# Infant Developmental Therapy Team and Services

Many infants, born early or who have been ill, do not achieve timely developmental milestones due to the consequences of prematurity, medical complications, prolonged hospital stay and/or other congenital diagnoses. These babies benefit from special therapeutic interventions while in the hospital and during the first year of life.

The Brigham and Women's Hospital (BWH) multidisciplinary developmental therapy team works with these infants to evaluate developmental progress, discuss goals with the family, develop an individualized therapeutic program and provide the specialized care which facilitates the baby's appropriate progress.

We offer physical therapy (PT), speech and language pathology (SLP) and occupational therapy (OT) services which are provided by Brigham and Women's Hospital pediatric therapists who have specialized knowledge of the neurodevelopment of both preterm and full term infants.

Team members work in collaboration with medical and nursing professionals providing supportive care for these infants while they are in the Newborn Intensive Care Unit (NICU). They teach therapeutic interventions, activities and handling strategies in order to achieve developmental milestones. Often, these can be incorporated into routine care and play. The developmental team members also help parents identify and access community resources once the baby is able to go home.

## Developmental Activities and Strategies

Activities and strategies can include:

- Positioning techniques
- Pre-feeding skills
- Oral feeding skills, including breastfeeding and bottles
- Techniques to assist regulation of state and neurobehavioral organization
- Development of motor skills including strength of body and flexibility of muscles
- Sensory stimulation for skills related to looking, listening and feeling
- Approaches that support social interaction and parent-infant bonding
- Clues to understanding each infant's behavior and unique cues
- Assisting with transition to home
- Referrals to community resources (early intervention, infant follow-up programs and other outpatient resources)

## Development Specialist Services

**Feeding and Swallowing**

Performing developmentally appropriate clinical assessments of feeding and swallowing

Diagnosing suckling and swallowing disorders, and determining the abnormal anatomy and/or physiology associated with these disorders

Performing instrumental swallowing assessments (e.g. MBS, FEES) to evaluate swallowing function and determine aspiration risk

Enhancing the infant's developmental outcomes and prevent secondary sequelae by providing specific interventions to facilitate safe feeding and swallowing (e.g. by making therapeutic changes to infant feeding equipment, feeding therapy strategies, and feeding positioning)

Educating and empowering caregivers to competently and confidently feed their child in a safe and developmentally supportive manner

Helping to establish early feeding patterns that support optimal feeding, nutrition, and interaction patterns throughout childhood

Note: Special attention is given to infants at high-risk of feeding and swallowing difficulties, particularly infants with craniofacial anomalies (e.g. cleft lip and/or palate), airway malformations (e.g. laryngeal cleft, laryngomalacia, tracheoesophageal fistula, those with a tracheostomy in situ), congenital heart disease, chronic neonatal lung disease, neurological injury (e.g. intraventricular hemorrhage, seizures), and those who have had prolonged non-oral feeding (e.g. due to gastrointestinal injury)

**Musculoskeletal and Neuromotor Development**

- Therapeutic handling to strengthen muscles that are functional for infant's normal movements and age appropriate skill
- Decreasing compensatory patterns of movement or muscle activation and associated sequelae, including muscle tightness, postural deformities, and delayed acquisition of developmentally appropriate skills
- Performing general stretching and range of motion exercise
- Splinting and kinesiotaping
- Positioning to support midline flexion, infants with contractures, tonal abnormalities
- Positioning to reduce the risk of developing torticollis and/or plagiocephaly

**State Regulation and Neurobehavioral Organization**

- Encouraging infant socialization and parent-infant bonding
- Evaluating infants' physiological responses and stress cues to routine handling
- Providing strategies to caregivers to promote positive transitions between states in order to decrease adverse responses/behaviors
- Mitigating pain responses during invasive or non-invasive procedures
- Facilitating state transitions for participation in developmentally appropriate activities
- Modulating sensory stimulation, including environmental modifications