

CLINICAL INFORMATION BROCHURE

Integrating NMT into stroke rehabilitation

A multidisciplinary framework for consistent care across
acute, post-acute and functional recovery

ONE METHOD.

Shared clinical language.

ONE TEAM.

Coordinated application.

ONE GOAL.

More opportunities for
safe practice.

NMT Institute

NeuroMuscular Taping • Elastic decompression methodology

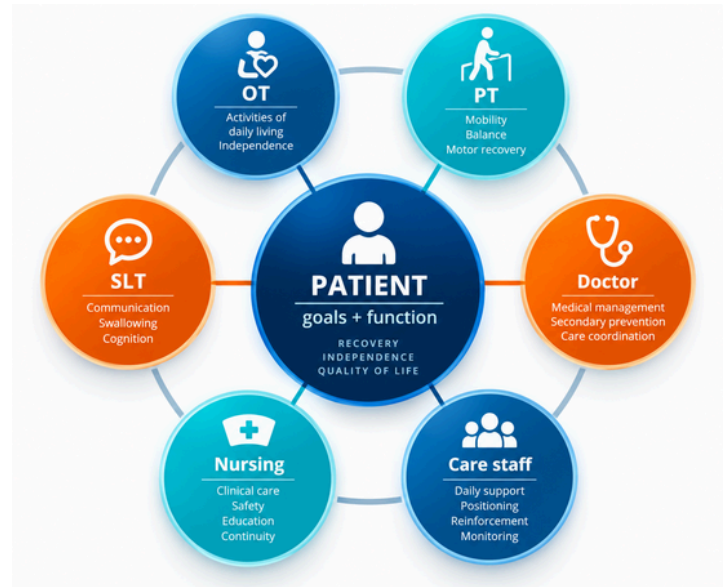
WHY INTEGRATION MATTERS

Stroke recovery is a team process — not a sequence of isolated treatments

Stroke rehabilitation is inherently multidisciplinary as stroke affects multiple areas of function simultaneously, including strength, motor control, balance, gait, upper-limb function, sensation, communication, swallowing, cognition and independence in daily activities. These impairments interact, indicating that effective rehabilitation requires coordinated care rather than isolated treatments delivered independently by different professionals.

Current stroke guidelines place multidisciplinary rehabilitation at the centre of recovery. The 2026 AHA/ASA guideline recommends interdisciplinary assessment and individualized rehabilitation, while the 2023 National Clinical Guideline for Stroke emphasizes an integrated specialist team involving medicine, nursing, physiotherapy, occupational therapy, speech and language therapy and other relevant disciplines.

The objective is not simply to provide more treatment, but to create a coherent rehabilitation environment based on shared functional goals. A movement strategy introduced during physiotherapy can be reinforced during transfers by nursing staff, incorporated into self-care with occupational therapy and practised with rehabilitation assistants.



Communication and swallowing strategies can similarly be reinforced throughout daily care. Rehabilitation extends beyond formal therapy sessions and needs to interact in the patient's everyday activities.

This continuity is particularly important because recovery depends on meaningful, repetitive and task-specific practice. The 2023 stroke guideline recommends incorporating skills gained in therapy into daily routines and maximizing opportunities for activity outside therapist-led sessions. For patients with motor recovery goals, it recommends at least three hours of multidisciplinary therapy per day, five days per week, with appropriate support for additional activity throughout the day.



Why shared training matters

- Common indications and precautions
- Consistent application principles
- Agreed documentation and outcome measures
- Continuity across shifts and disciplines



What the patient experiences

- Fewer contradictory instructions
- Better continuity between therapy and daily care
- More opportunities to practise functional tasks
- Clearer progression from impairment to participation

Where NMT can fit within this model

Within such a coordinated rehabilitation pathway, NeuroMuscular Taping (NMT) should be considered an adjunctive intervention rather than an isolated treatment. Its purpose is not to replace active rehabilitation, repetitive task practice, positioning, gait training, upper-limb rehabilitation, occupational therapy or speech and swallowing rehabilitation. Instead, an NMT application should be selected because it supports a clearly identified rehabilitation objective accentuating its continuous effect over time.

