

Patient Guide



Brachytherapy:

The precise answer for tackling cervical cancer



Because life is for living

The aim of this booklet is to help women who have been diagnosed with cervical cancer – and their family and friends – at a time when they are planning and preparing for treatment.

This is inevitably an emotional and stressful time. It is important to have the advice and support of your healthcare team together with all the information you require. This can give you confidence that you are in control and understand what your treatment might entail.

There are a number of treatments for your cervical cancer that your healthcare team may discuss with you, including:

- Surgery – including hysterectomy
- Radiotherapy – including a treatment called brachytherapy
- Chemotherapy

Treatments are often used in combination with each other. Your treatment schedule will be individualized to best suit you.

This booklet provides you with information about **brachytherapy**, also known as **'internal radiotherapy'**.

The following pages explain:

- The different **treatments available** for cervical cancer.
- Specific information on **brachytherapy** for cervical cancer including how it works and its potential benefits and side effects.
- Where to find **further information**.

“ After discussing the different treatment options with my doctor, I knew that including brachytherapy in my treatment plan would give me the best chance to fight and beat my cervical cancer.

It was important for me to understand how brachytherapy might help with my treatment, as well as knowing what to expect from the actual procedure.

After talking this through thoroughly with my doctor, it was an easy decision and after having brachytherapy, I can say it's definitely a decision I'm glad I made. ”



Treatment options available for cervical cancer

Following a confirmed diagnosis of cervical cancer your doctor will discuss with you what treatments might be best. The treatments available to you will depend, in part, on the specific characteristics of your cervical cancer. You will often hear about the 'stage' of your cervical cancer. This tells your doctor if the cancer is just in the cervix or if there are cancer cells in other tissues.

Except in the early stages, most women with cervical cancer will have more than one type of treatment. Combining treatments can increase the chances of curing the cancer and preventing it returning.

Possible treatments include:

Surgery

In very early cervical cancer, it may be possible to remove just the cancerous cells and part of, or the whole of, the cervix (the 'neck' of the womb).

Another surgical option involves removal of the cervix and the uterus (womb) – known as a 'hysterectomy'.

Your doctor will be able to advise you which surgical options make sense, based on the stage of your cervical cancer and other things, such as your general health.

Radiotherapy

Radiotherapy works by killing the cancer cells, which shrinks the size of the tumor. There are two types of radiotherapy used to treat cervical cancer:

- **External beam radiotherapy (EBRT)**

Radiation is directed from outside the body to the tumor inside the cervix (i.e., from the 'outside, in'). The radiation is given at a low dose, often on a daily basis over a period of a few weeks.

- **Brachytherapy (internal radiotherapy)**

Brachytherapy works by precisely delivering a radiation dose directly to the tumor, from inside the body (i.e., from the 'inside, out'). Because the radiation is targeted to the area needed, it is given at a higher dose than EBRT, but over a shorter time frame. Brachytherapy will usually be given following EBRT, to provide an extra dose of radiotherapy where needed. This is sometimes called a 'boost'. For some women brachytherapy may be the only type of radiotherapy used.

Chemotherapy

Chemotherapy can help kill cancer cells and shrink the size of the tumor. It is often combined with radiotherapy (called chemoradiation).

You should discuss all the different treatment options and combinations with your healthcare team when putting together the treatment program for your cervical cancer.

What are the benefits of brachytherapy?

The benefits of brachytherapy include:

- **Shown to be effective:**
Long-term studies have shown that the majority of women treated with brachytherapy usually in combination with external beam radiotherapy and chemotherapy continue to remain free of cancer. Cure rates are often found to improve if brachytherapy is used in the treatment plan.^{1, 2}
- **Minimized side effects:** The accurate delivery of radiation directly to the tumor inside the body reduces the risks of side effects.
- **Convenience of short treatment:** Brachytherapy can be given over a short period of time – often a matter of days.
- **A standard of care treatment:** Brachytherapy usually in combination with external beam radiation and chemotherapy is the standard treatment for locally advanced cervical cancer in most countries.³⁻⁸
- **State-of-the-art technology:** Brachytherapy is an established, tried and tested treatment. However, it is continually being advanced with the very latest technology to provide even more effective treatment.

What are the brachytherapy options for cervical cancer?

Brachytherapy is an effective form of treatment for early and local cervical cancer and will generally be given following a treatment course of EBRT.

