INTRODUCTION

You have received a diagnosis of cervical cancer. The amount of information you receive at the time of diagnosis can feel overwhelming. All at once, you may feel there are questions to be answered, decisions to be made, and so much information to be understood.

A team of healthcare professionals will work with you throughout your treatment process. Each of them has an important job, but the most vital member of the team is you. To play an active role during your treatment, it helps to learn as much about cervical cancer as possible.

This booklet will explain the basis of what you need to know about cervical cancer. It will introduce you to the people who may be part of your treatment team. It will identify the different types of treatments for cervical cancer, and it will help you with your treatment team and to feel confident about your treatment plan.
CERVICAL CANCER: AN OVERVIEW

Cancer occurs when cells in an area of the body grow abnormally. Cervical cancer is a cancer that begins in the cervix, the part of the uterus or womb that opens into the vagina. It is the part of the uterus that dilates and opens fully to allow a baby to pass into the birth canal. The normal cervix has two main types of cells: squamous or flat cells, that protect the outside of the cervix and glandular cells, that are mostly inside the cervix, that make the fluid and mucus commonly seen during ovulation. Cervical cancer is caused by abnormal changes in either of these cell types in the cervix, and is the only gynecologic cancer that can be prevented by regular screening and preventive vaccination.

Since nearly all cervical cancers are caused by persistent infection with the Human Papillomavirus (HPV), vaccinating women and young girls before they become sexually active (currently recommended at 11 and 12 years of age) leads to the greatest prevention of pre-cancer and cancer. Also, it is recommended that young boys be vaccinated as well. Early vaccination along with regular Pap tests and HPV testing when recommended is now the best way to prevent cervical cancer. Cervical cancer usually affects women between the ages of 30 and 55.

SYMPTOMS

Cervical cancer and cervical pre-cancers usually have no symptoms. That is why it is important to have a Pap test. A woman usually does not have any symptoms until the cells turn into cancer and invade the deepest parts of the cervix or other pelvic organs.

These are common symptoms in women who have developed cervical cancer.

- Vaginal discharge
- Abnormal vaginal bleeding
- Vaginal odor
- Pain

These symptoms may be caused by cancer or by other health problems. It is important for a woman to see her doctor if she is having any of these symptoms.
MEDICAL EVALUATION

When a woman experiences concerning symptoms, a pelvic exam, including a rectovaginal exam, and a general physical should be performed. If the exam is abnormal, the woman might be recommended to undergo an HPV test, colposcopy (observing the cervix through a magnifying scope) and a biopsy, depending upon the results of the colposcopy.

If cervical cancer is suspected or diagnosed, it is important to seek care first from a gynecologic oncologist.

WORKING WITH YOUR TREATMENT TEAM

During your treatment, you will come in contact with many health care professionals. These people make up your treatment team. They will work with each other and you to provide the special care you need. Your treatment team may include some of the healthcare professionals listed below.

Ideally, your treatment will be provided and managed by a gynecologic oncologist. Gynecologic oncologists are obstetrician-gynecologists who have an additional 3-4 years of special training in the comprehensive surgical care and medical treatment of female reproductive cancers. A gynecologic oncologist can manage your care from diagnosis to completion of treatment. You also may be treated by:

• **Medical oncologist** who specializes in using drug therapy (chemotherapy) to treat cancer.
• **Radiation oncologist** who specializes in using radiation therapy to treat cancer.
• **Oncology nurse** who specializes in cancer care. An oncology nurse can work with you on every aspect of your care, from helping you understand your diagnosis and treatment to providing emotional and social support.
• **Social worker or patient navigator** who are professionally trained in counseling and practical assistance, community support programs, home care, transportation, medical assistance, insurance and entitlement programs. They are very helpful advocates, especially when you are first diagnosed and unsure what to do next.
• **Nutritionist, or registered dietician**, who help you either maintain or initiate healthy eating habits. This is important in the recovery process. These professionals can help you overcome potential side effects of treatment such as poor appetite, nausea or mouth sores. It is important to note that natural remedies and supplements should be taken only under the supervision of a naturopathic physician in consultation with your gynecologic oncologist.
TALKING WITH YOUR TREATMENT TEAM

You deserve expert advice and treatment from your treatment team. Be sure to talk openly about your concerns with the members of your treatment team. Let them know what is important to you. If it is hard for you to speak for yourself, these tips may help:

• Make a list of questions before your visit. Ask the most important questions first.
• Take notes, or ask if you can tape record your medical office visits and phone conversations.
• If you don’t understand something, ask the treatment team member to explain it again in a different way.
• If possible, bring another person with you when you meet with members of your treatment team to discuss test results and treatment options.

