If you have just been diagnosed with cervical cancer, you may be anxious that this means you will no longer be able to have children. This is not necessarily the case and this leaflet discusses the options available to try and help you keep the ability to have a child of your own. Whilst we can offer you some hope, it is important to realise that some of these techniques are experimental and there is no guarantee of success. There are also other difficulties such as the fact that you may have to pay for some or all of your treatment, which may be expensive. The choices available to you will depend on the extent of cancer, the type of treatment you have, your age and your personal circumstances. You can always discuss the options with your doctor or your clinical nurse specialist. If you wish to pursue things further, we will be happy to refer you to the Reproductive Medicine Unit to see a fertility expert.

Treatment of cervical cancer

There are two main ways of treating cervical cancer: surgery to remove the cancer or a combination of chemotherapy and radiotherapy known as ‘chemoradiation’. Both surgery and chemoradiation are equally effective in treating the cancer and whether you are offered one or the other depends on the particular features of your cancer. Generally speaking, surgery is offered to women with smaller tumours. Your doctor will be able to make a recommendation for treatment after initial tests known as ‘staging investigations’ have been completed. More detailed information about specific cancer treatments is available. Your doctor or clinical nurse specialist will provide you with leaflets relevant to the treatment you are offered.
Surgery for cervical cancer

Radical trachelectomy

Women with very small cancers may be suitable for this treatment. It involves removing the whole of the cervix (the neck of the womb) and the area surrounding the cervix (parametrium). The lymph glands in the pelvis are removed using keyhole surgery. The rest of the womb is left intact so that pregnancy remains possible. Up to one in every three women wishing to have a baby have had successful pregnancies after a radical trachelectomy. It is important to realise that there is a high miscarriage and premature delivery rate after this type of treatment. You will only be offered this treatment if we can be certain that the whole of the cancer can be removed safely with this method. Otherwise you will be offered a radical hysterectomy.

Radical hysterectomy

This surgery involves removing the cervix, the area surrounding the cervix (parametrium) the womb (uterus) as well as the lymph glands in the pelvis. This is the standard surgical treatment for cervical cancer and has been used for over 100 years. The operation can be done either through a cut in your tummy or using the keyhole (laparoscopic) technique. The ovaries can be preserved if they are normal. You will not be able to carry a pregnancy of your own if the womb is removed. However, if the ovaries are preserved, it might be possible for you to have a biological child using in-vitro fertilisation (IVF). This involves fertilising your eggs with your partner’s sperm outside the body. You will require a surrogate mother to carry the child.
Chemoradiation

This treatment involves giving radiation treatment (radiotherapy) to the whole of the pelvis, combined with weekly chemotherapy treatment. Chemoradiation is offered when surgery is considered to be unsuitable. One of the side effects of chemoradiation is that the ovaries no longer work, causing you to go into an early menopause. The natural age for the menopause is 51 years. Having an early menopause means that your ovaries no longer produce eggs and you no longer have periods. In addition, the direct effect of radiotherapy means the womb can no longer support a pregnancy.

To prevent the ovaries being destroyed by radiotherapy, we can offer a keyhole technique known as ‘laparoscopic ovarian transposition’ to move the ovaries from the pelvis to high up in the abdomen where the radiotherapy rays do not reach them (see below). Therefore it remains potentially possible to collect eggs for IVF treatment after treatment is completed. As the womb will no longer be able to support a pregnancy, you will need a surrogate mother to carry the child.

Assisted conception after treatment for cervical cancer

1. Laparoscopic ovarian transposition

One of the side effects of radiotherapy for cervical cancer is that the ovaries will no longer work, resulting in an early menopause. This means that the ovaries stop producing eggs and the periods stop. One way of avoiding this is to move the ovaries to an area where the radiotherapy rays cannot reach them. This is done using keyhole surgery. The ovaries are detached from their normal position beside the womb and moved up higher. Although this technique has been used for women undergoing radiotherapy treatment for other cancers, it is relatively new for women
undergoing chemoradiation for cervical cancer. Our experience is that it is not always effective and the ovaries have continued to work in only one woman out of every four who have undergone this procedure. As a safeguard, you may be offered egg (oocyte), ovarian or embryo freezing (cryopreservation) as well before starting chemoradiation. If the ovaries do work after laparoscopic ovarian transposition and chemoradiation, it avoids the need for you to take hormone replacement therapy (HRT).

2. Egg/embryo freezing

Egg freezing or oocyte cryopreservation is a relatively new and experimental technique. If you have a partner, you will be offered the more established technique of embryo freezing. However, if you do not have a partner or if your relationship is not ready for such a commitment, you may wish to consider egg freezing. The ovaries will be stimulated using fertility drugs to generate eggs. These eggs will be collected and frozen. Egg collection is usually done through the vagina under ultrasound guidance. This may not be suitable in some women with cervical cancer and the keyhole (laparoscopic) technique may be used to collect eggs instead. A general anaesthetic is required for the laparoscopic technique.

