

**The University of New Mexico Department of  
Orthopaedics and Rehabilitation**

**Hand Fellowship Program**



**Handbook  
of  
Goals and Objectives**

## **Mission Statement - Hand**

To provide the foundation for a lifetime of learning and practice of hand and upper extremity surgery, and to produce graduates who exemplify the highest ideals of our profession. It is our purpose to excel in clinical service, education, and research while maintaining the highest ethical standards, providing compassionate healthcare services, and contributing toward improvement of the healthcare delivery system.

## **Orthopaedic Department Mission, Vision and Core Values**

### ***Mission***

To achieve excellence in health care provider education and musculoskeletal research.

### ***Vision***

To provide our patients with the most advanced general and subspecialty orthopaedic care available through the partnership of education and research.

### ***Core Values***

Our core values are to:

1. Provide and improve patient care in the treatment of injuries, diseases, tumors, and musculoskeletal developmental problems;
2. Enhance and strengthen undergraduate and postgraduate medical education for medical students, residents, fellows, physical therapists, plaster-brace technicians, emergency care medical technicians, and other allied health personnel; and
3. Conduct and report research activities in the investigation of medical, surgical, and physical problems involving musculoskeletal, neuromuscular, muscular-tendon, and associated structures.

## Program Description

### Message from the Hand Fellowship Program Director



Thank you for taking an interest in the University of New Mexico Hand Fellowship Program. We are very proud of the history of hand surgery at the University of New Mexico and continue to build on its legacy. UNM's division of hand surgery was founded in 1970 by Dr. George Omer, becoming the nation's first academic division of hand surgery. Dr. Omer was one of the nation's most renowned orthopaedic surgeons, was President of the American Society of Surgery of the Hand, and was Chair of the UNM Orthopaedic Department. In 1976, he was joined by Dr. Moheb Moneim, who continued to build the hand surgery division and also later served as department chairman. Including the early apprentices under Drs. Omer and Moneim, the Hand Division has trained nearly 100 fellows to date! Since 1991, we have been ACGME-accredited for two fellows. The Hand Fellowship is a 1-year fellowship in the Department of Orthopaedics & Rehabilitation, running from August 1<sup>st</sup> through July 31<sup>st</sup>. Completion of an approved orthopaedic, plastic, or general surgery residency program is required for admission. Our previous fellows have come from diverse backgrounds and valuing the cultural diversity of New Mexico, we hope to continue to be an institutional model of diversity and inclusivity, embracing all individuals regardless of their race, creed, national origin, ethnicity, gender, gender identity, sexual orientation, age, disability, religion or military status.

The UNM Division of Hand Surgery is currently comprised of 3 full-time, sub-specialty-certified hand and upper extremity surgeons. Dr. Moneim, chairman emeritus, is still actively involved in the fellowship educational experience. In addition, the faculty are supported by 2 full-time, and 1 part-time, physician assistants in the hand division. As the only academic hand surgery division in the state, we see a large number of patients and a diverse array of pathology. We are fortunate that we are able to provide our services at a single institution, in a single city (Albuquerque, NM). We currently see patients at the General Orthopaedic Clinic at UNM Hospital, the Orthopaedic Faculty Clinic just off UNM campus, and Carrie Tingley Hospital

(UNM's Children's Hospital). We are also fortunate to provide care to largely under-served populations, such as Native Americans and first-generation Americans.

Here at UNM, we pride ourselves in providing a superior education and training in surgery of the hand and upper limb, through a balanced curriculum that encourages personal and professional growth. We attempt to provide the broadest possible exposure to diagnosis and treatment (both operative and non-operative) in patients of all ages. We provide a well-balanced experience with a high-volume elective practice mixed with a high-complexity referral practice. Fellows will see a wide range of pathology from trauma, congenital differences, arthritis, and malignancy. Stemming from the times of Dr. Omer, we have also continued to have a large volume of peripheral nerve injuries, both acute and chronic. We manage all pathologies from the elbow and distal, some shoulder pathology (mostly trauma related), and all aspects of brachial plexus surgery. Among other things, fellows are exposed to arthroscopy of the elbow and wrist, fracture management of the humerus and distal, microsurgical reconstruction of the upper limb, and replantation.

One of the unique aspects of the UNM Hand Fellowship is our Microsurgical Research Laboratory. The Lab was developed in the 1970s to allow personal growth in microsurgery. The lab continues to have a dedicated technician and three operating microscopes and is available at all times during the week for practice, teaching, and research. Furthermore, there is dedicated time for the fellows to go weekly to the Lab to perform microvascular surgery in a living model.

