

Medical imaging is a major method for diagnosis and is an integral component of radiation therapy procedures. The continuing evolution and advances in technology are expanding the clinical capabilities but also the complexity of imaging procedures. The effective and safe utilization of medical imaging requires a staff with knowledge of the physics and technology at the point of clinical service; clinical medical physicists are an integral part of the imaging team. Medical physicists perform direct functions such as planning and equipment selection, equipment performance evaluations, safety and risk management activities, and consultations on optimizing clinical procedures with respect to image quality and radiation exposure.

An expanding role of medical physicists in the imaging clinical environment is the close collaboration with and mentoring of radiology residents and fellows as they prepare for careers using highly sophisticated technology and its applications of physics for diagnoses.