

# Female reproductive health

## Health information after cancer treatment as a child or teenager

The purpose of this factsheet is to tell you about long-term side effects (called 'late effects') that can happen after having cancer treatment. They can happen soon after treatment finished or later in life. The medical team at the hospital where you received your treatment or are attending follow-up checks will be able to help you with specific information about which late effects are relevant to you.

This may be a sensitive topic and you may want to read this with a family member or trusted friend. You may or may not want to bring this person with you to clinic appointments.

Reproductive health in females covers all life stages and includes puberty, sexual health, contraception, fertility and menopause.

Most young people who have been treated for cancer will have no problems with their reproductive health, but some cancer treatments may affect how your body works, such as reduced fertility, low levels of hormones or having problems with sexual function.

The effects of childhood cancer treatment on fertility, sexual health and pregnancy depend on many factors, including age at time of diagnosis, the specific type and location of the cancer and the treatment given.

The reproductive system is controlled by hormones made by the pituitary gland (a small gland in your brain). The pituitary gland signals the ovaries by releasing two hormones, follicle stimulating hormone (FSH) and luteinizing hormone (LH), that regulate the function of the ovaries.

Difficulties in becoming pregnant can affect anyone, not just people who have had cancer treatment. It is estimated that one in seven couples will experience infertility, so it is quite common.

### Who is at risk?

The following treatments or tumours may affect your reproductive health including fertility, sexual function or physical appearance.

- ovarian or brain tumours
- removal of ovaries by surgery

- brain surgery
- chemotherapy drugs such as cyclophosphamide, procarbazine and ifosfamide
- conditioning for a stem cell transplant or total body irradiation (TBI)
- radiotherapy to the abdomen, pelvis, spine or brain

Discuss with your long-term follow-up team which ones may affect you.

### How do we monitor female reproductive health issues?

**If you are not having periods**, blood tests to measure your LH, FSH, and oestrogen levels may show whether there is damage to the pituitary gland or the ovaries.

**If you are having periods**, a blood test to check FSH levels on days 1-5 of your cycle can give some information about whether there is any damage to your ovaries. It is not possible to accurately measure this hormone if you are taking the contraceptive pill or hormone replacement therapy (HRT).

It is possible to predict how many eggs are left in your ovaries if you are not having periods or are taking the contraceptive pill or HRT by measuring the level of another hormone in your blood called anti-mullerian hormone (AMH). This may be helpful if you are trying to get pregnant. However, it is possible to become pregnant even with a low AMH level and whether you are having periods or not.

If treatments are likely to have affected the pituitary gland, ovaries, or uterus, then you may wish to talk about this in more detail with a fertility specialist who looks after young people who have had previous cancer treatment.

## What are the treatment options available to maintain reproductive health?

---

Sex and fertility are topics that can make many people feel embarrassed and uncomfortable. Managing the effects of cancer on your fertility and sexual health can be difficult. It is important to find someone you feel comfortable talking to so you get the information you need and understand your options.

### Oestrogen replacement therapy

There are many ways of giving oestrogen as hormone replacement therapy (commonly known as HRT), including patches, a gel rubbed into the skin, tablets, or the combined oral contraceptive pill (COCP). Your endocrine team will discuss available options to help you choose the best one for you.

### Contraception

It is still possible to achieve a pregnancy naturally even if fertility is reduced, so if you want to avoid pregnancy it is important that you use contraception. Whether your fertility is reduced or not, you are also still at risk of sexually transmitted infections therefore maintaining sexual health using condoms is important.

There are many different types of contraception. Oestrogen, in the form of the contraceptive pill, can also be used as a contraceptive. It is important to be aware that hormone replacement therapy (HRT) is not contraceptive.

Other methods of contraception include:

- condoms
- progestogen-only pill
- hormone implants
- intrauterine contraceptive device (coil)

Your GP or your follow-up team will discuss options with you and make you aware if there is any type of contraception that you should avoid.

### Fertility

Fertility is often discussed before starting cancer treatment, but you may have been too young at that time to understand, so it is a good idea to think if you would like to discuss these issues. Options for fertility treatment are advancing all the time and therefore, advice changes frequently.

If you are not having periods because of damage to your pituitary gland, then your ovaries can be stimulated to make eggs by injections that you can be taught to give yourself. If the treatment you had has affected your ovaries, it is more difficult as they will not be able to make eggs anymore. Options for a pregnancy would include donor eggs, surrogacy, adoption, or fostering.

If you do want to become pregnant and are having periods, you may want to consider it earlier than you might have planned, just in case you go into early menopause (when your periods stop). Fertility preservation, including egg freezing, embryo freezing, and ovarian tissue freezing, may be an option for some people. Unfortunately, these treatments can be expensive and NHS funding may not be available for these options once cancer treatment has been completed.