Brachytherapy delivers a radiation dose directly to the tumor from inside the body. There are three different methods of administering the radiation dose. These methods are all effective at killing cancer cells, but differ in the rate (how quickly) the radiation is delivered to the area being treated. The choice may be dependent on the equipment your treatment center has, but is most likely to be either high dose rate (HDR) brachytherapy or pulsed dose rate (PDR) brachytherapy.

High dose rate (HDR) brachytherapy

- The prescribed radiation is given rapidly to the treatment area, over a period of minutes.
- The treatment is then repeated about 5 times.
- This is an outpatient procedure. You will not usually have to stay in hospital overnight.

Pulsed dose rate (PDR) brachytherapy

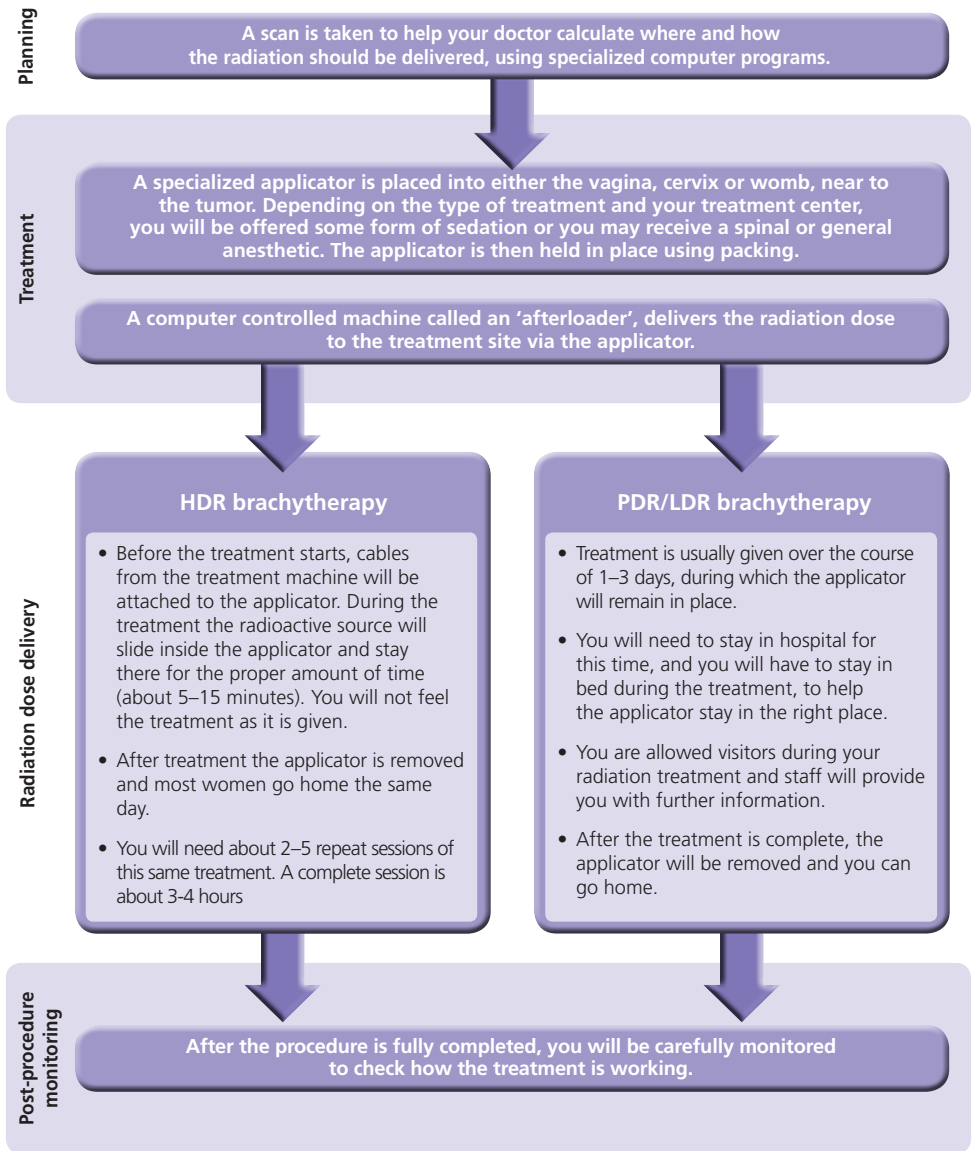
- A high dose of radiation is delivered to the tumor in short pulses, usually taking about a day to complete.
- This is an inpatient procedure so you will need a stay in hospital.

Low dose rate (LDR) brachytherapy

- The prescribed radiation dose is delivered at a slower rate, usually over a period of about 2–3 days.
- This is an inpatient procedure so you will need a stay in hospital.



