Diagnostic Radiology Residency Program

The four-year Diagnostic Radiology Residency Program at Mayo Clinic Jacksonville is designed to prepare physicians for a career in academic radiology or private practice. The program offers:

- Ample, high-quality, hands-on clinical experience
- Solid academic instruction
- Multiple clinical research training options
- Gradually increasing independence and responsibility throughout the residency

Mayo’s favorable faculty ratio, large patient population and state-of-the-art diagnostic, therapeutic and research facilities combine to create a truly integrated educational experience. The “Mayo way” of graduate medical education ensures you will have the finest teaching and the broadest patient care experience possible during your residency.

Training at Mayo

Mayo has a long-standing tradition of practicing both the art and science of medicine. As one of the country’s largest and best-known group practices of academic medicine, Mayo was founded on the belief that physicians need to work together, teach and learn from others, and conduct research to provide sustained, excellent patient care.

Physicians, scientists, residents, students, nurses and allied health staff members work as a team at Mayo. Our staff clinicians and scientists are called consultants in recognition of their teaching and mentoring role in the team.
In accordance with requirements submitted by the American Board of Radiology (ABR) for board eligibility, Mayo requires successful completion of a clinical year prior to commencing its four-year Diagnostic Radiology Residency Program. When you successfully complete the program, you will be a highly qualified radiologist — ready for the demands of private practice, academic practice or a subspecialty fellowship position.

Mayo teamwork spans many locations

In Jacksonville, Florida
Mayo Clinic Jacksonville
St. Luke’s Hospital

In Rochester, Minnesota
Mayo Clinic Rochester
Saint Marys Hospital
Rochester Methodist Hospital
Charter House

In Scottsdale, Arizona
Mayo Clinic Scottsdale
Mayo Clinic Hospital

Mayo Health System
Clinical Training

Your clinical training will cover all subspecialty areas of diagnostic radiology. You will participate in radiological examinations, interpretations and interventional procedures while on rotations in every subspecialty.

Rotation Schedule

Following is a list of the rotations offered to our diagnostic radiology residents.

<table>
<thead>
<tr>
<th>Rotation</th>
<th>Number of Weeks*</th>
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<tbody>
<tr>
<td>Pediatric Radiology</td>
<td>12</td>
</tr>
<tr>
<td>Nuclear Medicine</td>
<td>24</td>
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<tr>
<td>Body CT</td>
<td>19</td>
</tr>
<tr>
<td>Body MR</td>
<td>11</td>
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<tr>
<td>Ultrasound (including OB)</td>
<td>18</td>
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<tr>
<td>Neuroradiology</td>
<td>19</td>
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<tr>
<td>Vascular/Interventional</td>
<td>19</td>
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<tr>
<td>Cardiac Radiology</td>
<td>4</td>
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<tr>
<td>Hospital/Trauma/Emergency Radiology</td>
<td>10</td>
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<tr>
<td>Chest Radiology</td>
<td>16</td>
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<tr>
<td>Musculoskeletal Radiology</td>
<td>15</td>
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<tr>
<td>Gastrointestinal Radiology/Fluoroscopy</td>
<td>16</td>
</tr>
<tr>
<td>Mammography</td>
<td>9</td>
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<tr>
<td>A.F.I.P.</td>
<td>6</td>
</tr>
<tr>
<td>Elective</td>
<td>10</td>
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* Total number of weeks does not equal four years due to multiple rotation offerings.
**Rotation Descriptions**

**PGY-1**
During the first year, you will participate in film interpretation, special procedures and fluoroscopy under the direct supervision of a staff radiologist. The major emphases are on:
- Musculoskeletal Radiology
- Thoracic Radiology
- CT
- Gastrointestinal Radiology
- Ultrasound
- Mammography
- Radiology Physics

Audiovisual materials, didactic lectures, round table discussions, independent study, film packets and case discussions are included.

**PGY-2 and PGY-3**
As a second- and third-year resident, you will take rotations through all radiological subspecialties. While you still work under staff supervision, you will have greater responsibility and function more independently during these rotations.

**PGY-4**
In the fourth year you will be given more responsibility for performing and interpreting examinations. In addition to a rotation in cardiac radiology, you will revisit subspecialty areas, working at a more independent level. Ten weeks of elective time are provided for you to gain additional
expertise in areas of your choice. Most residents choose electives in computed tomography, ultrasonography, interventional radiology, neuroradiology and/or MRI. You also may develop a unique elective course in a specific area of interest.

