Rehabilitation of Central Nervous System Disorders

- Disorders of the Brain

- Spinal Cord Injury and Disorders
  - Traumatic spinal cord disorders
  - Non-traumatic myelopathies
    - Spondylotic myelopathy
      - Cervical Spondylotic Myelopathy
    - Inflammatory
      - Transverse Myelitis
      - Multiple sclerosis (including transverse myelitis)
    - Neurodegenerative
      - Spinal Muscular Atrophy (SMA)
    - Infectious disorders of the spinal cord
      [Apply for Refresh]
    - Congenital/myelodysplasia
      - Hereditary Spastic Paraplegia
        [Apply for Refresh]
      - Myelomeningocele (Spina Bifida)
      - Tethered Cord Syndrome
        [Apply for Refresh]
    - Syringomyelia
      [Apply for Refresh]
    - Metabolic/Nutritional/Toxic/Radiation myelopathies
      [Apply for Refresh]
    - Vascular Myelopathy
  - Spinal tumors
    - Spinal tumors
    - Pediatric spinal cord tumors

- Immune Mediated and Neurodegenerative Disorders

- Complications and Consequences of Brain and Spinal Cord Disorders
  - Syndromes of impaired consciousness
    - Disorders of Consciousness
  - Autonomic and cardiovascular complications
    - Autonomic Dysreflexia
      - Autonomic Dysreflexia in Spinal Cord Injury
    - Orthostatic hypotension
      - Orthostatic Hypotension in SCI
  - Impaired thermoregulation
    [Apply for Refresh]
- Cerebrally mediated autonomic dysfunction
  - Cerebrally Mediated Autonomic Dysfunction
- Sexuality and reproduction
  - Sexual dysfunction
    - Sexual Dysfunction in Acquired Brain Injury (ABI)
  - Sexuality and reproduction after SCI
    - Sexuality and reproduction after SCI
- Musculoskeletal complications
  - Overuse injuries in disorders of the central nervous system
  - Heterotopic ossification
    - Heterotopic ossifications
  - Contractures
  - Osteoporosis and fractures after CNS injury
    - Osteoporosis and fractures after CNS injury
- Neurological complications
  - Spasticity
    - Spasticity
  - Seizures/epilepsy
    - Seizures and epilepsy
  - Hydrocephalus
    - Hydrocephalus
  - Post-traumatic syringomyelia
    - Post-traumatic syringomyelia
    - Post-traumatic syringomyelia
• **Medical Rehabilitation**
  
  o **Cardiovascular and Pulmonary Diseases**
  
  o **Amputation and Wounds**
    ▪ **Amputation**
      ▪ Upper limb amputations
      ▪ Lower limb amputations
        ▪ Epidemiology and assessment
        ▪ Peri-operative management
          ▪ **Peri-Operative Management**
            [Apply for Refresh]
      ▪ **Upper limb prosthetics**
      ▪ **Lower limb prosthetics**
      ▪ **Congenital Lower Limb Deficiency**
      ▪ **Congenital Upper Limb Deficiency**
  