Depending on the patient's presentation and phase of recovery, that objective may include supporting the management of edema or painful shoulder symptoms, providing prolonged cutaneous sensory input, complementing positioning strategies, or accompanying movement and functional task practice. The clinically important question is therefore not simply "Where should the tape be applied?" but rather "What rehabilitation problem are we addressing, and what activity or function do we want to influence?"



 Before activity	 During therapy	 Between sessions
Define the target: pain, edema, positioning, sensory awareness or a functional movement problem. Check skin, cognition, communication and medical precautions.	Pair the application with task-specific practice: reaching, transfers, gait, postural control, upper-limb use, self-care or clinician-directed swallowing/orofacial work where appropriate.	Use the tape as a continuing sensory cue while nursing/care staff reinforce the same positioning and activity plan. Monitor skin and patient response.

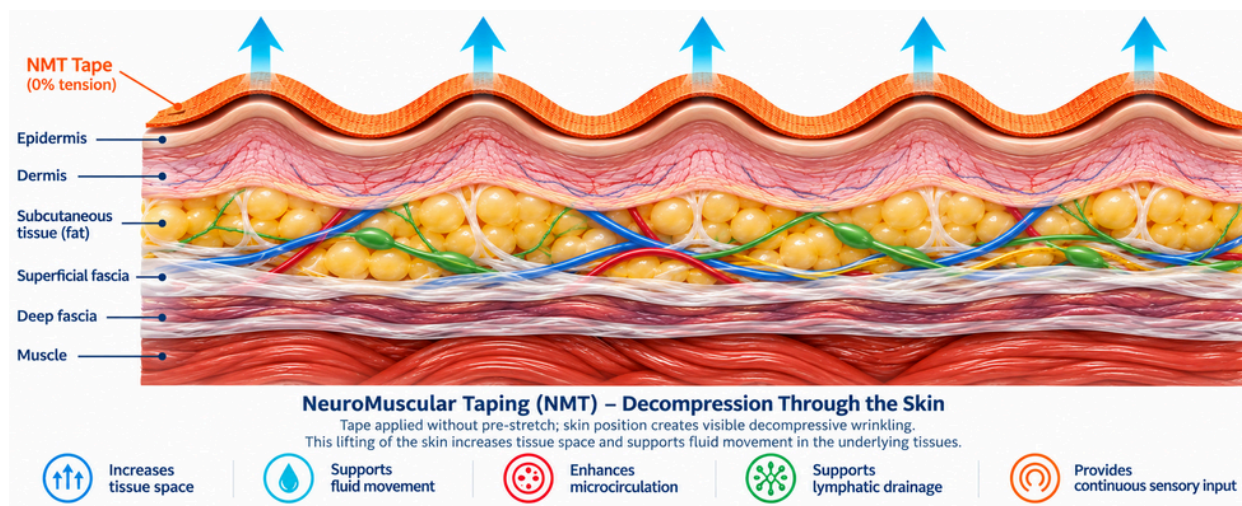
This distinction is fundamental. An NMT application becomes clinically meaningful when it is connected to assessment, functional goals and subsequent activity. For example, an application used around the hemiplegic shoulder should form part of a broader strategy involving appropriate positioning, handling, movement and upper-limb rehabilitation. Likewise, an application intended to provide sensory input to the lower limb should be integrated with appropriate standing, balance, transfer or gait activities rather than being considered a treatment endpoint in itself.

From a therapy session to a 24-hour rehabilitation environment

One potential advantage of integrating NMT into a multidisciplinary program is that the application remains in place beyond the individual therapy session. This creates the possibility of maintaining cutaneous sensory input while the patient participates in different rehabilitation activities during the day.

However, this also makes team training particularly important. If only one therapist understands the application, its purpose may effectively disappear when that professional leaves the patient. When doctors, physical therapists, occupational therapists, speech and language therapists, nurses and appropriately trained care or rehabilitation staff understand why an application has been used, they can help maintain continuity: protecting the application, monitoring the skin, activating the NMT application through appropriate movement or manual therapy, reinforcing the associated positioning or activity strategy, recognizing an adverse response and communicating relevant changes to the treating team.

