying for six months without success.

## What is Secondary Infertility?



You have already had one child so it shouldn't be hard to have a second? Before you know it, you and your partner have been trying for many months to conceive and nothing seems to be happening. Many couples are left in shock and disbelief when they find themselves unable to conceive a second child, especially if they became pregnant so easily or perhaps even accidentally the first time.

According to statistics, more than 1 million couples are struggling with secondary

infertility. The more common explanations are couples trying to have a child with a new spouse or have developed a fertility problem since the last child was conceived. Many women might have developed endometriosis, irregular ovulation or fallopian tube dysfunction. A man might have a decline in their sperm causing concentration or motility issues. Other factors for both men and women can involve age, prior health issues or even stress.

Secondary infertility can be extremely emotional and difficult. Family and friends may ask insensitive questions about when a couple is going to have another baby and or why they have decided to only have one. Many are faced with ever frustrating statements like "You are lucky to have one child" or too "Just relax."

Couples experiencing infertility, whether primary or secondary, need validation, empathy and support from their family, friends and Fertility Doctors. They also need time to grieve and accept their situation. Many don't even know where to start or where to go as they never needed to look into resources in order to achieve a first pregnancy. With secondary infertility, one mistake by couples is they wait too long to seek help hoping that they will achieve a pregnancy on their own. The same rules should apply for all couples – if you ages 35- 40 and trying for 6 months without success you should seek a fertility specialist for evaluation. If you are under 35 and trying for a year, then you should seek help and patients over 40 should get started on evaluation immediately.



Those who have had a previous pregnancy often think of themselves as having “normal” fertility, but this isn’t always the case. That’s why it’s important for both the man and woman to have a complete infertility workup as soon as they feel they’re having trouble conceiving. Don’t be embarrassed to seek help, a simple fertility work-up can point you in the right direction and help you with your family building desires.

## What is a Hysteroscopy?

A Hysteroscopy is the best way to see if the uterus is healthy and ready to carry a baby. During the hysteroscopy procedure, a small fiber-optic telescope is used to examine the uterus for abnormalities such as scarring and adhesions. The device allows physicians to record images of the uterus and corrects certain abnormalities.

The importance of a hysteroscopy before IVF was seen in a recent study of hysteroscopy and reproductive techniques. Out of 292 women who underwent failed IVF cycles, 25% were found to have uterine problems. These were treated by operative hysteroscopy. Improved conception rates for this group ranged from 19 to 72%. (Another study caps the higher conception rate at 45%).

Don’t rely on a transvaginal ultrasound scan or HSG to pick up problems - they won’t always see what a Hysteroscopy does. You got to get up close and personal. For uterine analysis, hysteroscopy is the gold standard.

Side effects after a hysteroscopy are rare. Infection happens in less than 0.4% of cases. And there’s less than a 1% chance of bleeding due to uterine damage. More common side effects include a feeling of being bloated and period-like cramping. The benefit -risk ratio speaks for itself.

So why don’t more clinics offer hysteroscopy as standard? The jury is out, until a more randomized controlled trial is published. In the meantime, IVF patients should request one. You want success on your first cycle.

## What is Polycystic Ovarian Syndrome?

Polycystic Ovarian Syndrome, known commonly as PCOS, refers to a hormone disorder affecting 3-10 percent of reproductive-aged women. Considered a leading cause of female infertility, PCOS reduces the ability of the ovaries to mature and release eggs into the uterus. Other reproductive symptoms of PCOS include the creation of polycystic ovaries, characterized by multiple cysts and small follicles; chronic anovulation, or an inability to ovulate; and hormonal imbalance, including high levels of the male hormone androgen. Mothers should be aware of the signs and symptoms to help recognize them in their daughters.

Even though PCOS affects a relatively high percentage of women, the cause is unknown and can be found in girls as young as 11 years old. Women with PCOS are more likely to have a daughter with the disease. The diagnosis includes signs mothers can recognize early on in their daughters such as irregularities in menstrual cycles; the presence of acne and hair growth in areas more common to men, such as the face and chest; and obesity, particularly in the midsection and hormonal imbalance. Health problems often associated with the disorder include a high risk for miscarriage and long-term medical problems, such as diabetes, cardiovascular disease, and uterine cancer.

Mothers and daughters should discuss abnormalities, as they may be able to determine PCOS signs at an early age. Women with PCOS frequently suffer from chronic anovulation, a condition that can cause them to go through fewer than eight menstrual cycles each year; frequently, they skip their periods altogether.

Furthermore, the hormonal imbalance associated with PCOS can result in symptoms ranging from an excess of estrogen or androgen to decreased levels of progesterone (the hormone important to the menstrual cycle) and resistance to insulin.



### Can PCOS Cause Infertility or Difficulty Conceiving?

Women with PCOS frequently suffer from chronic anovulation, a condition that can cause them to go through fewer than eight menstrual cycles each year; frequently, they skip their periods altogether. Furthermore, the hormonal imbalance associated with PCOS can result in symptoms ranging from an excess of estrogen or androgen to decreased levels of progesterone (the hormone important to the menstrual cycle) and resistance to insulin.

### What Happens with PCOS During Pregnancy and What Are the Dangers?

Women with PCOS who become pregnant may experience more health problems than the general population including:

- High blood sugar levels which can lead to diabetes
- Pregnancy-induced high blood pressure
- Miscarriage
- Premature delivery
- Pre-eclampsia (high blood pressure, protein traces in the urine)
- Macrosomia (a newborn with an excessive birth weight)

All of these serious problems are yet more evidence that it is extremely important to address PCOS and make the lifestyle changes necessary to reverse it and the underlying cause of insulin resistance. This is vital to prevent the health issues that can compromise long-term wellness for both mother and child during and after pregnancy.

Insulin resistance reduces the insulin sensitivity of your cell walls. Glucose has to pass through the cells walls to be converted to energy. Insulin assists this process. When the cells walls have become de-sensitized to insulin by insulin resistance, the process can break down. Glucose cannot get into the cell, and remains in the blood stream, causing elevated blood sugar levels. This process can lead to weight gain and obesity, key factors in creating PCOS.

### **What Should PCOS Patients Do About the Condition During Pregnancy? After Pregnancy Are There Any Special Considerations for Women with PCOS?**

Metformin (Glucophage) is a drug often prescribed for women with PCOS who are trying to get pregnant, and in the early stages of pregnancy. Metformin improves the cell's response to insulin, and helps move glucose into the cell. As a result, the body will not be required to make as much insulin, and helps to balance the hormones in PCOS. Weight loss through exercise and changes in diet and lifestyle can also be effective in treatment for PCOS and pregnancy. Women should seek out the specialist who can provide nutritional and exercise guidelines to enhance their weight loss success. This is critical for the health of the woman and her baby.

### **How Can PCOS Be Treated?**

Infertility experts usually rule out other causes of anovulation and hyperandrogenism (an excess of male hormones) before diagnosing PCOS and establishing a treatment approach for the disorder. Management of PCOS requires a treatment program focused on four individual areas: encouraging fertility; restoring regular menstrual cycles while preventing disorders of the endometrium (uterine lining); treating the symptoms of acne and abnormal hair growth; and lowering insulin levels.

Research shows that diet and exercise can go far in reducing the obesity associated with PCOS and, as a result, restore normal ovulation and menstruation cycles. Many women with PCOS report difficulty in losing weight. Experts recommend diets in which carbohydrates largely come from fruits, vegetables, and whole grains. If not done through weight loss, balancing insulin levels often requires medication, such as the type 2 diabetes drug metformin.

Infertility specialists typically treat hormonal symptoms, in particular the excessive level of androgen, by prescribing low-dose oral contraceptives. This approach should reduce the acne and hair growth; however, the latter symptom may require electrolysis, waxing, or some other removal method performed in conjunction with medical treatment. In cases of excessive hirsutism, and anti-androgen drug can be prescribed.

To increase infertility, PCOS patients can undergo a number of conservative treatments, such as fertility drugs like Clomid to help ovulation and achieve a successful pregnancy. The important message mother should know is that PCOS is a very treatable disorder, and women should seek out the infertility specialist for help in the diagnosis and treatment.



## How Does Age Affect Fertility?



The woman's age is one of the biggest factors that will affect her fertility. Understanding this decline requires a look at what causes this decline biologically.

The available data suggests that three factors that affect fertility change significantly at age 37 for most women. These include a change in the uterus' receptiveness to pregnancy, abnormalities in the oocyte (egg), and altered patterns in the hormone balance needed to achieve ovulation and pregnancy.

Let's take a closer look at each cause:

### Inhospitable Womb

When a woman ages, the quality of her endometrium lining, or the tissue that forms inside the uterus during her menstrual cycle, declines. This is related to changes in hormone levels. When the endometrium layer is not thick enough, the embryo will not implant and will result in a lack of implantation or a miscarriage shortly after implantation.

### Oocyte Abnormalities

A woman's eggs age from the time she is born. As she reaches the end of her egg supply around age 40, the eggs have an increased difficulty reaching maturity. This often results in chromosomal abnormalities often called chromosomal trisomies. Trisomy refers to having more than the 23 chromosomes needed to make up a healthy egg. These can be copies or partial copies of one of the other chromosomes present. The chromosome that is copied usually names the trisomy. For example, one of the most common trisomies at this age is trisomy 21, which is what causes Down's syndrome.

### Hormone Changes

The balance of hormones changes throughout a woman's menstrual cycle. As one hormone increases, others will decrease. Each of these changes causes the next step in the cycle to occur. When these hormone levels change, it changes the time each month that ovulation occurs, or even whether ovulation of a mature egg occurs at all. This irregularity can make it difficult to achieve pregnancy.



It is likely that because of these three factors that biological and ovarian age are a more accurate measure of when a woman's fertility will end rather than her chronological age. Some women have a later menopause so achieving pregnancy at an older age is not a problem. Generally, menopause occurs ten years after all the viable eggs have been used up. So while there is no accurate way to predict the onset of menopause by a decade, this general timeframe between the end of ovulation of mature eggs until the menstrual cycle stops may explain why women say they can hear the ticking of their biological clocks.

One way that women can get an idea of their biological or ovarian age is to assess their ovarian reserve. This is usually handled with either a basal FSH (Follicle Stimulating Hormone) test with estradiol, which measures the amount of FSH in a blood sample, or a clomiphene citrate challenge test (CCCT). By taking a baseline FSH level on Day 3 and measuring the changes in FSH on after Clomiphene Citrate is administered on Day 5-9, a fertility specialist can see evidence of a diminished ovarian reserve.

Even so, women over 40 who do not show a diminished ovarian reserve will still be less likely to conceive than younger women. This is because the eggs that they have are of lower quality than those of younger women.

## One Reason Why It's Harder to Get Pregnant After 35

Getting pregnant after 35 is riskier than for women who are younger. Risks increase for preterm delivery, low birth weight and other complications that pose great danger to both mother and child when a woman is of advanced maternal age. While these risks are common knowledge throughout the fertility community, the reason behind them is not. Recently, more studies are coming out to explain why older women have all the pregnancy risks: egg quality.