  o **Cancer, Organ Transplant and Immune-compromised Patients**
    ▪ **Cancers**
      ▪ **Functional outcomes after rehabilitation of cancers**
      ▪ **Exercise effects and fatigue in cancer patients**
        [Apply for Refresh]
      ▪ Side effects of treatment (cancer surgery, chemotherapy, radiation therapy)
        ▪ **Radiation plexopathy**
        ▪ **Brachial Plexopathy: Differential Diagnosis and Treatment**
        ▪ **Side effects of treatment (cancer surgery, chemotherapy, radiation therapy)**
          [Apply for Refresh]
      ▪ Post-Mastectomy Pain Syndrome (PMPS)
      ▪ Neurological and neuromuscular complications of cancer
        ▪ **Neuromuscular complications of cancer**
          [Apply for Refresh]
      ▪ **Palliative care**
      ▪ Rehabilitation of specific organ system cancers
        ▪ Breast cancer
          ▪ **Breast cancer** [Apply for Refresh]
        ▪ Brain tumor
          ▪ **Intracranial Neoplasms**
        ▪ Bone tumor
          ▪ **Rehabilitation interventions for metastatic bone tumors**
- **Primary Bone**
  - Rehabilitation management of head and neck cancers
  - Lung cancer
  - [Apply for Refresh]
- Rehabilitation management of head and neck cancers
- Lung cancer
- [Apply for Refresh]
- Organ transplantation
  - Liver
  - Kidney
  - Mixed connective tissue (face/hand)
  - Mixed connective tissue (face and hand)
  - [Apply for Refresh]
- Mixed connective tissue (face/hand)
- [Apply for Refresh]
- Polytrauma, Debility and Burns
  - Polytrauma
  - [Apply for Refresh]
  - Burn Rehabilitation
  - ICU Acquired Weakness and Neurocognitive Decline
  - Rehabilitation of patients in critical care settings
  - Rehabilitation of patients in critical care settings
  - Orthostasis (other than related to spinal cord injury)
  - Orthostasis
  - [Apply for Refresh]
  - Contractures
  - [Apply for Refresh]
- Geriatric and Gender-specific Disorders
  - Geriatric rehabilitation
    - Age-associated changes and biology of aging
    - Neurological consequences of aging
    - Neurological consequences of aging
    - Sarcopenia and geriatric frailty and failure to thrive
    - Geriatric Frailty
    - Exercise in the elderly
    - Polypharmacy in the elderly
    - Polypharmacy
    - [Apply for Refresh]
    - Polypharmacy
    - [Apply for Refresh]
    - Delirium and dementia
    - Incontinence in the elderly
    - Fall prevention in the elderly
    - Fall Prevention in the Elderly
    - Hip fracture
    - Hip fracture
    - [Apply for Refresh]
    - Hip fracture
    - [Apply for Refresh]
    - Dizziness
    - Geriatric gait and balance disorders
    - Mood disorders in the elderly
• **Musculoskeletal Medicine**

  o **Disorders of the Spine**
    ▪ Thoracic
      ▪ Thoracic radiculopathy / myelopathy
        ▪ [Thoracic radiculopathy/myelopathy](#)
      ▪ Cervical and Thoracic Zygaphosphial joint arthropathy and costotransverse joint arthropathy
        ▪ [Cervical and Thoracic Zygaphosphial joint arthropathy](#)
      ▪ Thoracic outlet syndrome
        ▪ [Thoracic outlet syndrome](#)
      ▪ Thoracic compression fracture
        ▪ [Compression Fractures of the Spine](#)

  o **Disorders of the Upper Limb**
    ▪ Shoulder
      ▪ [Shoulder instability, dysfunction and scapular dyskinesia](#)
      ▪ Overuse and degenerative disorders
        ▪ Overuse and degenerative disorders
        ▪ Rotator cuff tendinopathy and arthropathy
        ▪ Calcific tendinopathy
        ▪ Biceps tendinopathy
        ▪ Shoulder bursopathies
          ▪ Subdeltoid/subacromial
          ▪ Subcoracoid/subscapular
        ▪ Glenohumeral, acromioclavicular and sternoclavicular arthropathy
        ▪ [Adhesive capsulitis](#)
      ▪ [Impingement Syndromes of the Shoulder](#)
      ▪ [Shoulder pain in the throwing athlete](#)
    ▪ Elbow
      ▪ Acute elbow injuries and overuse disorders
        ▪ [Acute elbow injuries and overuse disorders](#)
        ▪ Apophysitis (Little league elbow)
          ▪ [Elbow Pain in Little League Pitcher’s Elbow](#)
          ▪ Tendinopathy
        ▪ Tedinopathies of the elbow
          ▪ Distal biceps
          ▪ Triceps
          ▪ Epicondylodyosis (medial)
Epicondylitis (lateral) with and without nerve entrapment

Olecranon bursitis
Tendinopathy

Disorders of the Lower Limb

Pelvis, hip, and thigh

- Anterior and medial hip sports, occupational, and musculoskeletal disorders
- Posterior and lateral hip sports, occupational, and musculoskeletal disorders
- Hip and pelvic arthropathies and labral tears
- Hip and pelvis neuropathies and plexopathies
- Other pelvic and hip disorders
  - Stress fracture of the hip and femoral neck
    Stress Fracture of the Hip
  - Pelvic floor dysfunction
    Pelvic floor dysfunction
    Urge incontinence
    Pelvic instability
    Obturator internus
    Levator ani
    Legg Calve Perthe disease
    Congenital hip dysplasia