TREATMENT

Cervical cancer may be treated with surgery, radiation therapy and/or chemotherapy. Depending on a number of factors, your treatment team may recommend using a combination of treatments to treat your cancer.

Your specific treatment plan will depend on several factors, including:

• The stage of your cancer
• The size and location of your cancer
• Your age and general health

All treatments for cervical cancer have side effects. Most side effects can be managed or minimized. Some treatments may affect your sexual function or your ability to have children.

Before beginning treatment, it is important to learn about the possible side effects and talk with your treatment team members about your feelings or concerns. They can prepare you for what to expect and tell you which side effects should be reported to them immediately. They can also help you find ways to manage the side effects that you experience.
Surgery is the most common treatment for early cervical cancer, although radiation can also be used and typically works equally as well. Several types of surgery can be performed, but the final choice for you will depend on several factors that your gynecologic oncologist will consider, especially the stage and size of your cancer as well as your general health.

**Cervical conization:** Conization means surgical removal of just the cancerous (or precancerous in many cases) part of the cervix. Conization is an option only for the earliest cancers, the ones that are microscopic. This is the preferred treatment for women with very small cancers who wish to preserve fertility.

**Vaginal or abdominal hysterectomy:** In a vaginal hysterectomy, the uterus and cervix are removed through the vagina. In an abdominal hysterectomy, these organs are removed through an incision on the abdomen.

**Laparoscopic hysterectomy:** This involves the removal of the uterus and cervix in a procedure that is performed through several (3–5) very small incisions on your abdomen, and the uterus and cervix are brought out through the vagina. This procedure allows for quicker recovery than abdominal hysterectomy.

**Robotic hysterectomy:** This procedure is essentially the same as a laparoscopic hysterectomy using several small incisions, but in this procedure your surgeon uses the assistance of a robotic technology (robot) which s/he is in control of at all times to perform your surgery.

**Radical abdominal hysterectomy:** This procedure may be performed through an abdominal incision, but sometimes it can be recommended to be performed through small incisions either laparoscopically or with the assistance of robotic technology. The word radical means that the uterus and the tissue between the uterus and pelvic wall, as well as part of the upper vagina, are removed.

Lymph nodes in the pelvis are also removed and examined to determine if the cancer has spread (radical pelvic lymphadenectomy). In some cases, both ovaries and both fallopian tubes must be removed. This procedure is called a bilateral salpingo-oophorectomy.

**Radical trachelectomy:** This is a surgery where your cervix and surrounding tissues are removed but the upper uterus is preserved for future pregnancy. This operation is only available for carefully selected women and is dependent on several factors.
SURGICAL STAGING

Staging helps to determine what treatment plan is best for you and to give you an idea of how extensive your cancer is and your chances of a cure and it determined at the time of your surgery.

Cervical cancer is grouped into four stages.

**Stage I:** The cancer is found only in the cervix.

**Stage II:** The cancer has spread from the cervix to the upper part of the vagina or the tissue around the uterus. It has not spread to the pelvic wall. (The pelvic wall is the muscle and connective tissues that line the insides of the pelvic bones.) Cancer cells may also be found in the lymph nodes in the pelvis.

**Stage III:** The cancer has spread to the lower part of the vagina or to the pelvic wall. It may block the flow of urine to the bladder. Cancer cells may also be found in the lymph nodes in the pelvis.

**Stage IV:** The cancer has spread to other body parts within or outside of the pelvis. Cancer cells may be found in the bladder, rectum, abdomen, liver, intestines or lungs.
Side effects of surgery

Some pain and discomfort are common after surgery. Pain can be controlled with medicine. Tell your treatment team if you are experiencing more than mild pain.

