

Professions in Interventional Radiology

Interventional Radiologist

Interventional radiology (IR) is a medical specialty that performs minimally invasive treatments using radiologic imaging for procedure guidance. Interventional radiology treatments have become the primary method of care for a variety of conditions, offering less risk, less pain and less recovery time, compared to open surgery.

Interventional radiologists are board-certified, fellowship trained physicians who specialize in minimally invasive, targeted treatments. Interventional radiologists must graduate from an accredited medical school, pass a licensing examination, and complete at least five years of graduate medical education (residency). In addition, interventional radiologists have several different paths to board certification. Visit the American Board of Radiology (<https://theabr.org/>) (ABR) for more information on becoming an interventional radiologist. This specialized training is certified by the American Board of Medical Specialties (ABMS) and takes place in accredited training programs. Interventional radiologists are certified by the American Board of Radiology (ABR) in both Diagnostic Radiology and Vascular and Interventional Radiology. Interventional radiologists have had extensive training and must show expertise in radiation safety, radiation physics, the biological effects of radiation and injury prevention. They must offer the most comprehensive knowledge of the least invasive treatments available coupled with diagnostic and clinical experience.



Interventional radiologists use x-rays, CT, MRI or other imaging guidance to navigate small instruments, like catheters and needles, through blood vessels and organs to treat a variety of diseases. Examples of treatments administered by interventional radiologists include angioplasty, stenting, thrombolysis, embolization, image-guided thermal ablation, and biopsies. These minimally invasive treatments can cure or alleviate symptoms of vascular disease, stroke, uterine fibroids, or cancer. They are also experts at reading x-rays, ultrasounds, CTs, MRIs, and other forms of medical imaging.

Further information about a career as an interventional radiologist can be found on the Society of Interventional Radiology website (www.sirweb.org) (<https://www.sirweb.org>) .

Vascular Interventional Radiographer

As a member of the radiology team, the vascular interventional radiographer works alongside interventional radiologists and nurses. The radiographer assists the interventional radiologist with diagnostic angiographic procedures as well as complex vascular and nonvascular interventional and therapeutic procedures. Vascular interventional radiographers must have a combination of technical, radiologic, and clinical skills.

Vascular interventional radiographers perform many duties during an interventional procedure. The radiographer is responsible for obtaining all equipment needed for a procedure, positioning and imaging patients, resolving equipment issues, and demonstrating knowledge of human anatomy, radiation safety, interventional supplies, and equipment operation.

Vascular interventional radiographers are certified by the American Registry of Radiologic Technologists (<https://www.arrt.org/pages/earn-arrt-credentials/credential-options/cardiac-interventional-radiography>) (ARRT). For specific pathway requirements to certification, visit the ARRT's Vascular Interventional Radiology (<https://www.arrt.org/pages/earn-arrt->

[credentials/credential-options/vascular-interventional-radiography](#)) page.

Additional career information about vascular interventional radiography can be found in a booklet (https://www.asrt.org/docs/default-source/practice-standards/ps_civi.pdf?sfvrsn=18e176d0_28) on the American Society of Radiologic Technologists (ASRT) (<https://www.asrt.org>) website.

Advanced Practice Providers

Advance practice providers (APPs) are often part of an interventional radiology (IR) team. These specialized healthcare professionals may be specially trained advanced practice nurses (APNs), nurse practitioners (NPs), clinical nurse specialists (CNSs), physician assistants (PAs) or radiologist assistants.

Advanced practice nurses (APNs) usually hold a master's degree in nursing and have passed an exam to become credentialed by the American Nurses Credentialing Center (<https://www.nursingworld.org/ancc/>). They are licensed depending on the requirements of the state in which they work.

A nurse practitioner (NP) is a registered nurse with advanced academic and clinical experience. They are credentialed by exam by either the American Academy of Nurse Practitioners (<https://www.aanpcert.org/>) or through the American Nurses Credentialing Center. They are licensed at the state level.

A clinical nurse specialist (CNS) holds a master's or doctoral degree in a specialized area of nursing practice. Licensure depends on the state in which they are practicing.

Physician assistants (PAs) are healthcare professionals licensed to practice medicine with physician supervision. PA training programs are usually 3 years in length and most require a college degree prior to admission. PAs are credentialed by the National Commission on Certification of Physician Assistants (<https://www.nccpa.net/>) and licensed by the state.

Advanced practice providers (APPs) working within interventional radiology are often the first point of contact for a patient. APPs may perform the patient's history and physical, develop and assessment plan for the consultation with the interventional radiologist, write pre-procedure orders and discuss the patient's care with the interventionalist. In addition to initial consultations with patients, the APP may visit patients during their hospital stay and communicate with families. A big part of the APP's role is to discuss the interventional procedure with the patient, answer questions, and to provide home-going instructions and follow-up. APPs may also perform minor IR procedures and assist interventional radiologists with major procedures.

Radiologist assistants are experienced, registered radiographers who have obtained additional education and certification that qualifies them to serve as radiology extenders. They work under the supervision of a radiologist to provide patient care in the diagnostic imaging environment. Specifically, an RA takes a leading role in patient management and assessment. In addition, an RA performs selected radiology examinations and procedures under the supervision of a radiologist. The RA also may be responsible for evaluating image quality, making initial image observations and forwarding those observations to the supervising radiologist.

Although RAs can perform functions beyond those of a radiologic technologist, the position holds certain limitations. An RA may make initial observations of images, but may not draft an official written interpretation.

Radiologist assistants complete an academic program and a radiologist-supervised clinical internship. An RA must be certified by the American Registry of Radiologic Technologists. Currently, there are nine Registered Radiologist Assistant programs in the country recognized by ARRT and seven of the programs offer master's degrees.

Further information about a career as a radiologist assistant can be found on the *American Society of Radiologic Technologists* (ASRT) (<https://www.asrt.org/>) website.

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