

Stroke upperlimb exercise protocol

STROKE – UPPER LIMB EXERCISE PROTOCOL



DO IT EVERYDAY
Small Steps
Consistent Practice
Better Recovery

RESTORE MOVEMENT • IMPROVE FUNCTION • ENHANCE INDEPENDENCE

ICD-10: I63 – I69

PHASE	EXERCISE	ILLUSTRATION	SETS × REPS / DURATION	FREQUENCY	PROGRESSION CRITERIA	
PHASE 1 FLACCID / EARLY RECOVERY (WEEK 0–2) FOCUS - Reduce spasticity - Prevent complications - Promote activation	1. HAND OPENING & CLOSING		3 × 15 each hand	Daily 2–3 times	Able to open & close hand actively	CLINICAL PEARL Repetition with quality is more important than quantity. Use affected hand as much as possible in functional tasks. Neuroplasticity happens with consistent practice. PROGRESSION GUIDE Progress when: ✓ Better movement control ✓ Increased ROM ✓ Improved strength ✓ Better coordination ✓ Independence in daily tasks COMMON MISTAKES ✗ Moving too fast ✗ Using unaffected hand for help ✗ Poor posture ✗ Inconsistent practice ✗ Avoiding functional use of hand RED FLAGS Stop & Refer if: • Sudden weakness or numbness • Severe pain • Shoulder subluxation • Swelling/redness • Spasticity increasing • No improvement for > 4 weeks
	2. WRIST FLEXION-EXTENSION		3 × 15 each direction	Daily 2–3 times	Full pain-free ROM	
	3. ELBOW FLEXION-EXTENSION		3 × 15 each direction	Daily 2–3 times	Full pain-free ROM	
	4. SHOULDER FLEXION (ASSISTED)		3 × 10	Daily 2–3 times	Able to lift arm > 90°	
PHASE 2 EARLY ACTIVE RECOVERY (WEEK 2–6) FOCUS - Improve ROM - Build strength - Improve coordination	5. SHOULDER ABDUCTION		3 × 10	Daily	Able to abduct > 90° without compensation	
	6. REACH & GRASP		3 × 10	Daily	Able to reach & grasp objects independently	
	7. WEIGHT SHIFT ON TABLE		3 × 10 each side	Daily	Able to bear weight without pain	
	8. TOWEL SLIDE (FORWARD)		3 × 15	Daily	Smoother movement with better control	
PHASE 3 FUNCTIONAL RECOVERY (WEEK 6+) FOCUS - Improve strength - Enhance coordination - Functional training - Return to activities	9. WALL PUSH UP		3 × 10	5–6 days / week	Able to perform 15 reps with good control	
	10. BALL SQUEEZE		3 × 15 5 sec hold	5–6 days / week	Increase hold time to 10 sec	
	11. DEXTERITY TRAINING (COIN PICK UP)		3 × 10 each hand	5–6 days / week	Faster & more accurate movement	
	12. FUNCTIONAL TASK PRACTICE (DAILY ACTIVITIES)		15–20 min task practice	Daily	Independent performance in daily activities	

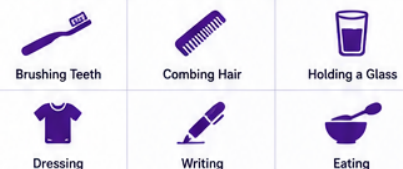
DOSAGE & FREQUENCY

- Daily practice is essential
- Start with short sessions (15–20 min) & gradually increase
- Quality > Quantity
- Rest between sets if needed

NEUROPLASTICITY PRINCIPLE



EXAMPLES OF FUNCTIONAL TASKS



REFERENCES

- Winstein C.J, et al. Stroke. 2016;47(6):e98–e169.
- Langhorne P, et al. Cochrane Database Syst Rev. 2011.
- Pollock A, et al. Stroke Rehabilitation Guidelines. 2014.
- Ada L, Canning CG. Clin Rehabil. 2005.

GENERAL GUIDELINES

- Always ensure safety during exercises.
- Monitor spasticity & fatigue.
- Involve family for home practice.
- Celebrate small improvements.

NOTE

This protocol is for general guidance. Individual exercise prescription should be based on clinical assessment.