While men continue to produce sperm until death, women are born with a finite amount of eggs. Getting pregnant after 35 is riskier than for women who are younger. Risks increase for preterm delivery, low birth weight and other complications that pose great danger to both mother and child when a woman is of advanced maternal age. While these risks are common knowledge throughout the fertility community, the reason behind them is not. Recently, more studies are coming out to explain why older women have all the pregnancy risks: egg quality.

While men continue to produce sperm until death, women are born with a finite amount of eggs. As women age, eggs die off with no way to replenish them. In fact, by the time they reach their 30s, most women have lost 90 percent of their total egg reserve. This is part of the reason that getting pregnant after 35 is more difficult.

While few people would agree that a woman who is 35 is of advanced age, doctors agree that when it comes to eggs, the woman is definitely considered "advanced maternal age."

A recent study explored the reason for the loss of eggs. Eggs extracted from women whose ages ranged from 24 to 41 showed some interesting differences in their egg quality in a study from Science Traditional Medicine. Specifically, researchers identified that the DNA repair gene from the older women's eggs was not functioning as well as the genes in younger women's eggs.





This research shows that as women age, the DNA repair gene begins to break down, leaving more genes if they survive their damage to develop with a mutation. This breakdown worsens as women enter their 40s.

Not only does the breakdown of the repair gene shed some light on genetic mutations and other problems found in babies born from women over age 35, but it also explains how the eggs are dying off more rapidly. The eggs accumulate more damage as the women age that is not repaired and the eggs cannot survive. Thus they die more rapidly.

Another cause for egg loss was found in women with a gene mutation called BRCA1. The mutation causes women to have fewer eggs in their ovaries. This discovery can be linked to fertility problems with older women and why some women have problems sooner or later than others. Having fewer eggs causes women to be more vulnerable to infertility as they age. The eggs are dying off at the same rate as women without the mutation; however, since there are fewer eggs overall in the reserve, infertility occurs earlier in these women.

With this knowledge, doctors and scientists can work on a way to target these issues. Treatments can be constructed to preserve the DNA repair gene and allow it to function longer. With this, childbearing years for women could be extended greatly.

While egg quality currently cannot be treated, there are still options for getting pregnant after 35. If you have been trying for six months or more and are over the age of 35, be sure to discuss your options with a fertility specialist. Working together with any number of fertility treatments, you can navigate the risks of an advanced maternal age pregnancy and hopefully achieve success in starting a family.

## Treatments for Infertility Due to Age

The challenges with infertility as a result of delayed childbearing have increased the need to use new reproductive technologies to treat these women. The most commonly used treatments include controlled ovarian hyperstimulation (COH), intrauterine insemination (IUI), and assisted reproductive techniques (ART).

**Here is an overview of each type of treatment:**

**Controlled ovarian hyperstimulation (COH):** A treatment that is started on the third day of menstruation, COH uses a regimen of fertility enhancing pharmaceuticals that stimulate the ovaries to produce more follicles, or eggs, for the next cycle. Sometimes the process is referred to superovulation, which means a larger number of eggs are present than is usual. This treatment may or may not be used in conjunction with in-vitro fertilization (IVF).

**Intrauterine Insemination (IUI):** IUI is a treatment where sperm is placed into the woman's womb during ovulation. The treatment is used for several different types of diagnosis including couples with unexplained infertility, women whose cervical mucus is not inhabitable for the man's sperm, and minimal male factor infertility. It can be performed with either the partner's sperm or donor sperm.

**Assisted Reproductive Techniques (ART):** This is a general term that includes all methods that are used to assist infertile couples with conception. Some examples of different ART treatments include COH, IUI, IVF, intracytoplasmic sperm injection (ICSI), and cryopreservation (of a woman's eggs for later use in ART treatments). This is by no means an exhaustive list and the treatments and procedures are increasing and improving all the time with higher success rates than ever before in the science.

Women who have delayed their childbearing until later in life can still have children. Many of these women, especially those that are over the age of 35, should seek the assistance of a fertility specialist after having unprotected sex on a regular basis over a time period of six months or more without a successful conception. A fertility specialist can do a work up to figure out if there are any factors related to declining fertility that may be overcome with ART treatments.





## Weight and Obesity When Trying to Get Pregnant

You may be surprised to hear that a person's weight can seriously affect his or her ability to conceive. However, 12% of all infertility issues are attributed to weight-related issues. Both partners need to have a healthy weight in order to create better chances of getting pregnant.

Overweight women have many different issues associated with their pregnancy, whether conceived naturally or through In Vitro Fertilization (IVF). Obese women have a decreased fertilization and pregnancy rate and suffer from early pregnancy loss after IVF more often than women with a healthier weight. In addition, the pregnancy will require a higher level of gonadotropin, a hormone that is a central part of our endocrine system that regulates growth, sexual maturity and our reproductive system. Also, obesity reduces our body's response to the gonadotrophins.

Overweight men will also have negative effects on their fertility. Men who are carrying around extra pounds often see a decrease in the vitality of their sperm as well as a reduction in the overall count.

The good news is that often losing the extra weight can help correct this problem. **Here are some facts regarding obesity when you are trying to conceive:**

- If a woman has a BMI that is either too high or too low, she has a higher chance of releasing an immature egg during her cycle.
- If a man has a BMI that is too high, he can have a lower sperm quality and count which reduces chances of conceiving.
- Maintaining a healthy Body Mass Index (BMI) greatly increases your chances of conception.
- Consistent daily exercise can prepare your body for pregnancy and help you conceive successfully.



Many obese women struggle with fertility. If after making changes to their diet and exercise regimen they are still having problems getting pregnant, it is time to seek the help of an expert with experience working with various fertility issues. The physician can identify if there is an infertility condition and come up with an action plan to treat it.

One of the most common problems obese women suffer from is Poly Cystic Ovarian Syndrome (PCOS), a condition that can result in weight gain. In addition to weight gain, women with PCOS also have irregular cycles and non-ovulatory (or anovular) periods. Simple tests can confirm this diagnosis and the condition is very treatable.

Finding a balance that achieves success in pregnancy is every fertility expert's goal. First they work to understand what effects weight may be having on a couple's fertility. They then eliminate non-disease related factors. They may determine that one of the partners needs fertility enhancing drugs while the other needs to get to a healthier weight.

When you are working to achieve pregnancy, remember that couples can conceive at all sizes and weights. What is important to a healthy pregnancy is to be a healthy weight for your body size. Working together with a fertility expert and making healthy choices can help you have the family you have always wanted.

## The Difference Between Ovulating and Being Infertile



Many times when women have trouble getting pregnant, it is because they do not understand their menstrual cycle correctly. Women ask, "When is my ovulation day?" when they should really be asking, "When are my fertile days?" This post will explain the difference between ovulating and being fertile.

### What is Ovulation?

Ovulation occurs when an egg is released from the ovary. It happens at a different time in the month for each woman. In a woman who cycles regularly, or every 21-35 days consistently within the same interval, ovulation usually occurs 14 days before the next menstrual period. For example, if a woman has a 28-day cycle each month then ovulation happens on day 14, with day 1 being the first day of her bleed. For a woman who cycles every 30 days, she likely ovulates cycle day 16. It is hard to prospectively know the day of ovulation. A good rule of thumb is to track your cycles from the first day or your period to the next first day of your period for 3 months and look for a pattern. Once you know the time interval you subtract 14 and this is likely your day of ovulation. Keep in mind this may change slightly by a day or two month to month.

Ovulation happens near the end of what is called your fertile window, or the days you are most fertile. Once the egg is released it travels through one of your fallopian tubes. The egg and sperm need to meet in the fallopian tube where the egg fertilizes. The egg has 24 hours after ovulation to be fertilized. If the egg fertilizes, it becomes an embryo. The embryo travels down the tube for 3-5 days, which is connected to your uterus. Once it enters the uterus it looks for a place to implant, or stick, to establish a pregnancy.

### When are My Fertile Days?

Your fertile days are the five days leading up to ovulation and the day of ovulation, totaling six days. One of the reasons these days are considered fertile is because of your cervical mucus. Cervical mucus, or CM, is a fluid that is secreted by the cervix thanks to high production of estrogen.

The amount of CM varies throughout your cycle but is most prevalent the six days before ovulation. It increases and changes in texture to become more clear, stretchy and slippery. When your CM has a similar consistency of raw egg whites, this is a sign you are fertile. The CM is very important because it carries the sperm safely up the uterus and to the fallopian tube to meet the egg.

### When Should I Try to Conceive?

Sperm can live in the body up to 7 days. You are most likely to conceive by coating your reproductive organs with sperm during this 6 day window. Twenty four hours after ovulation if the egg hasn't fertilized, it disintegrates. Trying to conceive on the day you ovulate may often fail because you have the timing wrong and the egg is already gone. This is what creates your fertility window, instead of just a 24-hour window.

For the best fertility results, you should have sex every two days leading up to the day of ovulation. Let's say you ovulate on Saturday. Start having sex on the previous Sunday, then again on Tuesday, then again on Thursday and Saturday. This will give you the best chance of the sperm reaching the egg in time. You don't want to have sex every day leading up to ovulation because the frequent ejaculation can create low quantity or quality sperm.

### How Do I Figure Out My Fertility Window and Day of Ovulation?

To find out your fertility window and day of ovulation, you need to keep track of your menstrual cycle. As mentioned earlier, there is the traditional 28-day menstrual cycle with ovulation occurring 12 to 14 days before your period starts. This is considered an average, but every woman's body is different. Instead, there are three things you need to look for to find out when you are fertile.

1. **Look for changes in your CM.** Start analyzing it every day by placing your fingertip just inside of your vagina. Write down when it starts to change to thin, clear, slippery and stretchy. That is when you are about to ovulate. Also write down when it becomes dry and changes texture. This is when you are no longer fertile.

2. **Record your BBT in the morning.** Just before an egg is released, the basal body temperature slightly decreases by 0.4-0.6 degrees, and then sharply increases 24 hours after ovulation. Look at when the temperature decreases and sharply increases, then compare this to your CM notes. This allows you to identify the pattern for the day you actually ovulate.
3. **Try an ovulation predictor kit.** 24 hours before ovulation, luteinizing hormone (LH) levels will rise. This can be discovered with an ovulation predictor kit that measures LH. Once the LH rises, however, the fertility window is almost closed. It is important to have intercourse as soon as you measure that LH levels have increased and ideally the 5 days prior.
4. **Use an online app:** I say this factitiously. Many patients are using on line apps to help tell them when to have sex. Take caution that it is accurate for YOU. The apps are trying to create the above recommendations, but having a sign from your body of ovulation is a lot more reliable.

Make sure you track these changes for a good two to three months. This will give you enough time to identify patterns in your menstrual cycle. If you are missing the signs of ovulation, or if you can't nail down a pattern, see your doctor with your notes. This could be why you have had trouble getting pregnant. By asking "When are my fertile days?" instead of "When is my ovulation day?" you can plan the best time to conceive.

