

## Neurodevelopmental Treatment (NDT) (Formerly Known as Bobath Approach)

The NDT approach considers maladaptive patterns as the reason for a client's inability to perform tasks, suggesting that a therapist should eliminate these abnormal movement behaviors and, with repetition and skill acquisition, re-create non-maladaptive motor patterns. This hands-on therapist-directed approach is used for task completion and to regain mobility, specifically motor control of the lower limbs for walking and balance. Five principles guide NDT therapy, and there are four common interventions that therapists use when addressing neurological deficits.



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### Population

#### CNS Disorders

##### [CNS-brain Disordered](#)

NDT's targeted population is those with neurological (CNS) disorders or impairments of all ages. Those who benefit from NDT the most are clients with posture and movement-related impairments commonly seen in cerebral palsy and post-stroke.

### Principles

#### Abnormal Patterns

##### [Abnormal Pattern](#)

It is difficult to break from abnormal use of patterns once the affected limbs are engaged. This approach is used with patients with impairments that experience difficulties breaking from abnormal patterns once engaged.

#### Spasticity and Hyperactive Reflexes

##### [Spaz-tic and Hiker-active-gear with Reflex-hammer](#)

Patients with CNS disorders may experience muscle spasticity and hyperactive reflexes, which create obstacles to moving freely. The NDT approach uses guided therapy techniques that help relieve these obstacles.

#### Adaptive Features

##### [Adaptive Creature-features](#)

During the use of NDT, occupational therapists identify abnormal movement patterns that arise due to limited mobility and are considered "adaptive features." Despite being labeled as adaptive, these patterns are actually maladaptive in nature.

#### Postural Alignment and Control

##### [Posture Alignment and Controller](#)

This treatment states that postural alignment and control provide the base for functional movement.

#### Correct Movement Patterns

##### [Correct Dance Pattern](#)

Re-establishment of correct movement patterns occurs by repetitively inhibiting synergistic movements and abnormal tone through guided therapy.

## Interventions

### **Alter Muscle Tone and Create Optimal Postural Alignment**

#### [Alter Muscle-man Tone and Create Optimus-prime Posture Alignment](#)

NDT uses therapist handling that aims to alter muscle tone during movement and create optimal postural alignment during skill acquisition.

### **Prevent Maladaptive Movement**

#### [Prevent Mallet-adaptive Dancing](#)

The NDT approach uses guided therapy techniques that prevent maladaptive movement from occurring during task completion.

### **Guided Sensorimotor Experiences**

#### [Guide Sensors-and-motor](#)

During the NDT approach, the therapist encourages the client to re-establish correct movement patterns by engaging in guided sensorimotor experiences.

### **Grading**

#### [Grading](#)

The NDT approach has the occupational therapist grading, increasing or decreasing, task-related movements, and postural behaviors for optimal occupational participation.