

HEALTHY BEGINNINGS

Basic Tests for Fertility Evaluations Preconception Recommendations

Whenever a couple commits themselves to medical treatment for infertility, they not only make a substantial financial investment, but also a large emotional investment. As conscientious health care providers, we would like to insure that any pregnancy resulting from this commitment has the very best chance possible for a positive outcome. For this reason we find it important to recommend certain preconception testing and precautions. This information is designed to help you understand the rationale for the basic testing in an infertility evaluation.

Basic Tests:

1. **Rubella Titer and Vaccine:**

Rubella (German measles or 3 day Measles) is a communicable virus, which typically causes low-grade fever, upper respiratory symptoms and a diffuse red rash. In childhood this infection is usually mild. However, if contracted during pregnancy this disease can have severe effects on the developing fetus, including blindness, heart defects, hearing defects, musculoskeletal defects and mental retardation. If you have not been tested for Rubella immunity, we advise that this be done. If there is no immunity, we recommend that you be vaccinated for Rubella and then wait one month before trying to conceive.

2. **HIV**

HIV is the virus that causes AIDS. It is possible to have HIV for years and not know it or not feel sick. Many women who have been found to have HIV did not know they were at risk. To get early help for herself and to reduce the risk of infecting her baby, a woman who is attempting to conceive needs to know for sure. If she has HIV, even without symptoms, there is a 1 in 4 chance she could pass it to her baby. This risk can be greatly reduced with treatment. Your doctor can provide you with more information on HIV or refer you to other sources for education and counseling. Also, you may contact these sources for free, private information: American College of Obstetricians and Gynecologists (800-673-8444) or the Centers for Disease Control and Prevention (800-342-2437). If you choose not to be tested for HIV, please inform your physician. You will be given the same preconception and prenatal care as other women. However, if you have HIV and don't know it, your doctor won't know to give you special medication for HIV to protect you and your baby.

3. **HSC 1644 – (HIV I & II / HEPATITIS B(HBsAg) / HEPATITIS C / SYPHILIS (RPR)**

These are infectious diseases which can be potentially transmitted to other through blood, bodily fluids or childbirth. A simple blood test is available which allows the individual to be screened for the presence of any of these viruses. We require these tests as part of our workup. *In order to do an Insemination (IUI) or IVF, State Law (HSC 1644) requires your partner to have these tests done.* For certain diseases, treatment can proceed after a waiver is signed if the results are positive.

4. **Blood Type / RH and Antibody Screen:**

We should know your blood type and Rh status. If you already know this information, please get documentation of the results for your chart. Otherwise, we will perform the test for you.

5. **Complete Blood Count & Metabolic Chemistry Screening:**

This is a comprehensive baseline screening to detect any underlying health conditions (i.e. anemia, diabetes, kidney or liver diseases, etc.) This is to be done fasting (no eating or drinking 12 hours prior to testing).

6. **Thyroid Testing:**

The Thyroid gland controls metabolism. This blood testing is done to detect any thyroid dysfunction that may affect the menstrual cycle and / or your response to fertility treatment. This also may affect pregnancy.

7. **Follicle Stimulation Hormone Test / Estradiol, Prolactin:**

These are done to rule out any hormonal imbalance(s) that can affect the menstrual cycle or that may indicate possible poor response to treatment.

8. Chlamydia Antibody Blood Test (ACAb):

Chlamydia is an organism which can cause infection in the male or the female genital tract. Different strains of Chlamydia can also cause infection of the eye or lung. When a person has a Chlamydia infection, the body reacts by making antibodies to fight off the infection. These antibodies can remain in a person's blood even after the infection has passed.

We test couples for ACAb that are going through intrauterine inseminations (IUI) or in Gamete Intra Fallopian Transfer. A positive test indicates a Chlamydia infection occurred at some time in a person's life. If either you or your partner test positive, we will treat both of you with antibiotics to make sure the infection has been adequately treated.

9. Chlamydia / Myco/ Ureaplasma Cultures:

Chlamydia and Myco/Ureaplasma are organisms which can cause infection in the male or female genital tract. Chlamydia can cause tubal damage. Myco/Ureaplasma has been associated with infertility as well as habitual abortion. These cultures (Female) are obtained from the cervix during a pelvic exam. In order to test a male partner, a semen sample is collected. If either you or your partner test positive, we will treat both of you with antibiotics.

10. Semen Analysis:

The Semen Analysis is the primary evaluation of a male. Parameters which will be evaluated are: volume, number of sperm present, viscosity or thickness, the motility of the sperm and the shapes of the sperm (morphology). This will help determine the best method of treatment for success.

11. Urine Luteinizing Hormone Test:

Luteinizing hormone peaks (surges) in one's urine approximately 24-36 hours before ovulation. Home urine test kits such as Clear Blue Easy or OvuQuick help to predict when ovulation is about to occur. This is useful to determine the best time to have intercourse, or schedule an Intrauterine Insemination (IUI).

12. Hysterosalpingogram (HSG):

The HSG is an X-ray procedure which will demonstrate if the uterine cavity appears normal and will show if the Fallopian Tubes are open. Iodine dye is injected into the uterus through the cervical canal. HSG's are performed after menstrual bleeding has ended and prior to cycle day 12.

13. Sonohysterography (SHG):

The SHG is an Ultrasound procedure (done in the office) which will demonstrate if the uterine cavity appears normal for implantation. Saline is injected into the uterus through the cervical canal under ultrasound guidance. SHGs are performed after the menstrual bleeding has ended prior to cycle day 12.

14. Endometrial Biopsy:

The extraction of a small piece of tissue from the endometrium ((lining of the uterus) for microscopic evaluation. The results indicate whether or not the endometrium is at the appropriate stage for successful implantation.