## Anovulation: A Very Treatable Cause of Women's Infertility

Women who have been trying to get pregnant for a year or more come in for a check up to find out what the problem is. Time and again, they are almost uniformly shocked when they hear that they are not ovulating every month.



They often protest, telling me that it can't be true because they get their period every month. But what these women did not know was that having a period every month is not an indication that your ovary released a mature egg.

### Anovulation: What is it?

Ovulation problems account for 40% of the infertility cases for women. Ovulation is when a woman's ovary releases a mature egg into the fallopian tube as part of the menstrual cycle. If there is no egg, then there can be no pregnancy. When a menstrual cycle occurs without an egg, this is called anovulation.



Anovulation has many causes. The most common cause is polycystic ovarian syndrome (PCOS). PCOS is a common disorder for women in the childbearing years that causes an imbalance in the hormones needed to regulate a woman's menstrual cycle and ovulation. Other causes that contribute to anovulation include eating a poor diet, not getting enough exercise, obesity, and advanced maternal age.

But how will you know if you are not ovulating? Women who are not ovulating will typically have irregular cycles. They could be light periods with scant bleeding or heavy ones with unusually heavy flow. Another indication is having a short cycle duration of 21 days or a long cycle that is more than 35 days rather than the typical range of 28 to 32 days. All of these symptoms can point to ovulation problems.

### Treatment Options

There are many treatments that are successful for women experiencing anovulation. The treatments will work to balance the hormones needed for a woman to have regular period and produce a healthy egg for ovulation for both young and mature women alike.

The female hormones that govern ovulation are estrogen and progesterone. The balance between these two hormones stimulates the ovary to produce a healthy and mature egg. Additionally, the secretion of the hormones comes from a signal in the brain that then allows the ovary to develop the egg normally. At the same time, the brain is sending signals to the uterus to prepare for the implantation of a fertilized egg.

Young women suffering from anovulation usually have an imbalance in these hormones. Clomid or FSH hormone drug therapy can be given to these women to regulate their levels of the hormones. This will help her ovulate and create the environment that can produce a pregnancy.

Women who are over 40 may be experiencing irregularities in their hormone levels as she is nearing the end of her fertility. She may have few eggs left to ovulate so is experiencing an early menopause. For these women, ovulation medications that regulate these levels can be taken to maximize their potential for pregnancy as well.

If you are having a hard time getting pregnant and notice that your period is irregular, you should make an appointment to see a fertility specialist, specifically a reproductive endocrinologist. It is important that you do it sooner rather than later. If you do then you may see that what is to you a frustrating problem can be solved relatively easily. Most importantly, you will see that your dreams of having the family you always wanted are closer than you think.

## Infertility and Stress: Are they Related?



Experts agree that stress doesn't help the situation when you are trying to conceive. Fertility specialists differ, however, when it comes to saying stress can directly affect a woman's infertility. Very few studies have been able to show a definitive link between stress and fertility issues.

Still, even though stress is not a direct cause of infertility, infertility is a direct cause of stress. Many couples find the stress of dealing with infertility is detrimental to their relationship. The loss

of control over their hopes for a family begins to wear on a couple and affects how they interact with one another. Also, the regimenting and scheduling of intercourse also creates stress for the relationship, often draining the fun out of sex and making it feel more like a chore.

### Here are some tips on reducing your stress while you are in fertility treatment:

- Talk to your partner about your feelings. No one understands what you are going through better than your partner, and together you can support one another through this difficult time.
- Stay away from caffeine and other stimulants, as they will only amplify your feelings of anxiety and stress.
- Take time for your interests outside of having a baby. By nurturing your hobbies and participating in activities you like, you will feel more relaxed and ready to deal with the challenges of trying to conceive.
- Make exercise a part of your daily regimen to help release emotional and physical tension.

Stress is a natural reaction to the difficult experience of trying to conceive without success. Talk to your partner, your friends and family, and your doctor — especially if you think your feelings are becoming worse or you are having problems coping with your stress.

Remember also that most infertility conditions are very treatable with higher success rates now than any other time in history. Work with your partner and doctor, and stay positive. You may be closer to your dreams of family than you think.

## Nurturing Yourself: Ways to Refresh Your Mind and Body During Infertility

As you may know, exhausted bodies and minds are not the best hosts for an implanted embryo, but there are ways to manage the stress. With a few simple self-care rituals and routines, you can allow yourself to feel good at a time when so many things do not, while also setting yourself up for pregnancy success. Here are some ideas of how to nurture yourself and refresh your mind and body when everything around you seems to be outside your control.

**Use noise-cancelling headphones at work.** Many people are working while they are in fertility treatment. Without the luxury of an office door to close, the workplace can be a chaotic environment in which it is difficult to accomplish tasks, particularly when you are preoccupied with your fertility treatment. Blocking out the noise of your work environment — perhaps even listening to soothing music — can calm your mind and help you to focus on the task at hand. Both the distraction of work and the resulting sense of accomplishment can do a lot to replenish your energy and ease your infertility anxiety.

**Take a break.** When the stress of fertility treatment keeps you from moving forward, take a break. Get up and walk around, make some tea, stretch out in downward facing dog, or organize a cupboard you have been avoiding. Let the thoughts go, or the break will not work. Allow your mind to focus on something else for a little while. The break will let your mind reboot and put an end to the nonstop pregnancy worries as well as help you mentally prepare for the next challenge.

**Stimulate your senses.** If you are able to get out into nature and take in the sights and sounds of your surroundings, you will be surprised at their healing qualities. If a nature walk is not realistic, aromatherapy candles can work wonders on negative thoughts. Light a candle, and let the scent help you let go of the tense feelings and annoyance you feel at your situation. Fruity scents, such as cucumber melon or orange, boost energy, while cleaner scents like linen or light floral often promote serenity. Inhaling deeply for even 30 seconds can give your mind the rejuvenation it needs to focus on your success in treatment.

Remember, too, that different things nurture different people. What works for one person may not work for another. To find your own recipe for self-care, look within. By taking the time to identify what nurtures you best, and then making self-care a regular part of your routine, you can rest your mind and body and give them both the best chance of pregnancy success.

## Taking Back Control: 6 Relaxation Techniques

Going through infertility comes with many emotions, not the least of which is feeling that you have no control over your body. This perceived loss of control can lead to stress. By using relaxation techniques, you can reduce the stress of infertility and take back control of your mental health.

1. **Take Deep Breaths Throughout the Day.** When you are stressed, your breathing patterns change. You begin taking short and shallow breaths which does not allow enough oxygen for your body to work at top speed. To change this, take a deep breath and let it out gently through pursed lips. Drop your chest as you do so. Focus on how you are breathing and count the breaths. Do not think about anything else except your breathing. Repeat at least 10 times each time and do this intermittently throughout your day.
2. **Participate in Meditative Activity.** Not the crossed leg, eyes closed, humming alms (but feel free to do that if it relaxes you). Meditation can mean performing a repetitive action. For example, painting a room or taking up knitting can be a mindless repetitive task that requires enough concentration for your mind to forget what is stressing you out.
3. **Be Mindful of the Details.** Multitasking is a common practice that can create anxiety in your life. Try focusing on one activity at a time. By staying in the present, you can release anxiety and avoid stress. One way to do this is to focus on the details of your surroundings, giving your mind specific tasks to accomplish instead of creating worries and indulging in destructive what if behavior.
4. **Listen to Music.** There have been numerous studies conducted on the healing power of music. When you are feeling stressed out, listen to your favorite artist, or try out classical music. Sometimes it helps to listen to music that reflects your feelings; other times it helps to listen to something completely opposite. Find what relaxes you more and plug in your headphones.
5. **Drink Hot Tea.** The natural herbs in tea are a great relaxer, plus warm drinks are always comforting. Coffee can raise cortisol, the stress hormone, making you more anxious. Plus, the caffeine is not good for conception. Switching to chamomile or black tea will lower your stress levels and reduce the amount of caffeine you are consuming.
6. **Give and Receive Cuddle Time.** By hugging a family member, cuddling with your spouse, or inviting your pet onto couch to snuggle up, you can raise your comfort levels. The touch of someone or something you love can go along way to reduce your anxious feelings about infertility treatment.



## Natural Remedies for Infertility

You have been trying to become pregnant on your own for several months now. You have read all the sites and the blogs about infertility until your head was swimming with acronyms, procedures and drug names. You suspect you may be struggling with fertility but are reluctant to go down the scientific treatment road, which leaves you asking the following question:

### Are There Natural Remedies or Alternative Treatments for Infertility?

The answer is maybe. While there is no study that can specifically support any natural remedy for infertility, there are several people who believe certain procedures can help achieve success.

**The following are a few common natural remedies to consider:**

**Acupuncture.** A popular alternative treatment for infertility is acupuncture. Acupuncture is a procedure in which tiny needles are inserted into the body at specific points. According to traditional Chinese medicine, by needling certain points in the body, you can restore balance in both your hormones and organs. As long as the procedure is performed by a trained acupuncturist, the procedure is relatively safe.

No one is certain whether this procedure can help you get pregnant, but many agree that it can promote relaxation. Given that infertility treatments are both emotionally and physically stressful, giving acupuncture a shot might be worth it. Be sure to consult your doctor to see if there are any areas on the body that your acupuncturist may need to avoid.

**Chinese Herbal Therapy.** Usually acupuncturists will recommend a regimen of herbs to enhance the success of the acupuncture treatments. These herbs, supporters say, can help your body achieve conception, especially when used with acupuncture and traditional fertility treatments.

However, the use of herbs is the source of some controversy for fertility specialists. Some doctors believe that herbs may have an adverse effect when mixed with fertility medications. It is important that you let your doctor know if you plan to take any herbal supplements so they can advise you accordingly. Resist the temptation to hold this information back, as it can be potentially harmful to your efforts and your health.

**Ovulation Tracking and Sperm Production Protection.** Knowing when you are most fertile can aid the conception process. By monitoring mucus discharge and body temperature and checking your luteinizing hormone (LH) levels with a home ovulation predictor test, you can determine when you are at your most fertile. Try to have intercourse every day or every other day during your peak time to maximize your chances of conceiving.

Men can aid the process naturally by protecting their sperm production numbers. To keep their numbers high, men should avoid hot tubs and saunas, as high scrotal temperatures tend to reduce sperm count. If the man exercises vigorously on a regular basis, he should reduce his level of activity while trying to conceive, because high levels of physical exertion reduce sperm levels. Additionally, men should try to avoid a spike in fever when ill, as very high fevers can affect sperm production for the following two to three months. Finally, if you are using lubricants during intercourse, make sure you are using ones that are not harmful to sperm.



## Folic Acid

Women know the importance of taking folic acid supplements and adding folate to their diet to prevent birth defects and promote healthy neurological development. New studies suggest that folate can be beneficial to male fertility to prevent further birth defects as well.

