

Sports Medicine Educational Goals & Objectives

Primary care physicians are involved in many aspects of patient care relative to their patients' participation in sports. Their participation may range from injury prevention, to nutrition, to exercise prescription, to medical care for special groups of athletes. Primary care physicians must be familiar with the economic, ethical, medicolegal, and psychosocial issues related to the care of patients participating in sports. The Sports Medicine rotation will provide the resident with exposure to patient education, the provider role as individual and team physician, and the appropriate prescription of exercise in healthy patients, patients with comorbidities, and other special patient groups. The goal of the rotation is to provide the resident with an understanding of the role of the family physician as part of a team providing care in organized sports and mass participation sports events. Focus will be on learning skills related to the evaluation and management of patients before, during, and after participation in sports to maximize safety, treat injuries, and promote lifelong participation in healthy exercise. Residents will also learn appropriate indications for referral to a subspecialist in Sports Medicine.

Faculty will facilitate learning in the 6 core competencies as follows:

Patient Care and Procedural Skills

- I. All residents must be able to provide compassionate, culturally-sensitive, and appropriate care for patients participating in sports.
 - PGY2s should facilitate seamless transitions of care between the patient's primary care physician and the consultant.

- II. Residents will demonstrate the ability to perform an appropriately targeted pre-participation physical for patients participating in organized sports or starting an exercise program.
 - PGY1s should be able to take a focused history and physical in the setting of acute injury. PGY1s should also be able to identify signs indicating abuse of performance-enhancing drugs.
 - PGY2s should be able to gather pertinent history and physical information to make decisions regarding return to sports participation.
 - PGY3s should be able to independently obtain the above details for patients with a complex medical history.

- III. Residents should know normal anatomy of the musculoskeletal exam, particularly the anatomy of the shoulder and knee, and be able to competently perform a complete musculoskeletal exam.
 - PGY2s should also be familiar with physical maneuvers to evaluate for specific musculoskeletal injuries.

- IV. Residents will learn the indications, contraindications, and complications of common procedures and spend time on this rotation as well as in skills labs, the ED, and Continuity Clinic to become competent in their safe and effective use:
 - Use of braces, casts, splints, orthotics, and elasticized bandage and taping
 - common joint aspiration and injection

- injections for bursitis and tendonitis
- trigger point injections

Medical Knowledge

- I. PGY1s will develop an approach to the evaluation and treatment of the following presenting conditions:
- Acute back or neck pain
 - Bursal or joint erythema, pain, or swelling, or joint stiffness
 - Muscle weakness, pain or swelling
 - Overuse and/or improper use syndromes
 - Sports-related trauma, including head injury, dislocations, fractures, or sprains

PGY1s will explore the basic pathophysiology, clinical presentation, and treatment of more common exercise-related conditions, such as bursitis, concussions, labral and meniscal tears, myofascial strains, nerve injuries, plantar fasciitis, rotator cuff tear, and tendonitis.

PGY2s will

- develop a more complete understanding of the pathophysiology, clinical presentation, and treatment of the above conditions in the setting of athletes with medical comorbidities

PGY3s will

- understand specific medical care considerations for targeted groups of athletes, including children, adolescents, women, the elderly, “weekend warriors,” students, and physically challenged athletes.

- II. Residents will understand the principles of management and therapy for sports-related conditions, with specific attention to:
- Natural history of acute and chronic sports injuries in children and adults and the expected course with and without therapy
 - Risks and benefits of medical/conservative therapies as well as alternative and complementary therapies
 - Nutritional issues
 - Exercise prescription
- III. All residents will be able to understand the indications for ordering and the interpretation of pre-participation stress testing as well as plain films, CT, and MRI for specific sports injuries.
- V. Residents will spend some time with a team physician and become familiar with protocols for evaluation, management, and transport of acutely injured athletes.
- VI. Residents will be able to counsel their patients on the following issues:

- initiation of exercise and the importance of exercise in health promotion
- prevention of musculoskeletal injury and re-injury
- return to play after injury

Practice-Based Learning and Improvement

- I. Residents will become familiar with national guidelines, such as Team Physician Consensus Conference Statements from the American College of Sports Medicine (<https://journals.lww.com/acsm-msse/pages/collectiondetails.aspx?TopicalCollectionId=3>), concussion guidelines, and Ottawa ankle rules, to apply evidence-based strategies to patient care.
- II. Residents should learn to coordinate patient care as part of a larger team, including the sports medicine specialist, primary care physician, orthopedic surgeon, physical therapist, and occupational therapist to optimize patient care, with PGY3s taking a leadership role.
- III. All residents should respond with positive changes to feedback from members of the health care team.