You may attend the Armed Forces Institute of Pathology Radiology-Pathology Correlation Course in Bethesda, Maryland. Mayo pays the tuition and subsidizes living expenses for this popular off-campus experience. You also are encouraged to spend elective time at Mayo Clinic Rochester or Mayo Clinic Scottsdale during your fourth year. Mayo funds authorized travel and living expenses for all rotations at these sites.

Educational Environment

Clinical conferences, formal courses, seminars, small discussion groups, journal clubs and one-on-one instruction are all an integral part of the Diagnostic Radiology Residency Program. This educational environment includes:

• Introductory course for first-year residents
• Didactic and case conferences (five days per week) given by residents, staff and visiting professors
• Physics/Radiobiology course
• Armed Forces Institute of Pathology rotation
• Faculty-assisted research seminars
• Small discussion groups, journal clubs, one-on-one instruction
• Board review course
• A Diagnostic Radiology Library (ACR & Institution teaching files, texts, periodicals, electronic educational media) with interactive study stations
Physics Education

There are several components to the physics education program for residents:

• Imaging and Radiation Safety Orientation — A course offered during the first two months of residency, which presents basic principles of each imaging modality and radiation safety.

• Radiological Physics Course — A course covering radiation physics, diagnostic imaging, radiation biology, and radiation protection. The course is taught by the Department of Diagnostic Radiology’s faculty medical physicists.

• Physics Written Board Review — A series of interactive review sessions offered to residents prior to taking the ABR board exam in radiological physics.

• Informal physics consultation — The Diagnostic Radiology Department’s medical physicists are available to residents for consultation and assistance regarding topics such as clinical imaging principles, research project design and implementation, and radiation safety issues.

Conferences

One-hour radiology teaching conferences are held each week. They encompass all aspects of radiology and include radiology/pathology correlation, resident case conferences, staff case conferences and didactic lectures, visiting professor lectures and satellite teleconferences.

Case Studies

You will prepare case-of-the-week presentations developed from material you present at conferences. These will include a summary of the pertinent diagnostic imaging procedures of an interesting case, an in-depth discussion of that case, and a current bibliography.
**Practice Board Exams**

During the last six months of your residency, you will spend several hours each week with a consultant in practice examinations that are designed to prepare you for the oral board examinations. After each exam the cases will be thoroughly discussed by the presenting staff in an informal setting. These practice exams include:

- Musculoskeletal Radiology
- Thoracic Radiology
- Gastrointestinal Radiology
- Mammography
- Neuroradiology
- Nuclear Medicine
- Pediatric Radiology
- Ultrasonography
- Genitourinary Radiology
- Vascular/Interventional Radiology

**Teaching Opportunities**

You will have the opportunity to teach Mayo Medical School students, visiting students from other medical schools, and other residents spending elective time in diagnostic radiology. Normally, this includes discussing cases from the Radiology Teaching File and assisting with daily assignments in film interpretation.

**Cardiac Life Support Certification**

Certification in Basic Cardiac Life Support and Advanced Cardiac Life Support (ACLS) is required for all Mayo residents and fellows. ACLS courses are held during the last week of June, just before the start of the academic year. The ACLS course also is offered evenings every three months during the year to facilitate recertification.
Research Training

All of Mayo’s diagnostic radiology residents are required to present at least one seminar project during their residency.

Your seminar project will focus on a topic of your choice. The seminar is a 30-minute lecture/presentation prepared under the direction of a consulting staff adviser.

These seminars usually are based on a review of Mayo Clinic’s experience with a particular disease or the investigation of a new technology as it relates to a particular problem. Recent seminar topics have included:

• Accuracy of enhanced MRI in detection of recurrent lumbar discs
• Diagnosis of pulmonary embolism by fast CT
• Hepatic cavernous hemangioma: re-evaluation of CT criteria
• MR flow measurements to screen for chronic mesenteric ischemia
• Intraoperative ultrasound after carotid endarterectomy

All residents also participate in additional research projects during their training.
**General Program Information**

**Patient and Service Mix**

As a regional medical center for the Southeast, Mayo Clinic Jacksonville registers more than 50,000 patients each year. Eighty-five percent of the clinic’s patients are self-referred and come from within a day’s drive. Although Mayo has a reputation for successfully handling the most obscure and difficult medical problems for people from around the world, common medical concerns are actually the norm. This allows you to see and treat an exceptional variety of illnesses during your clinical training.

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**Bench to bedside**

Mayo is committed to basic and clinical research that leads to better patient care.

