

OHSU Department of Orthopaedics and Rehabilitation

Rotation Specific Objectives for Resident Education

Rotation: Sports Medicine Resident year-in-training: PGY3, PGY5

Attending Physicians:

1. Dennis Crawford, MD, PhD

Orthopaedic Surgeon, ABOS Board Certified, ABOS Board Sports Medicine Board Certified
Fellowship: Sports Medicine (Knee & Shoulder Surgery), Trauma Orthopaedics

2. Andrea Herzka, MD

Orthopaedic Surgeon, ABOS Board Certified, ABOS Sports Medicine Board Certified
Fellowship: Sports Medicine

3. Jacqueline Brady, MD

Orthopaedic Surgeon, ABOS Board Certified, ABOS Sports Medicine Board Certified
Fellowship: Sports Medicine and Shoulder Surgery

Primary Objective:

Surgical and medical training related to orthopedic conditions and injuries sustained in association with athletic/recreational or work-related activity, of or relating to the soft-tissues and bone about the major joints (primarily Hip, Shoulder, Knee but including Foot & Ankle, Elbow and Spine) or found in association with chronic or developmental conditions related to cartilage, ligament or muscular conditions (excluding tumors).

Educational Philosophy:

The principal goal of the sport service is to familiarize all orthopedic residents with the nature of sports injury; with a foundation in basic pathophysiology. Essential medical and surgical therapeutic interventions are considered in both clinical practice and during formal academic teaching sessions. The goal is to achieve a coordinated care approach across disciplines with the Orthopedic Sports Medicine physician as leader of a team dedicated to patient care and advocacy. (This to include, for example, the judicious use of Rehabilitation and Radiographic services in both in- and out-patient settings while balancing use of technical advances through sound scientific judgment for prudent application).

Rotation Expectations and Opportunities:

The Orthopedic Residents will work primarily with the three full time University based Sports surgeons, with additional direct experience with non-surgical Sports Medicine Staff (Family Practice) and elective concurrent opportunity with Foot/Ankle, Hand/Upper Extremity, Orthopedic Traumatology and Spine specialists.

Current Rotation; Two residents (PGY5 & PGY3) spend 10 weeks dedicated to Orthopaedic Sports Medicine. This rotation encompasses a 5 day week, for the both the R5 and the R3. All R5

residents have had a prior Sports Medicine rotation. Each R5 and R3 spends time, 0.5-1 days/week dedicated to service-related educational activity and self study (e.g. surgical simulation, preparing conferences, reviewing case records, independent study and research investigations).

I-

Monday- (1.0 day clinic – Brady)

Tuesday- (1.0 day clinic – Crawford)

Wednesday- (1.0 day OR – Herzka), Sports conference 6:30-7:30a

Thursday- (1.0 OR- Brady)

Friday- educational conference and simulation laboratory 6:30-11:30a (0.5 OR- Crawford – begin at 1:00p)

II-

Monday (1.0 clinic – Herzka)

Tuesday- (1.0 day OR – Brady)

Wednesday- (1.0 clinic – Crawford), Sports conference: 6:30-7:30a, Indication conference 4-5pm

Thursday – (1.0 OR – Crawford)

Friday educational conference and simulation laboratory 6:30-11:30a

Summary

Rotations are designed in a mentorship model with residents working one-on-one in both the clinic and OR of the full-time faculty educators.

Opportunity for interaction with sports medicine colleagues in Family Practice and Emergency medicine are a routine part of the clinical practice, as a sports medicine Family Practice Fellow shares time in clinic with orthopaedic faculty.

Three full-time university-based Orthopaedic board certified surgeons serve as the principal educators.

Residents participate as 1st assist in all circumstances as no Fellows participate. 800+ cases annually, 80-90% arthroscopy.

An average of 20 surgical and 16 clinic hours are offered each week on each rotation as the basis for direct medical care education. The opportunity includes one-to-one supervised instruction and direction in management of new patients, provision of continuity of care for both post-operative and non-operatively managed patients, and coordination of care across the spectrum of medical services.

Residents are expected to organize and conduct 1 case-based lecture on an assigned sports medicine topic during the rotation.