In women who have a partner, once the eggs are collected, they can be fertilised with the partner’s sperm (IVF) and the embryos stored. If you do not have a partner, the eggs are frozen. It is difficult to predict the chances of a successful pregnancy using frozen eggs. Not all eggs will survive the freezing/thawing process. Those that survive will be mixed with sperm when you have a partner to create an embryo. The live birth rate – the chances of having a baby – using frozen eggs is thought to be between five per cent and 10 per cent. Women who have been treated for cervical cancer will require a surrogate mother to carry the child.

Women who are unable to undergo ovarian stimulation because they need to start their treatment immediately can have a small piece of their ovary frozen (ovarian cryopreservation). This piece
can be removed at the time of laparoscopic ovarian transposition. At present, this technique is purely experimental and no babies have been born from frozen ovaries. Where possible, the option of egg freezing is preferred.

3. Surrogacy

The word surrogate means substitute. When applied in these circumstances it refers to a substitute who carries the pregnancy because the biological mother is unable to do this. Women who have undergone a radical hysterectomy or chemoradiation for cervical cancer will be unable to carry a child of their own, so need a surrogate. The Fertility Unit can advise you on the laws governing surrogacy, but cannot provide a surrogate for you. Your surrogate may be a friend or relative or someone you are introduced to through an agency. The law forbids payment for the service, but you will have to pay the surrogate’s costs and expenses (which may amount to several thousand pounds). You will also need to seek legal advice and need to consider the cost of this. The whole surrogacy procedure can be complicated and difficult emotionally, so give it a lot of thought before choosing this option.

Costs

Fertility treatment is expensive and not all treatment is available on the NHS. Whether you will be able to get some or all your treatment funded depends on where you live. A full list of costs is available but as a rough guide, it costs approximately £4,500 for an egg-freezing treatment cycle.

Long term outcome

Having a child is an important decision for anyone, and a long-term commitment. Thinking of the needs of any child forces us to think about the future. We need to ask you to think about the very difficult issue of your capacity to look after a child in the long-term as a result of your illness. Although we are becoming more successful in treating cervical cancer, not every woman
with cervical cancer will survive. Some women will be diagnosed with an early stage cancer which can be cured. However others will have a more advanced tumour and curing the cancer may not be possible. For this reason it is important to consider this difficult issue before embarking on fertility treatment. You may be asked to wait at least one year after completing your treatment to ensure it is successful before starting fertility procedures. Your doctor should be able to give you an idea of the likelihood of curing your cancer once the staging investigations are completed, which will help your decision-making.

**What happens next**

Once you have read this leaflet and had a chance to discuss it with your doctor, clinical nurse specialist (and where applicable, your partner), you may wish to take things further. We will arrange an appointment for you to see an expert in the Reproductive Medicine Unit. You can explore the options in more detail there and be advised about which treatment or combination of treatments is suitable for you.
Useful contact numbers at University College London Hospitals NHS Foundation Trust

Clinical Nurse Specialists, Gynaecological Oncology
0845 1555 000 ext 8636
Monday – Friday, 9.00am – 5.00pm

Team Co-ordinator
0845 1555 000 ext 8636 or Bleep 2422
Monday – Friday, 9.00am – 5.00pm
(answerphone available outside of these hours)

T13 Ward (Gynaecology)
0845 1555 000 ext 71300 or 71392

T14 Ward (Oncology)
0845 1555 000 ext 71486 or 71488
Support groups

Cancer BACUP
0808 800 1234
www.cancerbacup.org.uk

Macmillan Cancerline
0808 808 2020
www.macmillan.org.uk

Jo’s Trust (Fighting Cervical Cancer)
www.jotrust.co.uk

Ovacome (Ovarian Cancer Support Network)
020 7380 9589
www.ovacome.org.uk

VACO (Vulval Awareness Campaign Organisation)
www.vaco.co.uk

Amarant Trust
01293 413000
www.amarantmenopausetrust.org.uk

Chai Cancer Care: 020 8302 2211
www.chaicancercare.org
This is a support service based in Hendon for Jewish patients and their families, offering a full range of support and alternative therapies.

Cherry Lodge: 020 8216 4486
This is a support service based off Barnet High Street. It offers appointments and drop-in sessions including aromatherapy, massage, and reflexology. There is also an ovarian cancer support group for people with cancer and for their families, friends, and carers. To book an appointment with Cherry Lodge contact the service. On your first appointment, a nurse will assess you to find out how they can support you best.

Cancerlife: 020 8373 6222
This is similar to Cherry Lodge and is based in Enfield.

Helen Rollason Cancer Care Centre, North Middlesex Hospital
www.helenrollason.org.uk/north_middlesex.php
This support service offers counselling, aromatherapy, reflexology and bach flower remedies. For more information contact: 020 8887 2408