

Neurologic Music Therapy® (NMT)™ for Dementia



Dementia

Also termed as “Major Neurocognitive Disorder”, dementia results in significant cognitive decline in one or more cognitive domains, based on subjective report and objective cognitive assessment, interfering with independence in everyday activities.

Most Common Types of Dementia

- Alzheimer’s Disease (AD)
- Vascular or Multi-Infarct Dementia
- Dementia with Lewy Bodies (DLB)
- Frontotemporal Dementia (FTD)

NMT™ Professionals, in collaboration with care teams, utilize standardized assessments and identify relevant treatment areas to **optimally support individuals living with dementia**. Music has a direct impact on the brain and functional behaviors like **movement, communication, cognition, and mental health**.

Sensorimotor Techniques within the NMT™ System use movement to music and the playing of instruments to address individual functional motor needs through structured, repetitive, engaging, and familiar stimuli.



Speech and Language Techniques within the NMT™ System use customized exercises such as singing familiar songs to help access and maintain residual speech as well as provide alternate ways for caregivers to help persons with dementia better communicate in everyday life.



Cognitive Techniques within the NMT™ System use structured active and receptive musical exercises to engage the brain and potentially slow down the progression of cognitive decline and provide temporary improvements in cognitive functioning.



Common Goal Areas

Movement

- Mobility
- Balance
- Coordination
- Strength
- Decrease risk of falls

Communication

- Word retrieval
- organization of language output
- Vocal quality
- Voice Volume

Cognition

- Memory loss
 - Difficulty performing familiar tasks
 - Disorientation in time and space
- Executive Function
 - Impaired judgment
 - Inhibition
 - Abstract thinking
- Neuropsychiatric Symptoms
 - Decrease agitation
 - Positive engagement in environment and community

Neurologic Music Therapy® (NMT)™ for Dementia



Examples of NMT™ Techniques:

NMT™ Sensorimotor Techniques:

Rhythmic Auditory Stimulation (RAS)® uses rhythmic motor cuing to facilitate training of movements that is intrinsically and biologically rhythmical.

Patterned Sensory Enhancement (PSE)® integrates the rhythmic, melodic, harmonic and dynamic-acoustical elements of music to provide temporal, spatial, and force cues for movements which reflects functional movements of activities of daily living.

Therapeutic Instrumental Music Performance (TIMP)® uses playing of musical instruments to exercise and simulate functional movement patterns in motor therapy.

NMT™ Speech and Language Techniques:

Musical Speech Stimulation (MUSTIM)™ utilizes musical materials (i.e. songs, rhymes, chants, and musical phrase) to simulate prosodic speech gestures and trigger automatic speech.

Vocal Intonation Therapy (VIT)® is the use of vocal exercises to train, maintain, develop, and rehabilitate aspects of voice control due to structural, neurological, physiological, psychological, or functional abnormalities of the voice apparatus.

Oral Motor and Respiratory Exercises (OMREX)™ is the use of musical exercises and playing of wind instruments to enhance articulatory control and respiratory strength and function of the speech apparatus.

NMT™ Cognitive Techniques:

Musical Sensory Orientation Training (MSOT)® uses live or recorded music to stimulate arousal and recovery of wake states and to facilitate meaningful responsiveness and orientation to time, place, and person.

Musical Attention Control Training (MACT)™ includes structured active or receptive musical exercises involving pre-composed performance or improvisation in which musical elements cue different musical responses to practice focused, sustained, selective, divided, and alternating attention functions.

Sources:

Alzheimer's Association. (2025). What Is Dementia? Alzheimer's Disease and Dementia; Alzheimer's Association. <https://www.alz.org/alzheimers-dementia/what-is-dementia>

Thaut, M., & Hoemberg, V. (2025). Handbook of Neurologic Music Therapy. Oxford University Press.

This resource was created by the Advisory Council of the Academy of Neurologic Music Therapy™. To read more about the NMT™ System of Techniques, please go to nmtacademy.co. This is for informational and educational purposes only. It does not constitute and should not be used as a substitute for medical advice, diagnosis, rehabilitation, or treatment. Patients and other members of the general public should always seek the advice of a qualified healthcare professional regarding personal health and medical conditions.