

RSNA Statement on Imaging of the Prostate
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The Radiological Society of North America (RSNA) is committed to excellence in patient care through education and research.

- Prostate cancer is an important public health issue. It is the second leading cause of cancer death in American men. About 180,000 patients are newly diagnosed with prostate cancer every year, and 26,000 deaths from prostate cancer are estimated in the United States yearly.
- Many prostate cancers are slow growing, and many men diagnosed with early stage prostate cancer will die with their prostate cancer rather than from it.
- Prostate cancer is rare in men under the age of 50. However, prostate cancer in men below the age of 55 may be more aggressive with a worse prognosis compared to older men.
- Two major clinical problems in the management of prostate cancer are inefficient diagnosis and overtreatment. Experts agree that about 30 percent to 50 percent of the surgeries and radiation therapy procedures performed are unnecessary and do not improve patient survival or prognosis.
- MRI is the best modality for imaging of the prostate and has been shown to accurately diagnose cancer, especially when it is aggressive and larger in volume.
- Prostate MRI can be useful in the management of prostate cancer in detection, localization, staging, follow up, triage of patients for active surveillance and detection of recurrence.
- In 2015, National Comprehensive Cancer Network (NCCN) guidelines incorporated multi-parametric MRI in the staging and characterization of prostate cancer and to better risk-stratify men who are considering active surveillance.
- During the last 5 years, prostate MRI has been increasingly used for targeted prostate biopsies (in bore MR-guided biopsy or MR-ultrasound fusion biopsy), and this technology is widely embraced and utilized in patients with elevated prostate-specific antigen (PSA) either before the initial biopsy or after a negative random biopsy.
- Prostate MRI allows localization of cancer for image-guided focal therapy. Several image-guided focal therapy methods have been developed, allowing eradication of prostate cancer while minimizing the complications that affect quality of life.
- In addition to MRI, several nuclear medicine imaging techniques including PET/CT have been developed, mostly for early detection and effective follow-up of metastatic disease.
- Prostate imaging with MRI and image-guided prostate interventions have been shown to improve the diagnosis, treatment and management of prostate cancer, resulting in better patient outcomes.
- Rapid acceptance of prostate MRI globally has led to a need for training radiologists in accurate interpretation of prostate MRI results. Prostate imaging reporting and data system (PI-RADS) version 2 (joint effort of the American College of Radiology and European Society of Urogenital Radiology) is an important step toward standardization of prostate image acquisition and interpretation. RSNA and other professional radiology organizations have developed several educational programs to help radiologists maintain their proficiency in study interpretation.

RSNA is a strong advocate for quality, safety and strict adherence to appropriateness criteria in medical imaging and radiation oncology.

Through its peer-reviewed journals and education programs, RSNA continually informs radiologists, medical physicists, radiation oncologists and other radiology professionals of the latest technologies and research developments designed to optimize dose and improve patient safety.