Orthopaedic Graduate Medical Education Programs
For more than 100 years, one of the central missions of our department has been the education, training, and mentoring of orthopaedic surgeons. Our department boasts academic medical programs at every level, from first year medical student to chief residents and from clinical fellows to visiting clinicians from around the world.

The goals of our residency and fellowship training programs are the following: to provide surgeons with the tools to master the rigors of clinical training, to introduce students and trainees to the principles of sound orthopaedic science, and—most importantly—to provide them with an extensive patient care experience, in the operating room, in the emergency department and in many different outpatient settings. Along the way we allow individuals to grow and develop the skills to become future leaders in our field. We do this in an environment that promotes a diverse learning experience across all the major orthopaedic sub-specialties.

Orthopaedic surgery is a field that does not stand still in this era of quickly evolving medical technology and our programs expose trainees to the latest advancements in orthopaedic techniques. We are proud to be able to teach students at all levels and also those already in clinical practice in state-of-the-art facilities while also providing access to the most up-to-date surgical technologies; in many cases developed by our own faculty.

But access to 21st century technology is not the most important resource we provide. What makes our programs unique is the world-class faculty of 182 orthopaedic surgeons and scientists, at the pinnacle of their respective sub-specialties, who are available to share their accrued knowledge with each incoming learner. Whether the field is hand surgery or pediatric orthopaedics, shoulder and elbow or foot and ankle, there are multiple faculty members available with the expertise necessary to train our students, residents, fellows and visiting clinicians in every aspect of orthopaedic care.

Reading through the following pages, we are reminded of the numerous surgeons who have trained in our programs and we are gratified by their professional success. But we are not content to rest on our reputation— in the coming years we look forward to expanding our academic programs even further as we train an ever more diverse group of future surgeons, researchers and leaders in the field of Orthopaedic Surgery.

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Introduction

In 1997, the Hospital for Joint Diseases and the NYU School of Medicine created a single orthopaedic surgery residency and fellowship program that combined the academic excellence and traditions of two historic institutions. Today the Department of Orthopaedic Surgery at NYU Langone Medical Center’s Hospital for Joint Diseases boasts the largest, and one of the most prestigious, orthopaedic residency programs in the nation. In addition, the Department offers fellowship programs in every major orthopaedic subspecialty while providing educational opportunities for undergraduate students, medical students and orthopaedic surgeons from the United States and around the world.

A Proud History of Academic Excellence

The orthopaedic education programs at the Hospital for Joint Diseases at NYU Langone Medical Center are rooted in the very origins of orthopaedic education in this country.

Orthopaedic education at the NYU School of Medicine traces its origins to the nineteenth century and its long-term association with Bellevue Hospital. When Dr. Lewis Albert Sayre was appointed Professor of Orthopaedic Surgery, Fractures, and Dislocations at Bellevue in 1853, it represented the first orthopaedic professorship in North America. Dr. Sayre held this title, and later that of Professor of Clinical Surgery, until 1898, when Bellevue Hospital Medical College merged with University Medical College of NYU to become the New York University School of Medicine.

The history of the Hospital for Joint Diseases begins in 1905, when the brothers Henry and Herman Frauenthal, physicians with a mission to help children with infantile paralysis, founded the Jewish Hospital for Deformities and Joint Diseases. The highlights of HJD orthopaedics include the establishment of orthopaedic pathology, the first research on arthroscopic techniques in this country, the development of orthopaedic procedures for treating polio and congenital deformities in children, and the establishment of the first biomechanics laboratory in the United States.

The education and mentoring of future generations of surgeons was the mission of both institutions from their inception.
The Residency Program

Each year, the Department of Orthopaedic Surgery at the Hospital for Joint Diseases at NYU Langone Medical Center matches 12 medical students to enter its residency program. Ten Students are matched into a 5-year training program and two students are selected to participate in a 6-year clinician-scientist training program.

The basic components of our residency program focus on:
- Clinical Orthopaedics
- Comprehensive Surgical Training
- Basic Orthopaedic Science
- Orthopaedic Research Fundamentals

Clinical rotations last for 60 months and include all major subspecialty areas of orthopaedic surgery. The program incorporates rotations specific to each major subspecialty to provide a focused experience. Both out- and in-patient clinical training is included, as well as operative and non-operative methods of treatment. Members of our teaching faculty provide residents with close interaction and supervision, as well as one-to-two weekly case conferences for each clinical rotation.

