

COASTAL IVF

ENDOMETRIOSIS AND INFERTILITY



Endometriosis is a common condition affecting ~10% of reproductive age women, and up to 50% of those with infertility. It involves the growth of endometrial-like cells outside the uterine cavity, commonly affecting the pelvis, including the fallopian tubes, ovaries, bowel, bladder, and/ or surrounding tissues.

The condition may develop due to genetic factors, altered immunity, mullerian anomalies and often retrograde menstruation. There is an increased risk with increasing age and number of menstrual cycles.

Treatment of Endometriosis: General Considerations

Treatment for endometriosis aims to:

- Control pelvic pain during periods, intercourse, or bowel movements.
- Reduce recurrence risk after treatment.
- Enhance pregnancy rates, potentially in conjunction with fertility treatments (e.g. OI IUI or IVF)

Treatment options encompass surgical management (such as excision or ablation of endometriotic lesions, adhesions, or ovarian cysts) and/or medical management (hormonal therapies for suppression). Treatment plans are individualised, factoring in age, other infertility causes, previous treatment outcomes, and fertility objectives.

Endometriosis and Infertility:

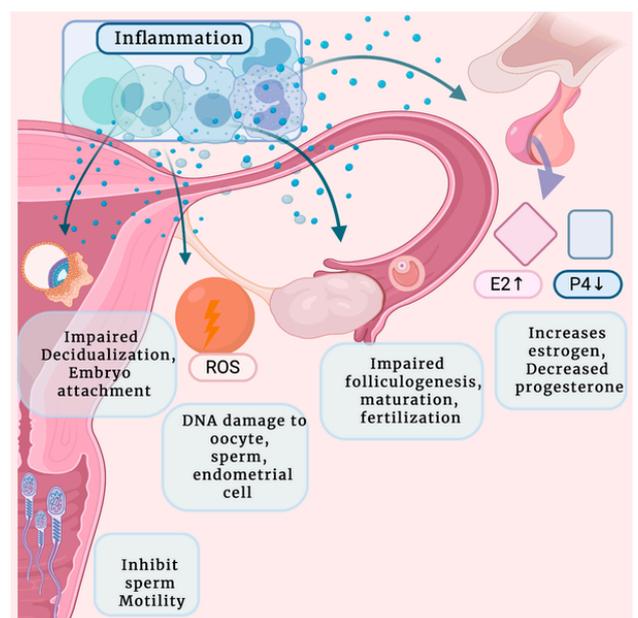
A strong link exists between endometriosis and infertility, although the exact mechanisms are often complex and multifactorial.

Proposed ways endometriosis may impair fertility include:

- Adhesions affecting the tubes and/or ovaries that may impair the release and transport of the egg and sperm.
- Damage to ovarian reserve.
- Inflammation creating a hostile pelvic environment affecting ovulation, fertilisation, implantation and early pregnancy/ miscarriage rates.

Every couple facing infertility is unique, with individual factors such as age and medical history playing crucial roles.

Therefore, discussions about treatment are generalised in nature and need to be personalised based on specific circumstances and historical factors.



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Treatment of Endometriosis Related Infertility:

Treating endometriosis can effectively control symptoms, though the impact on fertility outcomes varies. Clinical studies demonstrate significant benefits of intervention, particularly in advanced disease. Anecdotal evidence and our experience at Coastal IVF suggest that treatment regardless of stage may improve conception, pregnancy and live birth rates following ovulation induction, IVF, or natural conception.

Options Following Surgical Diagnosis and Treatment:

1. Do Nothing (Try for Natural Conception):

- a. Natural conception rates vary. Studies suggest ~30-40% of couples will conceive within a year following surgical treatment alone.
- b. Coastal IVF does not generally recommend this approach, as a substantial number of patients will remain infertile and there is a risk of endometriosis recurring/ progressing that may hinder future fertility.

2. Immediate Fertility Treatment (e.g. IVF or Ovulation Induction):

- a. Ovulation induction, with or without intrauterine insemination is possible, but success rates tend to be lower in those with endometriosis.
- b. Many clinics advise IVF as a primary treatment, although success rates are often compromised due to egg/ embryo quality and implantation challenges.