We are very proud of our Program. The cohesiveness and camaraderie among our fellows, residents, and faculty has allowed us to continue to recruit and train tremendous individuals. The productive fellowship year establishes the foundation for a successful career in Hand and Upper Extremity Surgery, and mentors for life. Graduates of our program have gone into both academic and community practice, most with full-time hand practices though others with general orthopedic or plastic surgery practices. We are confident that we prepare our graduates for whatever they seek to undertake. Please take time to review our website and don't hesitate to contact us if you have any questions regarding the training experience here at UNM. We wish you luck in your future endeavors.

A handwritten signature in blue ink, appearing to read "N. Morrell".

Nathan T. Morrell, MD  
Program Director  
University of New Mexico Hand Fellowship Program

## General Goals & Objectives:

Overall goals and objectives of the program are best accomplished by recruiting the most qualified candidates for fellowship training and providing an atmosphere conducive to learning.

- **Basic Sciences:** Basic science relevant to the hand is part of the curriculum as follows:
  - 1) Fellow will participate in the biannual resident lecture series. The first of 9 blocks is devoted to anatomy and basic science, of which trauma is a large component. This includes hand & upper limb anatomy, normal and patho-biomechanics, biomechanics of fracture fixation, and biology of fracture healing.
  - 2) Fellow-specific lectures also commonly include basic science considerations for specific clinical topics, including specific anatomical considerations. See the Teaching Schedule for lecture titles.
- **Clinical Topics:** The curriculum attempts to cover all areas of clinical orthopaedics pertaining to the hand and also includes primary care topics relevant to trauma. Conferences will be attended by faculty members of the Orthopaedic Department, Division of Hand Surgery, as well as members of the Occupational Therapy Department. Clinical topics will be covered in the fellow curriculum and fellow participation in the resident curriculum Wednesday morning and evenings.
- **Lifelong Learning:** An environment of inquiry will be supported through all levels of the training program. The concepts of practice-based learning and improvement, including Evidence Based Medicine, will be taught and emphasized across the spectrum from learning through patient care in an effort to facilitate development of an attitude of perpetual learning. This involves critical review of literature and application to practice.
- **Research:** Fellows will be introduced to research methodology early in the year. Fellows are expected to participate in meaningful research projects during the year. Prior to graduation, each fellow is expected to complete at least one research project of publishable quality. Faculty will provide guidance and support. Sources of funding for research support are available for projects of sufficient scope. Additionally, the department offers ancillary support for editing, obtaining funding, performing projects, and submitting manuscripts.
- **Patient Care:** The fellows work with a PGY5 and PGY2 on the Hand Service as team leader. This requires close communication with the residents and excellent availability to help in the ER, OR, clinic and on the floor. The fellows are expected to round on the inpatients on the hand service daily and write a progress note. The fellows need to be familiar with the inpatients on the hand service.

- **Interpersonal and Communication Skills:** Fellows will be exposed to a curriculum and environment that teaches and stimulates the effective exchange of information among health care professionals as a functional team and during the interaction between the physician and the patient, family, and other health professionals.
- **Professionalism & Ethics:** Faculty and fellows will maintain an environment of professionalism, including behavior expected of professionals, and adherence to ethical principles and sensitivity to a diverse patient population, including in-particular, Native Americans.
- **Systems-Based Practice:** Faculty and fellows will encourage an environment of learning and patient care that considers the overall context of health care delivery in the greater societal paradigm that is of optimal value. Care is based in a Level 1 Trauma center with a wide ranging referral base.
- **Working Environment:** Fellows will work in an environment that emphasizes an appropriate balance between the demands of patient care, the value of hands-on learning, and the potential risk of medical errors. Fellows are expected to work within the guidelines of the 80-hour work week. Fellows and faculty are expected to understand and practice the principles of an effective work environment.
- **Evaluative Process:** Faculty and fellows will work within an educational framework that facilitates multiple and frequent modes of feedback and utilizes the evaluative process in an effort to continually improve the educational and patient care processes.

## Hand Fellowship Specific Goals and Objectives

### 1. Goals:

- a. To learn the discipline of hand at the expected level of a hand specialist
- b. To know the surgical anatomy of the discipline
- c. To develop advanced differential diagnostic skills
- d. To learn advanced radiologic interpretive techniques
- e. To develop proficiency in open, closed and percutaneous technique in the treatment of hand injuries and conditions

### 2. Objectives

#### a. Patient Care:

- i. Delivery of patient care that is compassionate and respectful, particularly in the context of hand trauma as well as congenital and acquired deformity.
  - ii. Development of patient interview skills that are accurate, complete, and include relevant issues such as hand dominance, occupation, and mechanism of injury.
  - iii. Develop and carry out patient care management plans that include other medical disciplines, when appropriate.
- b. Be able to counsel and educate patients and families, and be familiar with available resources to assist this process, with regard to the common hand problems, therapy, and prosthetic and orthotic referrals.
  - c. Be able to work cooperatively with the multidisciplinary team framework that is essential to the management of patients with congenital deformities.
  - d. Patient care is evaluated through the use of faculty observation, as well as a graduated level of clinical responsibility.

