



What is ovarian suppression and when is this needed?

Fertility preservation may be needed when you think you want children in the future and the chemotherapy necessary to treat your cancer may damage your reproductive organs such as your ovaries. Ovarian suppression is an option for fertility preservation when the process of collecting eggs for embryo or oocyte cryopreservation will take too long. Some people, such as those with acute leukemia, need to start treatment as soon as possible. Ovarian suppression may be an option for these patients.

Ovarian suppression stops the ovaries from working by administration of specific medicines. By stopping ovary activity, they are protected against the damaging effects of chemotherapy. Clinical trials have shown that protecting the ovaries during chemotherapy can help preserve fertility by reducing the risk of early menopause after chemotherapy. However the effectiveness of this method is still controversial and remains an option only for those who cannot undergo preferred fertility preservation options such as cryopreservation.

How does this work?

Gonadotropin-releasing hormone (GnRh) is a naturally occurring chemical that helps to regulate levels of sex hormones in your body. Continuous administration of GnRh results in a decreased production of the sex hormones estrogen and progesterone, leading to a temporary and reversible menopause. Several GnRh formulations are available, the most common are leuprolide (Lupron), goserelin (Zoladex) and triptorelin (Trelstar).

How is GnRh administered?

These medications are shots given into a muscle (upper arm, thigh or butt) once a month or once every three months depending on the formulation. These are usually administered in the clinic but can be administered at home if insurance will cover the prescription cost.

Tips for starting GnRh

- If administering at home, ask your pharmacist for detailed instructions on administration.
- If you notice any side effects, alert your providers. They may have strategies to help relieve your symptoms.
- Keep track of when your doses are due. You may have to remind your provider your dose is due!

What are the possible side effects?

GnRh is generally well tolerated. Most common side effects are similar to menopausal symptoms: hot flashes, sleep disturbances, and vaginal dryness. Other possible side effects include:

- Headache
- Mood changes
- Decreased libido
- Pain, redness and bruising may occur at the injection site
- Bone density loss can occur with long term use. Consuming a diet rich in calcium and vitamin D, weight-bearing exercise and smoking cessation can help prevent bone density loss.

References:

- Oktay K et al. Fertility Preservation in Patients With Cancer: ASCO Clinical Practice Guideline Update. J Clin Oncol. 2018
- Chen H et al. Adjuvant gonadotropin-releasing hormone analogues for the prevention of chemotherapy-induced premature ovarian failure in premenopausal women. Cochrane Database of Systematic Reviews 2019
- Blumenfeld Z. et al Fertility Preservation Using GnRH Agonists: Rationale, Possible Mechanisms, and Explanation of Controversy. Clin Med Insights Reprod Health. 2019

Resources for Additional Information:

- [NCCN, Adolescents and Young Adults with Cancer, page 22](#)
- [Cancer.Net, Preserving Your Fertility Before Cancer Treatment](#)
- [Children's Oncology Group, Guideline for Fertility Preservation](#)
- [American Cancer Society, Preserving Fertility in Males with Cancer](#)
- [American Cancer Society, Preserving Fertility in Females with Cancer](#)
- [Alliance for Fertility Preservation](#)

Recursos en Español:

- [Cancer.Net, Preservación de la fertilidad](#)