**Mayo’s hallmark is teamwork —**

- Among basic and clinical investigators
- Among investigators and clinical practitioners
- Across Mayo sites
- Between Mayo and other institutions

**Mayo people in research —**

- 231+ full-time physicians and scientists
- 396+ associates and fellows
- 1318+ administrative and allied health staff

**Research funding sources —**

- Extramural funds = $130 million+
- Mayo funds/other revenue = $110 million+
Call Frequency

Your call schedule will vary by individual rotation. Mayo follows the recommendations of the Accreditation Council for Graduate Medical Education.

Evaluation

To ensure that you acquire adequate knowledge and develop your technical skills, your performance will be monitored carefully during the course of your residency. You will be evaluated formally by your supervising faculty member after each clinical rotation.

The Diagnostic Radiology Residency Program is continually monitored by the department’s education committee. Elected junior and senior resident representatives are active members of this committee. In addition, you will regularly evaluate the faculty to ensure that your educational needs are being met.

Career Development

You will meet periodically with various faculty members, administrators and the training program director to discuss your professional goals. Mayo recruits many of its staff physicians from its own training programs. Thus, when you successfully complete the Diagnostic Radiology Residency Program, job opportunities may be available at one of Mayo’s group practices. Mayo’s vast alumni network is an asset and resource, providing opportunities in both academic radiology and private practice.
**Additional Training**

At the conclusion of your diagnostic radiology residency, you may wish to continue your graduate training at Mayo Graduate School of Medicine. Mayo offers radiology fellowships in most subspecialty fields.

If you are accepted for a fellowship, you will continue to receive in-depth, daily, one-on-one training with a consultant. You also will have the opportunity to increase your supervisory and administrative skills. Contact your faculty adviser for more information about these opportunities.

**Faculty**

In addition to caring for patients in their clinical practices, Mayo Clinic’s radiology faculty members are committed to teaching and facilitating the growth of medical knowledge. Many of our faculty have published and lectured extensively and are highly regarded in their field. You will have direct access to these individuals throughout your training program.

**Advisers**

You will be assigned a faculty member to serve as your adviser throughout your residency program. Quarterly meetings will be held to discuss your needs.
and performance, and to provide you with comprehensive educational advice and personal support. Your adviser also will serve as a contact point, introducing you and your family to Rochester and the Mayo system.

Visiting Professors

Prominent visiting professors come to the Department of Diagnostic Radiology at Mayo each year. Each visit lasts for two or three days. The professors present their work during noon and/or morning lectures. You also will have the chance to meet with them informally. You are encouraged to take full advantage of these opportunities.

Facilities and Resources

Facilities

Mayo Clinic Jacksonville, a comprehensive outpatient medical facility, is located on 240 acres near the Intracoastal Waterway in eastern Jacksonville. It includes a full-service laboratory, an on-site pharmacy, an ambulatory surgical center and a radiation-oncology center. More than 250 staff physicians represent virtually all clinical specialties. It is a major regional and international referral center, with more than 50,000 new patient registrations each year.
A state-of-the-art medical research building houses researchers conducting a large-scale study of Alzheimer’s disease. They are particularly interested in the mechanisms of neurodegenerative disorders and cell damage.

St. Luke’s Hospital, located nine miles inland from the clinic, is a modern 289-bed facility with 16 operating rooms, two ICUs, a bone marrow transplant unit, an epilepsy unit, two cardiac catheterization laboratories and a stereotactic neurosurgery suite. The emergency room treats nearly 20,000 patients per year. The current facility was completed in 1985, but St. Luke’s Hospital is the oldest hospital in Florida. It has been a Mayo facility since 1987.

Libraries

The Bursak Biomedical Library at Mayo Clinic Jacksonville has a growing collection of medical texts and journal subscriptions. Residents have 24-hour access to study space, computers, copiers, audiovisual services and online database information services. This library is also connected to computer database services that link Mayo Clinic Jacksonville researchers to a global network of scientific information.

The St. Luke’s Hospital Library is also available around the clock. Reference librarians can perform literature searches or help you with interlibrary loans. Many clinical conferences are preserved on videotape. You may view them at the library or check them out for use at home.
In addition, the resources of the Mayo library system in Rochester are easily accessible and articles from older or obscure journals can be obtained via fax or overnight mail. The Mayo Library system has one of the largest medical collections in the world, with more than 4,300 journal subscriptions, nearly 353,000 bound volumes, and several medical databases and search engines.

Radiology Teaching File and Library

The Mayo Radiology Teaching File, which is constantly updated, contains thousands of pathologically proven Mayo Clinic cases. These interesting cases are worked up, researched, and entered into the permanent file for resident education. In addition, we have the American College of Radiology Film and Videodisc Teaching File. The department’s library contains computers for residents and fellows, proprietary database search software, extensive audiovisual materials, and a large collection of pertinent journals and textbooks.

