

WHAT DO MEDICAL PHYSICISTS DO?

Medical Physicists are healthcare professionals who apply physics principles to medicine, particularly in the diagnosis and treatment of diseases. They work primarily in radiation oncology, diagnostic imaging, and nuclear medicine to ensure the safe and effective use of radiation. Medical physicists ensure that technologies like MRIs, CT scans and radiation therapy are safe, accurate and effective by contributing to research, equipment quality assurance and calibration, safety standards, and patient care-planning.



In Clinical Service & Consultation Medical Physicists:

- Ensure accurate and safe medical imaging and radiation therapy.
- Play a critical role in cancer treatment, ensuring radiation is delivered precisely.
- Help minimize risk to patients and healthcare providers.

In Research & Development Medical Physicists:

- Lead and contribute to research that advances imaging, cancer care, and patient outcomes.
- Publish in major journals like *Medical Physics* and *JACMP*.
- Drive innovation in medical technology and Artificial Intelligence.

In Education & Training Medical Physicists:

- Teach future medical physicists, medical students, and technologists.
- Support university programs accredited by CAMPEP (co-sponsored by ACR and AAPM).
- Strengthen the pipeline of skilled professionals in healthcare physics.

In Radiation Safety Medical Physicists:

- Serve as Radiation Safety Officers (RSOs) and MR Safety Officers (MRSOs).
- Ensure compliance with federal and state safety standards.
- Protect both patients and healthcare teams.

In Industry, Government & Leadership Medical Physicists:

- Lead product development and innovation in medical device companies.
- Provide expert guidance at regulatory agencies on radiation safety and technology.
- Partner with national accrediting bodies to improve care quality and equipment performance.
- Lead academic departments and hospital physics programs.