Physical Medicine and Rehabilitation Residency Program

The Physical Medicine and Rehabilitation Residency Program at Mayo Clinic Rochester offers:

• A curriculum of didactic course work, inpatient and outpatient clinical experiences, laboratory training, research and elective time that prepares you for a career in private practice or academic medicine
• A learning environment that fosters the development of your clinical skills and academic abilities in all areas of rehabilitation medicine
• A large, varied patient population and close working relationships with staff physiatrists
• The opportunity to form collegial relationships with internationally recognized experts in many related medical and surgical specialties
• A balance between outpatient and inpatient experience

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

Mayo Clinic Rochester offers a Physical Medicine and Rehabilitation Residency Program that will prepare you for a career in private practice, research or academic medicine.

Before you begin your residency training, you will need to successfully complete one year of clinical base training at Mayo Clinic or in another academic medical setting. Your internship can be a preliminary year of surgery, internal medicine or pediatrics, or a transitional internship.

To fulfill this requirement, Mayo Clinic offers:
• A limited number of categorical positions, which includes a preliminary internal medicine year at Mayo Clinic Rochester
• A transitional year program at Mayo Clinic Jacksonville
• A transitional year program at Mayo Clinic Scottsdale

Clinical Training

Mayo Clinic’s Physical Medicine and Rehabilitation Residency Program features required rotations in six broad areas and approximately three months of electives. Your training will include a continuity clinic during the last two years of your residency. You may be appointed as a senior resident associate (SRA) for two months during your last year of training. During all three years, you may choose to serve as a ‘team physician’ for a local sports team.
Typical Rotation Schedule

Inpatient Rehabilitation Services
- Brain Rehabilitation ............... 3 or 4 months
- Spinal Cord Rehabilitation ........ 3 or 4 months
- General Rehabilitation (SRA) ........ 2 months

Pediatric Rehabilitation Services
- Inpatient and Outpatient .............. 2 months

Hospital Inpatient Consultation Services
- Rochester Methodist Hospital ........ 2 months
- Saint Marys Hospital .................. 2 months

Clinic Outpatient Consultation Services
- Arthritis Rehabilitation ............. 3 weeks
- Hand Rehabilitation ................... 3 weeks
- Amputee Rehabilitation .............. 6 weeks
- Sports Rehabilitation ................. 6 weeks
- General Outpatient .................... 2 months

Neurology ................................ 2 months
Electromyography Laboratory .......... 6 months
Research ................................. 2 months
Cardiovascular/Pulmonary Rehabilitation . 2 weeks
Mayo Group Practice Rotations ........ 3 to 4 months

Elective Rotations* ...................... 3 months
- Hand Rehabilitation
- Industrial Rehabilitation
- Comprehensive Spine Center
- Sports Rehabilitation
- Pain Clinic

*Other inpatient and outpatient elective rotations are available to meet your career goals.

Inpatient Rehabilitation Services

During your inpatient rehabilitation rotations, you will serve as the primary care physician for rehabilitation patients, conduct patient care.
conferences with the rehabilitation team, and lead clinical discussion groups. You also will have the opportunity to learn such skills as intramuscular neurolysis and urinary bladder cystometrograms–electromyography.

There are six services in Mayo Clinic’s 47-bed rehabilitation unit:
• Two spinal cord rehabilitation services
• Two brain rehabilitation services
• One pediatric rehabilitation service
• One senior resident associate service

Each service will have one or two residents and one staff physiatrist. While you are assigned to an adult rehabilitation service, you will be responsible for approximately 7 to 10 patients.

Trained allied health personnel will perform most ancillary procedures such as starting intravenous fluids (including blood), performing venipunctures and electrocardiograms, drawing blood gases, and scheduling tests.

**Pediatric Rehabilitation Services**

Your residency will include two months of pediatric rehabilitation services. You will learn to assess and manage children with developmental disabilities, cerebral palsy, muscular dystrophy, spina bifida, and acquired disorders such as trauma to the brain and spinal cord injuries. You also can participate in special pediatric clinics such as the Hemophilia and Spina Bifida/CP clinics, and community outreach programs for children.
Hospital Inpatient Consultation Services

While assigned to hospital inpatient consultation services, you will work with staff physiatrists to provide consultation services and regular follow-up for inpatients.

The consulting services at Rochester Methodist Hospital and Saint Marys Hospital differ considerably because of the varying needs of their patients. Each hospital has a caseload of patients with orthopedic and neurological disorders. However, Rochester Methodist Hospital also has cancer rehabilitation and organ transplant rehabilitation programs; Saint Marys Hospital has programs for neurosurgery, trauma, pediatrics and peripheral vascular disease.

Clinic Outpatient Consultation Services

While on outpatient rotations at the clinic, you will see a wide variety of conditions. You will gain experience in arthritis, and amputee and sports rehabilitation. You will learn to diagnose and manage occupational arm and hand injuries and will work closely with hand specialists in physical medicine and rehabilitation, orthopedic surgeons, physical therapists and occupational therapists. You will gain musculoskeletal examination skills and learn to diagnose and treat musculoskeletal injuries of all types. This training will prepare you for an office practice in physical medicine and rehabilitation.
Neurology
The neurology rotation includes outpatient and inpatient training. You will learn to diagnose and treat cerebrovascular and seizure disorders, movement disorders, and inherited or acquired central and peripheral nervous system disorders.

