



FERTILITY  
ASSOCIATES  
of MEMPHIS

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## INTRAUTERINE INSEMINATION (IUI) INFORMATION FOR OUR PATIENTS

We have recommended that you receive intrauterine insemination (IUI) as treatment for your infertility problem. This information sheet will help you understand why this treatment was made, what to expect, and problems that might occur.

### **WHAT IS IUI?**

Following intercourse, the entire male ejaculate is normally deposited in the vagina. A large proportion of the sperm are immediately destroyed, a few sperm survive and swim past the cervix, into the uterus and eventually into the fallopian tubes to fertilize the egg. IUI is a type of artificial insemination in which there is a transfer of many motile (actively swimming) sperm, through the cervix and directly into the uterus.

### **WHY IS IUI PERFORMED?**

IUI increases the number of sperm arriving at the site of fertilization because a high concentration of sperm are deposited at the top of the uterus rather than in the vagina. Therefore, IUI can benefit couples where the male partner has decreased sperm count or decreased sperm motility. Thick cervical mucus or antisperm antibodies are additional indications for the use of IUI. In addition, the preparation of the ejaculate, prior to IUI, removes seminal plasma from the sperm cells. This plasma may, in some circumstances, contain infectious organisms or toxic substances that impair the fertility of the sperm cells. IUI is also utilized when couples are requesting donor sperm.

### **HOW IS IUI PERFORMED?**

IUI may be performed in conjunction with ovulation induction medications such as clomiphene citrate or gonadotropins (superovulation). It may also be performed in a natural, non-stimulated, ovulatory cycle (with husbands or donor sperm). When IUI is performed in a natural cycle, we will normally ask you to use urine ovulation detection kits to determine the day of insemination. When the test kit changes color, notify our office that day and an insemination would normally be scheduled the next morning.

When IUI is performed in conjunction with ovulation induction (clomiphene citrate or gonadotropins), the timing of IUI is determined by the type of medication used, ultrasounds of the ovarian egg follicles, and/or hormone levels in your blood. You will be supplied with instructions regarding your ovulation induction cycle separately.

Fresh semen is obtained from the husband by masturbation at our office (or from the donor sperm bank) and is processed in our Andrology laboratory, which isolates and concentrates the most motile sperm while removing seminal plasma, white blood cells and other debris. From the time the laboratory receives the semen sample, sperm processing normally requires 45 to 60 minutes. The final sperm specimen is loaded in a slender plastic tube, which is then used for the insemination. The IUI is performed by our nursing staff in the office with the use of a vaginal speculum. Normally, the experience is similar to having a PAP smear. After the nurse asks you to verify the name on the specimen, she will perform the insemination. Once the insemination is complete, the patient is asked to rest in a reclining position for approximately 5-10 minutes.

### **WHAT IF WE NEED DONOR SPERM?**

All therapeutic donor insemination procedures at Fertility Associates of Memphis are performed under the guidelines outlined by the American Society for Reproductive Medicine and the American Academy of Tissue Banks.

Prior to Therapeutic Donor Insemination (TDI), you will undergo screening for rubella, HIV, cytomegalovirus antibody IgG and IgM, hepatitis B and C, Chlamydia and gonorrhea as well as blood typing. Your husband will need HIV, cytomegalovirus antibody IgG and IgM, hepatitis B and C and blood type testing.

You will be asked to order your own specimens directly from the sperm bank. Our andrology staff can help guide you through this process. When ordering, it is important to have the samples arrive at our offices **Monday through Thursday**. It is best to have the samples shipped well in advance, as we can safely store them in our sperm bank. Many couples also order several samples at once to save on shipping costs and to insure availability. Once you have ordered your samples, contact our office at 901-747-BABY (2229) to let us know your specimen code.

We will begin to process the donor sperm specimen 30 minutes before you arrive for your TDI appointment. It should be ready approximately 15 minutes after your scheduled appointment time. If you would like us to delay processing, which takes about 45 minutes, until you arrive, please let us know.

Rarely, a sample of sperm does not freeze well. If it does not meet our quality control standards when thawed, we will advise you of three options:

- proceed with insemination,
- thaw another sample (if available) and combine with the original sample, or
- cancel the insemination and obtain a replacement specimen from the selected sperm bank (this option is not available from certain sperm banks).

### **WHAT BENEFITS CAN BE EXPECTED WITH IUI?**

The success rates reported with IUI depend upon whether it is used alone or in conjunction with ovulation induction medications. It will also vary depending upon the couple's diagnosis and the husband's initial sperm count. Expected pregnancy rates per treatment cycle (month) are listed. These rates generally decline after the third or fourth attempt if a pregnancy was not achieved; your doctor will recommend a different therapy to increase your chances of pregnancy.

- Donor insemination with thawed cryopreserved sperm – 10 to 15%
- Abnormal husband's sperm count – 4 to 8%
- Cervical mucus factors – 10 to 15%
- Antisperm antibodies – 10 to 15%
- Unexplained infertility with clomiphene citrate 5 to 10%
- Unexplained infertility with letrozole – 5 to 12%
- Unexplained infertility with gonadotropins – 20 to 30%

### **WHAT SIDE EFFECTS CAN BE EXPECTED?**

There are three potential complications/side effects that occur in a low frequency:

**Uterine cramping** – This is minimized by sperm processing and the insemination of small volumes into the uterus. However, in certain patients where there is difficulty passing the catheter into the uterus, some transient uterine cramping may be experienced. This usually persists for the time period during the insemination and for approximately 5 to 10 minutes afterwards.