The objective is therefore not that every professional performs the same intervention. Each discipline retains its own competencies and scope of practice. Rather, the objective is to establish a shared clinical language and common understanding of the patient's rehabilitation strategy.



NeuroMuscular Taping (NMT) uses elastic tape with its specific decompression-oriented application strategy. NMT methodology is defined as a tape applied without pre-stretch while the body region is positioned to create skin elongation over the target area; when the patient returns toward a neutral position, visible skin wrinkling will occur. The intended clinical rationale is to provide prolonged cutaneous sensory input while avoiding rigid restriction of movement.

PHASE-BASED CLINICAL REASONING

The application changes as rehabilitation goals modify



01 ACUTE PHASE PROTECT • POSITION • ASSESS Early management for a safer recovery	 Priorities • Medical stability • Tissue protection • Safe positioning • Prevention of complications • Early, appropriate activity	 Potential NMT objectives • Support comfort around the hemiplegic shoulder • Assist edema-management strategies • Provide cutaneous sensory input • Complement positioning and handling plans	 Team checkpoint • Confirm skin integrity, vascular status, cognition, neglect, sensation and ability to report discomfort.	
02 POST-ACUTE PHASE RESTORE • PRACTISE • PROGRESS Build function through active rehabilitation	 Priorities • Increase practice dose • Recover ROM and selective movement • Improve transfers, gait and ADLs • Manage shoulder pain and soft-tissue problems	 Potential NMT objectives • Pair sensory input with repeated movement • Support upper-limb participation • Integrate with edema/scar management where relevant • Reinforce postural or movement strategies	 Team checkpoint • Agree the functional task that should improve and record a measurable outcome.	
03 FUNCTIONAL / COMMUNITY PHASE INTEGRATE • ADAPT • PARTICIPATE Support independence and quality of life	 Priorities • Participation • Endurance • Community mobility • Self-management • Return to meaningful roles	 Potential NMT objectives • Use selectively during higher-level motor practice, gait, upper-limb tasks or symptom management when it adds value to the program.	 Team checkpoint • Teach the patient/caregiver what the tape is for, what to monitor and when to stop.	
 PROGRESSION RULE Do not continue an application simply because it was used earlier.	At every phase ask: 1 What problem are we targeting? 2 What function should change? 3 How will we measure it? 4 Is NMT adding value? 5 Should the application be modified or discontinued?			

NMT application evolves with the patient throughout the stroke rehabilitation pathway. In the acute phase, priorities focus on medical stability, tissue protection, edema management, safe positioning and early sensory input; during the post-acute phase, treatment increasingly supports movement, functional practice, upper-limb participation, edema, pain, continuous afferent sensory input, mobility and progressive motor recovery; while in the functional and community phase, applications are directed toward higher-level movement, independence, improving function, correction of maladaptive postural and movement patterns, participation in meaningful daily activities. NMT should therefore never become a fixed or routine application: at each stage, the clinical team reassess the patient's needs, define a specific functional objective, measure the response and modify the application as rehabilitation goals change.

WHO NEEDS TO BE TRAINED?

A common competency base - with profession-specific responsibilities

The strongest implementation model is not “one taping expert” working alone. It is a trained stroke team that understands the method, knows when it may be appropriate, can recognise problems, and can maintain continuity while respecting professional scope of practice.

	Medical staff	Clinical suitability, diagnosis, medical precautions, integration with the overall stroke plan, escalation of adverse findings.
	Physical therapists	Motor recovery, mobility, gait, balance, shoulder management, task practice, outcome measurement and progression.
	Occupational therapists	Upper-limb use, positioning, ADLs, sensory-perceptual problems, self-management and meaningful task integration.
	Speech & language therapists	Communication access and, where trained and clinically appropriate, integration with dysphagia/orofacial rehabilitation objectives.
	Nursing staff	24-hour positioning, skin surveillance, edema observation, safe handling, reinforcement of the agreed activity plan and reporting change.
	Care / rehabilitation assistants	Supervised practice of agreed activities, observation of tape/skin, patient support and timely feedback to qualified clinicians.