Information on Recommendations:

1. Genetic Screening

Genetic screening may provide you with information regarding your risks of having a baby with a genetic abnormality. At Fertility Physicians of Northern California (FPNC) we recommend genetic screening for all patients who:

- Are over the age of 35
- Experiencing infertility
- Have a family history of genetic disorders
- Are undergoing assisted reproductive technology procedures

Although we routinely recommend genetic screening, it is not mandatory. If you should decide to have a genetic counseling session, please see the list below or notify our office and we can provide you with a list of geneticists you may contact for an appointment.

Genetic Screening and Counselors:

Obstetrix Medical Group
900 E. Hamilton Ave, Ste. 220
Campbell, CA 95008
408-371-7111

UCSF
Reproductive Genetics Unit
Room U-262
San Francisco, CA 94143
415-476-4080

Peninsula Prenatal Diagnostics
1580 W. El Camino Real, Suite 1
Mountain View, CA 94040
650-964-1505

The ARC Genetics Program™
1-888-990-2727
info@aarcfertility.com

Genzyme Genetics
1-800-848-4436

Genetic screening may be accomplished by participating in the ARC Genetics Program™ which is free of charge if an ARC package of services is purchased. The genetics screening may also be purchased separately for \$85.00 by calling ARC. Please see the ARC Genetics Program brochure for details.

2. Smoking:

Smoking has been proven to be a powerful vasoconstrictor which can impair blood flow across the placental/fetal unit. This frequently results in low birth weight. Smoking also changes cervical mucus in the female and reduces sperm count and motility in the male which may contribute to infertility. We advise that both partners discontinue smoking prior to attempting pregnancy.

3. Alcohol/Drugs:

Mental retardation and cranial facial deformities characterize Fetal Alcohol Syndrome. It has been known to occur in infants where mothers drank moderately or lightly during their pregnancies. For this reason we advise abstaining from alcohol use during pregnancy and while you are trying to conceive. Evidence also suggests that men who consume alcoholic beverages may have reduced number of sperm.

4. Environmental Exposures:

Living and working in a complex urban society may present certain risks of exposure to toxic substances. Research into the reproductive effects of exposure to pesticides, insecticides, radioactive materials and industrial solvents is just now being conducted. We recommend that both you and your partner minimize yourself to these exposures.

Another risk to be concerned about is toxoplasmosis. This is a parasite infection transmitted through cat feces. If you have a cat, avoid changing the litter box. Toxoplasmosis can also be caught by eating raw meat. Also wash hands, utensils and cutting board after handling raw meat.

It is impossible to be aware of all possible factors that may cause pregnancy or fetal complications.

Nevertheless, common sense avoidance of known toxins and a healthy life-style represent a reasonable approach while attempting pregnancy and being pregnant.

5. Diet & Vitamin Supplementation:

A Healthy balanced diet composed of fresh foods, which are not processed or overcooked, is one of the best things you can do for yourself and your future offspring. Children who start life well nourished have a distinct advantage in their intellectual capacity and ability to fight diseases.

A multi-vitamin containing Folic Acid (0.4 – 4.0 mg) is a good adjunct to dietary nutrition. Vitamins should be started prior to attempting pregnancy. Clinical research suggests that folic acid taken prior to pregnancy (and early pregnancy) can reduce the risk of birth defects like Spinal Bifida, Neural Tubal Defects and Cleft Lip. Some medical studies imply that caffeine use may possibly increase the rate of miscarriage. We advise reducing caffeine consumption to a minimum both while you are attempting pregnancy and during pregnancy.

6. Herbal Remedies:

Since many of these remedies are unknown on the type of affect that they may have, we suggest that they not be used without consulting with your physician.

7. Exercise and Weight Management:

For maximum fertility stay close to your ideal weight. If you're very overweight or underweight you can develop ovulation problems as well as have an increased risk of miscarriage. Exercise regularly – staying fit will help control your weight and will keep your body strong enough to carry a nine-month pregnancy with ease.

8. Mind and Body:

The psychological distress of infertility can affect all aspects of life. Depression and anxiety for those diagnosed with infertility has been shown for some to be equal to patients diagnosed with cancer, HIV and heart disease. Along with emotional effects, infertility can also take a toll on your physical health. Research has shown that learning stress reduction techniques, and connecting the body and mind within a supportive group environment may increase your chances to conceive.

- Studies conducted by Alice Domar, PhD, showed substantial increases in pregnancy rates (compared to the national averages at the time) for mind-body participants. One study showed that 42% of participants conceived within six months of completing the Domar 10-week program.¹ Another study showed 55% and 54% live birth rates for participants in mind-body and support group programs respectively.²
- Results for participants in the FPNC 10-week program showed an average pregnancy rate of 65% within six months. Data from these same participants demonstrates significant decreases in depression, anxiety and stress, decreases in physical symptoms relating to stress, and a stronger ability to cope.

FPNC's comprehensive Mind-Body Program complements advanced medical science with mind-body sessions, acupuncture, yoga, support groups and counseling. We encourage you to explore the options our Mind-Body Program offers and take advantage of them. *Our Mind-Body providers are available to discuss with you what aspect of the program may best suit your needs.*

Lynn Brokenshire, MA, LMFCC 408-998-0568
Janetti Marotta, PhD 650-494-2347 hearts-path@hotmail.com
Mary Rodocker, PhD 650-321-9881 mmr355@aol.com

Helping relieve emotional and physical stress can play an essential part in treatment and have an important effect, so we are pleased to provide the Fertility Physicians Mind-Body Program to you, our patient.

1. Domar, et al. Journal of the American Women's Association, 1999
2. Domar, et al. Fertility and Sterility, 2000