**Folate is found naturally in many different kinds of foods, including:**

- Dark leafy green vegetables
- Nuts
- Beans
- Peas
- Fruit
- Juice
- Dairy products
- Meat
- Eggs
- Poultry
- Seafood
- Whole grains



Folate, also known as B9 vitamin, began being added to enriched breads, cereals, pastas, flours, corn meals, rice and other grains in 1998 by the FDA because of all the health benefits the vitamin provides. Women are supposed to consume 400 micrograms of folate every day from supplements or food sources. This increases to 600 micrograms when pregnant. New studies show that men also need to begin consuming folate every day for healthy fertility as well.

Researchers at McGill University in Canada conducted a study using mice. They compared the offspring of fathers with sufficient folate levels to the offspring of fathers who were lacking folate in their diets. The results showed:

- Offspring of mice with insufficient folate had a 30 percent increase in birth defects
- Birth defects included cranio-facial and spinal deformities
- Areas of the sperm epigenome were found to be sensitive to lifestyle choices, particularly diet

The epigenome in sperm influences the way genes are activated and how information is passed onto the offspring. Sperm can carry a memory of the father's lifestyle choices and diet. This information is transferred to the egg and placed on the fetus's epigenome map, influencing the fetus's development.

The study proves that men need to be as cautious about what they consume as women who are trying to conceive. This includes food choices, smoking and drinking. Even though folate is added to grains and other foods, men still need to go the extra mile in getting folate and proper food choices in their diet. Diets that are high in bad fat, or men who are obese, cannot help the body metabolize folate as efficiently as healthy diets and bodies can.

Men need to make the same lifestyle changes and choices that women make for optimal fertility. Taking zinc and selenium is not enough. Folate and folic acid supplements, along with other healthy vitamins, can greatly reduce the chance of having abnormal sperm. When sperm is normal and motile, male fertility increases and the chance of birth defects greatly decreases, which is just what you want when you are trying to build a family.

## How to Increase Your IVF Rate Naturally

Beginning IVF treatments can be disconcerting since you do not know exactly what to expect and you really want to make them work. Preparing your body for IVF is something you can do to take control of the process. By reducing stress in your life during treatment, you can make the IVF process go more smoothly.

IVF treatments are a complicated experience. They can be mentally and physically draining, taking a toll on your frame of mind. By preparing for the challenges of IVF, you will be ready to face them with a positive outlook. You can do this by nurturing your body and mind.

Luckily studies have shown that the stress hormone cortisol does not negatively affect your IVF success rate. Still, stress isn't exactly helpful in the situation either, if for no other reason than it's unpleasant. Develop techniques to eliminate stress early on and your journey towards conception will be a much happier one.

Start with creating a support system of understanding family and friends to lean on. Therapy is a good way to eliminate stress, and not the kind where you lay on a couch and talk about your childhood. Instead you should try Mind and Body therapies, which focus on allowing thoughts and emotions influence your physical health. There are many different therapy options available for IVF patients.

1. Meditation. What is unique about meditation is it can be used in conjunction with any other therapy or medication. This method clears the mind of excess chatter and thoughts, allowing you to be at peace and accept life's circumstances to make IVF enjoyable.
2. Emotional Freedom Technique (EFT). Negative emotions disrupt the body's energy. EFT resolves negative emotions, changing your physiological condition. Releasing negativity, such as fear, worry, and sadness, allow you to think rationally and logically.
3. IVF Counseling. Take advantage of any counseling services at your clinic. A counselor can help fill any gaps in your support system.
4. Acupuncture. Not only used to reduce stress, acupuncture can release imbalances in the body that are blocking conception. Acupuncture can promote egg health, reproductive circulation, healthy uterine lining, and hormone balance. You should begin acupuncture three months before beginning IVF cycles and see an acupuncturist who specializes in infertility. Studies have shown that getting acupuncture treatments right before and after embryo transfer increases the IVF success rate.

52% of women who underwent Mind and Body therapies while in IVF had success conceiving. Exercise and yoga are also good ideas to relieve stress and promote a healthier body.

When you are preparing your body for IVF, be sure to develop some go-to stress relieving activities to help you manage the demands of the treatment. While it hasn't been shown to reduce your success rate with IVF, stress can be unpleasant to deal with during treatment. Reducing stress will allow you to have a happier and more peaceful experience when preparing to start the family you always wanted.

### Consult Your Doctor

It is important to remember that if you are in fertility treatment currently, you should never start any alternative treatment without the consent of your fertility specialist. Whichever treatments you choose, whether scientific or natural remedies, be sure to consult with your doctor so you can work together to achieve your dreams of having a baby.

## Celebrities Have Miscarriages, Too

It's not surprising if you think about it. Celebrities may have more fame, more money, better clothes and fun jobs. But they don't have an easier time getting pregnant. Nor are they immune to the heartbreak of a miscarriage. Several celebrity women have been public about their struggles to get and stay pregnant.

As women age, so do their eggs. Eggs that are older are more likely to have chromosomal abnormalities than eggs that come from a younger woman's supply. Chromosomal abnormalities are a common cause of miscarriage in older women. This is just one of many causes that can end a pregnancy. Other common causes can include untreated illnesses like hyperthyroidism or uncontrolled diabetes, immunological disorders, uterine abnormalities, bacterial infections or undiagnosed conditions such as PCOS (polycystic ovarian syndrome).

Miscarriages are more common than most people think. One in five pregnancies can end in miscarriage, whether the mother is 18 or 38. These numbers include the rich and famous. The overwhelming majority of these miscarriages occur in the first trimester of pregnancy, usually in the first eight weeks.

Celebrities often struggle to get and stay pregnant. Some choose to keep this to themselves while others have chosen to share their stories with the public. Courteney Cox, Nicole Kidman, Celine Dion and Mariah Carey are all women who have been public about their struggles to get and stay pregnant. Some women were able to conceive and carry their children themselves despite several failed rounds of assisted reproductive technology treatments. Others, like Nicole Kidman, 45, resorted to surrogacy, employing a gestational surrogate to carry hers and country singer husband Keith Urban's child, Faith Margaret, who was born in December 2010.

Fame and fortune are not a shield from the heartbreak of miscarriage. Women who walk the red carpet on a regular basis can have many of the same struggles getting pregnant that everyday women have. Like all women, however, these women can often achieve success with the help of a fertility expert. Working together with your doctor, exercising the options available to you in the reproductive sciences, you can have a baby whether you are famous or not.



## Fertility Preservation Options



When you're young and healthy, you might give little thought to the idea of preserving your fertility. More than likely, most people don't consider their fertility until they discover there is a problem. For patients who have been diagnosed with cancer or another disease, however, fertility might become top-of-mind rather quickly. The treatments used to address your disease could expose you to potential infertility challenges. As such, it's critical under such circumstances to explore your fertility preservation options.

### What is Fertility Preservation?

This is a method used to preserve a person's fertility in the event that they are at risk for infertility through cancer treatments or other causes. It's a way to safeguard your future parenthood so you can get the treatments you need in the short term, while still ensuring fertility in the long term.

If you are diagnosed with cancer during your child-bearing years, you have options available to preserve your fertility. It is best to have any preservation treatments done before your treatment commences as even as little as one treatment can damage your fertility. There are several options for people who would like to have children once they have completed their cancer treatment:

- **Embryo cryopreservation:** This method is the most successful method for women. In the procedure, eggs are harvested from the woman, fertilized by the sperm in a lab and frozen for future use after they begin to develop.
- **Egg or sperm freezing:** In this procedure, the eggs are harvested from the woman during her monthly cycle or the man provides semen samples to the clinic. Then the unfertilized eggs or sperm are frozen for future use.
- **Gonadal shielding:** Sometimes, the treatment is not in the pelvic area. In this case, the reproductive organs are protected from scatter radiation by shields placed on the body.
- **Ovarian transposition:** In this treatment, the woman's ovaries are moved to be as far from the treatment area as possible. This is not as effective at shielding the organs from scatter radiation and will likely require surgery or possibly even IVF if you want to conceive once your treatment is completed.
- **Radical trachelectomy:** Most effective for preserving fertility for those individuals who have cervical cancer, this treatment involves removing the cervix.
- **Third-party reproduction.** In vitro fertilization (IVF) using donor eggs and sperm is another option for patients diagnosed with cancer or another disease. If you would rather not pursue fertility preservation, and if you are willing to consider alternatives to having biological children, IVF could be a good option.

A diagnosis of cancer or another disease does not have to mean the end of your fertility. With fertility preservation options, you still can maintain hope for the future.

## Preserving Fertility Before Cancer Treatment

An article in Medical News Today claims that most cancer treatment centers do not prioritize preserving fertility for their patients. That means when it comes to freezing eggs or freezing sperm, you must take the initiative to find out your options if you want to have a biological family after treatment.

Many cancer treatments, while effective at ridding the body of cancer, are detrimental to your future fertility. In particular, chemotherapy and radiation therapy, two of the most commonly used methods to fight cancer, can cause infertility. This is particularly distressing for younger men and women who may want to have children later in life.

According to Medical News Today, researchers from Northwestern Medicine® discovered that most centers around the country have no policy or procedure in place to consult or advise patients of the risks of their treatment to their future fertility. The paper, which was published in the Journal of National Comprehensive Cancer Network, said that the clinics often did not inform patients of this risk before treatment begins.

The effects of cancer treatment on your fertility are dependent on the type of cancer you have and the treatment used to fight it. Male fertility is affected by changes to sperm quality and DNA, as well as surgical removal of testicles for certain types of cancer. Female fertility is affected by damage to eggs, disrupting hormonal levels, and surgical removal of any of the reproductive organs, including the uterus or ovaries. For any person who is facing a cancer diagnosis and treatment plan, it is important that they explore and educate themselves about their options for fertility preservation.

Cancer treatment centers are not currently equipped to handle the complexities of fertility preservation for patients who may want to have biological children following their treatment. Because of this, it is important that cancer patients discuss their fertility preservation options, including both egg freezing and sperm freezing, before treatment begins.

## Impact of Oocyte Freezing

Recently, the American Society for Reproductive Medicine lifted the label of “experimental” off the practice of freezing human eggs for future fertilization. This makes the practice of egg freezing a more common practice for women who are delaying childbearing until later in life. By freezing her eggs before she turns 35, a woman can preserve her fertility for the time when she is ready to have children.

In the past, the process was fraught with difficulties as a result of the delicate nature of the egg and damage that results from thawing them. We have since discovered more about the physiology of the egg itself as well as made enhancements to the lab techniques we use when we handle them. As a result, we can freeze and thaw eggs with minimal damage. Women can freeze the hands of their biological clock when they freeze their eggs.

Many clinics offer egg freezing as a service for women who would like to have children, just not at the moment. HRC Fertility is one of these clinics. We have started a number of studies that will continue to help improve oocyte preservation for women who would like to preserve their fertility for a later date.

Women of advanced maternal age are faced with a bleak prognosis when compared to women struggling with infertility who are younger. This is because data shows that the health of their eggs is the biggest challenge to their ability to have a successful conception and healthy pregnancy. By adding in the options of egg donation or egg freezing, these women can turn back the hands of time and enjoy the success rates of their younger counterparts. Over time, these options will hopefully change the prognosis for women who want to start their families a little later in life.



