|  |
| --- |
| **TIP: Time Sensitive –** Members, reach out to your institution’s communications department and ask that they publish this article in an employee newsletter or share via other hospital/healthcare systems’ internal communications channels on or before **November 7** to generate awareness of International Day of Medical Physics .  |

**The Role of the Medical Physicists in Providing Patient Care**

November 7 is the 3rd annual International Day of Medical Physics and a time to celebrate the medical physicists at [**insert name of institution**]. Everyday – often behind the scenes – medical physicists fulfill a variety of roles that ensure the safe and effective delivery of radiation therapy and diagnostic imaging. That means they directly impact the health and lives of patients, from the colon cancer patient undergoing external beam radiation therapy to the retired grandfather having brachytherapy for prostate cancer to the mother of two getting her yearly mammogram to the five-year-old boy who fell off his bike and may have a broken arm. They are the experts in physics, which is central to radiation therapy for the treatment of cancer, and the development and advancement of medical imaging techniques.

The majority of medical physicists work within or contract with a hospital or healthcare system where they create innovations to improve patient care by making it more effective and safer. Medical physicists perform quality assurance and quality control. In other words, they ensure that all medical imaging and radiation equipment functions at optimal levels, and that procedures and treatments are accurately calibrated and, therefore, safe.

As part of the patient-care team, medical physicists work closely with radiation therapists, oncologists and other providers to design and develop personalized treatment plans. Working with radiation oncologists they ensure cancer patients receive the prescribed dose of radiation therapy, targeted to the cancerous cells, while protecting healthy tissue. Medical physicists often consult with patients about the benefits and potential risks of radiation dose and medical imaging.

Medical imaging benefits from the knowledge and skills of the medical physicist in determining protocols that optimize image quality and effectiveness while minimizing risk to the patient. By continually improving techniques, from mammography to ultrasound, MRI to PET scan, medical physicists advance patient care. Only qualified medical physicists have the skills and training to create and oversee these technologies.

Medical physicists continually look for ways to incorporate new physics discoveries into new treatment plans for patients, whether it involves gold nanoparticles, proton therapy or software that helps doctors design therapy personalized for each patient – for example by determining what treatments will be most effective. In other words, medical physicists play a crucial role in the evolution of medicine and patient care.

Whether patients are undergoing radiation therapy or receiving a diagnostic imaging exam they benefit from the expertise of a medical physicist. To learn more about the expertise and services provided at [**insert name of institution**] contact [**insert medical physicist name and contact information**].