3. Medical Knowledge:

- a. Be able to integrate knowledge of the basic science (including biology, genetics, embryology, and pharmacology) with clinical care in the pertinent categories of hand surgery, including:
  - i. Bone and Joint
  - ii. Nerve
  - iii. Tendon and Muscle
  - iv. Skin and Wound Problems
  - v. Contracture and Joint Stiffness
  - vi. Tumor
  - vii. Congenital
  - viii. Microvascular
- b. Apply the knowledge of hand anatomy to various hand problems as well as surgical dissection
- c. A mid-year written examination is performed.
- d. The ASSH self-assessment examination will be completed by the completion of the fellowship

4. Practice Based Learning and Improvement:

- a. Apply the principles of Evidence Based Medicine to the evaluation, treatment, and prognosis of patients with hand disorders.
- b. Organize and lead the quarterly Hand Fellowship Journal Clubs
  - i. The fellows will also participate in the Residency Journal Clubs during the Hand section of their curriculum.
- c. Actively participate in the process of educating patients and their families about issues relating to hand disorders.

5. Interpersonal and Communication Skills:

- a. Demonstrate ability to communicate effectively with patients and their families, including the use of effective listening skills, across the spectrum of age, diagnosis, and degrees of complexity unique to hand surgery.

6. Professionalism:

- a. Demonstrate professional behavior that is respectful, altruistic, ethically sound, and sensitive to patient dignity.



7. Systems-Based Practice:

- a. Understand the role of hand surgery in the context of the larger health-care system.
- b. Demonstrate a working knowledge of the medical delivery system.
- c. Practice cost-effective care. Be able to demonstrate an appropriate cost-effective work-up of a patient with a new hand problem.
- d. Advocate for patients within the healthcare system.

## **Feedback/Evaluation**

Feedback is to be expected and provided on a frequent and timely basis. Fellows should schedule time at the end of a rotation block for formal feedback and evaluation. Fellows are evaluated according to the The Hand Surgery Milestone Project, a joint initiative of the Accreditation Council for Graduate Medical Education (ACGME), the American Board of Orthopaedic Surgery (ABOS), and the American Board of Plastic Surgery (APS). A link is provided:

<https://www.acgme.org/Portals/0/PDFs/Milestones/HandSurgeryMilestones.pdf>

The Program Director will meet with each fellow quarterly to provide written evaluations, including updates on the Milestone Evaluations and the evaluations completed in New Innovations, as well as case log data. “360° Evaluations” (with feedback from others other than the fellowship attendings) are provided midway through the fellowship year.

## **Policies and Procedures**

Most of our policies and procedures are governed by the office of Graduate Medical Education. Current Fellow Resources can be found at:

<https://hsc.unm.edu/medicine/education/gme/current-resident-fellow/>

## **On-Call Activities**

Fellows will not have any in-house or primary call. The fellows take “home-call” for complex hand. The “on-call” fellow is responsible for covering after-hours or weekend cases with the on-call attending. After-hours elective cases are not required to be covered.

## **Call Schedule:**

One fellow, designated as the “Hand Micro Fellow”, must be present at all times in the Albuquerque area and available to help with complex hand cases. Fellows have typically taken call 1 week at a time, alternating, though the fellows will work together to determine their call schedule; this call schedule must be turned-in to the Residency Coordinator the month prior to call. The two fellows must work together when scheduling leave, both educational and vacation, to assure that one will be present to provide call coverage. In accordance with Duty Hour Requirements, Fellows must have an average of 1 day in 7 free of all activities, including home-call, averaged over a month. As such, if both fellows are unable to be available for call, the Orthopaedic Chief Resident will provide back-up hand micro coverage. A hand attending is always on call.

## **Policies Regarding Clinical Responsibilities, Graduated Levels of Supervision, and Criteria for Completion**

### **Dress Code**

Fellows are expected to dress in respectful attire when working in the clinic and with patients. Polo shirts and short sleeves are acceptable in the clinical setting. Scrubs are not permitted in clinic. White coats may be worn at the fellow's discretion.