Other early side effects (days to weeks after surgery):

• Nausea
• Discomfort related to tubes, catheters and medical devices
• Difficulty urinating so that a catheter that may stay in your bladder for a few days to weeks is often necessary
• Soreness of the abdomen around the incision
• Cramps and gas pains
• Watery vaginal discharge or bleeding

Later side effects (weeks to months):

• Fatigue
• Difficulty urinating
• Constipation
• Shortening of the vagina

Some things may be done at the time of your surgery to minimize these side effects (such as placement of a temporary drainage catheter in your bladder). Women who have a hysterectomy will stop having periods and will no longer be able to have children. Hormone levels will be the same if the ovaries are left in, or may fall to menopausal levels if the ovaries are removed. Hormone therapy to treat menopausal symptoms is usually an option if the ovaries are removed.

RADIATION THERAPY

Radiation therapy (also called radiotherapy) uses high-energy radiation to kill cancer cells or stop them from growing. Radiation therapy can be an effective treatment for early stage cervical cancers. However, in early cervical cancer, it is more commonly used as extra treatment after surgery for patients at highest risk for recurrence of their cancer (such as when the tumor might have spread beyond the cervix). Radiation is also used to treat larger or higher stage cancers where it is actually works better than surgery. Your individual need for radiation therapy will be determined using information from your staging tests, examinations, and surgery, if an operation was performed from findings at the time of your evaluation.
Two types of radiation therapy are used to treat cervical cancer. Radiation therapy for cervix cancer is most often given in combination with chemotherapy.

**External radiation therapy** uses a machine that directs the radiation toward a precise region of the body. The therapy is usually given daily, Monday through Friday, for about six weeks. Radiation does not hurt during the treatment and only takes a few minutes each day. You can be treated at a clinic, hospital, or radiation oncology office, and typically you return home each day after treatment.

**Internal radiation therapy** (also called brachytherapy) involves placing a small capsule of radioactive material inside the vagina or near the cervix. This procedure can sometimes be performed on an outpatient basis, and other times it requires hospitalization for a night or two. Medication is given to alleviate the discomfort from these procedures. During the time the radiation capsules are in, your family may only be allowed limited time next to you, but the radiation capsules are removed prior to going home.

**Side effects of radiation**

The side effects of radiation therapy depend on the dose used and the part of the body that is being treated. Common side effects for cervix cancer patients are listed below.

Early side effects (occur during treatment):
- Dry, reddened skin in the treated area
- Fatigue
- Anemia
- Diarrhea and nausea
- Discomfort when urinating

Most of these side effects are temporary. Not everybody experiences all of these side effects. Be sure to talk with your treatment team members about any side effects you experience. They can help you find ways to manage them.

Later side effects from radiation therapy include:
- Narrowing of the vagina and loss of lubrication
- Urinary frequency (radiation cystitis)
- Diarrhea (radiation colitis)
- Early or sudden menopause (if the ovaries stop working)
- Skin thickening and irritation
Be sure to talk with your health care team about what you can do to reduce your risk of having long-term side effects from the radiation. Some long-term complications, for example narrowing of the vagina, are better prevented than treated once they are severe.

**CHEMOTHERAPY**

Chemotherapy is the use of drugs to kill cancer cells. Chemotherapy for cervical cancer is usually given intravenously (injected into a vein). You may be treated in the doctor’s office or the outpatient part of a hospital.

The drugs travel through the bloodstream to reach all parts of the body. This is why chemotherapy can be effective in treating cervical cancer that has spread beyond the cervix. However, the same drugs that kill cancer cells may also damage healthy cells. To limit the damage to healthy cells, chemotherapy is usually given in cycles. Periods of chemotherapy treatment are alternated with rest periods when no chemotherapy is given. Side effects usually still occur, but are manageable.

**Side effects of chemotherapy**

Each person responds to chemotherapy differently. Some people may have very few side effects while others experience several. Most side effects are temporary. They include:

- Nausea
- Loss of appetite
- Mouth sores
- Increased chance of infection
- Bleeding or bruising easily
- Vomiting
- Mild hair loss
- Fatigue
- Constipation
IMPORTANCE OF CLINICAL TRIALS PARTICIPATION

There are many on-going clinical trials studying new and better ways to treat ovarian cancer. Many treatment options are available today because women diagnosed with a gynecologic cancer were willing to participate in prior clinical trials.

Clinical trials are designed to test some of the newest and most promising treatments for these cancers. The Foundation for Women’s Cancer partners with National Cancer Institute (NCI) funded clinical trial groups such as the Gynecologic Oncology Group (GOG) and others to provide you with information about current clinical trials. For more information about clinical trials available for enrollment, visit foundationforwomenscancer.org/clinicaltrials.

