

# Chemocare.com

Care During Chemotherapy and Beyond

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## Leuprolide

(loo-PROH-lide)

**Trade names:** Eligard™, Lupron®, Lupron Depot®, Viadur™

Chemocare.com uses generic names in all descriptions of drugs. Eligard is the trade name for leuprolide. Lupron and lupron depot and viadur are other names for leuprolide. In some cases, health care professionals may use the trade name eligard or other names lupron or lupron depot or viadur when referring to the generic drug name leuprolide.

**Drug type:** Leuprolide is a hormone therapy. It is classified as an "LHRH agonist." For more detail, see "How this drug works" section below).

### What Leuprolide Is Used For:

- Prostate cancer
- Breast, ovarian and endometrial cancer
- Also used in non-cancerous conditions such as endometriosis, infertility, benign prostatic hypertrophy (BPH).

**Note:** If a drug has been approved for one use, physicians may elect to use this same drug for other problems if they believe it may be helpful.

### How Leuprolide Is Given:

- As an injection under the skin (subcutaneous, SubQ), or into the muscle (intramuscular, IM).
- May be given as a daily, monthly, or every 3 or 4month injection depending on the formulation and condition being treated.
- Also may be given as a once-a-year implantable device (Viadur(tm)). The device looks like a one and 1/2 inch coffee stirrer. It is implanted under the skin. Positioned at one end of the device are "osmotic tablets." These tablets expand in the presence of water drawn in from the surrounding tissue at a constant and steady rate. As water is drawn in through this end, it exerts pressure inside the implant that steadily pushes the right amount of medication out of a small hole in the other end. The device is removed at the end of the year.
- There is no pill form of leuprolide.
- Your doctor will determine your dose and schedule.

## Side Effects:

Important things to remember about the side effects of leuprolide:

- Most people do not experience all of the side effects listed.
- Side effects are often predictable in terms of their onset and duration.
- Side effects are almost always reversible and will go away after treatment is complete.
- There are many options to help minimize or prevent side effects.
- There is no relationship between the presence or severity of side effects and the effectiveness of the medication.

***The following side effects are common (occurring in greater than 30%) for patients taking leuprolide:***

- Hot flashes (see sexuality)
- Loss of interest in sex (decreased libido) (see sexuality)
- Inability to obtain or sustain an erection (impotence) (see sexuality)

***These side effects are less common side effects (occurring in about 10-29%) of patients receiving leuprolide:***

- Increased bone pain or urinary retention due to disease "flare" during first couple weeks of treatment.
- Breast pain (see sexuality)
- Discomfort at injection site
- Blood test abnormalities - increased cholesterol levels
- Swelling of feet or ankles (edema)
- Weakness -general loss of strength
- Swelling of the breasts (gynecomastia) (see sexuality)
- Depression
- Sweating

Leuprolide may cause short-term (within first 2 weeks of treatment) increases in testosterone serum levels. When this is used for prostate cancer the resulting "tumor flare" can cause temporary increase of bone pain, swelling of the prostate that blocks urine flow or swelling around tumor in the spine causing compression of the spinal cord. If you are noticing increased weakness, numbness or tingling in arms or legs, or difficulty with urination, report these symptoms to your health care provider immediately.

*Rare but significant* side effects may include heart problems such as congestive heart failure (1%) or problems with blood clots (1%). Blood clots can lead to pulmonary embolus or stroke - potentially life-threatening conditions.

*Not all side effects are listed above. Some that are rare (occurring in less than 10% of patients) are not listed here. However, you should always inform your health care provider if you experience any unusual symptoms.*

## When to contact your doctor or health care provider:

Contact your health care provider *immediately*, day or night, if you should experience any of the following symptoms:

- Urinary retention or inability to urinate
- Weakness, numbness or tingling in arms or legs

The following symptoms require medical attention, but are not an emergency. Contact your health care provider *within 24 hours* of noticing any of the following:

- Extreme fatigue (unable to carry on self-care activities)
- Swelling of the feet or ankles. Sudden weight gain
- Swelling, redness and/or pain in one leg or arm and not the other
- Changes in mood or memory

*Always inform your health care provider if you experience any unusual symptoms.*

## Precautions:

- Before starting leuprolide treatment, make sure you tell your doctor about any other medications you are taking (including prescription, over-the-counter, vitamins, herbal remedies, etc.). Do not take aspirin, products containing aspirin unless your doctor specifically permits this.
- Inform your health care professional if you are pregnant or may be pregnant prior to starting this treatment. Pregnancy category X (leuprolide may cause fetal harm when given to a pregnant woman. This drug must not be given to a pregnant woman or a woman who intends to become pregnant. If a woman becomes pregnant while taking leuprolide, the medication must be stopped immediately and the woman given appropriate counseling).
- For both men and women: Do not conceive a child (get pregnant) while taking leuprolide. Barrier methods of contraception, such as condoms, are recommended. Discuss with your doctor when you may safely become pregnant or conceive a child after therapy.
- Do not breast feed while taking this medication.

## Self-Care Tips:

- If you are experiencing hot flashes, wearing light clothing, staying in a cool environment, and putting cool cloths on your head may reduce symptoms. Consult your health care provider if these worsen, or become intolerable.
- Avoid sun exposure. Wear SPF 15 (or higher) sunblock and protective clothing.
- In general, drinking alcoholic beverages should be kept to a minimum or avoided completely. You should discuss this with your doctor.
- Get plenty of rest.
- Maintain good nutrition.
- If you experience symptoms or side effects, be sure to discuss them with your health care team. They can prescribe medications and/or offer other suggestions that are effective in managing such problems.

## Monitoring and Testing:

You will be checked regularly by your health care professional while you are taking leuprolide, to monitor side effects and check your response to therapy. Periodic blood work to monitor your complete blood count (CBC) as well as the function of other organs (such as your kidneys and liver) may also be ordered by your doctor.

## How Leuprolide Works:

Hormones are chemical substances that are produced by glands in the body, which enter the bloodstream and cause effects in other tissues. For example, the hormone testosterone, made in the testicles and is responsible for male characteristics such as deepening voice and increased body hair. The use of hormone therapy to treat cancer is based on the observation that receptors for specific hormones that are needed for cell growth are on the surface of some tumor cells. Hormone therapy can work by stopping the production of a certain hormone, blocking hormone receptors, or substituting chemically similar agents for the active hormone, which cannot be used by the tumor cell. Different types of hormone therapies are categorized by their function and/or the type of hormone that is affected.

Leuprolide is classified as a leutinizing hormone releasing hormone (LHRH) agonist. HRH agonists work by telling the pituitary gland located in the brain to stop producing leutinizing hormone, which (in men) stimulates the testicles to release testosterone and (in women) stimulates the ovaries to release estrogen. The drug does not have a direct effect on the cancer, only on the testicles or ovaries. The resulting lack of testosterone (in men) and estrogen (in women) interferes with stimulating cell growth in testosterone or estrogen dependent cancer cells.

In treatment of prostate cancer LHRH agonists are often used together with anti-androgen medications. Anti-androgens are substances that block the effects of testosterone. Cancer of the prostate depends on the male hormone testosterone for its growth. If the amount of testosterone is reduced it is possible to slow down or shrink the cancer.

- **Examples of anti-androgens are:** bicalutamide, flutamide, nilutamide.

**Note:** We strongly encourage you to talk with your health care professional about your specific medical condition and treatments. The information contained in this website is meant to be helpful and educational, but is not a substitute for medical advice.

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