Residents are expected to collaborate with and supervise learners including medical students, PA students, surgical staff and clinical staff.

Residents may participate in extra-curricular community service activities including sports event coverage, pre-participation physicals and surgical skills laboratories routinely available throughout the academic year.

Generalized Sports Rotation Goals & Mechanisms:

Didactic:

- Attend formal multi-disciplinary (Orthopedics, Family Medicine, Pediatrics, Radiology) attending/resident bimonthly conference to specifically address topics in Sports Medicine
 - Curriculum appendix A.
- Review condensed reading list for junior and senior residents over the course of the rotation, with input from faculty. Review comprehensive reading list as preparation for cases, along with journal review (JBJS, AJSM, Arthroscopy).
- Participate in pre, mid and post-rotation meetings to assess expectations and progress of residents.

Patient Care:

- Manage all aspects of injury on an individual basis with acute and chronic manifestations of athletic/sports-related injuries in all ages.
- Attain competence in performing a comprehensive evaluation of new and return patients in clinic. Comprehensive and concise history, physical examination, and diagnostic test ordering and interpretation are emphasized.
- A comprehensive evaluation of sports related patients, formulating a complete treatment plan:
 - History & Physical
 - Ordering of appropriate studies/consults
 - Diagnosis
 - Therapy (Non-Op, Medicinal, Surgical and Post-operative)

Medical Knowledge:

At the conclusion of a rotation, each resident is expected to:

- Engage in case-based learning, focusing on topically driven reading
- Prepare for surgical care by learning surgical approaches.
- Prepare patients for operative and nonoperative management and empathetically guide them through the recovery process of each.
- Familiarize oneself with current standards of care by reading Orthopedic Knowledge Update, including the editions on Sports Medicine and Shoulder and Elbow.
- Be thoroughly knowledgeable of basic textbook information and current journal articles on orthopaedic specialties pertinent to this rotation.
- Read and understand the key orthopaedic literature on the orthopaedic specialties pertinent to this rotation.
- Understand the techniques and modalities used by physical therapists and learn how to provide appropriate guidance and coordination of care for common and complex rehabilitation guidelines

- Understand the role of the Sports Orthopedist as part of the health care team and our relationship to the working environment with; Nurses, PA's, PT's, OT's, Orthotists, Trainers, Coaches & Families
- Understand the presentation, manifestation and therapy of the following common sports related injury categories (e.g.): Instability Patterns: Knee, Shoulder, Hip, Elbow, Ankle; Osteoarthritis: Focal, Diffuse; Overuse syndromes: Acute, Chronic; Tendon Injuries: Rotator Cuff, Quad, Patella, Achilles, Complete, Partial; Fractures: Metabolic, Activity related

Practice-Based Learning and Improvement:

- Participate as an assistant in surgical procedures and as primary surgeon where level of skill makes this appropriate. Develop the planning and technical skills to the level that participation as primary surgeon is appropriate on most surgical cases, with particular emphasis on meniscus repair and meniscectomy, ACL reconstruction, shoulder labral repair, and rotator cuff repair.
- Demonstrate ability to effectively perform preoperative planning for surgical procedures, even complex cases.
- Set up an operating room for surgery: knee, shoulder, hip, elbow or ankle; arthroscopy equipment, tools and implants; all patient positioning (know risks, pros and cons for each position)
- Understand and direct the role/limitations of operating personnel: scrubs, nurses, charge nurse, company representatives, schedulers and surgeons.
- Identify and clearly communicate the indications for every operation.
- Know the algorithm for several techniques for each indication
 - Be prepared in advance to complete the operation
 - Understand the choices for anesthesia and indications
 - Be ready to describe how to change course mid-operation
- Direct and perform the following procedures:
 1. Aspiration and injection of any joint or bursal space
 2. Diagnostic arthroscopy of the shoulder, knee, hip, ankle or elbow.
 - Identify all pertinent anatomy & pathology.
 - Plan portal placement for repair/reconstruction.
 3. Arthroscopic (minimal)