Clinical training is enhanced by a comprehensive didactic program that includes conferences in all areas of clinical orthopaedics, fractures, basic science, and orthopaedic pathology. Based upon a two-year cycle, the didactic program provides each resident with two complete cycles during the four years of orthopaedic training.

To learn the fundamentals of orthopaedic research, each resident is required to complete two research projects during the course of the program. One is a research project suitable for presentation at a national orthopaedic meeting and/or publication in a peer-reviewed orthopaedic journal and the second is an additional research project or preparation of a chapter or case report.

Support and resources are provided by the research arm of the Department of Orthopaedic Surgery: the Musculoskeletal Research Center. Research is enhanced through the use of multiple computerized clinical databases for clinical research studies.
Goals of Residency: Year by Year

Residents are provided the opportunity for increasing responsibility as they gain experience and knowledge. The overall goal of the residency is for the resident to obtain the necessary knowledge, experience and skill to successfully complete the certifying exams of the American Board of Orthopaedic Surgery and to enter the practice of orthopaedic surgery as a well-trained, highly competent orthopaedic surgeon.

Residency Year One
The first year is a combined medical and surgical experience under the auspices of the Department of Orthopaedic Surgery. Rotations include general surgery, trauma, vascular surgery, cardiac surgery, hand surgery, radiology/anesthesia, orthopaedic surgery, the Intensive Care Unit, and emergency medicine.

First-year residents are assigned to the following clinical facilities: NYU Langone Medical Center’s Tisch Hospital, The Hospital for Joint Diseases (HJD), the Manhattan Campus of the Veterans Affairs New York Harbor Healthcare System (VA), and Bellevue Hospital Center (BHC).

Residency Year Two
The goal of the second year is for residents to gain experience in the outpatient and inpatient management of different orthopaedic conditions. Operating room experience emphasizes acquiring basic psychomotor technical skills as well as teaching the fundamental principles of orthopaedic surgery, anatomy, and surgical dissection. During each rotation, the second-year resident serves as a junior resident of various clinical services.

The following subspecialties are the focus of the second-year resident: spine surgery, pediatric surgery, adult reconstructive surgery, and trauma. They rotate between these clinical facilities: Tisch Hospital, HJD, the VA, and Jamaica Hospital Center in Queens.

Residency Year Three
At this point in the program, the resident should have gained sufficient core knowledge and experience to more actively direct the care of patients. On some rotations the resident will be directly responsible to a fellow or to the attending faculty. Extensive experience in both inpatient and outpatient care continues at this level, as well as increasing experience in the operating room.

Cases increase in number and in complexity during this year, providing the resident with the background necessary to enter the senior resident years. Residents in their third year focus on the following subspecialties: hand surgery, sports medicine, shoulder and elbow surgery, trauma, and adult reconstructive surgery. They are based at BHC, Jamaica Hospital and HJD.
**Residency Year Four**

Responsibility for patient care continues to increase and in some rotations the resident reports directly to the fellows and attending staff. Even in instances that involve the fifth-year resident as Chief Resident, the fourth-year will have specific clinical responsibilities that allow for functioning as the supervising resident. Residents become more actively involved in the development of treatment plans for both out- and in-patients, while moving into the roles of primary surgeon and first assistant in the operating room. Residents at this level begin to assume responsibility for the education of their co-residents and medical students.

Residents in the fourth year focus on these subspecialties: foot & ankle, tumor, and spine. In addition, half the members of the fourth year class concentrate on pediatric orthopaedic surgery, while the other half concentrates on adult reconstructive surgery. They rotate at HJD, BHC, the VA, and Jamaica Hospital.

**Residency Year Five**

During this final year, the resident always functions as the Chief of a multiple-resident service, which will vary from two to six residents depending on the rotation. Responsibility for all clinical activities of service, inpatient and outpatient care, as well as all operating room activity is given to the resident. The coordination of all resident activity and the oversight of the care provided is the resident’s responsibility, working directly with the Chief of Service and other members of the teaching faculty. The roles of primary surgeon and first assistant continue in the operating room, depending on the complexity of the case. Chiefs assume more responsibility for the education of their co-residents and medical students.

Senior residents pursue a selective rotation in one of four subspecialty interests, which often coincides with future fellowship plans. As in the fourth year, half the members of the fifth year class concentrate on pediatric orthopaedics, while the other half concentrates on adult reconstructive surgery. The senior residents rotate throughout all of the Department’s clinical facilities.

