

MAINS ISSUES

Lectures

1. Basics of Rehabilitation
 - a. History of Rehabilitation, Definition of Rehabilitation
 - b. Principles of formulating the rehabilitation program
 - c. Rudiments of physiology of physiotherapy.

2. Rehabilitation of various pathologies
 - a. Rehabilitation in orthopedic and traumatology
 - b. Rehabilitation in rheumatology
 - c. Neurologic rehabilitation
 - d. Rehabilitation in internal medicine
 - e. Physical therapy

Seminars

1. Physical therapy (seminars)
 - Rudiments of physiology of physiotherapy
 - Legal Concerns
 - Thermal Modalities
 - Transmission of Thermal Energy
 - Cryotherapy
 - Thermotherapy
 - Shortwave Diathermy
 - Microwave Diathermy
 - Ultrasound
 - Phonophoresis
 - Electrotherapy
 - Ionotophoresis
 - Interferential Currents
 - Low Intensity Stimulators

- High-Voltage Pulsed Stimulation
- Transcutaneous Electric Nerve Stimulation /TENS/
- Neuromuscular Stimulation
- Point Stimulation
- Low Level Laser Therapy
- Magnet Therapy
- Extracorporeal Shock Wave Therapy (ESWT)
- Safety in Using Therapeutic Modalities

2. Rehabilitation in respiratory tract diseases (seminars)

- Definition and concept of pulmonary rehabilitation
- Physical Examination
- Conditions with predominant oxygenation impairment
- Conditions with predominant ventilatory impairment
- Formulating pulmonary rehabilitation program
- medical evaluation and management,
- initial assessment and goal setting,
- therapeutic modalities of exercise training,
- psychosocial counseling,
- nutritional counseling,
- daily living training and energy management,
- education,
- evaluation of outcomes,
- maintenance program
- the integrative cardiorespiratory exercise test
- exercise training
- breathing retraining
- improving performance of daily activities
- education

Practical classes

1. Rehabilitation in orthopedic surgery and traumatology

- Functional assessment of movement apparatus
- Principles of formulating the rehabilitation program
- Basic Science on Injury and Repair of Skeletal Muscle, Ligaments and Tendons
- Physical Forces Used in Musculoskeletal Rehabilitation
- Common Physical Therapy Techniques
- Gait Analysis
- Orthopaedic devices
- Rehabilitation After Total Joint Replacement
- Prevention of bed rest complications
- Principles of Sports Rehabilitation

2. Cardiac rehabilitation: (classes)

- definition and goals of cardiac rehabilitation
- risk factors modification
- emotional support
- medical evaluation before exercises
- physical activity: exercise prescription, intensity of exercise, duration and frequency of exercise, types of exercises, risk of exercise
- cardiac rehabilitation phases
- rehabilitation following MI
- special situations (heart transplantation, heart failure, CABG, elderly patients)

3. Rehabilitation in vascular diseases: (classes)

- vascular diagnostic testing
- rehabilitation in TOS and Raynaud Phenomenon
- rehabilitation in lymphatic disease: manual lymphatic massage, types of compression, patients' education
- rehabilitation in venous diseases: chronic venous insufficiency, DVT profilaxis
- rehabilitation for patients with PAOD: walking training, Buerger-Allen exercises, PNC, circulation boot, HBOT

4. Rehabilitation in metabolic diseases (classes)

- rehabilitation for obese patients

- rehabilitation for patients with: polimetabolic syndrome and diabetes mellitus: types of exercises, safety, health resorts

5. Rehabilitation in neurology (classes)

- Definition and concept of neurologic rehabilitation
- Physical Examination
- Head and cranial nerves
- Stance and gait
- Most common abnormalities of the intrinsic muscle reflexes
- Examination in rehabilitation
- Voluntary motor function
- Complete muscle test
- Orthoses and medical problems with prevention substitution and stabilisation
- Sensation
- Test proprioception
- Test pain
- Muscle tone (Asworth scale)
- ROM
- Functional capabilities (Functional Assesmen Terminology of Zimmermann)
- Movement disorders
- Upper motor neuron disorders
- Rehabilitation of spasticity
- Spinal cord lesions disorders
- Lower motor neuron disturbances
- Brain plasticity
- Terminology for Postinjury Gains