**Pelvic infection resulting from the insemination** – This small risk is further minimized by sperm processing. If the laboratory notices a significant amount of bacterial contamination within the sperm specimen, the physician and patient both will be notified and the proper course of action discussed.

**Formation of antibodies to sperm** – This is a theoretical problem and risk should not be any different from natural intercourse.

## **PROTOCOL INSTRUCTIONS FOR INTRAUTERINE INSEMINATION (IUI)**

Before **ANY** IUI treatment, you **MUST** call us at (901) 747-2229 **BEFORE** 2:00 pm at the start of your menstrual period to inform us that you will be undergoing treatment that month. Leave your name, phone number, date menses started and plans for your cycle. If your period starts after 2:00 p.m. call us the next day. On Saturday, Sunday or holidays, please call the office the first workday after your period starts.

### **Protocol 1: Natural cycle (with urine ovulation kits)**

Day 1	Onset of menses. Start prenatal vitamins.
Day 10-12	Start urine testing for ovulation. (Clear Plan Easy kit). The kits test for a LH surge and usually instructs you to test your urine during the morning.
Day of Surge	When you have detected a LH surge, you <b>MUST</b> call us <b>BEFORE 2:00 pm</b> . On Saturday, Sunday or holidays, contact the nurse by digital pager (901) 418-6353. When you inform us of your LH surge, an appointment time will be given for IUI.
Next Day	IUI and possible ultrasound
Day 21	Progesterone blood test
Day 32	If you have not started your period by today, perform a pregnancy test and call us with the result.

### **Protocol 2: Clomiphene or Letrozole-IUI (with urine LH kits)**

Day 1	Onset of menses. Start prenatal vitamins
Day ___ to ___	Take _____ at a dosage of _____ mg each day.
Day 10 or 11	Start urine testing for ovulation. (Clear Plan Easy kit). The kits test for a LH surge and usually instructs you to test your urine during the morning.
Day of LH surge	When you have detected a LH surge, you <b>MUST</b> call us <b>BEFORE 2:00 pm</b> . On Saturday, Sunday or holidays, contact the nurse by digital pager (901) 418-6353. When you inform us of your LH surge, an appointment time will be given for IUI.
Next Day	IUI and possible ultrasound
Day 21	Progesterone blood test
Day 32	If you have not started your period by today, perform a pregnancy test and call us with the result.

### **Protocol 3: Clomiphene citrate challenge test – IUI (with hCG)**

Day 1	Onset of menses. Start prenatal vitamins.
Day 3	Blood test for FSH and estradiol
Days 5-9	Clomiphene citrate 100 mg (Two 50 mg pills each day)
Day 10	Blood test for FSH
Day ____	Day of hCG injection (usually induces ovulation within 18 to 36 hours)
Day ____	First IUI (approximately 12 hours after hCG)
Day ____	Second IUI (approximately 36 hours after hCG)
Day 22 or 23	Progesterone blood test
Day 32	If you have not started your period by today, perform a pregnancy test and call us with the result.

**Protocol 4: Clomiphene or Letrozole-IUI (with hCG)**

Day 1	Onset of menses. Start prenatal vitamins
Day ___ to ___	Take _____ at a dosage of _____ mg each day.
Day 15	Ultrasound scheduled
Day ____	Day of hCG injection (Ovidrel -usually induces ovulation within 12 to 36 hours)
Day ____	First IUI (approximately 12 hours after hCG)
Day ____	Second IUI (approximately 36 hours after hCG)
Day 22 or 23	Progesterone blood test
Day 32	If you have not started your period by today, perform a pregnancy test and call us with the result.

**Protocol 5: Clomiphene or letrozole plus low dose gonadotropin – IUI (with hCG)**

Day 1	Onset of menses. Start prenatal vitamins
Day ___ to ___	Take _____ at a dosage of _____ mg each day.
Day ____, ____, & ____	Take 75 IU (one vial) gonadotropin injection each day.
Day 10	Ultrasound and estradiol blood test
Day ____, ____, & ____	Take 75 IU (one vial) gonadotropin injection if necessary each day.
Day 12	Ultrasound and estradiol blood test
Day ____	Day of hCG injection (usually induces ovulation within 12 to 36 hours)
Day ____	First IUI (approximately 12 hours after hCG)
Day ____	Second IUI (approximately 36 hours after hCG)
Day 32	If you have not started your period by today, perform a pregnancy test and call us with the result.

**Protocol 6: Superovulation – IUI with Gonadotropins**

SEE SEPARATE INSTRUCTION SHEET

***IN CONCLUSION***

We offer IUI to our patients who suffer from certain types of infertility. In some cases this type of treatment is able to diagnose certain problems related to fertility (poor response, unhealthy eggs or endometrium). Your physician may recommend a different therapy if problems are discovered. The overall benefit is an improved pregnancy rate above what the couple can expect without this therapy. The risk of adverse consequences is small. In general, the maximum benefit is achieved after 3 or 4 cycles.

***TO NOTIFY THE NURSE:***

**Monday – Friday:**

Phone (901) 747-BABY (2229). After 2:00 PM, please phone the next day.

**On Weekends and Holidays:**

Between 9:00 AM and 2:00 PM a nurse is available on digital pager. Phone (901) 418-6353 and wait for the beeps. Enter your phone number (including the area code) and hang up. Our nurse will phone you back.