Knee

- Meniscus injuries of the knee
- Cruciate ligament injuries
  - Anterior cruciate ligament injuries
    ACL Injury and Rehabilitation
  - Posterior cruciate ligament (PCL) injuries
- Medial and lateral collateral knee ligament injuries
  Medial and lateral collateral ligament injuries

Knee osteoarthritis

- Osteoarthritis
- Knee Osteoarthritis

Gender-specific Disorders and Sports Medicine

- Endocrine abnormalities affecting the musculoskeletal system
  Endocrine abnormalities affecting the musculoskeletal system
- Osteopenia and osteoporosis
  Osteoporosis in Rehabilitation
  Osteogenesis Imperfecta
- Female athlete triad
  Female athlete triad

[Apply for Refresh]
- Late onset secondary hypogonadism
- Musculoskeletal disorders in pregnancy
  - Pregnant Athlete
- Sarcopenia
- Diabetic athlete
- Other sports medicine medical issues - other (e.g., dermatologic, gastrointestinal, renal, etc.)
- Single organ athlete
- Sports injuries
  - Stingers and Burners
  - Lower limb exertional compartment syndrome
  - The downed runner/collapsed athlete
    - Downed runner
- Thermal regulation (hypo- and hyperthermia)
- Hydration issues in the athlete
  - Hydration Issues in the Athlete and Exercise Associated Hyponatremia
  - [Apply for Refresh]
- Exercise induced anaphylaxis and angiodema
- Concussion
  - Sports Concussion
• Pain / Neuromuscular Medicine Rehabilitation
  
  o Pain Medicine / Chronic Pain
    ▪ Peripheral Pain Disorders
      ▪ Headache
        ▪ Tension
        ▪ Cervicogenic
          ▪ Cervicogenic Headache
        ▪ Post-concussive
          ▪ Postconcussion Headache
        ▪ Migraine
          ▪ Migraine Headaches
            [Apply for Refresh]
      ▪ Cluster
        ▪ Spinal/paraspinal or cervical/thoracic/lumbosacral pain
        ▪ Peripheral neuropathic pain
          ▪ Acute herpes zoster and post-herpetic neuralgia
            ▪ Acute herpes zoster and post-herpetic neuralgia
              [Apply for Refresh]
      ▪ Neuropathy
        ▪ Diabetic
          ▪ Diabetic neuropathy
            [Apply for Refresh]
        ▪ Metabolic
          ▪ Approach to peripheral polyneuropathy: evaluation and differential diagnosis
          ▪ Approach to peripheral polyneuropathy: treatment
          ▪ Toxic
          ▪ Alcoholic
          ▪ Human immune virus
          ▪ Small fiber
    ▪ Peripheral nerve tumors
      [Apply for Refresh]
    ▪ Complex regional pain syndrome
      ▪ Complex regional pain syndrome part 1 (Disease/disorder, Essentials of assessment)
        ▪ Complex regional pain syndrome Part 1: Essentials of Assessment and Diagnosis
          [Apply for Refresh]
      ▪ Complex regional pain syndrome part 2 (Mgmt and Treatment, Cutting edge concepts in practice, Gaps in evidence-based knowledge)
- Complex regional pain syndrome Part 2: Management and Treatment
  - Autonomically mediated pain/autonomic pain syndromes
    - Autonomically mediated pain/autonomic pain syndromes
  - Painful medical diseases
    - Neurological diseases
      - Multiple sclerosis
        - Multiple Sclerosis
    - AIDP/CIDP Part 1: Evaluation and Diagnosis
    - AIDP/CIDP Part 2: Treatment
    - Human immune virus/acquired immune deficiency syndrome
  - Psychological pain components
    - Somatiform disorders
      - Somatization disorder
        - Somatization disorder
    - Conversion disorder
      - Conversion disorder