Electromyography Laboratory
You will gain extensive experience in electromyography during this unique six-month rotation in Mayo Clinic Rochester’s Electromyography Laboratory. You will perform enough electromyographic studies to qualify for certification by the American Board of Electrodiagnostic Medicine and by the American Board of Physical Medicine and Rehabilitation.

Cardiovascular/Pulmonary Rehabilitation
You will learn important techniques and indications of cardiopulmonary exercise testing. You will use this information to prescribe exercise for patients and to design specific programs for patients with heart and lung disorders.

Electives
Most residents spend their elective time in the Spine Center or in hand, industrial or sports rehabilitation. The Spine Center is a comprehensive multidisciplinary center for the diagnosis and management of back and neck pain. During the industrial rehabilitation rotation, you will learn specifics in work-related injury assessment, impairment evaluation, work-place ergonomics and work hardening.
Other inpatient and outpatient elective rotations will be available to meet your interests and career goals. Your options include electives in the Department of Physical Medicine and Rehabilitation or in other areas, including the Anesthesiology Pain Clinic and the Psychiatry Pain Rehabilitation Center.

**Didactic Training**

Clinical conferences, seminars, small discussion groups, journal clubs and one-on-one instruction are integral parts of Mayo Clinic’s Physical Medicine and Rehabilitation Residency Program.

Your training will include:

- Weekly discussion groups that focus on topics and objectives outlined in a syllabus written by Mayo Clinic’s consulting staff. This syllabus also contains educational objectives and resources for most of the program’s curriculum topics.
- Weekly clinical conferences presented by residents about interesting cases. Each resident is responsible for 3 to 4 such conferences during the residency.
- Weekly Grand Rounds presented by physical medicine and rehabilitation consultants or guest faculty.
- Weekly conferences in sports, hand and pediatric rehabilitation. Attendance will be required while you are on these specific rotations; otherwise attendance will be optional.
- Two evening journal clubs that meet once a month. You will be assigned to one journal club. The other will be optional.
• A comprehensive core curriculum and anatomy course with prosected cadavers.
• A basic science lecture series that focuses on the pathophysiological basis of tissue healing and repair; the use of different modalities; and disorders of bones, joints, nerves and muscles.
• A musculoskeletal exam course providing “hands on” training and observation of joint and spine examination skills.
• Course work in the related specialty fields of neurology, psychiatry, orthopedics and rheumatology.
• A week-long Prosthetic/Orthotic course

**Practice Board Exams**

To prepare for board examinations, you will participate in the yearly written Self-Assessment required by the American Academy of Physical Medicine and Rehabilitation. You also will complete mock oral exams twice each year. Conducted by Mayo Clinic’s consulting staff, these oral exams will prepare you for the second part of the physical medicine and rehabilitation boards.

**Teaching Opportunities**

You will have the opportunity to teach Mayo Medical School students, physical therapy students and visiting students from other medical schools through bedside instruction and formal didactic lectures. All second-year Mayo Medical School students have a three-week rotation in physical medicine and rehabilitation. You will be their teaching resident while they are assigned to your service.
Cardiac Life Support Certification

Certification in Basic Cardiac Life Support and Advanced Cardiac Life Support (ACLS) is required for all Mayo Clinic residents. 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

You will work with the research training program and research committee to plan a research project that you will complete during your residency. Projects frequently involve joint biomechanical analysis, epidemiology of specific disorders, or new rehabilitation interventions. This experience prepares you for an academic career and improves your ability to think analytically and to critically review literature. Research funding is available for approved projects.

During the residency you will prepare two seminar presentations that represent the introduction and results of your research project.

A Clinical Investigator pathway is also available. This opportunity would extend your residency approximately 18 months and is a wonderful choice for anybody planning a career that would emphasize research in an academic center.
**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.

---

**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** —
- 250+ 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+
Rotations to Other Mayo Clinic Sites

You will complete rotations at Mayo Clinic Jacksonville and Mayo Clinic Scottsdale during your physical medicine and rehabilitation residency. These practices offer acute and subacute, primary care experiences in a community-based practice.

Mayo Clinic funds your authorized additional costs of travel, housing, car rental and licensure fees. Our residents consistently rate these rotations very highly.

Call Frequency

Your call schedule will vary by individual rotation. Mayo Clinic follows recommendations of the Accreditation Council for Graduate Medical Education. Generally, you will be on call every fifth or sixth night and every third or fourth weekend while you are assigned to an inpatient rehabilitation service.

Moonlighting

Moonlighting is permitted for licensed residents beyond the PGY-1 level. Moonlighting activities may be scheduled during those times when you are assigned to consultative or outpatient rotations.
Career Development

You will meet periodically with various faculty members, administrators and the program director to discuss your goals. Mayo Clinic recruits many of its staff physicians from its own training programs. Thus, when you successfully complete the Physical Medicine and Rehabilitation Residency Program, job opportunities may be available at one of Mayo Clinic’s group practices.

