Emergency Medicine Residency Program

Mayo Graduate School of Medicine

Mayo Clinic Rochester
Rochester, Minnesota
Emergency Medicine Residency Program

The three-year Emergency Medicine Residency Program at Mayo Clinic Rochester offers:

• Comprehensive preparation for a career in academic or clinical emergency medicine
• Full resident responsibility and autonomy for patient care – no private patients or private attendings
• A diverse patient population
• An innovative clinical curriculum that includes rotations on administrative emergency medicine and research
• Outstanding research opportunities
• Extensive hands-on experience with all emergency medicine procedural skills
• Pre-hospital experience, which includes exposure to extensive ground, fixed- and rotor-wing transport
• Elective opportunities at St. Luke’s Hospital, Jacksonville and Mayo Clinic Hospital, Scottsdale

Mayo Clinic’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 Clinic way” of graduate medical education ensures you will have the finest teaching and the broadest patient care experience possible during a busy, hands-on residency program.
Training at Mayo Clinic

Mayo Clinic has a long-standing tradition of practicing both the art and science of medicine. As one of the country’s largest and best-known private group practices of academic medicine, Mayo Clinic 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 Clinic. Our staff clinicians and scientists are called consultants in recognition of their teaching and mentoring role in the team.

**Mayo Clinic 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
Program Description

The principal educational goals of the Mayo Emergency Medicine Residency are to train emergency physicians who are compassionate, practice evidence-based medicine, demonstrate clinical and academic excellence, and are capable of practice in any type of emergency department (ED) environment.

There are several features of the residency, which will ensure the educational goals are met:

1. Faculty Mentor. Each new resident will be matched with a member of the faculty to serve as a mentor. The resident will meet monthly to discuss evaluations, resident or faculty concerns, and the resident’s overall educational progress.

2. Ethics Program. The Mayo Ethics Council and the Mayo Center for Humanities in Medicine will co-sponsor educational activities with the residency, including case conferences, retreats, and elective rotations.

3. Pre-Hospital. In addition to a one month Emergency Medical Services (EMS) rotation that includes experience with Mayo Clinic ground, fixed-wing, and rotor-wing transport, residents will serve as rural EMS co-directors during their EM-2 and EM-3 years. The EM-3 resident will provide on-line medical control for local ground units. Furthermore, during the EMS rotation, residents will provide on-line medical control for a major commercial passenger airline for inflight emergencies.

4. Emergency Cardiac Care. In addition to managing the numerous acute cardiology cases, which are presented to the ED, residents will spend one month on a cardiology service and one month in the Cardiac Care Unit.
5. **Critical Care.** Residents will rotate on the Surgical/Trauma Critical Care Service for one month in the EM-1 year. They will then spend a second month in the EM-2 year as the supervising resident, guiding junior house staff in patient care and procedures. EM-2 residents will spend one month in the Pediatric Intensive Care Unit to gain expertise in the care of the critically ill pediatric patient.

6. **Research.** Residents will become well versed in both interpreting the medical literature and conducting research. This will be accomplished via a rigorous curriculum on research methodology, dedicated research time of at least one month, and research funding of up to $5,000 for each resident project co-sponsored by a faculty member and approved by the ED Research Committee.

7. **Administration.** There is a one-month administrative rotation dedicated to acquiring an understanding of health services management, risk management, and financial aspects of emergency medicine.

8. **Emergency Psychiatry.** The residents will participate in a one-month emergency psychiatry rotation.

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**Clinical Training**

The Mayo Clinic Emergency Medicine Residency will produce graduates who practice emergency medicine with skill and compassion, and are poised to become leaders in emergency medicine. This program offers you a unique opportunity to participate in a team approach to emergency medicine with ample opportunity to be involved in the critical decision-making that will develop your assessment and intervention skills.
Rotations

EM-1
Emergency Department .................. 2 months
Coronary Care Unit .................... 1 month
General Internal Medicine .............. 1 month
Cardiology .............................. 1 month
Orthopedic Trauma Service ............ 1 month
Surgical Intensive Care Unit ........... 1 month
Anesthesiology .......................... 1 month
ENT/Ophthalmology ..................... 1 month
Pediatric Emergency Medicine .......... 1 month
General Surgery ........................ 1 month
Emergency Psychiatry ................... 1 month

EM-2
Emergency Department .................. 5 months
Prehospital ............................. 1 month
Plastic Surgery/Orthopedic Hand Clinic .... 1 month
Surgical Intensive Care Unit ........... 1 month
Pediatric Intensive Care Unit .......... 1 month
Obstetrics/Gynecology .................. 1 month
EM Research ............................ 1 month
Pediatric Emergency Medicine .......... 1 month

EM-3
Emergency Department .................. 7 months
Emergency Medicine Elective .......... 1 month
Pediatric Emergency Medicine .......... 1 month
EM Administration ..................... 1 month
Elective ................................. 2 months
In addition to dedicated research and EM administration rotations, there are three months of elective time to allow the resident to individualize their training and develop further expertise in an area of interest.