### Egg Freezing

Egg freezing is the most common fertility preservation option for women, as it allows for her eggs to be extracted, frozen and stored. When she is ready to become pregnant, the eggs can be thawed, fertilized, and transferred to the uterus as embryos.

#### At what age do you recommend women consider egg freezing?

Women should consider freezing their eggs before they turn 40 years old because the younger egg is more successful in producing a healthy pregnancy.

#### Are there any women that make particularly good or bad candidates for it?

The best candidates for egg freezing are ones that have a good ovarian reserve with FSH hormone levels below 10 on the early part of their menstrual cycle.

#### What does the process entail and what is the usual cost?

The process entails taking 10 days of hormone injections to produce 10 eggs and then undergoing an egg harvest under anesthesia. The cost is approximately \$5,000 in my hands plus an annual storage fee.

#### Any side effects?

The side effects are related to the hormone injections, which can cause bloating, menstrual cramps and PMS symptoms. The side effects are temporary and resolve once the process is completed.

**To what do you attribute the rise in popularity of egg freezing? Can you highlight some other ways that technology is changing the biological clock?**

The rising in popularity of egg freezing is because women want to take control of the reproductive choices. It's a harsh reality that professional women are at pivotal points in their careers at the same time when their fertility begins to decline. Egg freezing allows women to come to terms with the fact that their fertility is fading with the biological clock, and if she invests significant time, energy and money in protecting that asset, she can freeze her eggs. Since many women are delaying childbirth for financial or relationship reasons, I welcome egg freezing as an opportunity to control a woman's reproductive potential, like the way a birth control pill does at this time. Freezing of an entire ovary is an alternative way for fertility preservation, although still in an experimental mode in terms of its success, and not readily accessible in many medical centers.

**Will egg freezing be as common as the pill in 10 years?**

In our fertility-obsessed society, women can't escape the message that it's harder to get pregnant after age 35. And yet, it's not a conversation patients are having with the doctors they talk to about their most intimate issues — their ob-gyns — unless they bring up the topic first. Ob-gyns routinely ask patients during their annual exams about their sexual histories and need for contraception, but often missing from the list is, "Do you plan to have a family?" Now, egg freezing has been removed from the experimental labeling, and gaining credibility as an option for fertility preservation. Many ob-gyns have learned that the success rates have recently improved and are referring women to a respected fertility doctor who can offer this service. To standardize the message, I believe professional groups like the American College of Obstetricians and Gynecologists should create pamphlets that doctors can give to patients, presenting the information in a non-biased, non-alarmist way. I expect ob-gyns will bring up family planning at every annual visit, so that women have the information they need to choose to take charge of their fertility. Perhaps more women will think about freezing in their early to mid-30s, when their chances of success are greater. Or maybe, after being asked about their plans from their very first visit, more will decide to start families when their eggs are at their prime and won't even need to freeze.



## Assisted Conception Not Linked to Cancer Risk

New studies have shown that children born with assisted reproductive technology (ART), which includes treatments like in vitro fertilization (IVF), do not have a cancer risk any greater than children born naturally. This is based on preliminary data from two different studies in the United Kingdom (UK).

One study was conducted in the UK involving data over a 17-year period, from 1992 to 2008, concerning 106,000 children that were conceived with ART. During this time, the expected number of children from the general population would have been 109. Children born through ART procedures had 108 cases of cancer. Clearly, the numbers were not affected by ART treatments based on these preliminary findings.

What was significantly different was the amount of liver cancers that developed in the children born with the assistance of ART. Six children in the ART group developed liver cancer, while those born naturally had less than two cases. Researchers attribute this to a tendency of women participating in ART treatments being older. Older women as a group often have children with lower birth weights than their younger counterparts and also have higher preterm birth rates, which can result in a lower birth weight. Liver cancer is common among children with low birth weight, and not necessarily related to ART.

The second study comes from analyzing the health records of 93,000 children born using IVF for conception in three Nordic countries from 1982 to 2007 against a control group of children conceived naturally. The findings mirrored those found in the UK study. IVF-conceived children had 143 cases of cancer over this period, which equaled out to 19 cases out of 1,000. The control group children had 626 cases of cancer, equaling out to 18 cases out of 1,000. Again, not a significant increase in risk for children conceived through IVF.

Cancer of connective tissue, such as rhabdomyosarcoma, is rare but found more frequently in ART children versus children conceived naturally who develop cancer. Unlike liver cancer, which is linked to low birth weight, connective tissue cancers have no clear causal relationship for ART children.

The findings from these studies are considered preliminary at this time. Once they have been published in a peer-reviewed journal they will be considered more conclusive. Preliminary or not, the data from these studies indicates that children conceived through assisted reproductive technology (ART) have no significant increase in their risk of cancer.

Parents have long worried about the health of their children. It's natural that when a couple has struggled to conceive on their own and is in fertility treatment considering IVF, they have concerns that their child will be healthy. The good news is that science tells us that there is no increase in risk for cancer from using the assisted reproductive technologies to conceive. So that's just one less thing to worry about when you are starting to build your family.



## Egg Quality: What You Need to Know



When a woman is having a problem with her fertility, she may hear a lot about her egg quality. But what is egg quality and how does it affect fertility? Here's an overview of what is measured in an egg's quality and what effects that has on a woman's chances of getting pregnant.

### What Is Egg Quality?

Egg quality is a term that refers to your egg's ability to develop into a healthy and viable embryo once it is fertilized. This ability is broken down further into

the number of chromosomes it has and having the ability to split after fertilization. First, the egg needs to have the correct number of chromosomes or it cannot combine with the sperm, making it impossible to create an embryo. Second, the egg must be able to split after fertilization with the help of tiny organisms called mitochondria. As your eggs age, the mitochondria don't have the energy they once did. Once the egg runs out of energy, it can no longer divide.

The biggest determining factor in egg quality is the woman's age. A woman is born with all the eggs she is going to have for her lifetime. This is referred to as her ovarian reserve. In her 20s and 30s, the good-quality eggs outnumber the bad-quality eggs. By the time she reaches her 40s, however, her ovarian reserve is almost depleted and the bad eggs may outnumber the good eggs.

Other determining factors on egg quality include genetics, poor health conditions, smoking and damage from radiation or chemotherapy. These factors will damage eggs no matter the age of the woman.

### What Effects Does It Have on Fertility?

Poor quality eggs make it much harder to get pregnant and carry the pregnancy to term. This is illustrated in the decline of pregnancy rates as a woman ages. Estimates show that women in their 20s have a 45 percent chance of getting pregnant each menstrual cycle. But a woman who is in her 40s and has fewer quality eggs left has only a 25 percent chance each cycle of achieving pregnancy.

Poor-quality eggs create hurdles for a successful pregnancy. The first hurdle is to get an egg fertilized when the quality is lacking. The next hurdle is to keep from losing the pregnancy in the first few weeks. The miscarriage could be because sometimes embryos that are formed with poor-quality eggs have a hard time implanting in the uterus. Sometimes even if they implant, the embryos are not healthy enough to continue dividing and growing, which will result in a loss of the pregnancy.

Egg quality is a big factor for women who are trying to get pregnant. Women who are older have fewer quality eggs for getting pregnant. Unfortunately for these women, poor-quality eggs can create extra difficulties getting and staying pregnant, either because they don't have the right number of chromosomes or because they lack the energy to divide. So when it comes to getting pregnant, egg quality is definitely an important factor to consider.

## Testing Egg Quality

Women who are having problems getting pregnant and are over 37 years old usually have their egg quality tested. This is done with one of two simple tests:

- The Day 3 FSH Test. This test measures the levels of the follicle stimulating hormone (FSH) that is part of your regular cycle. If the levels of FSH are elevated beyond normal levels, then this may indicate that the woman is suffering infertility as a lack of egg quality.
- The CCT. This is the Clomid challenge test, a blood test that measures the FSH level as well as Estradiol that is present in your system. This test is more accurate and in-depth than the Day 3 FSH test.

These tests will both tell a fertility specialist with a certain degree of accuracy if the infertility issue this woman suffers is the result of poor egg quality.

## Diagnosed with Poor Egg Quality? Know Your Options

It's important to know that even if a woman has poor egg quality, she can still get pregnant. There are several treatments that your fertility specialist can use to help you overcome this obstacle.

Fertility drugs have been successful in the past. They have shown the ability to increase the quantity of eggs that your ovaries produce in a cycle and also improve the quality of those eggs. The most common infertility drugs used for improving egg quality are clomiphene and bromocriptine.

Women who are suffering from poor egg quality are also great candidates for in vitro fertilization (IVF). The egg is fertilized in a laboratory using the egg and sperm from the couple. Preimplantation Genetic Diagnosis (PGD) can screen embryos for genetic or chromosomal abnormalities allowing the doctor to implant only the healthiest embryos into the patient's uterus.

Sometimes, however, the quality of the eggs has deteriorated to the point that your doctor may encourage you to consider the use of an egg donor. Donor eggs are usually needed when standard IVF fails for a woman because her own eggs will not fertilize and develop properly due to age, genetic abnormalities, damage from treatments such as cancer therapy, premature menopause or unexplained infertility. With egg donation, the father contributes genetically and the recipient mother carries the baby, bonding with it and experiencing the joys of pregnancy and of giving birth. Egg donor eggs are typically from a woman in her 20s and have much better quality than a woman whose eggs have aged with her.

Research and development in this area continues. There are also treatments in the works that might be able to improve the quality of a woman's eggs. These treatments are experimental at this time, but fertility experts hope to have these treatments available at clinics across the country soon.

Poor egg quality is a big cause of women's infertility issues. Luckily, fertility experts can identify poor egg quality with simple and common tests. Fertility treatment has been successful in overcoming the challenge of poor egg quality. Common fertility drugs can do a lot to improve a woman's odds that she will get one of her best-quality eggs in her cycle. Some women with poor egg quality can still achieve pregnancy, although sometimes it will be with the assistance of IVF and a donor egg. Whichever way it happens, poor egg quality does not necessarily mean that a woman cannot achieve pregnancy.

## Gender Selection and Infertility



If you have infertility challenges, you might wonder what the best treatment might be to help you conceive. Among your many choices are various methods said to increase your chances of having either a boy or girl. To pair gender selection and infertility treatments, talk with your doctor about the frequently asked questions below so you can make an educated decision about your best options.

### What is Gender Selection?

Gender selection refers to any method used to increase your chances of having either a boy or a girl. While these treatments tend to incite moral and ethical debates, they have nonetheless become a popular way for couples to choose the sex of their baby.

### Why Do Some Couples Opt for Gender Selection?

Reasons vary but may include perceived cultural, economic or social benefits attached to a specific gender. In some cases, parents-to-be want to choose the sex in order to prevent passing along genetic disorders that tend to occur in a particular sex. Other times, a couple may wish to “balance” their family — by having one boy and one girl, for example. And if a couple has fertility challenges, they may decide since they already require fertility treatments, they might as well choose the sex, too.

