

Ready to start planning your care? Call us at [800-525-2225](tel:800-525-2225) to make an appointment.

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Memorial Sloan Kettering
Cancer Center

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Radiation oncologists like Melissa Zinovoy develop a personalized treatment plan for each woman with breast cancer that takes in to account the precise size and location of the disease.

Radiation therapy uses high-energy x-rays to destroy cancer cells. At Memorial Sloan Kettering, we use radiation therapy in many different situations for women with breast cancer.

Radiation therapy requires careful planning. MSK has a dedicated team of radiation oncologists, radiation therapists, medical physicists, and other experts whose sole focus is breast cancer. Their goal is not only to eliminate breast cancer cells but also to prevent the side effects of radiation by keeping the healthy tissues and organs close to your breast safe.

We understand that daily treatment can be challenging for women with busy lives. MSK's breast team offers the most-advanced radiation treatments across our locations in [Nassau](#) and [Commack](#), on Long Island; [Westchester County](#); and [Basking Ridge](#) and [Middletown](#), New Jersey; as well as in [Manhattan](#), so you can get care closer to home.

The teams of doctors at all of our facilities are nationally recognized for their expertise and contributions to the field of radiation oncology. In addition, the women we care for have access to the latest treatment advances and [clinical trials](#) at each location.

Request an Appointment

Call [646-497-9064](tel:646-497-9064)

We're available 24 hours a day, 7 days a week

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Radiation after Lumpectomy

MSK's experts recommend radiation treatment after a [lumpectomy](#) to lessen the chances that the cancer will come back. This approach (lumpectomy followed by radiation therapy) is known as breast-conserving therapy.

A course of radiation starts between six and 12 weeks after lumpectomy surgery. Most frequently, we target the entire breast (whole-breast radiation). In some cases, we also treat nearby lymph nodes.

We may be able to target only the areas of the breast that have the cancer using a method called partial-breast irradiation, or PBI. This is appropriate for women with early-stage breast cancer, which means they have small tumors and no signs of cancer in their lymph nodes. This approach allows us to treat a smaller portion of the breast.

The length of PBI treatment is typically only one to two weeks, compared with three to four weeks when treating the whole breast. Because less breast tissue is exposed to radiation, PBI may lessen the risk of side effects without increasing the chances for breast cancer recurrence.

Breast Cancer Surgeons, Doctors and Other Experts

Our breast cancer doctors, specialized nurses, and other healthcare professionals provide compassionate, innovative care, and each one is an expert in the disease.

[Learn more](#)

Radiation after Mastectomy

After having a [mastectomy](#), some women have a moderate or high risk of microscopic cells being left behind. These cells can hide either in the chest wall or in the lymph nodes that drain fluid from the area around the tumor.

For this reason, we sometimes need to treat the chest wall or the reconstructed breast and the surrounding lymph nodes with postmastectomy radiation therapy. This treatment typically lasts five to six weeks.

Our plastic surgeons and radiation oncologists work together to offer radiation to women who have [breast reconstruction](#) immediately after mastectomy. The key to success is the collaboration among all of our doctors, including plastic surgeons, breast surgeons, medical oncologists, and radiation oncologists. This team approach gives our patients excellent outcomes, including a low rate of complications.

Women who need systemic therapy, such as [chemotherapy](#), may receive radiation after chemotherapy is completed.

Radiation for Metastatic Breast Cancer

For women with breast cancer that has spread to other parts of the body, radiation can be used to help with symptoms in the affected area. Radiation is

particularly useful for cancer that has spread to the bone and is causing pain. Radiation can help relieve pain in approximately 80 percent of women.



Jill's Story

After surgery, Wall Street veteran Jill overcame breast cancer with a unique treatment called hypofractionated radiation therapy, a short, concentrated course of radiation.

[Learn more](#)

Types of Radiation for Breast Cancer

External-beam radiation therapy is the most common form of radiation treatment for breast cancer. In this approach, a machine called a linear accelerator, or LINAC, produces radiation. The radiation is delivered as precisely targeted x-ray beams.