3. Medical Management Followed by Fertility Treatment: **(OUR ADVISED OPTION)**

- a. Hormonal therapies, such as GnRH treatments like Ryeqo or Zoladex, can eliminate or significantly reduce residual endometriosis following surgery. This treatment usually spans 3-6 months and is generally well-tolerated with add back therapy (e.g. Tibolone).
- b. Fertility treatments (IVF or ovulation induction) are often advised afterwards to maximise conception rates.
- c. This is Coastal IVF's recommended approach to treating endometriosis related infertility. Especially in patients with significant disease or history of failed fertility treatments elsewhere.

Concerns About Time Delay in Hormonal Treatment:

While medical treatment introduces a delay, the goal is to enhance outcomes, potentially avoiding the need for IVF or the financial and emotional cost of repetitive failed IVF cycles. We have found combined surgical and medical treatments improve ovulation response and pregnancy rates, especially in patients who have previously failed fertility treatment elsewhere.



PATIENT INFORMATION - RYEQO (RELUGOLIX)

Endometriosis is a common cause of reduced fertility and pelvic pain. Surgery can improve symptoms and increase your chance of conceiving, but without additional medical therapy, persisting disease and recurrence are common. Ryeqo provides temporary hormonal suppression to allow the pelvis and endometrium to settle, reduce inflammation, and create the best environment for future fertility.

How Ryeqo Works

Ryeqo (Relugolix) is a gonadotropin releasing hormone (GnRH) antagonist that temporarily reduces the production of FSH and LH - the hormones that drive follicle growth and ovulation. By lowering oestrogen levels, Ryeqo:

- Endometrial and endometriosis tissue becomes inactive
- Pelvic inflammation decreases
- Pain improves
- Surgical results are maintained
- Fertility outcomes improve once treatment is completed

Ryeqo does not cause menopause. And fertility returns quickly after stopping the medication.

Evidence for Pain Relief

Large clinical studies have shown that Ryeqo:

- Reduces pelvic pain and pain with periods or intercourse
- Improves quality of life scores
- Reduces the need for ongoing pain medication
- Provides faster and more consistent pain relief compared with older hormonal treatments
- Most patients feel a major improvement within 6 to 12 weeks.

Evidence for Fertility Support

Clinical studies show that short-term GnRH therapies, like Ryeqo, can improve fertility outcomes once treatment is completed. This is achieved by:

- Suppressing active endometriosis and reducing pelvic inflammation that can interfere with implantation and early embryo development
- Creating a more receptive endometrial environment, with several studies showing higher ovulation rates and improved pregnancy rates after a brief course of GnRH-antagonist suppression compared with no suppression
- Helping maintain the benefits of surgery by slowing early recurrence, allowing you to move into IVF or natural conception with a healthier baseline pelvic environment

For most fertility patients, we plan Ryeqo carefully so that you finish treatment and begin assisted or natural conception attempts straight away, without any delay.



PATIENT INFORMATION - RYEQO (RELUGOLIX)

Treatment Process

- **When to start:** Begin in the first 5 days of your menstrual cycle to ensure there is no active follicle or pregnancy.
- **How to take it:** One tablet daily, at the same time each day (with or after food).
- **Duration:** Usually 3-6 months, depending on your treatment plan. Some patients take it for longer.
- **Periods:** Most people will not have periods during treatment. Some may experience light spotting, which usually settles with time.
- **Stopping Ryeqo:** Normal cycles and fertility usually return within 4–6 weeks. We will often advise you when to cease Ryeqo and start fertility treatment straight away so there is zero delay.

Using Tibolone (Add-back Therapy)

Because Ryeqo lowers oestrogen, some people may experience symptoms such as hot flushes, headaches or mood changes. Tibolone is a once daily tablet used to prevent or treat these symptoms.

Important points:

- Tibolone protects bone health
- It reduces menopause-like side effects
- It does not reduce the effectiveness of Ryeqo (anti-oestrogenic effect on endometrial cells!)
- Not everyone needs Tibolone - we decide this based on your symptoms

Monitoring During Treatment

We usually review you around 1 to 2 months after starting treatment. Most patients notice a significant improvement in pain within the first few months.

Important Information

This information sheet supports, but does not replace, the medication information that comes with your prescription. Please read that document carefully and ask your doctor if you have any questions.