### How is it Possible to Determine the Sex in Advance?

The process comes down to basic science: Whereas all eggs carry X chromosomes, sperm can carry either an X or a Y chromosome. An egg fertilized by an X-carrying sperm will produce a girl, and an egg fertilized by a Y-carrying sperm will produce a boy. Doctors use this information to help choose the appropriate eggs to fertilize.

### How Does Gender Selection Work?

There are two primary gender selection techniques used:

1. **The Gradient Method** — With this sperm-sorting procedure, sperm are placed in a centrifuge and spun at high speeds to help separate X- and Y-bearing sperm. X-bearing sperm carry more genetic material and, due to their heavier weight, fall to the bottom of the test tube during the spinning process. The desired sperm then can be used for fertility treatments. This old method was unsuccessful and no longer used.
2. **Preimplantation Genetic Diagnosis (PGD)** — PGD is said to be the most effective gender selection technique. With it, DNA from your embryos — created in a laboratory by united sperm and egg from the parents — is analyzed to determine their sex. The embryos of your desired gender are implanted into the woman’s uterus. This method has a 99 percent success rate in specific labs.

If you are considering gender selection and infertility treatments, work with your doctor to learn the ins and outs before you proceed. You have multiple options to help you achieve your baby dreams!



## Record Rates of Children Born with IVF

Recently, the Society for Assisted Reproductive Technology (SART) released its 2012 report on assisted reproductive technologies in the United States. SART's member clinics performed 165,172 IVF cycles in 2012. These procedures resulted in the birth of 61,740 babies, an increase of more than 2,000 infants from 2011. IVF babies now constitute over 1.5% of all births, the largest number of cycles, babies, and percentage of babies born through IVF ever reported.

With the growing number of IVF cycles and babies born with the help of egg donation, it is important that our industry join together to self regulate. As a board member of SEEDS, I am honored to be involved with a group dedicated to giving all U.S. agencies a voice in defining ethical standards for egg donation and surrogacy programs. SEEDS is working to internally regulate and set the highest ethical standards for all parties including patients, donors, surrogates, and agencies involved in creating a successful pregnancy. I encourage more people in the industry to step up and join SEEDS to have their voices heard as well.

## Increase in Multiple Births



Multiple births are more common now because many women are waiting to have children when they're older, and seeking infertility treatments to achieve that goal of a successful conception. Often times, women undergoing infertility treatments will produce more than one egg, resulting in a twin gestation.

Fortunately, the American Society for Reproductive Medicine has recommended guidelines for the number of embryos transferred in an IVF cycle based on the patient's age. This has greatly reduced the number of higher order multiples such as triplets and quadruplets, but the twinning rates still remains high.

### Are There Any Risks Associated with Multiple Births?

Twins are four times more likely to be born premature, before 37 weeks, and triplets are seven times more likely. Eating properly, getting enough rest, and making regular trips to the doctor are critical measures for any expectant mother to stay healthy. Many doctors who specialize in fertility treatments require prospective parents to undergo intensive counseling on the possibilities and risk associated with multiple births.

In the case of multiples, vaginal delivery may not always be possible. The crowded uterus can cause compression of the placenta or umbilical cord of any of the soon to be born babies during labor. Prolonged compression may put one or more babies at serious risk as labor progressed during attempts at vaginal delivery. So prompt delivery by C-section may be necessary in these cases. Positioning of the babies can also affect the safety of a vaginal delivery. Usually, if the first fetus is not head first, the babies will be delivered by C-section. Most triplets and higher order multiples are born by C-section.

## What Health Risks Do Premature Babies Face?

Premature babies can have numerous health challenges. Because the care of premature babies is so different from that of a full-term infant, preemies are usually placed in a neonatal intensive care unit after delivery. In addition to the possibility of a premature birth, other medical conditions that are more likely to occur during a multiple pregnancy include preeclampsia, gestational diabetes, placental problems, and fetal growth problems. Developmental delays and cerebral palsy occur more commonly in twins than in a single birth, and these risks are greater with higher order multiple births.

## Is Specialized Healthcare Required?

Because multiple pregnancies are automatically termed high risk, the need for specialized health care is vital to making sure that the mom and babies receive the best care available. A referral to a high-risk OB doctor in a facility that specializes in multiple births is advised.

## Are There Any Special Considerations for Women Pregnant with Multiples?

If a woman is pregnant with multiples, she should follow the general pregnancy nutrition guidelines, including increased calcium and folic acid. Getting enough protein can help the babies grow properly. And in general a mother should consume about 300 additional calories a day for each fetus. A daily prenatal vitamin with iron is highly recommended to prevent anemia. Mothers are expected to gain more weight during pregnancy with multiples, but exactly how much more weight depends on the pre-pregnancy weight and the number of fetuses. Finding a support group for parents of multiples can be very helpful in reducing the stress. Hearing what has worked well for others can help parents find solutions to problems they may encounter. The best reassurance is knowing that you have a network of support around you: capable doctors, a caring hospital staff, and a parent, family members, and/or friends.

## Surrogacy as an Option



One of the hardest things for a couple to hear is that the woman cannot carry a pregnancy to term. This is devastating emotionally because the woman in particular usually has visions of being pregnant and delivering her children. Add to this disappointment the media's obsession with celebrities' baby bumps, stories and depictions of lavish baby showers, and the launching of new maternity clothes lines, which only serve to further compound the feelings of isolation these women feel.

## Gestational Surrogacy

Advances in the reproductive sciences have made gestational surrogacy a great option for having a biological child. In gestational surrogacy, a fertility specialist will fertilize the woman's egg with the man's sperm and implant the resulting embryo in a woman who is willing to serve as a surrogate for the couple. She would then carry the baby to term and deliver the child on the couple's behalf.

Deciding to have another woman carry your child can be an overwhelming experience with many complex emotional reactions. It is not a decision that should be entered into lightly. It can also be dangerous for prospective couples if they trust the wrong people, particularly online.

Unfortunately there are scams and predators that will prey upon couples online who are desperate to have a baby of their own. Recently there was a report about a surrogacy scam in which criminals netted nearly \$2 Million from infertile couples online.

Every day new sites are built that entice infertile couples to unwittingly participate in egg donation and surrogacy scams. I cannot over emphasize the need for caution about whom couples contact for help to prevent further heartbreak in an already difficult situation.

**Here are some tips to help you navigate the process of locating a surrogate:**

**Use a Surrogate Agency.** Many agencies specialize in matching surrogates to infertile couples. They do extensive research and background checks for the surrogates. If you use an agency that is affiliated with your infertility clinic or one that has several positive recommendations, you are more likely to have a better experience. Another positive point about using an agency is that you can screen your surrogates based on lifestyle, geography, and any other number of factors.

**Hire a Surrogacy Lawyer.** Attorneys that are well-versed in this type of family law can make sure that the agency you are working with is in compliance with all the state regulations and laws. Each state has its own rules so it is essential to have a legal representative make sure that every document you fill out is legal. They can also help you avoid being taken advantage of by scammers. There is an additional expense of hiring a lawyer, but you are buying peace of mind that you are protected legally in the process.

**Request their medical history.** While agencies do their due diligence with regards to medical histories of their surrogates, it may be a good idea to request access to your potential surrogate's medical records. This woman will be carrying your child so you can't be too careful about her medical history.

**Never answer online advertisements.** There are advertisements from online sources for everything from surrogates to egg donors. It can be very dangerous to find your surrogate mom online because of a practice called "cat fishing" where a person poses as someone else online.

**Trust your gut.** It's important to feel good about your surrogate and feel comfortable with their lifestyle and general life philosophy. You should always meet with the potential surrogate to get an idea of what your gut says. Be wary of surrogates that are only in the arrangement for financial gain. There are various reasons that women choose to be surrogates and you need to be comfortable with the reason your surrogate chose.

Infertility has many causes but none so emotionally difficult for a woman as the inability to carry a child to term. Surrogacy provides these couples an option to have a biological child of their own. It is critical, however, to approach your choice of a surrogate wisely for your well-being and the well-being of your unborn child. But with thorough screening and trusting your instincts you can navigate this difficult and important decision and begin your path to parenthood.

## Egg Donation: An Option When Your Eggs Are Not



A woman with a diminished ovarian reserve may not be able to conceive using her own eggs. Women who cannot use their own eggs and still want to have a baby have the option to use a donor egg from a younger woman. The donor egg will be combined with the sperm of her partner and implanted in her uterus through in vitro fertilization (IVF).

To many women, the use of a donor egg feels like a loss of a genetic connection to their baby — and a missed opportunity to pass on their genes to someone who potentially could continue their family line. They are both angry and sad that their infertility robbed them of this privilege. Couples should take time to acknowledge and process their feelings about this loss.

But using a donor egg is also a wonderful blessing. Couples who pursue this route still have all the new adventures that pregnancy and birth hold for them, including:

- Watching their belly swell as the baby develops week after week
- The joy of the first sonogram, when you see the little heart beating
- The kicks and hiccups that cause you to stare at your navel with surprise, beside yourself with excitement to meet the little guy or gal jumping around in there

After the baby comes, mothers who use donor eggs will still have a great labor story. They will still breastfeed at 2 a.m. — every night for weeks. They will have the dark circles and the dirty diaper war stories that all their other mom friends do.

Once their children grow up more, mothers of donor egg babies will still plan birthday parties, bandage up skinned knees and teach their child to ride a bike. And later, they will struggle with an unruly teenager just like other moms. Egg donation may prevent you from passing on your genes, but you still have a baby who calls you mom.

The process for egg donation works like this. Once you choose an egg donor, you and the donor begin to take Lupron, which is a synthetic hormone, or birth control pills so that you can get your menstrual cycles in sync. Synchronization is important so that you are developing a uterine lining when she is ovulating. You will take both estrogen and progesterone supplements to help prepare your lining for implantation. At the same time, your donor will take fertility drugs to stimulate her release of several mature eggs for fertilization.

When her eggs are ready, the doctor will remove them. The rest of the procedure follows the normal IVF protocols.

Using a donor egg is a difficult decision for couples that wish to have both parents genetically represented in their child. When the woman's eggs are not a viable option, however, donor eggs can be a wonderful substitute that gives couples all the joys of parenthood.



## Impact of Oocyte Donation

The impact of oocyte donation, or egg donation, will greatly increase the fertility of women over 40. Success rates using egg donors are independent of age. Most reports show that patients up to the age of 55 can expect a live birth rate above 50% per embryo transfer. In analysis of data, results show that more than half of the women considered perimenopausal would achieve pregnancy after three attempts with an egg donor. The number jumps to 85% after the fifth try with a donor egg. The miscarriage rates also drop, showing a rate that is consistent with the age of the egg donor. Since most egg donors are under age 35, the pregnancy loss rate is typically lower than 15%.

