

The Contributions of Radiation Oncology to the Medical World

Oncology is a branch of medicine that studies cancerous tumors and develops methods and techniques for treatment. Those who practice oncology are known as oncologists.

There are two main branches of oncology:

1. Medical oncology
2. Radiation oncology

Medical oncology has contributed chemotherapy, while [radiation oncology](#) has and continues to contribute many new technologies, mainly in the form of new radiation-delivery methods.

Although it may seem that radiation oncology is limited in its ability to expand, grow, and develop increasingly improving treatments, the rapid advancements in computer and other technologies outside the medical field are assisting in the advancement of radiation oncology, making it a continuously changing field.

Despite tough training and education requirements, it is the exciting changes in oncology that attract many doctors to this field. As amazing as it may seem, the advances in oncology from just the last two decades has resulted in far lower mortality rates and survival rates astronomically higher than they were just 20 years ago.

Advances in cancer detection and public education about cancer have also contributed to increased survival rates. For most kinds of cancer, oncologists are now able to successfully treat the patients thanks to early detection, allowing treatment to begin before the cancer has a chance to grow out of control.

One of the more recent advances in [radiation oncology](#) is TomoTherapy, a commercialized type of IMRT (intensity modulated radiation therapy) that provides new and more effective radiation-delivery. TomoTherapy is a perfect example of the work being done in radiation oncology.

TomoTherapy does not actually provide any new technologies, but rather integrates several older technologies into one detection and delivery system. It also improves on the delivery of radiation to a tumor site by rotating around the patient, allowing it to deliver a higher dose of overall radiation from several angles rather than many fixed beams of weaker radiation.

Delivering high amounts of radiation is one of the best ways to treat cancer. However, since tumors are inside the body and surrounded by healthy tissue that you don't want to damage, delivering such high amounts of radiation to effectively treat a tumor is enough to kill the patient. But thanks to modern delivery methods, radiation oncologists have been able to more precisely target the cancer while sparing healthy tissue, thereby allowing for higher doses of radiation, without extra harm or danger to the patient, which equates to faster recovery times and higher survival rates.

Every advancement in radiation oncology, and oncology in general, leads to a day when cancer of all types will be as easily treatable as a broken arm.

Author Bio:- Vantage Oncology is dedicated to the idea of improving care for patients and their families who are affected by cancer. Our commitment to Image Guided Radiation Therapy (IGRT), [radiation oncology](#), radiosurgery and [TomoTherapy](#) continues as we search for newer and better ways to treat cancer and improve the lives of cancer survivors.

About the Author

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