

Introduction to Physical Rehabilitation

Introduction to Physical Rehabilitation

Key concepts, goals, and components for students and practitioners

1. What Is Physical Rehabilitation?

Aspect	Description
Definition	A systematic, evidence-based process that restores, maintains, or improves functional ability and quality of life after injury, illness, or disability.
Scope	Musculoskeletal, neurologic, cardiopulmonary, pediatric, geriatric, and community-based settings.
Professionals Involved	Physical therapists, occupational therapists, physiatrists, nurses, athletic trainers, speech-language pathologists, psychologists, and allied health staff.
Core Philosophy	<i>Patient-centered:</i> goals are set with the individual, not imposed on them. <i>Holistic:</i> physical, psychological, social, and environmental factors are considered.

2. Goals of Physical Rehabilitation

1. **Pain Management** – Reduce acute and chronic pain through modalities, manual therapy, and exercise.
 2. **Functional Restoration** – Recover the ability to perform activities of daily living (ADLs) and occupational tasks.
 3. **Mobility & Balance** – Improve gait, transfers, and postural stability.
 4. **Strength & Endurance** – Recondition muscles and cardiovascular systems to pre-injury or optimal levels.
 5. **Prevention** – Decrease risk of secondary injuries, falls, and complications (e.g., contractures, pressure sores).
 6. **Education & Self-Management** – Empower patients with knowledge and skills for long-term health maintenance.
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3. The Rehabilitation Process – Step-by-Step

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Phase	Primary Activities	Typical Duration
A. Assessment	- History & subjective interview - Physical examination (ROM, strength, sensation, gait) - Outcome measures (e.g., FIM, Berg Balance Scale) - Goal setting with patient - Short-term (days/weeks) - Long-term (months/year)	30 min – 2 h (depends on complexity)
B. Goal Setting	- SMART criteria (Specific, Measurable, Achievable, Relevant, Time-bound) - Selection of therapeutic modalities (heat, electrical stimulation, etc.)	Ongoing
C. Intervention Planning	- Design of exercise program (strength, flexibility, aerobic, neuromotor) - Integration of assistive devices & orthotics	1–2 sessions
D. Implementation	- Supervised therapy sessions - Home exercise program (HEP) - Patient education (body mechanics, pacing)	2–6 weeks (typical acute phase)
E. Monitoring & Reassessment	- Re-measure outcomes - Adjust intensity, frequency, or modality - Address barriers (pain, motivation) - Final functional assessment - Transition to community/maintenance program	Every 1–2 weeks initially, then as needed
F. Discharge Planning	Referral to support services (e.g., vocational rehab)	End of episode of care

4. Core Treatment Modalities

Modality	Indications	Key Principles
Therapeutic Exercise	Strength deficits, limited ROM, endurance loss	Progressive overload, specificity, functional relevance

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Modality	Indications	Key Principles
Manual Therapy	Joint stiffness, soft tissue adhesions, pain	Joint mobilization, myofascial release, graded according to tissue