- Neuromuscular Medicine
  - Clinical neuromuscular conditions
  - Neuromuscular junction
    - Electrodiagnostic studies in neuromuscular junction disorders
      - Electrodiagnostic Studies in Neuromuscular Junction Disorders
        - [Apply for Refresh]
  - Peripheral nerve
    - Plexus
      - Brachial
        - Brachial plexopathy: differential diagnosis and treatment
      - Compressive/entrapment
      - Immune mediated
        - Parsonage-Turner
        - Neuralgic amyotrophy
        - Immune Mediated Brachial Plexopathy
          - [Apply for Refresh]
    - Lumbosacral plexopathy
      - Lumbosacral plexopathy and sciatic neuropathy: differential diagnosis and treatment
        - Lumbosacral plexopathy and sciatic neuropathy: differential diagnosis and treatment
      - Carpal tunnel syndrome
        - Carpal Tunnel Syndrome
      - Ulnar nerve mononeuropathy
- Ulnar nerve mononeuropathy at the wrist
- Ulnar nerve mononeuropathy at the elbow
  - Ulnar nerve mononeuropathy at the elbow
    - [Apply for Refresh]

- Muscle
  - Dystrophies (adolescent and adult onset)
  - Congenital myopathies
  - Nondystrophic myotonia and periodic paralysis
  - Rhabomyolysis
  - Inflammatory myopathies
    - Dermatomyositis
    - Polymyositis
      - Polymyositis
        - [Apply for Refresh]
  - Inclusion body myositis
  - Adult and Geriatric Muscle Disease
  - Myopathy associated with systemic disease
    - Endocrine
      - Adult and Geriatric Muscle Disease
    - Critical illness
      - Critical illness myopathy
        - [Apply for Refresh]
  - Toxic myopathy
    - Toxic myopathy

- Other genetic disorders
  - Arthrogryposis
    - [Apply for Refresh]

- Electrodiagnosis
  - Nerve conduction studies
    - Nerve conduction velocities
  - Needle electromyography
    - [Apply for Refresh]
  - Electrodiagnostic studies in neuromuscular junction disorders
    - Electrodiagnostic Studies in Neuromuscular Junction Disorders
  - Special techniques in electrodiagnostic medicine
    - Special techniques in electrodiagnostic medicine
      - [Apply for Refresh]
    - Single fiber electromyography
    - Autonomic testing
    - Quantitative methods in electromyography
  - The electrodiagnostic consultation and report
    - The electrodiagnostic consultation and report
• **Pediatric Rehabilitation**

  o **Neurological Disorders**
    - Central Neurological - Brain and Spinal Cord
      - Congenital
      - Acquired
        - Traumatic brain injury
          - Abuse
            - Physical Abuse (Nonaccidental Trauma)
        - **Pediatric Traumatic Brain Injury**
          - [Apply for Refresh]
        - Pediatric anoxic brain injury
        - Pediatric CNS tumors
          - Pediatric spinal cord tumors
          - Pediatric Brain Tumor
            - [Apply for Refresh]
    - Central Neurological - Spinal Cord
      - Congenital
        - Genetic conditions
          - Spinal Muscular Atrophy (SMA)
        - Tethered cord syndrome
          - **Tethered Cord Syndrome**
          - [Apply for Refresh]
    - Neuromuscular Disorders
      - Peripheral nerve
        - Plexus
        - Nerve
          - Other causes of hereditary neuropathy including metabolic/pressure liability
            - Approach to peripheral polyneuropathy: evaluation and differential diagnosis
            - Approach to peripheral polyneuropathy: treatment
            - Hereditary sensory and/or motor neuropathies
              - Hereditary neuropathy with liability to pressure palsies
              - Hereditary Motor Sensory Neuropathy (HMSN)
            - Ataxia telangiectasia
              - Ataxia telangiectasia
                - [Apply for Refresh]
      - Acquired
        - Immune mediated CNS and PNS pediatric diseases neuropathy
- Acute immune related neuropathies
  [Apply for Refresh]
- Acute motor axonal neuropathy
- AIDP/CIDP Part 1: Evaluation and Diagnosis
- HIV in Children and Adolescents
- Pediatric critical illness neuropathy
- Muscle disorders
  - Congenital
  - Dystrophies
    - Limb girdle muscular dystrophy
      - Limb Girdle Muscular Dystrophies
    - Fascioscapulohumeral muscular dystrophy
    - Congenital muscular dystrophy
    - Part 1: Adult and adolescent onset muscular dystrophies: evaluation and diagnosis
    - Emery Driefuss muscular dystrophy
- Musculoskeletal Disorders
  - Amputation/limb deficiency
    - Acquired
      - Pediatric acquired upper and lower limb deficiency
    - Congenital
      - Congenital Upper Limb Deficiency
      - Congenital Lower Limb Deficiency
  - Bone
    - Pediatric congenital bone diseases (other)
      - Osteogenesis imperfecta
        - Osteogenesis Imperfecta [Apply for Refresh]
  - Joint
    - Congenital
      - Congenital hip dysplasia
        - Congenital hip dysplasia [Apply for Refresh]
      - Club Foot [Apply for Refresh]
    - Arthrogryposis
      - Arthrogryposis [Apply for Refresh]
  - Acquired
    - Soft Tissue
      - Congenital
        - Benign joint hypermobile syndrome in children
        - Marfan's syndrome
        - Ehler-Danlos syndrome
          - Ehler Danlos syndrome [Apply for Refresh]
- **Cancer and Organ Transplantation**
  - Rehabilitation in blood malignancies including leukemia and lymphoma
  - Neurofibromatosis
    - Type 1
    - Type 2

