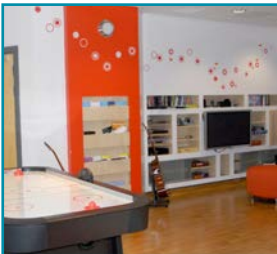


## Teenage and Young Adult Cancer Service

# Female Fertility Preservation

This leaflet has been written for young women who are about to start treatment for cancer.



## Introduction

This leaflet has been written for young women who are about to start treatment for cancer. You might not be thinking about having children just now, but you might in the future. If your treatment is likely to affect your fertility (the ability to have children) you might want to think about fertility preservation. There are different ways of doing this such as collecting, freezing and storing eggs, embryos or ovarian tissue or having hormone injections to temporarily shut down ovarian function.

This means they can be used to assist in conception in the future when you're ready to have children.

We give a general guide to the different procedures below but your doctor and nurse specialist will discuss these options with you before you decide if you want to go ahead or not. You might feel embarrassed talking about this, but it's important you think about it now. If you decide to go ahead with fertility preservation, it must be done before you start your cancer treatment.

You might be feeling rushed to make a decision about this. Try to take some time to think about your future plans. If you have any questions or want to discuss it more, talk to your oncologist, nurse specialist or family doctor. It might also help to talk to a close family member or friend.

## What treatments will affect fertility?

Many chemotherapy drugs will affect your fertility but to what extent depends on the particular drugs and doses given. For many young women, ovarian function will return to normal when treatment finishes and you will be able to have the children you want.

Radiotherapy to certain parts of the body can also affect your fertility. This is particularly the case for your lower tummy and pelvis if the area being treated includes your ovaries, as

radiotherapy damages eggs. Radiotherapy can also affect the womb (uterus), which can make it more difficult to carry a pregnancy successfully.

Your oncologist or nurse specialist will be able to give you more information about these and discuss any concerns you may have.

### Types of fertility preservation available

- Oocyte cryopreservation (egg freezing) involves stimulating the ovaries to produce more eggs which are then collected, frozen and stored for use in the future. The ovaries are stimulated by giving hormone injections over several days. This procedure is now well established, but takes some time due to the need for stimulation of the ovaries. It is not suitable for females with hormone related tumours.
- Embryo cryopreservation involves stimulating the ovaries in the same way as for Oocyte cryopreservation. The eggs are then fertilised with sperm in the lab. This procedure requires sperm from the female's partner, so it is important to think through that the embryos are then the joint property of the man and woman. This is the most successful procedure for fertility preservation, but is not suitable for females with hormone related tumours
- Ovarian Tissue cryopreservation involves the surgical removal of part of, or the entire ovary under general anaesthetic, generally by keyhole surgery. Ovarian tissue (which contains immature eggs) is removed, frozen and stored for use in the future, generally by replacing it in the body. This does not involve any drug treatment, so may be quicker than treatments that involve stimulation of the ovaries. However this procedure is in the early stages of development, and

while a small number of babies have been born from it, it is unclear how likely to be successful it is. It is not suitable for females with ovarian cancer, or when there might be cancer cells in the ovary.

- Ovarian suppression/ downregulation involves monthly hormone injections throughout treatment to temporarily shut down ovarian function. Common side effects include hot flushes and vaginal dryness. It is unclear whether this protects the ovaries from the chemotherapy. Not suitable for females having radiotherapy treatment.
- Ovarian shielding (oophoropexy) involves shielding or removing the ovaries from the radiotherapy treatment field to reduce the dose of radiation they receive. This procedure is only suitable for those having abdominal or pelvic radiotherapy.

Some of these procedures might involve frequent hospital appointments for a few weeks, for blood tests and scans. These procedures need to be completed before chemotherapy or radiotherapy starts, but not all of them are suitable for all females. Your doctor or nurse will be able to give you more information about this.