LIVING WITH CANCER THERAPY

The experience of being diagnosed with a gynecologic cancer and undergoing cancer treatment may change the way you feel about your body, and will affect your life in many ways. You may experience many or relatively few side effects. Being aware of the possible treatment effects may help you anticipate them and plan ways to cope.

FATIGUE

Regardless of the treatment prescribed, you are likely to experience fatigue, frequent medical appointments and times when you do not feel well enough to take care of tasks at home. You will need to rely on family and friends to help with some of the things you usually do. You may want to consider hiring someone for help with chores until you feel well enough to manage again. If you know that you will not have support at home, talk frankly with your health care team as early as possible so that alternatives can be explored. Since a nourishing diet is important, be sure to ask for help, if needed, in maintaining healthy meal and snack choices in your home.

Be sure that your blood count is checked to rule out anemia as a treatable cause of fatigue. There are also medications for the relief of fatigue.
WORK LIFE
You will probably need to be away from work quite a bit during the first month or two of your treatment. Talk with your supervisors at work and with your healthcare team to set up a realistic plan for work absences and return to work. Remember to tell your work supervisor that any plan must be flexible because your needs may change as treatment progresses. The Family Medical Leave Act (FMLA) offers certain protections for workers and family members who must be away from work for health reasons.

FACING THE WORLD
The effects of cancer and your cancer treatment may alter your appearance. You may appear fatigued, pale, slow-moving and you may have to face temporary hair loss. You may feel self-conscious because of these changes. It might help to imagine how you might feel if you saw a friend or sister looking as you do. Remember that many people are loving you rather than judging you as they notice these changes.

FAMILY, FRIENDSHIPS AND FUN
No matter what type of treatment you have, you may experience side effects that could affect how you feel about joining in social events with friends and family. Talk to your health care team if special events are coming up such as a wedding or graduation. The timing of your treatments may be able to be adjusted so that you feel as well as possible for these special days. Don’t hesitate to plan activities that you enjoy. You may have to cancel on occasion or leave a little early, but the good times will help you to find strength for the hard days.

It is often difficult for young children to understand what you are going through. Counselors are available to help you answer questions and to help your children cope. It is also a good idea to ask family and friends to help you keep your children’s normal routine.

DRIVING
For women who drive, driving is an almost indispensable part of adult life. You should not drive if you are taking medications that cause drowsiness, such as narcotic pain relievers and some nausea medications. Most women can start driving again within a few weeks of surgery and usually women can drive most days during chemotherapy and radiation therapy. Be sure to ask your health care team about driving.
SEXUALITY

Some treatments for ovarian cancer can cause side effects that may change the way you feel about your body or make it difficult to enjoy intimate or sexual relationships. Which side effects you experience depend on your treatment course. You may experience some or none at all. Being aware of the possible side effects may help you anticipate them and learn ways to cope with them.

Possible side effects include:

- **Hair loss.** A common side effect of chemotherapy, hair loss is usually temporary. Still, it can be difficult to accept. If you experience hair loss, you may choose to wear flattering wigs, scarves, or other headwear.

- **Vaginal changes.** Some forms of treatment, such as hysterectomy and radiation therapy, may cause dryness, shortening and narrowing of the vagina. These changes can make sexual activity uncomfortable. Using an over-the-counter vaginal lubricant may help you feel more comfortable. Your treatment team may also recommend use of a vaginal dilator.

- **Reduced sexual desire.** The stress and fatigue you may experience during cancer treatment may cause you to lose interest in sex for a period of time.

TIPS FOR COPING

**Talk with your treatment team.** Your treatment team members can provide advice based on your individual situation, so it is very important that you talk honestly with them. You may want to ask:

- How will my treatment affect my sexuality?
- Will these effects be temporary or permanent?
- Are there other treatment options that might lessen these effects?
- Do you have suggestions about how I can deal with the effects of treatment on my sexuality?

**Communicate with your partner.** Having cancer can strain both partners in a relationship. Talking about the sexual and emotional effects cancer has on your relationship can be difficult. But you may find it easier to work through the challenges if you talk through them together. Be prepared to share your own feelings and to listen to what your partner has to say.
Shift your focus to intimacy. Sexual intercourse is only one part of intimacy. You may find that touching, kissing and cuddling are equally fulfilling.

