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## **LUPRON (LEUPROLIDE)**

**What is Lupron?** Lupron (Leuprolide Acetate) is an injectable medication which reduces the production of hormones (estrogen and progesterone) by the ovaries. Lupron works by blocking the effect of Gonadotropin Releasing Hormone (GnRH) on the pituitary gland in the brain. It is a medication which must be given by injection because it is inactive when taken by mouth. The result of Lupron therapy is to create a “temporary menopause” condition which is used to treat a variety of problems including ovulation disorders, endometriosis, uterine fibroids, precocious puberty, and some types of cancer. Lupron is also used in I.V.F. cycles to improve the number and quality of eggs available for fertilization and in Egg Donation I.V.F. and Frozen Embryo Transfer to prepare the uterine lining (endometrium) for embryo transfer.

**How does it work?** Lupron acts by suppressing the pituitary hormones (FSH or Follicle Stimulating Hormone and LH or Luteinizing Hormone) which are responsible for stimulating the ovaries to produce estrogen and other hormones. This suppression results in the reduction of these ovarian hormones to very low levels as would be found in the menopause. For ovulation induction, Lupron reduces the interference of the pituitary gland with the development of eggs when gonadotropins (FSH/HMG) are administered. Most women will have a better response to gonadotropins (higher estrogen levels and more eggs) with the simultaneous use of Lupron. For endometriosis and uterine fibroids, the very low levels of estrogen on Lupron therapy cause these conditions to regress or “dry up”. Unfortunately, this effect is not permanent and these conditions will usually return 6-18 months after the discontinuation of the treatment. Lupron is most often used to treat endometriosis and uterine fibroids in preparation for surgical treatment or in women with infertility as their main problem.

**What conditions may benefit from Lupron therapy?** Lupron is used for ovulation induction because it allows a better and more predictable response to gonadotropins in women with ovulation disorders and for I.V.F. cycles. Pregnancy rates on Lupron are generally higher than with gonadotropins alone and there are less “canceled cycles” for unsatisfactory response of the ovaries. For endometriosis and uterine fibroids, Lupron suppression may have fewer side effects than other medications and may improve the chances of pregnancy immediately after stopping the treatment. In addition, Lupron suppression before surgery for these problems may decrease blood loss, decrease adhesions or scar formation, and increase successful outcome for future pregnancy.

**Are there any side effects or complications of Lupron treatment?** Lupron may cause temporary symptoms of the menopause in some women including hot flashes, headaches, nausea, mood changes, decrease in breast size, and vaginal dryness. During the first few days on the medication, some women will experience mild fluid retention, breast tenderness, and symptoms as though their period is about to start. These symptoms are usually mild and generally are not significantly bothersome. There may be temporary burning, itching, swelling, discoloration of the skin, or soreness at the injection site although this is not common. All of the effects of Lupron on the ovaries are rapidly reversed when the medication is stopped. There are no reported serious complications from this medication and there are no reported adverse effects on pregnancy or the future child.

**What can I do about symptoms on Lupron?** We recommend using vaginal lubricant such as K-Y jelly for intercourse to avoid symptoms from vaginal dryness. You may take Tylenol or Advil as needed for headaches, etc. If your hot flashes are severe or bothersome, please call us for suggestions for treatment of these symptoms with medications such as Bellerbal-S or Provera.