

Drugs Commonly Used for Women in Gestational Surrogacy Pregnancies

The main risk to the surrogate comes from the pregnancy itself, especially if she is required to carry multiple babies (twins, triplets, etc.). Below is a list of the drugs commonly used to prepare the surrogate for embryo transfer.

Gonadotropin releasing hormone (GnRH) agonists like Synarel or Lupron are given to inhibit the brain from secreting hormones so that the woman's menstrual cycle can be controlled. The woman is put into a "medical menopause," so that the ovaries stop functioning and her menstrual cycle can be completely controlled. Premature ovulation is prevented while allowing her body to be synchronized with the woman who will be providing the egg to create the embryo. Lupron is administered by injection while Synarel comes as a nasal spray.

Both Lupron and Synarel are synthetic (man-made) hormones, not approved by the FDA for use in fertility treatment ([used off-label](#)). Lupron carries a [Category X](#) classification which means if the woman gets pregnant while taking the drug there will be harm done to the developing fetus.

The [FDA](#) lists these adverse effects for Synarel:

- Cardiovascular adverse events: Cases of serious venous and arterial thromboembolism have been reported, including deep vein thrombosis, pulmonary embolism, myocardial infarction, stroke, and transient ischemic attack. Although a temporal relationship was reported in some cases, most cases were confounded by risk factors or concomitant medication use. It is unknown if there is a causal association between the use of GnRH analogs and these events.

Some of the [long list of adverse effects](#) for Lupron include:

- Hot flashes, headache, mood swings and depression, general body aches, nausea, joint pain, edema, nervousness, weight gain, dizziness, tingling in extremities, loss in bone density.
- Small increased risk for developing diabetes, heart attack, and stroke: These risks were primarily found in men taking GnRH agonists to treat prostate cancer. Whether they are a risk in women during IVF treatment is unknown.

Next, the woman is given estrogen orally, as an injection or by patch (Estradiol) to artificially thicken the lining of the endometrium (wall of the uterus). Side effects include: vaginal irritation, dizziness, headache, stomach ache, bloating, nausea, weight changes, and breast tenderness.

Progesterone is then administered orally, intravaginal suppository or via injection several days before the embryo(s) transfer to improve the uterine lining and therefore improving implantation success of the transferred embryo(s). Side effects include: bloating, irritability and breast tenderness.

In the 2013; 33:310 *Journal of Neuro-Ophthalmology*, a letter to the editor, "Intracranial Hypertension in a Patient Preparing for Gestational Surrogacy with Leuprolide Acetate (Lupron) and Estrogen," reports on a 23-year-old gestational surrogate taking daily Lupron and twice weekly estrogen who developed "pounding headache" with increased intracranial pressure. The letter cautioned that with increasing numbers of gestational surrogacy, this risk should be considered with women presenting with headache.

Sometimes antibiotics and/or steroids are used if there are any [rejection issues](#) between the surrogate woman and the embryo(s) transferred.

Milk production: If the surrogate will not be breast-feeding, or supplying milk to the baby, lactation will naturally stop.