**The Clinical Research Year**

Each year, two students entering the residency program are accepted into the 6-year Clinician Scientist Training Program. The goal of the 6-year research track is to immerse the resident in an intensive year of orthopaedic research. This program is a rewarding experience that introduces future clinician-researchers to a wide range of orthopaedic research, including clinical, biomechanical and molecular. This 12-month program in orthopaedic research takes place at the Musculoskeletal Research Center (MRC) and begins in July of the R3 year for those residents selected. Residents are assigned a focus in basic science and clinical investigations under the mentorship of the director of the MRC. At the conclusion of the research year, the resident will have an in-depth experience in biomechanical or biomolecular techniques used in contemporary orthopaedic research and have greater insight into today’s relevant research topics.

Each research resident is responsible for: the planning, initiation, execution, and manuscript submission of at least one clinical and one basic research investigation; participating in ongoing studies conducted by the MRC’s faculty; preparing and presenting the results of studies in which he/she is involved at national meetings; and researching and preparing at least one comprehensive review paper, typically on a controversial subject, for publication in a major orthopaedic journal. The resident will work under the guidance of the MRCs research faculty, an outstanding group of full-time scientists who mentor the residents in the clinician research track.
Fellowship Programs

Fellows in the Department of Orthopaedic Surgery work closely with the resident staff and function as junior attendings. Six orthopaedic subspecialties offer 14 postgraduate fellowship training positions that provide a comprehensive clinical experience in each of these areas:

The Spine Surgery Fellowship Program (4 positions)
The spine fellowship is designed for four fellows, with one spot reserved for an international spine fellow. There are 16 board-certified spine surgeons who are directly involved in the fellowship program. The fellows are exposed to a wide range of pathology including degenerative diseases, complex pediatric and adult deformity cases, tumors, trauma, and infections. At the end of the fellowship fellows will be trained in surgery from the occiput to the sacrum, both anterior and posterior, with and without instrumentation. Additionally, they will be exposed to many new and cutting edge techniques such as disc arthroplasty, minimally invasive surgery, and dynamic stabilization.

The Sports Medicine Fellowship Program (3 positions)
Fellows of the sports medicine program are dedicated to the care of patients with athletic injuries of both the upper and lower extremities. Running weekly clinics, providing physiotherapy, and the surgical treatment of patients form the core responsibilities of the fellows. Other activities include leading weekly journal club meetings and participating in the on-field coverage of local high school, collegiate, and professional athletic events.

The Hand Surgery Fellowship Program (3 positions)
The Emanuel Kaplan Hand Fellowship is a diverse experience devoted to the treatment of disorders of the hand, wrist, and elbow. Fellows assist in the care provided at two clinics and present weekly conferences along with residents. The experience includes office management and operative intervention of such disorders as compressive neuropathies, trauma, arthritis, tendonitis, and rheumatoid deformities.

The Adult Reconstructive Fellowship Program (2 positions)
The Adult Reconstructive Fellowship Program is designed to provide extensive clinical experience in primary and revision knee and hip arthroplasty, with emphasis on a wide range of issues and techniques, including minimally invasive surgery and computer-assisted surgical navigation. The fellow is involved in all facets of patient care, including clinic coverage and resident education in addition to intensive operating room experience.

The Shoulder Surgery Fellowship Program (1 position)
The Shoulder and Elbow Surgery Fellowship program is designed to provide extensive clinical experience in both the nonoperative and operative management of shoulder and elbow disorders. The fellow actively participates by evaluating patients in two weekly clinics and taking part in shoulder and elbow operative cases with the attending surgeons on the shoulder service. Research also plays a role in the fellow’s development, with active participation in the research activity of the Shoulder Research Group.

The Pediatric Orthopaedic Surgery Program (1 position)
The Pediatric Orthopaedic Division actively involves the fellow in the daily activities of the service, including patient care in the clinic and the operating rooms, and resident education. Fractures, trauma, and the entire spectrum of pediatric orthopaedic and neuromuscular diseases provide a diverse experience for the fellow and result in an extremely well-rounded program. The treatment of pediatric spinal disorders is a combined effort with the Spine Division.
Visiting International Physician (VIP) Program

The Department of Orthopaedic Surgery established a Visiting International Physician (VIP) Program in order to accommodate the numerous qualified foreign orthopaedic surgeons interested in the cutting-edge orthopaedic care and research practiced by our world-class faculty.