Interpersonal and Communication Skills

- I. PGY1s must demonstrate organized and articulate electronic and verbal communication skills that build rapport with patients and families, convey information to other health care professionals, and provide timely documentation in the chart.
- II. PGY2s must also be able to communicate clearly with patients, their families, other health professionals, coaches, sports organizations, and school administrators regarding plans for patient treatment and rehabilitation.
- III. PGY3s should demonstrate leadership skills to facilitate collaboration and coordinate a multidisciplinary approach to patient care.

Professionalism

- I. All residents must demonstrate strong commitment to carrying out professional responsibilities as reflected in their conduct, ethical behavior, attire, interactions with colleagues and community, and devotion to patient care.
- II. PGY1s should be able to educate patients and their families in a manner respectful of gender, age, culture, race, religion, disabilities, national origin, socioeconomic status, and sexual orientation on choices regarding their care.

- III. PGY2s should be aware of risks for use of performance-enhancing drugs in sports and be able to discuss this issue and counsel patients.
- IV. PGY3s should be able to provide constructive criticism and feedback to more junior members of the team.

Systems-Based Practice

- I. PGY1s should become familiar with indications for and workup prior to referral to sports medicine specialists, orthopedic surgeons, cardiologists, therapists, and other providers within the system.
- II. PGY2s must understand the appropriate timing of referral in the course of the patient's condition and within the context of their comorbidities.
- III. PGY3s must demonstrate an awareness of alternative therapies and their costs, risks, and benefits.

Teaching Methods

- I. Residents may provide supervised patient care in the clinic and on the field.
 - Residents will initially be directly observed with patients to facilitate the acquisition of excellent history taking and physical exam skills.
 - As residents become more proficient, they will interact independently with patients and present cases to faculty.
 - Initial emphasis will be on diagnosis and basic management.
 - When residents have mastered these skills, focus will be on medical decision-making and technical skills, and residents will work with supervising physicians to finalize a care plan.
- II. Conferences
 - Specialty-specific didactics
- III. Independent study
 - Journal and Textbook reading TBD by sports medicine attending
 - Online educational resources
 - American Academy of Orthopedic Surgeons
 - <https://www.aaos.org/quality/research-resources/>
 - American College of Sports Medicine Team Physician Consensus Conference Statements
 - <https://journals.lww.com/acsm-msse/pages/collectiondetails.aspx?TopicalCollectionId=3>
 - Pain management and addiction:
 - <https://www.cdc.gov/drugoverdose/prescribing/resources.html>

- https://journals.lww.com/jorthotrauma/Fulltext/2019/05000/Clinical_Practice_Guidelines_for_Pain_Management.11.aspx
- Clinical Key
- Up to Date

Evaluation

- I. Mini-CEX
- II. Verbal mid-rotation individual feedback
- III. 360 Evaluation
- IV. Attending written evaluation of resident at the end of the month based on rotation observations and chart review.

Rotation Structure

- I. Residents should contact the sports medicine attending the day prior to determine start time and location.
- II. Residents should attend at least one game with a team physician and attend clinic to achieve the above educational goals.
 - Rotations are a “hands-on” learning experience. Residents will be involved in discussion of patient presentation, differential diagnosis, decision for or against surgical intervention, and patient follow up.
 - Case-based learning is most effective. Nightly reading/study should be based on cases reviewed during the day.
 - Residents may be asked to do focused literature searches or presentations during the course of the rotation.
 - When doing consults, ensure the resident understands the question asked and provides a concise answer.
- III. Call and weekend responsibilities TBD by the attending physician.
 - Hours worked must be consistent with ACGME requirements and are subject to approval by the Program Director.
- IV. Residents have specialty-specific didactics and should be excused in a timely fashion to attend.