At MSK, we deliver external-beam radiation therapy in a variety of ways. These approaches are designed to tailor the radiation treatments as much as possible to the exact size and location of your cancer, specifically aiming at tumor cells while avoiding side effects.

We also offer internal radiation therapy in the form of brachytherapy. Brachytherapy is generally reserved for women receiving partial-breast irradiation after lumpectomy.

Learn more about the techniques our breast cancer radiation team frequently recommends.

MSK Precise™

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Intensity-Modulated Radiation Therapy for Breast Cancer

+

Image-Guided Radiation Therapy for Breast Cancer

+

Proton Therapy for Breast Cancer

+

Partial-Breast Irradiation Using Brachytherapy

+

Prone Breast Radiation Therapy

+

Deep Inspiration Breath Hold

+

Radiation Therapy Clinical Trials for Breast Cancer

Clinical trials are research studies that test new treatments to see how well they work and confirm that they are safe. Women who choose to participate in a trial at MSK receive the most advanced cancer treatments available, sometimes years before they are available anywhere else.

We offer a number of clinical trial options for women with breast cancer who are receiving radiation therapy. For example, MSK investigators are leading a [national trial on the use of proton therapy](#) to limit radiation-induced heart disease. Our team is also testing radiation in combination with new drugs, such as immunotherapy for recurrent breast cancer.

[Find a clinical trial for breast cancer radiation therapy.](#)

Why Choose to Have Your Breast Radiation Therapy at Memorial Sloan Kettering

In order to deliver radiation in the best possible way, it takes a dedicated team of doctors, nurses, therapists, physicists, and treatment planners. Our breast cancer team is one of the largest and most experienced in the country.

Our radiation oncologists have access to and experience with every single form of radiation therapy available. There is not just one best type of radiation for all of the women we care for. But with our deep experience, we can select the best technique for each individual woman and tailor our approach as needed.

Our team of medical physicists ensures that the radiation dose each woman receives is accurately and safely targeted to cancer tissue and spares nearby normal tissue.

We consider the details of each unique woman. Our publications have demonstrated that our personalized care leads to superior outcomes.

Listen Now: The Role of Radiation Therapy in the Treatment of Breast Cancer

Understand what radiation is, how MSK's experts include it in a patient's treatment plan, and how radiation schedules are planned.

[Play the episode](#)

Side Effects of Radiation for Breast Cancer

Shorter, Safer, Smarter: How MSK Enhances Radiation Therapy for Breast Cancer

MSK leads the way in optimizing radiation treatment for breast cancer patients.

[Learn more](#) →

Radiation treatments today are very precise, resulting in little harm to surrounding skin or healthy tissues. Many women tolerate radiation therapy to the breast very well and report few lasting side effects.

That said, after a few weeks of radiation, patients may experience:

- a sunburn-like condition on the skin
- changes in the color of the skin
- swelling and heaviness in the breast
- fatigue

Our radiation oncologists will explain in detail what to expect and when side effects are likely to appear. They can also prescribe a topical cream to minimize any changes in the skin. The fatigue women experience during treatment varies greatly, but in general women can remain active in all of their normal daily activities. Most women are able to continue working throughout the course of their care.

Other side effects can appear months or years after treatment has ended. These are called late effects.

Late effects of breast cancer radiation are not common but may include:

- inflammation in the lung, especially for women who have also received chemotherapy
- injury to the heart when there is significant heart exposure
- [lymphedema](#) in the arm, especially when radiation therapy is given after lymph node dissection

MSK's team of radiation experts takes every precaution to minimize injury to the heart and lungs. We're at the forefront of research to find new ways to prevent and treat lymphedema. We also have a dedicated team of experts in [rehabilitation](#) and [integrative medicine](#) to help manage this side effect of breast cancer treatment.

PREVIOUS

[Systemic Therapy for Breast Cancer](#)

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