We see that maternal age decreases the live birth rates with assisted reproductive technology (ART) treatments. Because we know that three factors affect this—less receptive lining of the uterus for implantation, aging oocytes, and hormonal changes—seeing an increase in the live birth rate and decrease of the miscarriage rate using donor eggs indicates that the biggest challenge for older women's fertility is the health of their egg. Use of a donor egg may be the trend to overcome this challenge for women over 40. Time will tell if this is so.

## When Should You Seek Help With a Fertility Specialist?

Millions of women in the United States are struggling to get pregnant. But some of these women may not have seen a fertility specialist yet to get an idea of what the challenge is with their fertility. Part of RESOLVE's National Infertility Awareness Week (NIAW) highlights the importance of knowing when you should see a fertility specialist to get help conceiving a child.



### General Guidelines:

The general guidelines are simple: If you have been trying for 12 months to get pregnant without success and you are under age 35, it's time to make an appointment with a fertility specialist. If you are over 35, then make an appointment after six months.

If you have been trying for less than 12 months but think maybe you should go in, here are some things to look for that might help you decide if the time is right for you:

- Painful cycles
- Irregular periods either by length of time between cycles or different durations of flow
- The inability to pinpoint your most fertile time during regular ovulation
- The presence of STDs in either of your medical histories
- Being overweight or underweight, and therefore not having a healthy Body Mass Index (BMI), a measurement of body fat that takes into account your height and overall weight.
- Experiencing more than one miscarriage

### What is a Fertility Specialist?

A fertility specialist is a doctor that is focused on the diagnosis of the causes of both male and female infertility. They have had extensive medical training as well as a minimum of four years of residency where they trained in obstetrics and gynecology or in the field of urology. Many times, fertility specialists will have board certification in the field of reproductive endocrinology.

As the name indicates, fertility specialists treat issues related to infertility in both men and women. They diagnose the problem and use various treatments to help couples get pregnant in spite of their conditions. They address problems like endometriosis, polycystic ovarian syndrome (PCOS), irregularities of the uterus or ovaries and any problems with ovulation. For men, they will do an assessment of their sperm count, movement and shape to see if that may be a contributor as well. Because of their specialty, they have more training in these areas than a regular physician or OB/GYN and may well be able to see and treat things that other doctors cannot.

Working with a fertility specialist is critical for couples that are suffering from infertility.

The National Infertility Association, or RESOLVE, believes that all couples that are struggling with getting pregnant should take charge of their individual fertility. By asking questions, becoming more educated about infertility and advocating for yourself, you will be on the fastest track to building your family.

### Why Couples Won't Seek Help for Infertility



Given that the majority of all infertility diagnosis' can be treated with today's medical technologies and advancements, it is surprising that many couples still suffer in silence when they fail to get pregnant after months and even years of trying. My research shows there are various reasons why couples choose not to seek help for their infertility. It is my goal to address these reasons and why they are easily overcome.



### **Reason #1 – Not aware they could see a specialist at this time in their process**

Most couples aren't aware that they should see a specialist when they have been trying repeatedly to get pregnant. Each month, they pin their hopes on trying another time or attempting a different method to get pregnant. When every month brings heartache, it is time to see a specialist. The general recommendation for couples under the age of 40 is if you have been trying for over a year, you should seek help from an infertility specialist for a general infertility work-up. If you are over 40, it is really important to seek help within six months of failed attempts especially if the female is over 40. As we age, female egg supply and quality diminishes, making timeliness essential.

### **Reason #2 – Fear of multiple births**

We have found that many couples are terrified of having twins or triplets. Unfortunately the media has sensationalized stories like the "Octomom" or "John and Kate Plus Eight" – making many young couples fearful they will end up with multiple children. It is important to realize that when multiples occur at this number, it is often a mistake on the fertility clinic's behalf. Any reputable and distinguished fertility clinic is careful to guide couples so they don't end up with a multiple birth. Twins are more common with fertility treatments as it can increase the changes of a pregnancy overall for a couple. However, the majority of babies born through infertility procedures are healthy singletons.

### **Reason #3 – MD or OB/GYN did not suggest seeking an infertility specialist soon enough**

Often couples believe that In Vitro-Fertilization is the only fertility option and they will need to do IVF. This is not the case. After seeing a specialist for the first time, many couples realize immediately what their issue is and there are various other treatments that couples can do before they need to move onto IVF. Sometimes it is simply taking a medication to get a female ovulating. IVF is an amazing medical technology that has allowed thousands of couples to build the family of their dreams, but it is not the only option available.

### **Reason #4 – Lack of knowledge about treatment — believe In Vitro-Fertilization (IVF) is the only option**

Often couples believe that In Vitro-Fertilization is the only fertility option and they will need to do IVF. This is not the case. After seeing a specialist for the first time, many couples realize immediately what their issue is and there are various other treatments that couples can do before they need to move onto IVF. Sometimes it is simply taking a medication to get a female ovulating. IVF is an amazing medical technology that has allowed thousands of couples to build the family of their dreams, but it is not the only option available.

### **Reason #5 – Financial Difficulties for Treatment Costs**

Most infertility treatment carries a price tag that is not covered by insurance. Because of this, couples tend to shy away from fully researching their options. Many couples report a fear of a financial strain from the treatments. This is unfortunate because growing your family should be a

happy time for everyone involved. Did you know that fertility treatments are tax deductible over 7.5% of your gross income? In addition, a closer look at your health insurance plan is needed as it may reveal that some of the testing and procedures are covered. When finances are a concern, the best course of action for patients to take is to ask their clinic for a complete list of procedures and plans. There are also many flexible options that clinics offer including financing options, flexible spending accounts, etc. Other avenues to look into are a home-equity loan or a credit card. It's always important to work with a clinic who will advise you on the best financial course of action to build your family. Remember, there are options that are very affordable.

### **Reason #6 – Fear of Failure**

With the normalcy of young girls playing with baby dolls, most girls are raised to believe that they will become mothers when they grow up. The possible difficulties of conception are rarely discussed so that when women or their partners are diagnosed with fertility complications they often feel overwhelmed and emotionally devastated. Many women feel that not being able to become pregnant on their own, can make them feel as though they have failed at a social milestone in being a female. In some cases, a woman may conceive, but then have a miscarriage later which further causes them to feel as though they have failed again. There are a range of options available for people with fertility issues and clinics or specialists who offer new hope for those longing to become parents with great success rates. Most clinics offer a list of psychotherapists or organizations that can help with the fear and emotional stress that goes along with infertility. Studies have shown that the emotions associated with an infertility diagnosis are the same as those diagnosed with a terminal illness. The emotional baggage of an infertility diagnosis should be talked through and dealt with so the stress doesn't build up. The great news is that the majority of people who seek to have a family through fertility treatments are successful – the options today are endless and our technologies are making family dreams come true for millions of couples

### **Reason #7 – May not be Emotionally Ready to Seek Treatment**

The realization of infertility can be difficult to understand and process. Each person deals with their diagnosis differently and how much time it takes to accept the diagnosis varies from person-to-person. The time commitment to infertility treatments can be stressful for those who have already waited a long time to start their family. Those who are not emotionally ready to begin treatment will not look for treatment – they may remain in denial with high hope that this month they could/will get pregnant. These time constraints can impact their ability for success especially if they are getting older while they wait to accept their diagnosis. The time commitment to intense treatments can also cause people to refrain from beginning treatments because of the possibility of missing work or the stress it can place on families going through it together.

Any of the reasons above are stressful but all are hurdles you can get past. Your family dreams are within your reach — I suggest that people write down what they are afraid of and the proactive action they can take to move forward. Often it begins with a phone call to an infertility clinic to get the process started. Sometimes all it takes is one phone call to make a couple realize they can build their dreams and move forward.

## Financing Fertility Options

Most infertility treatment carries a price tag that is not covered by insurance. Because of this, couples tend to shy away from fully researching their options. Many couples report a fear of a financial strain from the treatments. This is unfortunate because growing your family should be a happy time for everyone involved. Did you know that fertility treatments are tax deductible over 7.5% of your gross income? In addition, a closer look at your health insurance plan is needed as it may reveal that some of the testing and procedures are covered. When finances are a concern, the best course of action for patients to take is to ask their clinic for a complete list of procedures and plans. There are also many flexible options that clinics offer including financing options, flexible spending accounts, etc. Other avenues to look into are a home-equity loan or a credit card. It's always important to work with a clinic who will advise you on the best financial course of action to build your family.



## Five Lower Cost Fertility Treatments

If you are considering infertility treatment, do you automatically think it's going to cost you a lot of money? If so, think again. According to national statistics, only 2% of women with infertility nationwide need IVF; that's a very small group of patients who require a potentially expensive fertility treatment. For the other 98% of women with infertility, low cost fertility treatments may be what is needed to conceive. Here are five procedures that are worth exploring:

**Monitored Clomid Cycle with Ovulation Induction.** This is a first line of treatment, especially in women under 40 where pre-testing indicates good sperm parameters, the fallopian tubes are open and the patient has good ovarian reserve. A day-3 ultrasound provides a baseline; the oral fertility drug Clomid is taken on days 3-7; a second ultrasound is administered and estradiol levels are checked on day 12 or 13. The doctor will trigger ovulation with HSG, and if sperm parameters are normal, the couple will be advised the optimum time to have intercourse to conceive. If sperm parameters are sub-optimal, I would suggest two intrauterine inseminations per cycle. Clomid is a low cost fertility drug, and this treatment only requires only 3 to 5 doctor visits per cycle.

**Laparoscopy and Hysteroscopy.** Both laparoscopy and hysteroscopy are minimally invasive surgical procedures that can diagnose and treat endometriosis, adhesions and scar tissue that might be hindering pregnancy. With laparoscopy, a very small telescope-like tube (laparoscope) is inserted through a small incision near the belly button and allows the doctor to view the uterus, ovaries and fallopian tubes. A hysteroscopy allows the physician to see the inside of the uterus with a hysteroscope. These outpatient surgeries are often covered by insurance.

**Monitored Gonadotropin Cycle.** Based on the results of a laparoscopy and hysteroscopy, a monitored gonadotropin cycle may be the right course of fertility treatment. Gonadotropins are injectable fertility drugs that stimulate the ovaries to produce eggs. These fertility drugs are generally started on cycle day 2 to 4, and the patient will use the fertility drugs for 5 to 11 days. Like the aforementioned Clomid cycle, monitoring will take place and ovulation will be triggered with HCG. Sperm parameters will help determine whether IUI is appropriate.

**Mini IVF.** Mini IVF is a low cost IVF option that may be right for patients with unexplained infertility. Mini IVF, sometimes referred to as low-stim IVF, is similar to convention IVF: ovulation induction, egg retrieval, fertilization and embryo transfer, but uses fewer fertility drugs and requires less monitoring and therefore fewer office visits. As a result of the minimal stimulation, fewer eggs are created, but in patients who are good candidates, there is a good chance of success.

