Brachytherapy for Gynecologic Cancers

What is Brachytherapy?

Brachytherapy (brake-ee-THER-uh-pee) is a type of radiation treatment that is given inside the body also known as internal radiation. A radioactive source called an implant is put inside the body in or near the tumor.

Brachytherapy can be used to treat many kinds of cancer. It can be used along with other treatments for cancer such as surgery, chemotherapy or other types of radiation therapy. Depending on what area of the body is treated and the dose, the radiation is given in different ways. The treatment may be given as an inpatient, in a clinic, or at the time of surgery.

Radiation given inside the body is a common treatment for:

- Cancer of the cervix
- Cancer of the vagina
- Cancer of the uterus

The radiation targets tumor cells so it has less effect on the healthy tissues around the tumor. There are 4 common types of implants:

- Vaginal Cylinder
- Ring and Tandem
- Syed Template
- Y Tandem

This handout is for informational purposes only. Talk with your doctor or health care team if you have any questions about your care.

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What is high-dose-rate remote Brachytherapy?

High-dose-rate remote brachytherapy gives radiation therapy in just a few minutes. It can be given in the operating room or during an outpatient visit to the Radiation Oncology treatment area.

A high dose of radiation is given directly to the tumor through tubes (catheters or needles). No radioactive materials are left inside the body, so you can leave after you recover from the procedure. There are no special radiation safety precautions to follow after this type of treatment.

What happens during a Brachytherapy Treatment?

Your doctor will meet with you about the procedure. The first treatment may be done in the operating room while you are under a general anesthesia (deep sleep) or the treatment may be done in the Radiation Oncology area.

Here is how a treatment is given in the Radiation Oncology area.

- You will be taken to a procedure room. You will be asked to lie on an exam table and place your feet in the holders (also called stirrups) at the end of the table.
- The doctor will place the implant device. There may be some discomfort while the implant device is in place. This may feel like mild menstrual cramps.
- Once the implant is in place, it will be secured so it does not move. Packing material or a special device will be used to keep the implant in the right position during the treatment.
- An x-ray, CT scan or MRI will be done to check that the implant is in the right location. After the doctor confirms the implant placement is correct, your treatment plan will be checked and verified by the Radiation team.
- Treatment planning can take 10 to 90 minutes. After the plan is complete you will be taken back to the treatment room. During the treatment, you will not feel the radiation when it is given. You may hear sounds made by the machine when the treatment is given. You will be alone in the room. The controls for the machine are outside of the treatment room. A TV monitor and intercom lets the therapist see and hear you during the treatment.
After your treatment is done, the implant will be removed and you will be able to leave. You will be in the Radiation Oncology area from 1 to 6 hours for the treatment.

Is radiation harmful?
Radiation treatment is given to kill the cancer cells. Radiation not only kills or slows the growth of cancer cells, it can also damage nearby healthy cells. The healthy cells almost always recover when treatment is over, but sometimes people have side effects that last longer or may not get better.

Your treatment is carefully planned for you to get the most from the radiation with the least amount of side effects. Your doctor will talk with you about the possible side effects you may have with your specific treatment. Your radiation treatment team will follow all safety guidelines and precautions to protect you during your radiation treatment.