Additional Training

At the conclusion of your physical medicine and rehabilitation residency, you may wish to continue your graduate medical education at Mayo Graduate School of Medicine. For more information about the following programs, contact your faculty adviser.

Advanced Degrees

If you would like to pursue an advanced degree (M.S. or Ph.D.) in the biomedical sciences, Mayo Clinic has a number of programs available that can be customized to your career needs.
Fellowships

The following Mayo Clinic fellowship programs offer in-depth, daily, one-on-one training with a consultant and the opportunity to increase your own supervisory and administrative skills.

Additional fellowships are available through the Mayo Foundation Scholarship program. Contact your faculty adviser for more information about these fellowship opportunities.

Sports Rehabilitation

During Mayo Clinic’s one-year Sports Medicine Fellowship, you will gain clinical experience in Mayo Clinic’s Sports Medicine Center. You will have ample opportunities to perform research in the Biomechanical Research Laboratory and other areas. Some elective time will be available if you would like to gain experience in a related area such as the Anesthesiology Pain Clinic.

Musculoskeletal Rehabilitation

Mayo Clinic’s one-year Musculoskeletal Rehabilitation Fellowship will focus on training in the Spine Center, the Arthritis Rehabilitation Program, the Hand Rehabilitation Service, the Work Hardening Program, and general outpatient physical medicine and rehabilitation. You can spend elective time in the Sports Medicine Center, Pain Clinic, inpatient orthopedic rehabilitation consultation service, and related areas such as skeletal radiology or magnetic resonance imaging.
Research time will be available. You also will have the opportunity to do some of your training at Mayo Clinic Scottsdale and Mayo Clinic Jacksonville.

Rehabilitation Research Fellowship

The National Center for Medical Rehabilitation Research funds four two-year research fellowship positions each year. These fellowships will prepare you for a competitive career in rehabilitation research. You will choose one of three tracks:

• Biomechanics
• Neuroepidemiology
• Pain

The pain track includes both basic science and behavioral research components. All three tracks include didactic courses in statistics and epidemiology.

Electromyography Fellowship

Mayo Clinic’s Electromyography Fellowship offers one year of training in the electromyography laboratory, working with physiatry and neurology staff. You will gain experience with evoked potentials, intraoperative monitoring and special electromyography techniques. You will be encouraged to perform some form of research.
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 well-regarded in their field. You will have direct access to these individuals throughout your training program.

Advisers

You will be assigned to faculty members who can provide educational advice and personal support. These advisers will serve as contact points, 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 and participate in hospital rounds. 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 1,000 staff physicians represent virtually all clinical specialties.

Mayo Clinic also features a 47-bed inpatient rehabilitation unit at Saint Marys Hospital; a world-renowned biomechanics laboratory; an electromyography laboratory, which performs more than 10,000 electromyographies each year; and the Mayo Clinic Sports Medicine Center, a state-of-the-art facility with the best exercise testing and training equipment available.

Libraries
Mayo Clinic’s library system in Rochester has one of the largest medical collections 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

The Department of Physical Medicine and Rehabilitation has Macintosh and IBM personal computers and software for you to use. In addition, Mayo Clinic’s Microcomputer Education Center provides training in the use of computers for word processing, data collection and analysis.

Telecommunications System

Mayo’s clinics in Rochester, Scottsdale and Jacksonville are linked via a sophisticated satellite telecommunications system. This technology 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 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 health 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**

There are six to eight positions available in Mayo Clinic’s Physical Medicine and Rehabilitation Residency Program each year, which are filled through the National Resident Matching Program (NRMP). Qualified applicants must have completed one year of training in internal medicine, surgery or pediatrics, or a transitional year program at Mayo Clinic or in another academic medical setting.

To apply to Mayo Clinic’s Physical Medicine and Rehabilitation Residency Program, you need to submit the following through the Electronic Residency Application Service (ERAS):
- A completed Mayo Graduate School of Medicine application form
- Official medical school transcripts
- An official record of board scores (NBME, FLEX, USMLE, LMCC, VQE or FMGEMS)
- A dean’s letter and two or three other letters of recommendation
- A curriculum vitae
- A personal statement
- A valid ECFMG certificate (if you graduated from medical school outside of the U.S. or Canada)

Applicants for fellowship programs also must provide a letter from their residency program director describing their residency performance.

Resident applications for each academic year, which begins in July, should be completed by November. If you are considered for an appointment, you will be asked to visit Mayo Clinic Rochester for an interview with the program director and selected faculty. Interviews are usually conducted from December through January each year.

Fellowship application deadlines vary each year. Contact the department for more information.
Inquiries

Applications to Mayo Clinic’s Physical Medicine and Rehabilitation Residency Program must be submitted through the Electronic Residency Application Service (ERAS).

If you would like more information, please contact:

Physical Medicine and Rehabilitation Residency Program
Mayo Graduate School of Medicine
200 First Street S.W.
Rochester, MN 55905
507-284-3108

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 Physical Medicine and Rehabilitation Residency Program with Mayo Clinic alumni living in your area, please write to us for a list of their names.
Notes
Notes