**Didactic Training**

Clinical conferences, seminars, small group problem-based learning and one-on-one instruction are all an integral part of the Emergency Medicine residency. The didactic program includes:

- Core Curriculum Conferences
- Morbidity and Mortality Conferences
- Grand Rounds
- Journal Club
- An annual ethics/wellness retreat
- A semi-annual research seminar
- Procedural skills labs

The comprehensive three-year didactic curriculum covers the entire core content of emergency medicine. Resident conferences are structured around an evidence-based format, and focus on improving problem solving skills as well as expanding one’s factual knowledge base.

In addition, more than 150 institutional clinical and research conferences are held throughout the medical center each week. Residents are encouraged to attend those related to their professional interests.
**Teaching Opportunities**

Residents will have the opportunity to teach Mayo Medical School students and visiting students through bedside instruction and formal didactic lectures. Additionally EM-3 residents will provide bedside and didactic instruction to junior house staff.

**Certifications**

All Emergency Medicine residents will receive ACLS, APLS, and ATLS training prior to the completion of the program.

**Research Training**

Your research opportunities at Mayo Clinic are outstanding. You are encouraged to participate in research projects with the faculty. This includes opportunities for clinical studies and laboratory-based projects.

All residents participate in at least one scholarly project during residency. Residents may complete a chart review of a disease or condition, or may become involved in a clinical or laboratory research project. Resources available to assist residents with their projects include: Mayo Clinic’s Section of Biostatistics and Clinical Epidemiology, a computer program that retrieves patient records according to diagnoses, and a unified medical record system. Departmental funding and dedicated research coordinator time is available for all IRB approved protocols.

A catalog of resident research opportunities and core faculty mentors is provided to all residents. Residents are encouraged to submit papers and abstracts to scientific societies.
**Bench to bedside**
Mayo Clinic is committed to basic and clinical research that leads to better patient care.

**Mayo Clinic’s hallmark is teamwork —**
- Among basic and clinical investigators
- Among investigators and clinical practitioners
- Across Mayo Clinic sites
- Between Mayo Clinic and other institutions

**Mayo Clinic 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 Clinic funds/other revenue = $110 million+

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**General Program Information**

**Patient and Service Mix**
As a regional medical center for the Midwest, Mayo Clinic Rochester registers more than 320,000 patients each year. Eighty percent of the clinic’s patients are self-referred and come from within a day’s drive. Although Mayo Clinic 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.
Saint Marys Hospital in Rochester serves as the base hospital for the program. With over 75,000 ED patient visits per year, the patient volume ensures exposure to the full spectrum of emergent patients. Additionally, it is a high acuity ED with over 25% of presenting patients being admitted. As a Level I trauma center with two helicopters and extensive EMS network, a wide variety of trauma patients are treated. Resident responsibility is graded appropriately with the EM-3 resident functioning in a supervisory capacity and given a high degree of autonomy.

Call Frequency

Residents work eight hour shifts in the Emergency Department, with adequate time for rest, study and leisure activities.

Your call schedule on off-service rotations will vary by individual specialty. Mayo Clinic follows the recommendations of the Accreditation Council for Graduate Medical Education.

Rotations to Other Mayo Clinic Sites

You may choose to take an assignment at Mayo Clinic Jacksonville or Mayo Clinic Scottsdale during your Emergency Medicine Residency. Mayo Clinic funds the authorized additional costs of your travel, housing, car rental and licensure fees.
Committee Assignments
Opportunities are available for residents to gain experience in a number of administrative capacities. Emergency medicine residents participate in the administration of the educational programs and the clinical practice at Mayo through these committee experiences.

Moonlighting
Moonlighting is permitted for licensed residents beyond the EM-1 level.

Evaluation
Performance is monitored carefully throughout the emergency medicine residency, in order to ensure that residents acquire an adequate knowledge and develop appropriate technical skills. Supervising faculty members formally evaluate residents after each clinical rotation. Each resident is assigned a personal faculty adviser to provide regular feedback and guidance. In addition, residents regularly evaluate the faculty and each rotation to ensure that the educational needs of the resident are being met.