### **Fellow Clinical Responsibilities:**

The primary responsibility of the Hand fellow is the efficient and effective operation of the orthopaedic hand service at University of New Mexico Hospital. In order to accomplish these responsibilities, a fellow has the following job description:

- The fellows must coordinate clinical coverage with the resident team on the Hand rotation. They should ensure adequate balance of exposure to evaluating and treating patients in the clinic as well as providing surgical treatment in the operating room. On average, fellows will spend 4 half-days a week in the clinic and 5 half-days a week in the operating room. Time amounting to one half day a week is reserved for scholarly activities and participation in the microsurgical laboratory.
- Case logs must be kept current and should be entered no less often than weekly
- When the attending to which the fellow is assigned is out on leave, the fellow may use the time as "elective time." This time can be used to rotate with other providers, do research, go to micro lab, go to personal appointments, etc.
- The fellow helps run the Hand OR add-on room Wednesdays (when not in lecture) and assists on other days as allowed by the duties.
- Fellows participate in the hand component of the residency curriculum including Wednesday morning and evening. The 3-hour Wednesday morning sessions will typically have the fellow presenting a 1 hour lecture and discussing the 2 hour topics.
- The fellow is expected to attend the weekly Wednesday morning conference and to have prepared for the topic of discussion for that week.
- The fellows will alternate leading the quarterly journal club in conjunction with the fellowship program. The fellow will be asked to assist in the didactic teaching of residents, medical students, and allied health professionals in areas of upper extremity trauma. This may include lectures, anatomy dissections, motor skills labs, etc.
- The fellows give one grand rounds to the UNM Orthopaedic department during the fellowship year.

- The fellow should communicate daily with the hand faculty. The fellow is responsible for knowing of upcoming surgical cases and should assist the residents in pre-op planning and executing a treatment plan.
- The fellow should establish a spirit of cooperation and mutual support among the residents and be willing to support their problems in discussion with the faculty.

**Graduated Supervision Policy:**

The hand fellowship is a PGY-6 training year; i.e. the fellows do not have attending privileges and an attending is required to be present for all acts of clinical service, both in clinic and the operating room. Autonomy is commensurate with fellow ability and preparation and it is expected that autonomy is gained as the year progresses.

**Scholarly Activity:**

Per ACGME requirements, each fellow should demonstrate scholarship during the program through one or more of the following:

- peer-reviewed publications
- abstracts
- posters
- presentations at international, national, or regional meetings
- publication of book chapters
- lectures or formal presentations (such as grand rounds or case presentations)

In addition, as a requirement for graduation, each fellow must participate in at least one hypothesis-driven research project during the year and present upon it at the annual UNM Orthopaedics Alumni Conference

**Criteria for Completion:**

The fellow should demonstrate maturity in judgment in the approach to solving orthopaedic hand problems and recommendations for treatment. Sound decisions should be based on well-grounded principles. The ability to act singly, or in conjunction with others, should be demonstrated in the performance of his/her duties. A well-rounded background in the hand surgery literature should have been accumulated at the time of the annual review by the staff. The fellow should perform within the Department of Orthopaedics standards. The fellow should possess all of the necessary attributes that would qualify him/her for successful completion of the American Board of Orthopaedic Surgeons examination for the subspecialty certificate in surgery of the hand.

An individualized learning plan (ILP) will be created for each fellow after the first clinical competency committee meeting. Progress towards the goals established in the ILP will be required for completion of the fellowship.



## Appendix I

# TEACHING SCHEDULE

### WEDNESDAY MORNINGS

6:45 – 7:30 A.M.	PRE-OP/INDICATIONS CONFERENCE
7:30 – 8:30 A.M. (1 <sup>st</sup> Wednesday)	MORBIDITY AND MORTALITY
7:30 – 8:30 A.M.	ORTHOPAEDIC GRAND ROUNDS
8:30 – 9:30 A.M.	HAND DIDACTICS/LECTURE SERIES
8:30 – 9:30 A.M. (Quarterly)	JOURNAL CLUB
9:00 – 12:00 P.M.	Residency DIDACTIC SESSION <i>(The Hand Fellow participates when hand topics are presented)</i>

Fellows are required to attend the Hand Pre-op/Indications conference every Wednesday morning at 6:45 a.m. During the 2<sup>nd</sup> half of the fellowship year, the fellows will alternate in providing a formal case presentation at this conference. Fellows may attend Orthopaedic Grand Rounds every Wednesday morning at 7:30 a.m, though this is not required unless a hand/upper extremity topic is being presented. The first Wednesday of the month is Morbidity and Mortality conference (at Grand Rounds). The fellows are expected to keep track-of and submit cases for discussion. The 8:30 a.m. Hand Didactics are presented by the Faculty. Fellows are expected to have done the assigned reading to familiarize themselves with the topics.

## **Appendix II**

### **WELLNESS**

The Hand Fellowship Program values the personal wellness of the fellows. Each fellow is permitted to attend personal healthcare visits. This simply must be communicated in a timely manner to the attending on service. No specific pre-approval is needed.

Each fellow is allotted “Wellness Days.” A half day is permitted every 3 months. This does not require pre-approval though must be communicated in a timely manner to the attending on service.

The University of New Mexico has an Office of Professional Well-Being that is a great resource that is dedicated to providing initiatives that improve practice efficiency, enhance a culture of compassion, and promote personal resiliency.

<https://hsc.unm.edu/medicine/about/well-being/>