**Freeze All IVF Cycle.** A freeze all IVF cycle is recommended for poor responders over the age of 40, women with high FSH, and women who might need maximum stimulation. A freeze all cycle mimics a regular IVF cycle, except instead of a fresh embryo transfer, all the embryos are frozen. The embryos are thawed, and combined with fresh (or previously frozen) embryos from one or more subsequent IVF cycles. Out of that pool it is determined, with preimplantation genetic diagnosis, the best embryos to transfer for the highest chance of pregnancy. The patient saves because there is no transfer on the first or second “banking cycle” and the PGD is only billed once when all embryos are batched to see which one is genetically viable for transfer.





## How Happy Couples Stay Happy



When you are working to achieve conception, it can be challenging to keep romance alive as a couple, but all hope is not lost. There are secrets to happy relationships that can help repair the strain and damage that infertility treatment may be causing in your relationship.

Happy couples have some simple things they all do that help them stay connected. Most of the time, it's just a matter of changing some of your habits. Here are few things that happy couples have in common:

**They go to bed at the same time.** You like to stay up late watching old movies; he likes to go to bed early and wake up while it's still dark. Having two different biological clocks is normal in many relationships. But happy couples go to bed at the same time, even if it means that the night owl gets up and does things after the early-to-bed partner goes to sleep. It signals that you are a team. So resist the temptation to go to bed separately.

**They have some separate interests.** You might think based on the last tip that being together all the time is important as a couple. It's true that spending time together is important, but that doesn't mean all the time. Separate interests can help a couple refresh and return to the relationship with more energy. So, oddly enough, being apart sometimes can definitely bring you closer together.

**They think the best of their partner.** Trust means that you believe that your partner has your best interest at heart. So the next time your partner does something that makes you crazy, like scheduling golf the day you predict you will be ovulating, try to remember that he probably isn't trying to sabotage your efforts to start a family but instead probably just forgot that was the day. Forgive him, and be sure to set the expectation that you need a little bit of his time before or after that tee time.

**They always remember to say the little things.** Every morning, happy couples tell each other, "I love you" and wish their partner to have a good day. It reinforces that they are a couple and sends a positive vibe out the door with their partner. Also, at night they always tell each other "Good night" even if they are feeling down or had a spat. This tells your partner that you are still in the relationship and even though things aren't great in that moment, you are there for the long haul.

**They always hug and hold hands.** It's hard to remember, particularly when you have been married for a while, the importance of the little touches, likes hugs or holding hands, in a relationship. Right now, much of your "big" touching might be happening on a schedule, which can make it a little less romantic. But hugs or just holding hands are a symbol that you are a unit and a team. It reminds your partner that you are there for each other.

Let's face it: Infertility is hard on a relationship. There are the normal physical and financial stresses, but there are emotional ones as well. Every month when you don't achieve conception can be hard on a couple, making it more difficult to stay connected at such a difficult time. Try these tips and tricks of happy couples to help bring the two of you closer again.



## What to Do When Your Partner Wants to Call It Quits ... and You Don't

When you are working to achieve conception, it can be challenging to keep romance alive as a couple, but all hope is not lost. There are secrets to happy relationships that can help repair the strain and damage that infertility treatment may be causing in your relationship.

No one can tell you when it's time to end your fertility treatment except one person — your partner. As an equal participant in this endeavor, his or her opinion is the only other one that matters. But what do you do when he or she wants to quit trying to conceive and you don't?

There are a lot of factors that can affect a couple's desire to continue in fertility treatment. There are the dwindling odds of success as treatment continues, there are treatments that seem too costly or invasive, there are mental and physical health factors to consider, and of course financial concerns with costly procedures. At a certain point, one or both of the partners might be finished with the whole process.

But when one member of the couple says stop and the other member is still saying go, there can be serious effects on the relationship that are both long-lasting and far-reaching. If they are not addressed immediately, the damage can be permanent.

**Here are five steps to take when you are trying to make this important decision together:**

- Openly communicate what you want, both individually and together as a couple. You might be surprised at the information you discover just by being candid about your exact desires. Be direct here: Don't think that if your partner really loved you, he or she would "just know." This conversation should leave each of you feeling like you clearly understand one another's needs, both together and apart.
- Accept that neither your partner nor your baby-to-be will meet all of your needs. It is unreasonable to require all of your happiness to come from one source — and you will have a tough time feeling happy if you constantly look outside yourself for fulfillment and satisfaction. Be willing to find your happiness within, so that you can feel content regardless of external circumstances.
- Look at it from your partner's perspective. While you may not agree on every point, you can respect the separate points of view. From there, you can be more open to meeting your partner's needs and not just your own.
- Work on accepting the differences between what your expectations are and what the reality is. Demanding that your partner change to meet your expectations is not being a part of a partnership. When you simply accept your partner for who he or she is, then you can work on finding solutions that make you both happy — without one of you feeling like you got swindled.
- Be open to compromise on what you want from the relationship. No one should ever always give while the other always receives. Many relationships meet in the middle on some issues with an outcome on which everyone can agree, even if it isn't perfect for either side. Where there are critical disparities between the expectations of each of you, negotiate an agreement with which you both can live.

Deciding to end your fertility treatment is a decision that every couple hopes they never have to make. It is important that couples have a plan for treatment when they begin so that each understands how long they want to try, how far they want to go with treatment, and how much they want to spend on trying to conceive. By keeping the lines of communication open and respectful, your relationship may survive even if your hopes of being biological parents do not.

## Friends and Family Can Help

You can see it in their faces. You hear it in their voices, even when they are saying something that feels like a kick to the gut. You feel it when you leave the room. Your friends and family really want to help you with your infertility diagnosis. They just don't know how.

A couple going through infertility knows only too well how well intentioned friends and family can be anything but helpful. From off-handed comments to probing questions to not being invited to events that they think will cause you grief, friends and family often end up hurting more than they help.

The following suggestions are for those is your support network who really want to help, but don't know how. Share these with the friend and family you rely on for support. Their love and understanding are what will help you get through this difficult diagnosis and treatment.

### For the friends and family of loved ones going through infertility:



**Get the facts.** Learning all you can about infertility will make you an excellent resource for compassion and understanding. It's important to realize that couples that are struggling with infertility are suffering from a medical condition. Their hopes for a biological baby require lots of doctor appointments and treatments that are often not covered by insurance. Making their baby isn't a passionate or romantic experience and cannot be fixed with a relaxing vacation or by simply adopting a child. The more you know about their experience, the less likely you are to make suggestions that aren't helpful.

**Be sensitive to the couple's needs.** You are the support network to a couple that is having a difficult experience. Offer things that might help, like a ride to the doctor's office or bringing over dinner. Invite them out for coffee and lend a supportive ear if they want to talk. Give them a hug when you see them and let them know that you care about them and their troubles.

**Invite them.** Always invite the couple to family events, even if there will be lots of children's activities or if it's a baby shower. Let them make the decision to attend. If they need to leave, be understanding and let them exit gracefully.

**Keep your clichés to yourself.** Sometimes the most common jokes or sayings are the most insulting to a couple who is battling infertility, comments like “I’ll bet if you just relax, you’ll get pregnant” or “At least it’s fun trying!” While it’s great that you are trying to keep it light, these comments can be interpreted as thoughtless and inconsiderate.

**Put it in the vault.** When a couple has confided their fertility problems with you, it’s because they trust you. Honor that trust by keeping it to yourself.

**Be ready to respond.** When an infertile couple reaches out to you with their problems getting pregnant, it’s important to let them talk and avoid asking a lot of questions. It can be difficult to know what to say. Use phrases like “That can’t be easy.” Or “What can I do to help?” Stay away from questions like, “When do I get to hold that little baby?” and “Then what happens next?” These are questions the couple doesn’t know the answer to and may make them shut down.

Nearly all, almost 90%, of couples that experience infertility go on to have a family. Advances in assisted reproductive technology and techniques are enjoying higher success rates than ever before. Until then while your friends or family are suffering infertility, the most help you can give is to be a sensitive ear with a warm, loving hug.

## Moving Forward



If you have been trying for a few months but still are not pregnant, it is time to seek the help of an expert. A consultation with a qualified fertility specialist will help you see what may be standing in the way of your efforts to conceive.

Most couples walking the infertility path go on to have the family they have always wanted. With the help of an expert, you can take the right steps for your health. Take the first step to be on that path to your happy future today.

It is extremely important for couples to never lose hope; everyone who wants to build a family eventually is able to do so when they have the courage to take the steps to move forward and take control of their future. In my practice, over the years, I have helped nearly every couple achieve their family building goals that could not get pregnant on their own. Often my patients wonder why they waited so long to get help.

If you feel you might be having a fertility issue, please do not wait to get help. Suffering in silence month after month is unnecessary when we have so many solutions to help you achieve success. Schedule a consultation with a fertility expert today.

## About Jane L. Frederick, MD, FACOG



For the past 25 years, Dr. Jane Frederick, M.D., FACOG, one of longest-practicing female experts in reproductive science, has been helping couples that are struggling with infertility to build the families they have always wanted. As a result, Dr. Frederick, Medical Director of HRC Fertility, has helped bring over 3,000 babies into the world.

It's no surprise that Dr. Frederick has an enormous fan base of patients who appreciate the time and care she takes to help them achieve their dreams. They also like that she gives them an honest assessment of their chance of conceiving, so they approach their treatment with hope and determination, but also a realistic expectation of success. She believes a big part of her job is to be a good listener, so she can be sure that each patient is comfortable moving to the next step. Passionate about reproductive medicine and an advocate for surrogacy, Dr. Frederick's philanthropic support has led to the addition of the Saddleback Memorial Hospital Bonding Room in Laguna Hills, CA. The Bonding Room gives surrogate families an opportunity to experience the birth process in a private and supportive environment.

Dr. Frederick has studied extensively to become the expert doctor in her field that she is today. She first completed her undergraduate and medical school degrees from The University of Southern California. Upon graduation, she moved on to her residency and Fellowships at Los Angeles County, University of Southern California Women's Hospital. She then went on to become board-certified in Reproductive Endocrinology and Infertility, as well as Obstetrics and Gynecology.

In addition to the glowing recommendations she receives daily from her patients, Dr. Frederick has been honored with several awards for her work. One of her most recent was the Patient's Choice award in 2012. She was also named as one of Castle Connolly's Top Doctors, an award that is nominated and voted on by her peers. In addition, she has been named: Top Women's Health Doctor by Los Angeles magazine; Top 10% Reproductive Endocrinologist from US News and World Report; Doctor of the Month for Fertility Authority; Top Doctor by Orange Coast Magazine; and finally, Distinguished Service to Society Award Recipient from Pacific Coast Reproductive Society.

Dr. Frederick speaks frequently at medical conventions in the United States and Canada. She also regularly contributes to scientific journals, like Science and The American Journal of Obstetrics and Gynecology. She has also written for books that cover reproductive medicine, including chapters for The Couple's Guide to In Vitro Fertilization and Understanding Common Disorders in Reproductive Endocrinology. Dr. Frederick has also been featured in a number of TV and media outlets such as E!'s, Total Divas, KTLA Morning News, ChicagoLand TV, US Weekly and Redbook Magazine.

**To reach Dr. Frederick for a free consultation, call (877) 977-4206**



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