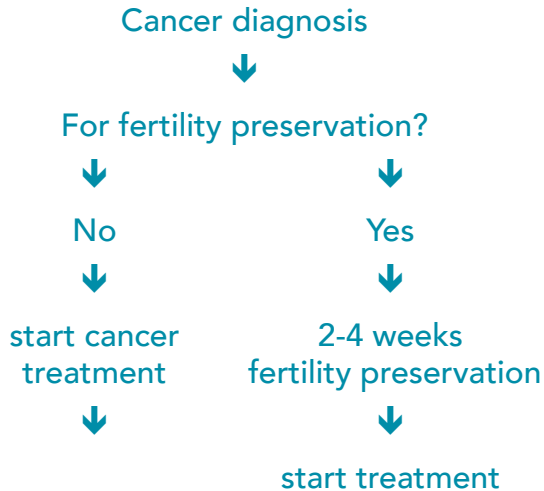
For some people a trans-vaginal ultrasound might be required during some of these procedures. This is a scan which involves inserting a scanning probe, similar to a tampon, into your vagina to allow your womb to be seen clearly. Your doctor or nurse will be able to give you more information about this.

### Other information

All women requesting NHS-funded egg or embryo storage must meet the current criteria for fertility treatment. This includes being under age 38 years at the time of referral and having a Body Mass Index of less than 35. It's also a

requirement that you have no children of your own or that of a partner living in the home, and that you have not had any previous sterilisation procedures.

### What happens now?



Some young women may worry about delaying the start of their cancer treatment to carry out fertility preservation. If you have concerns, it may help to talk this over with your oncologist or nurse specialist. However it is important to take some time to think about all of this. As we said earlier, you might not be thinking about having children now but you may do in the future.

### Assisted Conception Service (ACS)

Before your eggs, embryos or ovarian tissue can be stored, a blood sample must be taken to screen for hepatitis B, hepatitis C and HIV. This is to make sure that samples can be safely stored together without the risk of contamination. This will be done at your first visit to the assisted conception service.

When you arrive at the ACS, your consultant or nurse will discuss these tests with you and answer any questions you might have. Once you've discussed everything and you fully understand the information you've been given, you'll be asked to sign a consent form agreeing to the tests being done. If any of these test results are positive, further support and medical follow up will be available.

They will also discuss what fertility options are available to you, what these involve and answer any questions you might have. You may not feel able to make a decision right away and may want to think things through. You will be given another appointment to return a few days later. Once you have made a decision you will be given appointments to return for treatment.

## Contraception

Although your fertility may be affected, there is no way to know for certain. It's best to avoid any chance of becoming pregnant during your treatment and for up to a year after your treatment finishes. It's also important to practice safe sex to protect you and your partner from sexually transmitted infections. This will mean using a condom.

## Confidentiality

All of these appointments are confidential. This means the staff won't tell anyone else (not even your parents) what's happened at the appointment, what you've talked about or what your worries are, unless you want them to. They won't give your results to anyone except you, although a copy will be sent to your oncologist. If the doctor is worried that you don't fully understand what's happening, they might encourage you to talk to your parents, another family member or a close friend about it.

## About this information

This guide is provided for information only and should not replace professional medical advice relevant to your own personal situation.

The information was produced by the Beatson West of Scotland Cancer Centre with contributions from

- Clinical Nurse Specialist Teenagers and Young Adults
- Ward manager Assisted Conception Service
- Professor of infertility (Edinburgh)
- Young people

Every effort has been taken to make sure the information is accurate at the time of publication.

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## Glossary of terms

### **Chemotherapy:**

the use of anti-cancer drugs to destroy cancer cells.

### **Cryopreservation:**

the process of freezing and storing body tissue

### **Embryo:**

A fertilised egg

### **Hepatitis:**

inflammation of the liver.

### **HIV (Human Immunodeficiency Virus)**

the virus that causes AIDS.

### **Oncologist:**

a doctor who specialises in treating cancer.

### **Oocyte (Egg):**

the female reproductive cell

### **Radiotherapy:**

the use of high energy x-rays or radiation to destroy cancer cells.