

FAQs (Frequently Asked Questions)

1) What is Radiation Oncology?

Oncology is the medical term used to describe the study and treatment of cancer. Radiation Oncology is the application of radiation in the treatment of cancer. Radiation treatments can be used to treat some benign conditions (e.g. keloids, wet age-related macular degeneration, heterotopic bone formation, and some other disease processes); however, its primary use is in the management of cancer and other malignant conditions. Radiation Oncology can include the use of machines that focus radiation toward a diseased target within a patient (e.g. TomoTherapy, Linear Accelerators, Cyber-Knife, etc) or the application of radiation sources into or near a tumor (e.g. brachytherapy implants for prostate cancer, mammosite therapy for breast cancer).

2) Can I receive state of the art radiation treatments near my home?

Typically, the answer is yes. Nassau Radiology Group (Long Island Radiation Therapy) provides cutting edge technology including Varian's Rapid Arc treatment, Hi-Art's TomoTherapy treatment, as well as high and low dose rate brachytherapy in several conveniently located Long Island offices.

3) How do I schedule an appointment to see one of NRAD's Radiation Oncology physicians?

An evaluation by a Radiation Oncologist is typically coordinated following referral from your doctor. This referral may occur at the request of your primary care physician or a medical specialist (e.g. surgeon, medical oncologist, pulmonologist, etc.). Your healthcare provider will be able to facilitate your appointment by contacting our office at (516) 222-2020.

4) What information will I need when I see the Radiation Oncology physician for evaluation?

Evaluating a patient to determine if radiation treatments are appropriate is a complicated process. Typically the physician will need copies of the pathology reports, copies of radiology reports, copies (CD or film) of the actual imaging studies, laboratory tests (e.g. blood tests and tumor marker studies), surgical and operative reports. In many instances additional information will be requested; however, consultation can usually be completed with the items listed above.

5) How long is a typical course of radiotherapy?

The duration of therapy can vary based upon a particular diagnosis and stage of disease. The most important determinant in therapy duration is the goal of treatment. More specifically, if a patient has a disease process that the physician is attempting to cure, one can expect a treatment course lasting 6-8 weeks long. To the contrary, if the patient has a more extensive problem and the goal of treatment is more focused (e.g. pain control), the course of therapy will be shorter (typically 2-4 weeks). Several treatment parameters remain the same for most patients: a) Treatments are administered Monday through Friday at a particular time that is mutually agreed upon by the patient and treating practice; b) Daily treatments usually last 5-10 minutes; although, some can last 15-20 minutes.

6) Will I experience any side-effects from treatment?

Radiation is focused to the area of interest and significant efforts are made to reduce the dose to adjacent normal tissues. Nevertheless, some portions of the body are sensitive to the cumulative effects of radiotherapy. Your doctor will review the potential for experiencing side effects from therapy.

7) Is there a difference between treatment machines?

This is a complicated question with a complicated answer. There is actually very little difference in the way manufacturers design equipment for delivery of high dose radiation treatments. Typically machines can offer radiation doses ranging from 6mV to 25mV in strength. Most machines offer treatment at one lower energy and one higher energy (e.g. 6mV and 15mV). The higher energy beams are more commonly used for deeper situated targets. The "difference" in equipment is related to the number and types of options requested when the operator purchases the machine. Modern forms of radiotherapy (including Imaged guided radiotherapy, IGRT and intensity modulated radiotherapy, IMRT) require the use of sophisticated x-ray imaging devices to properly deliver the radiation prescribed by the physician. Robotically controlled x-ray cameras are mounted to the treatment machine. These cameras are capable of generating CT images prior to each day's treatment. Minor adjustments to the patient's position may be necessary to optimize target localization. When selecting a practice for receiving therapy it is critical to understand the capabilities of the staff, as well as the equipment. NRAD offers state of the art therapy with Varian's rapid arc equipment and Hi-Art's TomoTherapy machine. Both units allow for accurate targeting of the tumor prior to each days treatment session.

Several manufacturers make radiation treatment machines. Most modern radiation therapy is delivered using equipment referred to as a Linear Accelerator (or LINAC). These machines generate radiation that is more than a magnitude greater in strength than that used for simple x-ray pictures (i.e. 60kV versus 6000kV = 6MV). Machines are typically built so that they can rotate around the patient. The radiation beams are commonly shaped with small lead-like finger shaped blocks located in the top of the machine. By varying: the duration that the target (i.e. tumor) is exposed to the radiation; the shape of the "finger-like blocks"; and the angle of the radiation beam's entry into the patient, one can offer relatively high doses of therapy to the diseased areas and reduced radiation doses to surrounding normal tissues.

8) How will I know if my treatment worked?

Depending upon the site of your disease several tests may be used to evaluate your response to therapy. Some tumors cause the elevation of specific blood test results (tumor markers). Patients who present with elevated tumor markers are expected to have a reduction in these blood tests over time. More commonly, repeat imaging can be used to assess the person's response to therapy. Commonly performed tests include CT scans, MRI, bone scans, and PET/CT tests. Your physicians may request some of these tests, however.