- **Genetic and Developmental Disorders**
  - Mitochondrial syndromes in children
  - Hemophilia in children
  - [Hemophilia in children](#)
  - Sickle cell disease
  - Down syndrome
  - [Down Syndrome](#)
Essentials of Rehabilitation Practice and Science

- Basic Practice Concepts

- Specialized Physiatric Assessment and Management Strategies
  - Specialized Physiatric Assessment and Management Strategies
  - Procedures
    - Principles of pharmalogic treatments
      - Injectable agents
        - Injectable agents
      - Peripheral agents, soft tissue injections
        - Anesthetic agents
        - Steroids
      - Central agents
        - Intrathecal pumps
        - Other central pumps
    - Steroids
    - Analgesics
      - Non-opioids
        - Non-steroidal anti-inflammatory agents
          - Nonsteroidal Anti-Inflammatory Medications
          [Apply for Refresh]
      - Anticonvulsants
      - Other adjuvant agents
    - Opioids
      - Opioid Management for Chronic Pain
      - Immune stimulators
      - Manual treatments
      - Upper and lower limb orthoses and therapeutic footwear
        - Upper and lower limb orthoses and therapeutic footwear
      - Cervico lumbar and spinal orthoses
        - Cervical/thoracic
        - Lumbosacral/pelvic
        - Cervical, Thoracic and Lumbosacral Orthoses
        [Apply for Refresh]
    - Administrative rehabilitation medicine
      - Systems based practice
        - Administrative Rehabilitation Medicine--Systems-based Practice
        [Apply for Refresh]
      - Palliative care
      - Rehabilitation team functioning
        - Rehabilitation team functioning
      - Outcome measurement in rehabilitation
- Disability evaluation
- Quality improvement/patient safety issues relevant to rehabilitation
- Compliance issues relevant to rehabilitation
  [Apply for Refresh]
- Regulatory and accreditation requirements in rehabilitation
  [Apply for Refresh]
- Professionalism in rehabilitation including peer, student, resident and fellow recommendations/assessment
- Ethical issues commonly managed during rehabilitation
  - Medico-legal considerations / risk management in rehabilitation
- Patient advocacy in rehabilitation
- Clinical informatics in rehabilitation practice
- Communication issues relevant in rehabilitation
  - Communication issues relevant in rehabilitation
  - Electronic medical record/electronic health record
  - Privacy
  - Meaningful use
  - Medical reconciliation/hand-offs of care
  [Apply for Refresh]

- Basic Science Concepts
  - Basic skills for assessment of medical literature
    - Essentials of understanding medical literature: Classes of evidence, FDA guidelines, basic statistics, and study design for understanding medical literature
  - Neurological recovery and regeneration
    - Central
      - Natural Recovery and Regeneration of the Central Nervous System
        [Apply for Refresh]
    - Peripheral
      - Peripheral neurological recovery and regeneration
  - Neuromuscular physiology
    - Neuromuscular Physiology
      [Apply for Refresh]
  - Pain and placebo physiology
    [Apply for Refresh]