ARM TREATMENT DECISION GUIDE

Hemiplegic UE Treatment Decision Guide

Denise, MS, OTR/L · Occupational Therapist

1 Use the Whole Presentation

A muscle grade describes a tested muscle in a specific position, not a whole-arm recovery stage. 1/5 = trace contraction; 2/5 = full available range with gravity minimized; 3/5 = full available range against gravity; 4/5 adds resistance.

2 No Voluntary Movement; Low Tone

Protect shoulder/hand, support alignment, prevent pulling and support comfortable available range, skin care and sensory attention. Support participation in hygiene, dressing setup or selected bilateral tasks; look for emerging activation without forcing movement.

3 No Voluntary Movement; Increased Tone

Check pain and other triggers. Protect alignment; use comfortable supported movement, hygiene and skin care; coordinate tone management. Improve comfort, hygiene and participation. Tone reduction alone is not the goal.

4 Emerging Movement; Low Tone

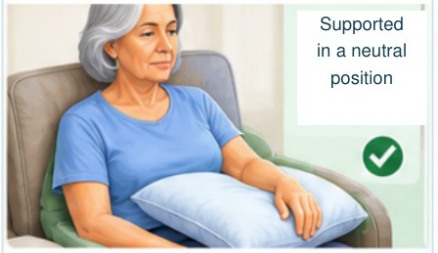
Grade gravity, support and object demands. Facilitate initiation and meaningful reach, grasp and release. Practice selected grooming, stabilizing or dressing components with the required support and help.

5 Emerging Movement; Increased Tone

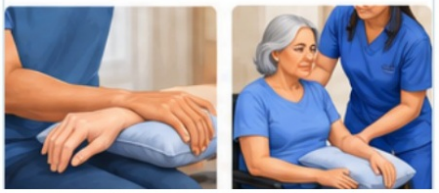
Address triggers and alignment. Practice active movement in comfortable range and adapt task demands. Choose a task in which active control can succeed; record assistance, movement quality and participation.

6 More Guidance & Examples

Movement Against Gravity/Resistance; With or Without Tone: Progress meaningful repetitions, dexterity, endurance and strength when indicated. Address tone if it limits the task. Progress self-care, home, work and leisure while monitoring pain, fatigue and movement quality. Red Flags: Stop and Reassess: New neurologic change • new severe headache • chest pain/fainting • unexpected severe shortness of breath • new or escalating shoulder pain • suspected injury • medical instability • a change that conflicts with current activity/BP or other medical parameters. Emergency Action: Sudden new neurologic symptoms or severe unexplained headache require immediate emergency/stroke activation; call 911 in the community, even if symptoms improve. Do not wait for routine rehabilitation review.

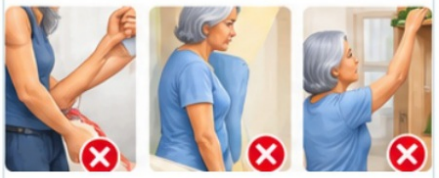


Supported Arm



Support at elbow and wrist.
Keep the arm close to the body.

Safe Handling



Unsupported / forceful positions

Function · Participation · Independence

In practice

Follow current orders.
Check comfort and fatigue.
Reassess task performance.

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Hemiplegic UE: Reassessment & Progression

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1 Shoulder Pain / Subluxation

Protect the arm during transfers and mobility; support alignment. Do not pull on the affected arm. During assisted shoulder movement, do not move passively beyond 90° of flexion or abduction unless the scapula is upwardly rotated and the humerus is laterally rotated. Avoid painful or forceful movement.

2 Spasticity / Increased Tone

Ask what is driving the tone: effort, pain, positioning, speed, stress, infection/medical issues or task demands. Use slow, supported handling and occupation-linked active practice. Escalate interdisciplinary management when tone meaningfully limits comfort, hygiene, positioning or function.

3 Neglect / Sensory Loss

Increase attention to the affected side, protect insensate tissue, use visual/tactile cues appropriately and embed the arm in meaningful activity rather than relying on isolated exercise alone.

4 Edema / Hand Hygiene

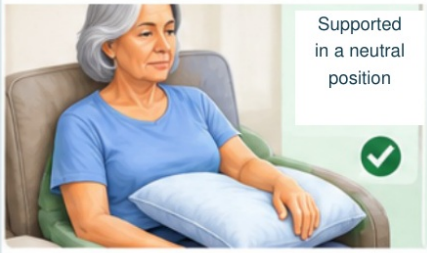
Position appropriately, encourage safe active movement when available, monitor skin, nails and palm hygiene, and address contracture risk. Avoid unverified one-size-fits-all edema techniques.

