Radiation Therapies are targeted treatment options

Radiation Oncology is the branch of cancer treatment that uses advanced radiotherapy delivery methods to target and treat a wide range of malignancies. At Virginia Cancer Specialists (VCS), our physicians use advanced treatment planning systems and state-of-the-art radiation technology to deliver treatment that is safer, faster, and more precise than ever before. Our highly trained staff works diligently to make your total experience as convenient and comfortable as possible.

Common Cancers Treated with Radiation Oncology

- Bladder
- Bone
- Brain
- Breast
- Esophageal & Gastric
- Head & Neck
- Lung
- Lymphoma
- Multiple Myeloma
- Pancreas
- Prostate
- Rectal
- Skin
- Spine
- Uterine

OFFICE LOCATIONS

Alexandria
4660 Kenmore Avenue
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Alexandria, VA 22304
Phone: (571) 483-1800

Arlington
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Suite 170
Arlington, VA 22205

Infusion Suite
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Arlington, VA 22205
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Fair Oaks
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Fairfax, VA 22033
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Fairfax
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Loudoun
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Leesburg, VA 20176
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Radiation Oncology Center
10301 Democracy Lane
Fairfax City, VA 22030
P: (703) 934-4450

Reston
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Reston, VA 20190
P: (703) 437-6535

Woodbridge
2280 Opitz Blvd.
Suite 300
Woodbridge, VA 22191
P: (703) 986-1600

For more information, or to schedule an appointment, please call Central Scheduling at: (703) 208-3155

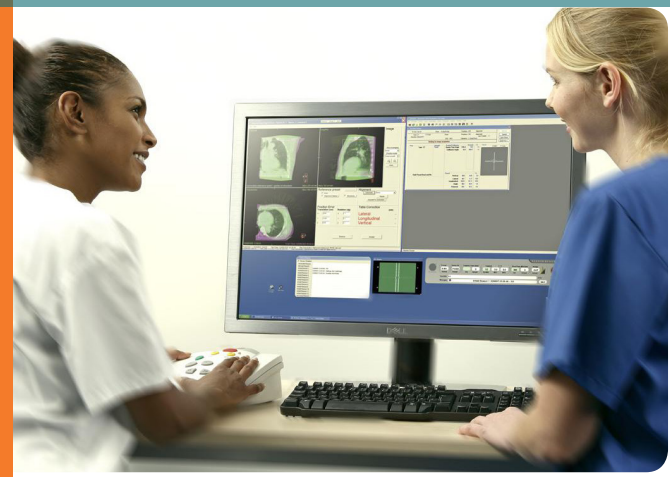
Our Practice complies with the Office for Civil Rights and does not discriminate based on race, color, national origin, sex, age or disability.

Virginia Cancer Specialists | The US Oncology Network

VirginiaCancerSpecialists.com

Radiation Oncology

Advanced, precise treatment options



Virginia Cancer Specialists

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Radiation Oncology

Virginia Cancer Specialists

For over 40 years, Virginia Cancer Specialists has been dedicated to the fight against cancer and diseases of the blood. Our highly skilled physicians offer a consultative approach to care, by using the most up-to-date therapies and treatment options available, in a convenient, community-based setting. Our integrated treatment approach provides access to expanded services, including medical oncology and hematology, radiation therapy, orthopedic oncology, genetic counseling, palliative medicine and the only dedicated oncology research facility in Northern Virginia to include phase 1 clinical trials. Our physicians treat all cancer types, with subspecialists in areas such as Breast, GI, Lung, Genitourinary, Sarcoma, and Hematologic Malignancies, to name a few.

The Radiation Oncology Team: Gregory S. Sibley, M.D. and Harold Agbahiwe, M.D.

How Does Radiation Therapy Work?

Radiation therapy works by causing DNA damage in cancer cells that cannot be repaired and leads to cancer cell death. It can be given externally or internally, depending on the type and location of the tumor.

External radiation is delivered by a machine called a linear accelerator that generates high-energy beams that are precisely directed into the tumor. External beam radiotherapy is delivered over several days or many weeks depending on a variety of factors.

Internal radiation therapy, also known as brachytherapy, uses radioactive sources that can be temporarily inserted or permanently implanted in the operating room. Radiation from the implant travels only a short distance, which spares most tissues from treatment side effects.

Advanced Treatment Options

Intensity Modulated Radiotherapy (IMRT)

IMRT is a noninvasive therapy that begins by acquiring a Computed Tomography (CT) scan exactly in the treatment position and then fusing other imaging studies like PET and MRI. The physician uses all of this information to precisely define the tumor as well as tissues to be avoided.

Physicists/dosimetrists then use a sophisticated treatment planning system to maximize target coverage and minimize normal tissues exposure. The high speed computer does this by "trying" millions of beam segments and intensities until the best solution is determined. The result of IMRT planning is a dose that "shrink wraps" around the target. Although not beneficial for all patients, IMRT for some patients will both improve tumor control and reduce side effects. IMRT is routinely used to treat prostate, brain, and esophageal cancers, among others. A treatment course of IMRT typically spans 5-7 weeks.

Image-Guided Radiation Therapy (IGRT)

IGRT uses a combination of scanning technologies with the control of IMRT that delivers precise amounts of radiation. Continual scans ensure that cancer cells are being treated, while simultaneously avoiding normal structures and organs. IGRT can enable higher doses of radiation to be delivered more accurately and safely, which can increase the chance for tumor control and cure. This radiation oncology option is used to treat tumors close to organs or prone to body movements such as the lungs, liver, and prostate.

High Dose Rate (HDR) Brachytherapy

High Dose Rate (HDR) Brachytherapy is a direct delivery of precise radiation through the use of catheters, or applicators inserted into tissue or a body cavity. HDR briefly places a high activity radioactive source in contact with cancer tissues and is then removed when a curative dose has been delivered to the cancer. This comprehensive, aggressive approach to treatment ensures the maximum radiation dose is given where needed, while sparing the healthy surrounding tissue. HDR is frequently used in breast, cervical, and uterine cancers and has become an effective treatment for early stage prostate cancer. Treatments are typically given in 1-4 weekly doses, with each HDR treatment typically lasting for 3-5 minutes.