Career Development
Periodic meetings with faculty members and the program director are scheduled to discuss individual goals. Mayo Clinic recruits many of its staff physicians from its own training programs. Upon successful completion of the Emergency Medicine Residency Program, career opportunities may be available at one of Mayo Clinic’s Regional or Group Practices.
Faculty

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

Advisers

You will be assigned a faculty adviser who can provide 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 Clinic system.

Visiting Professors

Many prominent professors visit Mayo Clinic each year. They present their work during noon and/or morning lectures. You will be encouraged to take full advantage of these opportunities.
Facilities and Resources

Facilities

The Mayo Clinic campus in Rochester, Minnesota, includes two hospitals with more than 1,800 beds, a Level One Trauma Center, a comprehensive outpatient medical complex, a variety of research facilities, and several full-service laboratories and on-site pharmacies. More than 800 staff physicians represent virtually all clinical specialties.

Libraries

Mayo Clinic Rochester has one of the largest medical libraries in the world — more than 4,300 journal subscriptions, nearly 353,000 bound volumes, and several medical databases and search engines. The main library provides study space, computers, microfilm readers and reader-printers, translations, duplicating machines, and book ordering and audiovisual services.

Reference librarians can arrange interlibrary loans, perform literature searches, and teach you how to use the computer database services that link Mayo Clinic to a global network of scientific information. More than 625 clinical conferences are preserved on videotape each year. You can view these tapes at the library or check them out for use at home.

Branch libraries include a health-related sciences library, two hospital libraries and the Learning Resource Center (LRC). The LRC, devoted mainly to
the Mayo Medical School curriculum, offers special collections emphasizing women’s issues in medicine and health, medical education, and ethics.

**Computer Services**

Macintosh and IBM personal computers and software are available for residents and fellows to use. In addition, Mayo Clinic’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 Rochester, Scottsdale and Jacksonville are linked via a sophisticated telecommunications system, which provides video teleconferencing and data transmission. Staff 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 Clinic’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 are encouraged to present your research at regional and national meetings. If you are selected to make a presentation, Mayo Clinic will pay the authorized expenses for you to attend that meeting (within the United States).

Stipends and Other Benefits
Mayo Clinic 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 Rochester Community

Home of the original Mayo Clinic and an array of successful technology-based companies, Rochester, Minnesota, welcomes thousands of visitors from around the world each year. Rochester, population 80,000, provides all the benefits of small town living while offering amenities associated with larger cities.

If you’re interested in the fine arts, you’ll find an active network of enthusiasts who support a symphony orchestra and chorale, four theaters, a community art center, and several choruses and bands.

Rochester offers excellent sports and physical fitness facilities. Within the city limits are six golf courses; tennis and health clubs; an extensive network of walking, biking and in-line skating trails; nearly 2,000 acres of city parks; and a community recreation center. Several state parks are nearby, and it’s a very short drive to fishing, hunting, hiking, camping, boating, skiing or skating.

The Twin Cities of Minneapolis and St. Paul are only 80 miles north of Rochester. Among many attractions are the nationally famous Guthrie Theatre, the Minnesota Orchestra, the St. Paul Chamber Orchestra and the Walker Art Center. Both professional and collegiate baseball, football and basketball teams are based there. The Twin Cities also have world-class shopping and restaurants, including the Mall of America.

Good, moderately priced housing is relatively easy to find in Rochester. The public school system is one of the best in the state. Rochester has been selected as “one of the best places to live” in the U.S. by *Money* magazine for several consecutive years.
Close proximity between Mayo Clinic and home facilitates time with family and makes call from home quite manageable.

Appointments and Applications

The Department of Emergency Medicine in Rochester offers six categorical positions each year on a competitive basis.

Appointments are made through the National Resident Matching Program (NRMP). Mayo Clinic also considers candidates who are eligible for admission outside the NRMP.

Application to Mayo Emergency Medicine Training Program must be made through the Electronic Residency Application Service (ERAS) for positions starting July, 2001 and beyond. Application for July, 2000 will be by written application or a printed version of your ERAS application.

To apply to the Emergency Medicine Residency Program, you need to submit:
• A completed Mayo Graduate School of Medicine or ERAS application form
• 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)
Personal interviews are by invitation only and are based on the applicant’s academic performance, USMLE scores (or equivalent), letters of recommendation, and other accomplishments as detailed in the curriculum vitae. Interviews are conducted on Mondays and Fridays during the months of October through early February. If selected for an interview, applicants will be notified by e-mail or letter. We regret that we are unable to provide applicants with a status report regarding their application or selection for interview.

Inquiries

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

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

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