



create health clinics
West Wimbledon and Harley Street



Fertility Preservation in Female Cancer Patients

What is fertility preservation?

Fertility preservation is the effort to help cancer patients to retain their fertility or ability to procreate.

Why fertility preservation is required?

Treatment of any cancer with chemotherapy and/or radiotherapy can be toxic to eggs and ovarian function. The influence might be immediate preventing patients becoming pregnant and reducing the chances of a pregnancy in the future, it may lead to the earlier onset of menopause. The improvements in the management and treatment of cancer have led to increased survival rates and cure in many cases. The quality of life after cancer treatment is an issue of great importance for all clinicians now. For cancer survivors who have not completed their families, future childbearing is of paramount importance, and most will appreciate the opportunity of having their own biological children.

Advances in assisted conception and laboratory technologies have made fertility preservation possible and successful for patients treated for cancer. Any oncologist seeing men and women for cancer therapy who have yet to start/complete their families should discuss the impact of their cancer treatment on their chances of having children. Fertility preservation techniques should be discussed with these patients or if the patient is a child with their parents. While many are aware of sperm banking for men, advances in female preservation of fertility are still not widely known or discussed with patients.

How can we help a woman to preserve her fertility prior to cancer treatment?

There are several strategies in fertility preservation. It is also often possible to combine a few strategies.

- Chemotherapy with less ovarian toxicity: Ask your oncologist to use less toxic treatment strategies when possible (But remember, proper cure of the disease is most important)
- Hormonal manipulation (GnRH analogues treatment): To place the ovaries in an inactive state, so the influence of the chemotherapy is less profound
- Ovarian suspension during radiotherapy: In cases when pelvic radiotherapy is planned it is possible to move the ovaries outside of the affected field
- Fertility sparing surgery: For cases of very early stages of cancer affecting reproductive organs, new less-radical strategies are used

- Ovarian tissue cryopreservation: Strips of the ovarian tissue (with thousands of eggs) are frozen and kept for future use. This remains an experimental method.
- Cryopreservation of eggs: Mature or immature eggs (matured in the laboratory using in vitro maturation (IVM)) are retrieved from natural or stimulated (if possible) cycles and are frozen and stored for future fertilisation
- Cryopreservation of embryos from IVF cycle: Mature or immature eggs (matured in the laboratory using in vitro maturation (IVM)) are retrieved from natural or stimulated (if possible) cycles and fertilised by partner or donor sperm and stored for future use.

What are the recent advances in fertility preservation in women?

- The development of the vitrification technique for freezing of eggs and embryos. This offers very high survival rates for thawed eggs and embryos.
- In vitro maturation (IVM) and vitrification of eggs. This allows a woman to have her immature eggs collected in a natural cycle immediately after the diagnosis of cancer and without the need for any stimulating drugs. Immature eggs are matured in the laboratory and vitrified for future use.
- Ovarian tissue cryopreservation and transplantation. This is still experimental and needs further research. Some centres in Europe have successfully transplanted ovarian tissue and worldwide only 12 babies have been born. Ovarian transplantation is not offered in the UK.

Are there any risks to patients with cancer who wish to preserve fertility?

The delay in organising fertility preservation can delay cancer treatment. In addition, ovarian stimulation with hormones can be detrimental if oestrogen-dependent cancer is diagnosed.

What are the safe methods for fertility preservation?

Planning fertility preservation as soon as possible after the diagnosis of cancer is crucial. Avoiding ovarian stimulation hormones is usually safer for the patient. IVM in a natural menstrual cycle immediately after cancer diagnosis can be organised safely with a view to freezing eggs or embryos by vitrification.

What preparation or tests are required prior to fertility preservation?

Counselling of the woman or couple is essential. Blood screening for HIV, Hepatitis B and Hepatitis C are mandatory prior to treatment. The woman or couple must sign HFEA and Create clinic consent forms prior to treatment.

Which centres offer fertility preservation?

UK IVF centres licensed by the Human Fertilisation and Embryology Authority (HFEA) can offer fertility preservation. The latest techniques such as IVM and vitrification are offered only if the centre has experience and expertise in this advanced technology. CREATE (www.createhealth.org) in Harley Street and Wimbledon offers these advanced treatments. Professor RC Chian, the pioneer of these techniques, is CREATE'S Scientific Director and our team have been fully trained by him.

What are the costs involved?

CREATE has shown a commitment to help cancer victims by offering discounted prices for fertility preservation. Please contact info@createhealth.org for further details.



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