Be patient with yourself. Understand that a return to a sexual relationship may take time. Your treatment team can tell you if and how long you should wait to have sex after treatment. It may be longer before you feel emotionally ready. Give yourself the time you need.

Keep an open mind. Having an open mind and a sense of humor about ways to improve your sexuality may help you and your partner find what works best for you. For more information, please visit the [insert brochure if it is ready].

Seek support. There are many resources available to help you deal with any sexual or emotional issues you may have as result of cancer and its treatment. Specially trained counselors can help you deal with the impact of cancer on your life. Support groups are another good resource. People who are facing a situation similar to yours can come together to share their experiences and give one another advice and emotional support. To find support services in your area, talk with a member of your treatment team.

Exercise. During treatment you may find that even the stairs to your bedroom are a challenge, even if you have worked hard during your adult life to keep fit. It’s discouraging, but normal, to have to reduce or interrupt your fitness routine. If you’ve had surgery, ask your doctor for specific guidelines about exercise. During chemotherapy or radiation, adjust your exercise according to how you feel.

You should avoid overexerting or dehydrating yourself. Over the weeks and months after you finish cancer treatment, you can build back toward your previous level of fitness.
HOPEFUL MESSAGES

As you go through cancer treatment, be patient with yourself. Understand that a return to your full and wonderful life will take time. Your treatment team can guide you through the difficulties that you will face if they know what is troubling you. Talk openly about the things that bother you. Give yourself the time you need.

Advance Medical Directives can be a helpful tool for clarifying your medical care wishes. We encourage both patients and families to complete one. Your health care team is available for guidance on this matter.

Nurture hope. It’s up to you to take charge of your reaction even as you face the unknown of cancer. Hope helps you see the positive aspects of life.

If you have inner spiritual beliefs, reach out to your religious community to give you additional support to face each day and LIVE.

Seek support. There are many resources available to help you deal with the physical, sexual, or emotional issues you may have as result of cancer and its treatment. Specially trained counselors can help you deal with the impact of cancer on your life. Support groups are another good resource. People who are facing a situation similar to yours can come together to share their experiences and give one another advice and emotional support. To find support services in your area, talk with a member of your treatment team, or contact the resources listed below. Remember you are surrounded by a devoted health care team, so let us be at your side.
RESOURCES

American Cancer Society
800.ACS.2345
cancer.org

American Social Health Association
919.361.8400
ashastd.org

CancerCare
800.813.HOPE(4673)
cancercare.org

Centers for Disease Control and Prevention
888.842.6355
cdc.gov/cancer/knowledge/

National Cancer Institute
800.422.6237
cancer.gov/cancertopics/types/cervical

National Cervical Cancer Coalition
800.685.5531
nccc-online.org/

The American Society for Colposcopy and Cervical Pathology
301.733.3640
asccp.org/patient_edus.html
Cervical cancer can be prevented.

Almost all cervical cancer is caused by a persistent infection with the Human Papillomavirus, or HPV.

Vaccinating young girls and boys before they become sexually active can prevent cervical cancer.

Regular Pap tests and HPV testing when recommended are important in preventing cervical cancer.

Cervical cancer usually affects women between ages 30 and 55, but younger women also are at risk.

Listen to your body for these symptoms

- Bleeding after intercourse
- Excessive discharge and abnormal bleeding between periods
- NOTE: Most women will have no symptoms, making vaccination and regular Pap test plus HPV test, when recommended, key to preventing cervical cancer.

Act

- Don’t smoke! Smoking weakens the immune system and a weakened immune system can lead to persistent HPV infection.
- Get vaccinated, preferrably in boys and girls ages 11 and 12
- Get Pap test and HPV tests when recommended at the intervals recommended by your healthcare provider.
- If your test results say you have cervical pre-cancer or cancer, seek care from a gynecologic oncologist.
TAKE THE PLEDGE TO PREVENT CERVICAL CANCER

The Foundation for Women’s Cancer offers a special program to help women remember to schedule an annual gynecologic examination and learn ways to prevent cervical cancer. Visit foundationforwomenscancer.org/cervicalcancer to learn more.

Help the Foundation for Women’s Cancer Spread the Word

Please consider a donation to the Foundation for Women’s Cancer to help us reach more women with these important messages. You can donate online at foundationforwomenscancer.org, contact Headquarters at 312.578.1439 or info@foundationforwomenscancer.org.
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