The continuity advantage

When multiple disciplines understand the same application, the patient does not lose the treatment logic when the therapist leaves the room. Staff can protect the application, reinforce with associated movement or positioning strategy, observe tolerance, document response and communicate changes at handover. This is particularly relevant in stroke rehabilitation, where meaningful practice must extend beyond formal therapy time.

IMPLEMENTATION

From individual skill to a hospital-wide clinical pathway

Training Alone Is Not Enough

Training provides the knowledge and practical skills required to apply NMT, but training alone is not enough to create a reliable clinical service. Sustainable integration requires clear governance, standardized documentation, agreed indications and precautions, defined responsibilities for assessment, application, monitoring and discontinuation, and access to ongoing clinical supervision. Designated clinical leads, refresher training and sufficient trained staff across disciplines and shifts provide continuity and backup, while regular review of clinical outcomes, safety, patient response and staff competency supports continuous quality improvement. This ensures that NMT becomes part of a coordinated, accountable and measurable stroke rehabilitation pathway, rather than an isolated technique dependent on individual practitioners.

1

Build a core NMT stroke team

Train representatives from medicine, PT, OT, SLT, nursing and care/rehabilitation staff. Nominate clinical leads for competency support.

2

Standardise assessment

Define indications, contraindications/precautions, skin checks, functional goals, application records and removal criteria.

3

Link every application to rehabilitation

The tape should accompany an explicit activity plan: positioning, reaching, transfers, gait, ADLs, communication/swallowing work or another measurable goal.

4

Create backup capacity

Avoid dependence on one clinician. Maintain enough trained staff across shifts and disciplines to review, replace, modify or discontinue applications safely.

5

Audit outcomes

Track clinical response, adverse skin events, patient experience, staff competency and whether NMT changes participation in the target task.



EVIDENCE-INFORMED USE

What the evidence supports - and what still needs to be studied

The rationale for integrating NMT into stroke rehabilitation should be evidence-informed, clinically relevant and responsive as well as respectful to individual patient outcomes. Stroke rehabilitation is supported by strong evidence for coordinated multidisciplinary care, repetitive task-specific practice and progressive functional activity, while the published evidence for NMT remains more limited and varies according to clinical indication, application methodology and study quality. However, the clinical value of NMT in everyday rehabilitation should not be considered solely in terms of the number of published studies. Its relevance also lies in how effectively it can be integrated into a broader rehabilitation strategy, linked to specific functional objectives, monitored through measurable outcomes and patient feedback, and adapted according to the individual's response and stage of recovery.

NMT study / clinical finding	Relevance to stroke rehabilitation
Pillastrini et al., 2016 Stroke, painful hemiplegic shoulder	Randomized clinical trial (n=32): NMT + standard physical therapy produced greater pain reduction and improved shoulder flexion and abduction ROM than standard therapy alone. Direct stroke evidence.

Clinical message

NMT is best positioned as a low-burden adjunctive intervention applied to address clearly defined clinical problems or specific symptoms within the broader rehabilitation program. Its use should complement active, goal-directed rehabilitation and be regularly reassessed, with treatment continued when the patient demonstrates meaningful clinical or functional benefit, positive response and good tolerance.



BUILDING A SUSTAINABLE NMT STROKE PROGRAM

Train the team. Standardize the pathway. Measure what matters.

 START	 STANDARDIZE	 SUPPORT	 REVIEW
Core multidisciplinary training + practical competency	Protocols, documentation, precautions, outcome measures	Clinical leads, refresher training, case review and backup staff	Patient outcomes, safety, adherence and service quality

Clinical governance note

This brochure is intended for professional education. NMT should be applied by appropriately trained personnel within local scope-of-practice, infection-control, skin-integrity and stroke-care policies. Individual clinical decisions require assessment of medical stability, skin condition, sensation, cognition/communication, vascular status, medications, allergies and other relevant precautions.

Selected References

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NMT INSTITUTE
NeuroMuscular Taping • Elastic
Decompression Methodology

Implementation objective
Create a trained, coordinated team capable of delivering
consistent adjunctive care across the stroke
rehabilitation pathway.

