

## **Topics Covered in Fellow's Curriculum**

1. MSK Radiology Rounds with Clinical Case Presentations
  - a. Ankle Injuries
  - b. Classification of Meniscal Injuries
  - c. Muscle Strains and Tears
  - d. Throwing Injuries of the Elbow
  - e. Posterolateral Corner Injuries
  - f. Hyperextension Injuries of the Knee
  - g. Patellar dislocation and Patellofemoral Dysplasia
  - h. Shoulder Injuries
  - i. Femoral Acetabular Impingement
  - j. Cruciate Ligament Injuries
2. Quarterly Journal Club
3. Sports Nutrition
  - a. Basics review of Carb/Pro/Fat
  - b. Mineral/vitamin/micronutrient
  - c. Hydration- Before, during, and after
  - d. Food record basics and rapid calculations
  - e. Energy expenditure and caloric needs
  - f. Fad diets
  - g. Sports Nutrition products- gels, bars, drinks
  - h. Special sports topics- female athlete, carbo loading
  - i. Ergogenics and supplements
  - j. Pediatric issues
  - k. Body composition
    - i. Measurement individually and populations
    - ii. Pediatric issues
4. Physiology
  - a. Environmental Issues in Sports
    - i. Heat
    - ii. Altitude
    - iii. Cold
    - iv. Diving
    - v. Pediatric issues
  - b. Muscle physiology
    - i. Cellular anatomy and applied physiology-
    - ii. Neuromuscular aspects
      1. Peripheral fatigue
      2. Autonomic controls
    - iii. Biochemistry of energy metabolism basics
    - iv. Fiber types and related energy metabolism differences
    - v. Affects of training at the muscular level
    - vi. Strength versus endurance
      1. Pediatric issues
  - c. Physiologic responses to bouts of exercise

- i. Cardiac
    - ii. Vascular
    - iii. Pulmonary
  - d. VO<sub>2</sub> max concept
    - i. GXT
    - ii. Use in exercise prescription
    - iii. Application to caloric expenditure
    - iv. RPE application
  - e. Central fatigue
- 5. Fellow's conference- review of Reider's Orthopaedic Physical Exam text presented as Power Point to faculty and rotators
  - a. Chapter 7 Lower leg, Ankle, and Foot
  - b. Chapter 6 Knee
  - c. Chapter 9 Low Back
  - d. Chapter 2 Shoulder
  - e. Chapter 5 Hip and Pelvis
  - f. Chapter 3 Elbow and Forearm
  - g. Chapter 4 Hand and Wrist
- 6. Didactic Lectures
  - a. Physical Therapy
    - i. Modalities and Rehabilitation
    - ii. Core Strength and Stability
    - iii. Orthotics Prescription and Efficacy
    - iv. Sacroiliac/Lumbar Mechanics
  - b. Medical Topics
    - i. Concussion
    - ii. The Female Athlete
    - iii. The Pediatric Athlete
    - iv. Care of the Athlete with Pulmonary Complaints
    - v. Sports Cardiology- Evaluation of the Athletes to Prevent Sudden Death
    - vi. The Geriatric Athlete
    - vii. Sports Psychology
    - viii. Sports Dermatology.
    - ix. Sports Related Ophthalmology
    - x. Sports Dental Injuries
    - xi. NSAIDS pharmacology
  - c. Special Topics
    - i. Running Injuries and Gait Analysis
    - ii. Special Olympics Athlete
    - iii. Legal and Ethical Issues in Sports Medicine
    - iv. Bone, Muscle and Cartilage Injury in the Growing Athlete
- 7. Attending Lectures
  - a. Acute and Chronic Ankle
  - b. Acute and Chronic Knee

- c. Acute and Chronic Shoulder
- d. Acute and Chronic Hip
- e. Acute and Chronic Back
- f. Acute and Chronic Elbow
- g. Acute and Chronic Hand and Wrist
- h. Pre-participation Sports Evaluation