Knee	Chondroplasty, Microfracture ACL reconstruction preparation (debridement/landmarks) Meniscal Surgery (Meniscal repair vs. Meniscectomy) Cartilage Biopsy Synovectomy
Shoulder	Removal of Loose Body Distal Clavicle Excision Subacromial Decompression Rotator Cuff Evaluation Bankart repair/Capsular Shift Biceps tenodesis, SLAP repair
Hip	Removal of loose body (shoulder, elbow, knee) Portal Placement Removal of loose body/Debridement

4. Open

Repair of tendon/ligament
Extra-articular ligament reconstruction
Avulsion repair
Cartilage restoration
Repair of fracture

- Plan a complete rehabilitation program for all post-operative patients
Plan follow-up visits, PT, pain management and return to activities

Professionalism:

- Learn to organize patient clinical practice while participating in more advance patient evaluation and management activities.
- Actively and competently participate in supervising the educational and clinical activities of the junior level residents.
- Model appropriate professional values and behaviors for peers, faculty, and staff.
- Mature in the development of patient care, considering the cost, quality, outcomes, and impact on patient and healthcare system as essential variables in the equation.
- Demonstrate ability to engage in supportive, clear, and compassionate communication with patients and family members.
- Answer requests in a timely, cordial manner

Interpersonal and Communication Skills:

- The resident is expected on this rotation and all others to interact as a professional and team member with all the other staff and services within the hospital.
- The demeanor and tone of the resident in both verbal and nonverbal communication is expected to be exemplary.
- The same communication skills above are expected to be used with the patients and families.

Systems Based Practice

- Develop methods of analyzing complex data and prioritizing principles and issues to solve complex and ill-defined problems related to orthopaedic patient care.
- Demonstrate appropriate judgment, particularly as related to indications for surgical treatment of patients, nonoperative treatment options and algorithm.
- Understand the daily business of medicine/orthopedic surgery.
- Become facile with billing and coding issues.
- Manage the patient and health system to manage a disease/injury in the context of the biopsychosocial model.

Extra-curricular elective educational opportunities for Residents:

- Community Service
Varsity High School Sports Supervising Physician Assist faculty on the "sidelines" for acute injury management with follow-up planning and care.

Game and athletic training room coverage for Portland State University NCAA Division I athletics.

Event coverage; including Premier National Soccer camps (Nike), National Rodeo events, Roller Derby, and Mount Hood Meadows Ski-Clinic.
Pre-season Sports Physical Participation for high school and collegiate athletics.

Seminar & Symposia

-Lecture to other professionals on sports injury and safety (e.g. National Athletic Trainers Association, Oregon Scholastic Sports Assoc.)

- Arthroscopy Skills Lab

Dry (shoulder model) and wet (cadaver) specimens available to all residents for technique practice, skills expansion and anatomical orientation.

Lab equipment includes:

Full tower and scope set-up

Cadaver stand, storage and permits

Complete set of Shoulder & Knee instruments including implants

Supervised Attending sponsored Labs have included:

Rotator Cuff Repair

Shoulder Labral Repair

ACL Reconstruction

Meniscal Repair

Hip Arthroscopy and Labral Repair

Supervisory Tasks:

Supervise surgical tech in proper use of equipment and instruments.

Supervise and direct nursing staff in patient positioning and draping technique, use and set up of arthroscopy towers and equipment

Supervise medical students during history and physical, in utilization of the electronic medical record, acquisition of radiography data.

Supervise medical assistants in suture removal and bandaging, application of braces, application and removal of splints and casts.

Supervise examination of joint under anesthesia.

Supervise and teach basic joint anatomy to medical students using arthroscopy.

Supervise and direct weekly case review/pre-operative planning meeting.

Literature Resources:

Micheli: Oxford Textbook of Sports Medicine

-excellent overview of all conditions and diagnosis. limited surgical technique.

Garret: Principles and Practice of Sports Medicine

-Classic surgeons text written by former UNC chair and Duke SM Director

Snyder: Shoulder Arthroscopy

-bread and butter, first generation shoulder scoping

Jackson: Reconstructive Knee Surgeries

-older, but classic for open surgery of knee. he is former President of AAOS

Andrews: Arthroscopic Surgery

-classic "old school" intro to Arthroscopy (all joints). very good for fundamentals.

