

GnRH agonist

What is a GnRH-a?

GnRH is an abbreviation for gonadotrophin-releasing hormone, a hormone that you naturally produce. Both men and women have GnRH which controls the production of sex hormones. The “a” in GnRH-a stands for “agonist”. An agonist is a drug that behaves in a similar way to a neutral compound in the body. Goserelin (trade name Zoladex) is a GnRH agonist that mimics GnRH to help control the production of the hormone oestrogen.

The reduced level of oestrogen being produced by the ovaries causes a temporary and reversible menopause. The low levels of oestrogen you experience whilst taking a GnRH mean you can only take it six months without the need for hormone replacement therapy (HRT). However, we usually recommend you take HRT from the start of your course of treatment.

What is Goserelin (Zoladex)

Goserelin (Zoladex) is a prescription medication that is approved for the management of endometriosis. It is from a family of drugs called gonadotrophin-releasing hormone analogues or GnRH-a, for short. It helps to reduce pain and may reduce the amount of endometriosis you have. We usually recommend you take this for 6 months to see whether it works for you.

The Goserelin (Zoladex 3.6mg) is injected once a month (every 28 days) by a doctor or nurse just under the skin (subcutaneously) in the lower abdominal area below the naval (belly button). The implant gradually dissolves and releases the drug over the time between each of your injections.

How do I take Goserelin (Zoladex)

Goserelin (Zoladex) is given as an injection in the fatty layer under the skin most commonly on your tummy. Your doctor or nurse will discuss the duration of treatment with you.

Before starting the treatment, it is important that we rule out pregnancy by performing urine pregnancy test if appropriate.

We aim to administer the first injection during your periods. However, it may be administered at another time in the cycle at the discretion of the health provider.

How does Goserelin (Zoladex) work?

The rise and fall of your oestrogen levels during the menstrual cycle cause endometrial lesions to thicken, break down and bleed during your periods. The majority of your oestrogen is produced by your ovaries. Goserelin (Zoladex) is used to prevent oestrogen production by the ovaries and usually stops your periods. Without oestrogen, the growth of your endometriosis will slow down and the endometriosis lesions you have may shrink.

The suppression of your endometriosis should help to improve the pain you experience. This type of treatment is effective for the majority of patients with endometriosis but can take a few months before it is working well.

Unfortunately, some patient's taking Goserelin (Zoladex) experience worse symptoms in the first month. We refer to this as a 'flare'. In this situation it is important to persist with the treatment as there is usually a significant improvement in the second month of treatment.

What are the negative effects?

Low level oestrogen levels created by the use of GnRH analogues can have adverse side effects. The most commonly reported side effects experienced with Goserelin (Zoladex) are hot flushes, headache, irritability, joint stiffness, night sweats, decreased libido, thinning of the bones, and vaginal dryness.

Why is Hormone Replacement Therapy (HRT) sometimes used?

To reduce the side-effects of treatment with Goserelin (Zoladex) such as vaginal dryness and bone loss you will usually be offered 'add-back' therapy in the form of a small dose of hormone replacement therapy (HRT). This will not affect how Goserelin (Zoladex) works but replaces some of the hormones you are not producing because of the Goserelin (Zoladex). We usually recommend Tibolone (2.5mg once a day) as it does not stimulate endometriosis.

Taking hormone replacement therapy (HRT) in this situation does not carry the same risks as taking HRT after the age of the natural menopause. A common worry about taking HRT is the risk of breast cancer. The HRT we recommend taking with Goserelin (Zoladex) just replaces the hormones you would produce naturally so there is no increased risk of breast cancer.

Do women who take GnRH-a have a decrease in bone mineral density?

A reduction in bone mineral density has been reported in women who take GnRH-a drugs without hormone replacement. Current data suggests that most people who only take Goserelin (Zoladex) for 6 months will recover bone loss when the therapy is stopped.

The hormone replacement we recommend helps to prevent the reduction in bone mineral density and so make the treatment much safer. If we recommend GnRH-a treatment for longer than 6 months, it is even more important to take the 'add-back' hormone replacement.

If your GnRH-a treatment lasts longer than 6-12 months, we may check your bone density with a special bone scan called a DEXA (dual energy X-ray absorptiometry) scan approximately every 2 years.

Do Women who take GnRH-a stop having periods?

Your periods should stop with effective doses of Goserelin (Zoladex). However, you may still notice some hormonal symptoms in a cyclical pattern and may feel like a period is due but without any bleeding. Periods usually resume within 6-8 weeks after therapy is completed.

During the first 2 months of Goserelin (Zoladex) use, some women experience temporary vaginal bleeding. This bleeding is not a period but is likely to be due to decreasing oestrogen levels. If you continue to have regular periods whilst on Goserelin (Zoladex) you should see your doctor.

Contraception?

As Goserelin (Zoladex) stops the normal production of hormones it is likely to prevent you from ovulating and makes pregnancy unlikely. However, it is not a contraceptive and if you get pregnant whilst taking Goserelin (Zoladex) it may have an adverse effect on an

early developing embryo so an alternative, non-hormonal contraception should be used. For example, condoms.

What if I miss an injection?

It is very important for you to get your injections when they are due to ensure the Goserelin (Zoladex) levels are consistently high enough to block your oestrogen production. Although a delay of a few days is allowed you may be more likely to have breakthrough bleeding and a worsening of your endometriosis symptoms.

Who can I contact if I have any questions?

If you need any further information, then please do not hesitate to contact:

• Gynaecology Outpatient Department:

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