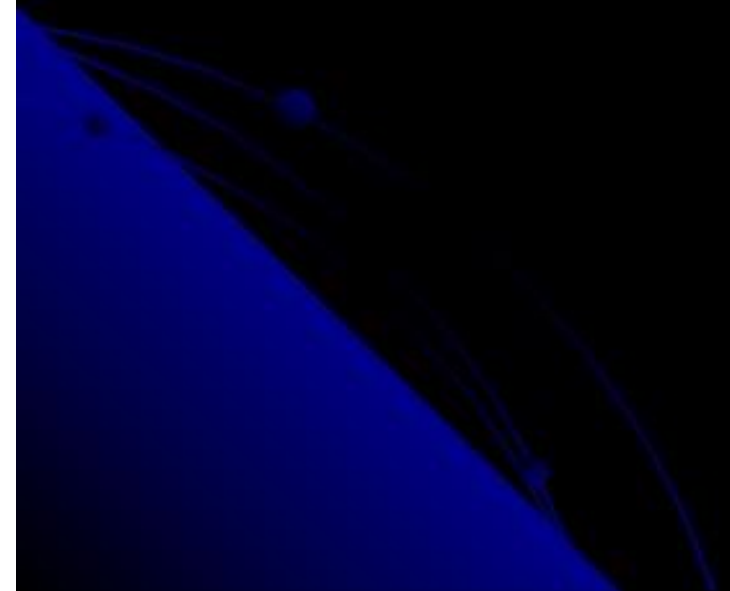


Introduction to Rehabilitation Medicine



What is Rehabilitation?

- The process of helping a person to reach the fullest physical, psychological, social, vocational, avocational and educational potential consistent with his or her physiologic or anatomic impairment, environmental limitations and desires and life plans



Components of Rehabilitation

- Medical Rehabilitation

Social Rehabilitation

Vocational Rehabilitation



What is Rehabilitation Medicine?

- Branch of medical science concerned with the comprehensive evaluation and management of patients with impairment and disability arising from neuromuscular, musculoskeletal, cardiovascular and pulmonary disorders; also concerned with the medical, social, vocational and psychological aspects arising from them.

Medical Rehabilitation Team

- Composed mainly of:
- Psychiatrist
- Physical Therapist
- Occupational Therapist
- Rehabilitation Nurse
- Psychologist
- Speech and language therapist
- Orthotist/prosthetist
- Social worker
- Patient



Musculoskeletal examination

- 0 – no contractions
- 1 – palpable contractions noted
- 2- full range of motion with gravity eliminated
- 3 – full range of motion with gravity
- 4 – full range of motion with gravity and slight resistance
- 5 – full range of motion with gravity and full resistance



•Activities of Daily Living

- Mobility
 - Bed mobility
 - Wheelchair mobility
 - Transfers
 - Ambulation
- Self Care
 - Dressing
 - Self feeding
 - Bathing
 - grooming



Activities of Daily Living

- Communication
 - Writing
 - Typing/computer use
 - Telephone use
 - Use of special communication devices
- Environmental Hardware
 - Keys
 - Faucets
 - Light switches
 - Use of windows and doors



Instrumental Activities of Daily Living

- Home Management
 - Shopping
 - Meal planning
 - Meal preparation
 - Cleaning
 - Laundry
 - Child care
 - recycling



Instrumental Activities of Daily Living

- Community Living Skills
 - Money/financial mgt
 - Use of public transport
 - Driving
 - Shopping
 - Access to recreational activities



Instrumental Activities of Daily Living

- Health Mgt.
 - Handling medication
 - Knowing health risks
 - Making medical appointments
- Safety Mgt
 - Fire safety awareness
 - Response to dangerous situations
 - Response to alarms



Instrumental Activities of Daily Living

- Environmental Hardware
 - Vacuum cleaner
 - Stove/oven
 - Refrigerator
 - Microwave ovens



Considerations in Rehabilitation

- Goal setting
- Understanding the functions of the team members
- Autonomy of each member
- Understanding the needs of the patient

Rehabilitation of Orthopedic Patients

- Why rehabilitate?
 - Resolve the clinical symptoms
 - Return to activity
 - General fitness
 - From rehabilitation to prehabilitation
 - Decreases the chance of injury

Why rehabilitate?

- Resolve clinical symptoms
 - Use of modalities
 - Use of appropriate medications
 - Protect, Relative Rest, Icing, Compression and Elevation (PRICE)
 - Surgical Indications

Why Rehabilitate?

- Return to Activity-Restoration of Function
 - Retard muscle decline in strength and mass
 - Deter complications brought about by immobility
 - Maintain or improve flexibility

Why Rehabilitate?

- General Fitness
 - Improve Cardiovascular fitness
 - Overall strength is improved
 - Improve tolerance and endurance

Why Rehabilitate?

- From Rehabilitation to Prehabilitation
 - Prevent reinjury
 - Improve proprioception
 - Prevent Immobility due to apprehension

Principles of Rehabilitation In Orthopedic patients

- Treatment Planning
 - Based on 3 stages of rehabilitation
 - Acute
 - Recovery stage
 - Functional stage

Acute stage

- Focus of treatment
 - Clinical symptom
 - Tissue injury
- Tools for rehabilitation
 - Rest and/or immobilization
 - Physical modalities
 - Medications
 - Manual therapy
 - Initial exercise
 - surgery



Acute Stage

- Criteria for advancement
 - Pain control
 - Adequate tissue healing
 - Near normal ROM
 - Tolerance for strengthening



Recovery stage

- Focus of treatment;
 - Tissue overload complex
 - Functional biomechanical deficit complex



- Tools:
 - Manual therapy
 - Flexibility
 - Proprioception
/neuromuscular
control
 - Specific exercise

Recovery Stage

- Criteria for advancement:
 - No pain
 - Complete tissue healing
 - Essentially pain free ROM
 - Good flexibility
 - 75 to 80 % strength



Functional Stage

- Focus of treatment
 - Functional biomechanical deficit complex
 - Subclinical adaptation complex
- Tools
 - Exercises
 - Technique/skills instructions
 - Specific functional program



Functional Stage

- Criteria for return to play or function
 - No pain
 - Full pain free ROM
 - Normal strength and balance
 - Good general fitness
 - Normal mechanics



Conclusion

- Rehabilitation of patients rests on accurate diagnosis, proper identification of roles, cooperation among the different disciplines and a potent but practical goal setting.
- The patient is always the focus of treatment, and should have a quality of life that is deemed most acceptable.