OKU: Sports, General, Shoulder & Elbow

-essential for boards

ATHLETIC HEAD INJURIES/CERVICAL SPINE INJURIES

Athletic Head Injuries

Robert C. Cantu, M.A., M.D., F.A.C.S

Concussion in Sports

E. Wojtys, D. Horda, G. Landry, et al.

Field Evaluation and Management of Head and Neck Injuries

Joseph J. Vegso, M.S., A.T., C. and Richard V. Lehman, M.D.

Management Guidelines for Athletic Injuries to the Cervical Spine

Joseph S. Tang, M.D.

SHOULDER

Surgical Treatment of Tears of the Rotator Cuff in Athletes

*James T. Tibone, M.D.; Burton Elrod, M.D.; Frank W. Jobe, M.D.;
Robert K. Kerla, M.D.; Vincent Carter, M.D.; Clarence Shields, Jr., M.D.;
Stephen J. Lombardo, M.D. and Lewis Yocum, M.D.*

Diagnosis and Treatment of Incomplete Rotator Cuff Tears

Harvard Ellman, M.D.

Observations and Impingement

Robert J. Neviaser, M.D. and Thomas J. Neviaser, M.D.

Impingement Syndrome in the Athletic Shoulder

Richard J. Hawkins, M.D. and Paul E. Hobeika, M.D.

Classification and Physical Diagnosis of Instability of the Shoulder

James F. Silliman, M.D. and Richard J. Hawkins, M.D.

Arthroscopic Evaluation and Treatment of Injuries to the Superior Glenoid Labrum.

Stephen J. Synder, M.D.; Michael P. Banas, M.D. and John P. Beizer, M.D.

The Relationship of Acromial architecture to Rotator Cuff Disease

Louis U. Bigliani, M.D.; Jonathan B. Ticker, M.D.; Evan Flatow, M.D.;

Louis J. Soslowsky, Ph.D and Van C. Mow, Ph.D.

J Shoulder Elbow Surg. 2004 Jul-Aug;13(4):381-5. [Links](#)

Internal fixation of symptomatic os acromiale: a series of twenty-six cases.

Peckett WR, Gunther SB, Harper GD, Hughes JS, Sonnabend DH.

Department of Orthopaedics and Traumatic Surgery, Royal North Shore Hospital, New South Wales, Australia.

J Shoulder Elbow Surg. 2002 Sep-Oct;11(5):521-8. [Links](#)

Surgical management of the symptomatic os acromiale.

Ortiguera CJ, Buss DD.

Mayo Clinic, Jacksonville, Florida, USA.

J Bone Joint Surg Am. 2000 Mar;82(3):394-400. [Links](#)

Os acromiale: frequency, anatomy, and clinical implications.

Sammarco VJ.

Cleveland Clinic Foundation, USA.

ELBOW

Throwing Injuries of the Elbow

Frank W. Jobe, M.D. and Gordon Nuber, M.D.

Tennis Elbow. The Surgical Treatment of Lateral Epicondylitis

Robert P. Nirschl, M.D.; Frank A. Pettrone, M.D., Arlington, VA.

Arthroscopy of the Elbow

James R. Andrews, M.D.; Rick K. St. Pierre, M.D. and William G. Carson, Jr., M.D.

KNEE

Arthroscopy in Acute Traumatic Hemarthrosis of the Knee.

Frank R. Noyes, M.D.; Rick W. Bassett, M.D.; Edward S. Grood, Ph.D; And David L. Butler, Ph.D., Cincinnati, OH.

The Treatment of Injuries of the Anterior Cruciate Ligament

Robert J. Johnson, M.D.; Bruce D. Beynnon, Ph.D; Claude E. Nichols, M.D. and Per A.F.H. Renstrom, M.D., Burlington, Vermont.

Posterolateral Instability of the Knee

Major Daniel M. Veltri and Russell F. Warren, M.D.

Injuries of the Posterior Cruciate Ligament

Commander D.C. Covey and Alexander A. Sapega, M.D.

The Dislocated Knee

Robert C. Schenck, Jr., M.D.

Patellofemoral Disorders

Alan C. Merchant, M.D.

Recommended Reading

OKU: Sports Medicine

OKU: Shoulder & Elbow

OKU: General Knowledge