If you had eggs, embryos or ovarian tissue stored before your cancer treatment started, this could be used. Further information about the storage of your eggs, embryos or ovarian tissue will be discussed with you by the fertility clinic.

## Common questions asked

---

### What can I do to help myself?

If you want to avoid pregnancy it is important that you use contraception. You are also still at risk of sexually transmitted infections therefore maintaining sexual health using condoms is important.

Make changes to your lifestyle such as not smoking, limiting alcohol intake, not taking illicit drugs (for example, anabolic steroids), and reducing stress. All these are linked to reduced fertility.

Exercise regularly and maintain a healthy diet and weight. It is recommended to have a good calcium intake, good vitamin D levels and do exercise that is good for developing strong bones, such as running, jumping, and skipping.

*Continued* →

### **Will my sex life be affected?**

For most people, it is possible to enjoy relationships and sex after cancer even if the cancer and its treatment has damaged their ability to have children. The cancer experience may have changed how your body looks, feels and works and this may affect your relationships and sex life. Everyone experiences confidence and body image issues at some time in their life, particularly as a teenager or young adult, and this can be worsened by their cancer experience.

If you are feeling worried about a lack of sexual desire, or experiencing vaginal dryness, pelvic pain, or difficulties with sex including penetrative sex, it is a good idea to seek help. Doctors and specialist nurses are used to dealing with these kinds of issues and can offer practical advice and support including referral to for specialist help if required.

Whether your fertility is reduced or not you are still at risk of sexually transmitted infections and therefore it is advised that you maintain sexual health by using condoms.

### **What if I am gay, bisexual or transgender?**

Sexual preference or gender orientation does not stop you from discussing the effects of having had cancer on your sexual function, fertility and options for future parenthood. You may find it hard to ask for professional advice if you are still 'coming out' or adjusting to your sexual orientation. Your doctor or nurse may be able to recommend sources of support and the charity Stonewall has excellent resources that you may find helpful: [www.stonewall.org.uk](http://www.stonewall.org.uk)

### **Can I become pregnant if I don't have periods?**

It is possible to become pregnant even if you are not having periods, therefore it is important to use contraception to prevent an unwanted pregnancy.

### **What if I cannot become pregnant?**

It can be hard to accept that you are not able to have your own child and you may feel deeply upset and a sense of loss for a pregnancy that may not happen. If you feel like this, it can be helpful to talk to someone; talking to your doctor or nurse specialist can be helpful and you may wish to request a referral to a specialist counsellor.

### **What should I think about before I get pregnant?**

Discuss with your long-term follow-up team and make sure you are up to date with screening for other late effects which can impact the success of a pregnancy including, respiratory function, cardiac function, kidney function, optimising diabetic control and thyroid levels.

### **What should I know if I get pregnant?**

Certain treatments used during treatment for childhood cancer can increase the risk of problems during pregnancy and childbirth. Radiotherapy or surgery that involved your uterus may increase your risk of miscarriage, premature delivery, or problems during labour when the baby is being born. Women who received certain chemotherapy drugs (such as anthracyclines, e.g. doxorubicin, or daunorubicin) may be at risk of heart problems that can worsen during pregnancy and labour. People with these risk factors will need closer monitoring during pregnancy and childbirth by specialist teams.

### **Would my children be at risk of birth defects?**

In most cases, there is no increased risk of birth defects in children born to childhood cancer survivors. Some inherited cancers can be passed on to children, and genetic tests can be done to look at this. Check with your oncologist if you are not sure whether the type of cancer you had could be passed on to your children. Please remember to share your end of treatment summary with your GP and maternity team.

## **Where can I find more information?**

---

**Support group for young women with premature ovarian insufficiency:** [www.daisynetwork.org](http://www.daisynetwork.org)

**Macmillan**

**Information on fertility after cancer aimed at adults:** [www.macmillan.org.uk/information-and-support/coping/side-effects-and-symptoms/fertility-in-women](http://www.macmillan.org.uk/information-and-support/coping/side-effects-and-symptoms/fertility-in-women)

**Human Fertilisation and Embryology Authority (HFEA) website:** [www.hfea.gov.uk](http://www.hfea.gov.uk)

**Teenagers and Young Adults with Cancer**

[www.tyac.org.uk/sex-and-relationships/after-cancer-treatment](http://www.tyac.org.uk/sex-and-relationships/after-cancer-treatment)

**NHS**

[www.nhs.uk/live-well](http://www.nhs.uk/live-well)