How is brachytherapy delivered?



What else should I know about cervical brachytherapy?

As with all treatments for cervical cancer, you may experience side effects after receiving brachytherapy.

As brachytherapy targets the cancerous tumor site from inside the body, radiation is delivered directly to the tumor. This helps to minimize the amount of radiation going to nearby healthy organs, such as the bladder and bowel, which helps to lower the risk of side effects.

The type of side effects that you might experience depends on a number of factors, including the stage of your cervical cancer and whether you have any other health problems. **People respond to treatments in different ways and you may, or may not, experience some of these side effects.**

Short-term side effects

Short-term side effects are typically mild in nature and usually resolve soon after treatment.

- Tiredness – you may have to rest for a few days while you recover
- Nausea (feeling sick)
- Diarrhea
- Discomfort when passing urine
- Vaginal bleeding and soreness of the vulva and/or rectum after the applicator is removed

Long-term side effects

There may be some long-term side effects, which are typically mild in nature.

- Urinary discomfort (bladder problems)
- Loose or more frequent bowel motions
- Vaginal narrowing and loss of elasticity ('vaginal fibrosis')
- Vaginal dryness

These side effects may affect your daily routine and sex life. However, your doctor can advise you on methods to prevent this from occurring. For example, your doctor may suggest using a vaginal dilator.

Even if you are affected by some of these long-term side effects, many patients find that they disappear over time or are very manageable.

It is important to remember that radiotherapy (brachytherapy or EBRT), can cause the ovaries to stop working, which can cause early menopause.

Discuss your treatment plan, including benefits and possible side effects with your healthcare team.

Is brachytherapy right for me?

Your healthcare team know specifically about your condition and whether brachytherapy could be a relevant and helpful part of your individual treatment program. Talk to your healthcare team and discuss your treatment plan as you go through the decision making process.

Writing down a list of questions before you go in and see your healthcare team can help you to feel more in control of your treatment. Some examples are provided in the box to the right.

You will also find these on the website www.aboutbrachytherapy.com along with some general answers.

Finding all the right information will help ensure that together with family, friends and your healthcare team, you have explored and understood the different treatments you will be offered. This way, you can be confident about your treatment plan.

Below are some questions you might want to include in your list:

- What are my treatment options?
- How effective are the treatments?
- In which cases does brachytherapy work?
- Is brachytherapy an option for me?
- How is the treatment carried out?
- Will there be any side effects?
- How long will the treatment last?
- Will I need to stay in hospital and, if so, for how long?
- Where can I be treated?
- How should I prepare for my treatment?
- What will my family need to know?
- Will I be able to have children after treatment?

References

1. Han K et al. *Int J radiation Oncol Biol Phys* 2013;87:111-119.
2. Lanciano R et al. *Int J Radiation Oncology Biol Phys* 1991;20:667-676
3. Haie-Meder C et al. *Radiotherapy and Oncology* 2005;74:235-45.
4. 2012;11 Viswanathan A et al. *Brachytherapy*:47-52.
5. Viswanathan A et al. *Brachytherapy* 2012;11:33-46
6. NCCN guidelines [HYPERLINK "http://www.tri-kobe.org/nccn/guideline/gynecological/english/cervical.pdf"](http://www.tri-kobe.org/nccn/guideline/gynecological/english/cervical.pdf) accessed August 2013
7. http://screening.iarc.fr/doc/FIGO-Global-Guidance-for-Cervical-Cancer-Prevention-and-Control_1.pdf. Accessed August 2013
8. ESMO guidelines Haie-Meder C et al. *Annals of Oncol* 2010;21:V37-40



Further support and advice

About brachytherapy website

For further support and advice about brachytherapy and its role in the treatment of cervical cancer, you can visit www.aboutbrachytherapy.com

Local patient groups

Local breast cancer patient groups are a good source of information and an opportunity to share experiences. The internet, library and your healthcare team are good places to start when looking for a patient group.

Other resources include:

American Cancer Society

<http://www.cancer.org>

National Comprehensive Cancer Network®

<http://www.NCCN.com>

Brachytherapy:

The precise answer for tackling cervical cancer

- Brachytherapy is a type of radiotherapy that places the radioactive source in, or near, the tumor site
- Brachytherapy is a precise treatment that targets the tumor and minimizes side effects
- Brachytherapy is an effective treatment that can be used alone, or in combination with external beam radiotherapy, surgery or chemotherapy

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