The visits from international academic observers have a twofold benefit: VIPs learn about the state-of-the-art orthopaedic techniques available at HJD while sharing their own accrued knowledge and expertise with our faculty. In order to participate in the VIP program, a physician must have a faculty sponsor within the Department. The sponsor will guide the VIP’s stay and help them obtain the educational experience they desire. Length of visit, the location of the observership, and the specific activities the VIP will engage in are agreed upon by the VIP and his/her faculty sponsor before the visit takes place.

Research and Surgical Training Facilities

The Musculoskeletal Research Center

Research is one of the cornerstones of the academic experience at HJD. The Department boasts a Center dedicated exclusively to orthopaedic basic science research and clinical research. The world-class research facilities and labs that comprise the Musculoskeletal Research Center (MRC) are a vital resource for all orthopaedic residents and fellows.

Molecular and biomechanical research is the major focus of the Center’s research laboratories. MRC laboratories provide facilities where faculty, residents, fellows, medical students, graduate and undergraduate students, and visiting scholars can conduct broadly interdisciplinary research in tissue and cellular biomechanics, regeneration, and repair. The primary lab for the MRC is a 4,000-square-foot facility that houses a materials testing laboratory, cell and molecular biology laboratory, histology laboratory, tissue culture facilities, and a microscopy laboratory.
The Surgical Skills Lab

An important component of orthopaedic education is a new, state-of-the-art Surgical Skills Lab. The Lab is equipped with three fully functional stations that can be operated simultaneously. Each station has its own set of arthroscopic capital equipment including arthroscopes, light, shavers, pumps, suction, and vapors. The lab can be used for open as well as arthroscopic procedures.

The stations also have the capability to see multiple images on any of the screens in the lab at the control of a master touch screen. This makes it possible to show comparative images while inside the joint or show and inside view of the surgery while watching the surgeon via an external wall camera.

The lab also allows for recording video and still images while performing surgical procedures and can accommodate arthroscopic procedures of the shoulder, elbow, hip, knee, or ankle. Several types of open procedures can be performed. The Lab has been used to perform research studies, anatomy dissections, and surgery teaching sessions for open and arthroscopic methods. Live demonstrations with two-way audio are telecast into the Loeb Auditorium, the principal lecture hall at HJD, and other conference rooms throughout the hospital.

Our Community

The residents, fellows, medical students, and VIPs participating in the educational programs at the Hospital for Joint Diseases at NYU Langone Medical Center can take advantage of the diverse and vibrant community outside the Hospital walls.

The three primary institutions at which residents and fellows practice (the Hospital for Joint Diseases, Tisch Hospital, and Bellevue Hospital Center) are located within a 17-block radius in the Gramercy and Kips Bay neighborhoods of Manhattan. Our location in the heart of one of the world’s most exciting and culturally-rich metropolitan areas provides yet another facet to the educational experience at our institution.

The Housing Services Office at the NYU School of Medicine recognizes the challenges involved in the search for affordable housing in and around New York City and acts as a housing resource for faculty, students, and staff at the medical center.
A Commitment to Diversity

The Department of Orthopaedic Surgery is committed to supporting the goals of the American Academy of Orthopaedic Surgeons in fostering diversity in orthopaedic academic programs. As part of these efforts, our academic staff strives to identify and train qualified women and minorities that are interested in the orthopaedic field.

The Department also works closely with The Office of Diversity Affairs of NYU School of Medicine, an office dedicated to developing and managing recruitment, retention and outreach programs to ensure that the diversity and experience of the students, residents and faculty reflects the community it serves.

How to Apply

Residency
The deadline for applications for the residency program is November 1 of the previous academic year. Interviews are offered to approximately 72 applicants.

Applications for entry at the R-1 level will be processed through the American Association of Medical Colleges (AAMC) Electronic Residency Application Systems (ERAS). For application materials and detailed instructions for the ERAS program, please contact the Dean’s Office at your medical school.

Fellowship
For applications to our fellowship programs, please contact:

- Randie Godette
  Residency and Fellowship Coordinator
  301 East 17th Street
  New York, NY 10003
  212.598.6509
  randie.godette@nyumc.org

VIP Academic Observership
For an application to the VIP program, please contact:

- Malka Alt
  VIP Program Coordinator
  212.263.6391
  Malka.alt@nyumc.org

For more information about our Educational Programs visit us on the web at: www.nyuhjortho.org