5 Possible Candidate for NMES/FES

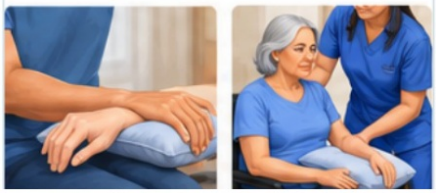
Consider when it serves a functional goal and there are no contraindications/precautions that preclude use. Follow device instructions, facility policy and competency requirements.

6 More Guidance & Examples

Possible Candidate for CIMT: Reserve for appropriately selected patients with sufficient active movement and ability to participate; it is not a treatment for a completely flaccid arm. A Simple Session Question: What can this arm safely contribute to an occupation today? Then grade the task, position, assistance and repetitions around that answer. Clinical note: Educational reference only. Apply patient-specific orders, precautions, clinical judgment, standardized assessment instructions, discipline scope, and facility policy. Fictional Clinical Example - Use the Whole Presentation: A patient can initiate an assisted reach but cannot release a grooming item. The OT checks pain, tone, sensation, attention and selective movement, then trials a supported task with an appropriate object. Assistance and response guide progression. The muscle grade alone does not select treatment or establish daily independence. Reasoning prompt: What can the arm safely contribute today, and what observation would justify changing the task?

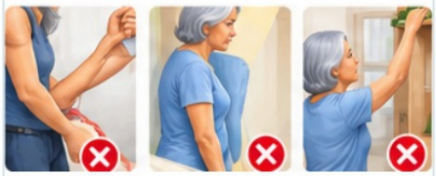


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Evidence & References

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1 Selected Guideline References

Department of Veterans Affairs & Department of Defense. (2024). VA/DoD clinical practice guideline for management of stroke rehabilitation (Version 5.0). Heart and Stroke Foundation of Canada. (2025). Canadian Stroke Best Practice Recommendations: Rehabilitation, recovery and community participation following stroke (7th ed., Parts One-Three). National Institute for Health and Care Excellence. (2023). Stroke rehabilitation in adults (NICE Guideline NG236). Hildebrand, M. W., Geller, D., & Proffitt, R. (2023). Occupational therapy practice guidelines for adults with stroke. American Journal of Occupational Therapy, 77(5), 7705397010. doi:10.5014/ajot.2023.077501 Winstein, C. J., Stein, J., Arena, R., et al. (2016). Guidelines for adult stroke rehabilitation and recovery. Stroke, 47(6), e98-e169. doi:10.1161/STR.0000000000000098

2 Evidence Interpretation

The evidence is not equally strong for every intervention or presentation. Treatment selection should reflect motor status, tone, sensation, cognition, pain, goals, medical status and setting. This decision tree is intended as a clinical starting point - not a protocol.

3 Want the Deeper Clinical Toolkit?

The Comprehensive Stroke OT Toolkit expands upper-extremity management into dedicated pages on motor examination, shoulder protection, subluxation/pain, flaccid UE, spasticity, hand hygiene/edema/contracture risk, splinting, NMES/FES, mirror therapy, CIMT and task-specific training. Clinical note: Educational reference only. Apply patient-specific orders, precautions, clinical judgment, standardized assessment instructions, discipline scope, and facility policy. © 2026 Denise, MS, OTR/L · OT Practical Guide · Complimentary professional resource

4 Current Guideline Update

The 2016 AHA/ASA guideline is a historical source. Current guidance: Richards, L. G., Ifejika, N. L., Stein, J., et al. (2026). 2026 Guideline for adult stroke rehabilitation and recovery. Stroke. doi:10.1161/STR.0000000000000536. See the expanded evidence section for the limits of the topic mapping.

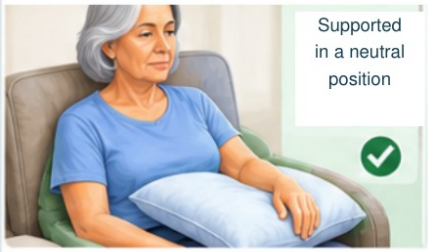


Interview



During activities

Activity Support



Supported Arm

In practice

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