Computer Services

Macintosh and IBM personal computers and software are available for residents and fellows to use. In addition, Mayo’s Microcomputer Education Center provides training in the use of computers for word processing, data collection and data analysis.
Telecommunications System

Mayo’s clinics in Jacksonville, Rochester and Scottsdale are linked via a sophisticated satellite telecommunications system, which provides video teleconferencing and data transmission. Staff in Rochester, Scottsdale and Jacksonville can have live, interactive consultations with physicians and their patients at the other sites via TV monitors. In addition, X-rays, laboratory test results, CT scans, ECG tests, angiograms and pathology slides can be transmitted between sites.

An advanced telecommunications system also is the foundation for Mayo’s unique five-digit telephone dialing and pager system. Physicians can be easily accessed for consultations or updates, strengthening the teamwork among consultants, fellows, residents and allied healthcare staff at all three practice sites.

Compensation and Benefits

Vacation and Trip Policy

You may take up to 15 working days (three weeks) each year for vacation.

You will have the opportunity to attend at least one major diagnostic radiology meeting at Mayo’s expense during your residency. If you are selected to present a paper or scientific exhibit at a radiology meeting, you will be given additional time for attendance and your authorized expenses will be paid by Mayo.
Two residents, who are elected by the department as resident representatives, attend the annual meeting of the American Association of Academic Chief Residents in Radiology. Their authorized expenses also are paid by Mayo.

**Stipends and Other Benefits**

Mayo has highly competitive stipends and a benefits package that includes:

- A comprehensive medical care plan
- Short-term disability insurance
- Voluntary basic life insurance, disability insurance, and family life insurance
- Voluntary additional life insurance
- Voluntary accidental death and dismemberment insurance
- A dental assistance plan
- Excess personal liability insurance
- Professional liability coverage

Additional information about stipends and benefits will be provided during personal interviews.
The Jacksonville Community

Jacksonville is also a great place to be when you’re not working. It offers “big city” activities and entertainment: Beaches, outdoor sports, NFL football, great weather, and easy access to vacation spots like Walt Disney World. Jacksonville is located in northeaster Florida, bordered by the Atlantic Ocean and the St. John’s River. The region has a population of one million.

Known for its beaches, Jacksonville attracts many visitors for surfing, swimming, fishing and water skiing. Tennis and golf are also popular activities in the region. The international headquarters for the Association of Tennis Professionals and the national headquarters of the Professional Golf Association Tour are both located in Jacksonville.

The city has major art galleries, a museum of science and history, a civic auditorium, symphonic orchestra, several major shopping centers and hundreds of restaurants. The Jacksonville Jaguars of the NFL had their inaugural season in 1995, and have already participated in the Super Bowl playoffs. College basketball and baseball teams are fielded by Florida Community College at Jacksonville, the University of North Florida and Jacksonville University. Housing is attractive, available and comparatively inexpensive.
Appointments and Applications

There are four positions available in Mayo’s Diagnostic Radiology Residency Program each year on a competitive basis. You can enter the combined program, which includes an internal medicine year immediately after medical school or opt to enter the four-year program after one or more years of postgraduate training in a clinical medical field. Appointments are made through the National Resident Matching Program (NRMP).

To apply to Mayo’s Diagnostic Radiology Residency Program, you need to submit the Association of American Medical Colleges (AAMC) electronic application through your medical school dean’s office.

To use this application process, you need the following information:

- Official college, graduate school and medical school transcripts
- An official record of board scores (NBME, FLEX, USMLE, LMCC, VQE or FMGEMS)
- A dean’s letter and two other letters of recommendation
- A curriculum vitae
- A personal statement
- A valid ECFMG certificate (if you graduated from medical school outside of the United States or Canada)

Applications for each academic year, which begins at the end of June, should be completed by December 1 of the previous calendar year. If you are considered for an appointment, you will be asked to visit Mayo Clinic Rochester for an interview with selected faculty. Interviews are conducted from mid-November through early February each year.
Inquiries

If you would like an application form or more information, please contact:

Thomas J. Berquist, M.D., Director
Diagnostic Radiology Residency Program
Mayo Clinic
4500 San Pablo Road
Jacksonville, FL 32224
904-953-0429
8 a.m.- 5 p.m.
Eastern Time

For more information about the Mayo Graduate School of Medicine, please visit our Web site at http://www.mayo.edu/mgsm/gsm.htm

If you would like to discuss the Diagnostic Radiology Residency Program with Mayo alumni living in your area, please write to us for a list of their names.

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