
Professional Certificate in Pediatric Physical Therapy

Growth and Development

Growth and Development Key Terms and Vocabulary

Growth: Growth refers to the physical changes that occur in a child's body over time. It involves an increase in size, weight, and height as the child gets older. Growth is a measurable and quantifiable aspect of a child's development.

Development: Development is a broader concept that encompasses not only physical changes but also cognitive, emotional, and social changes that occur as a child matures. It refers to the overall maturation of an individual over time.

Maturation: Maturation refers to the natural unfolding of genetically programmed changes in an individual's body and behavior. It is the process by which a child acquires new skills and abilities as they grow older.

Milestones: Developmental milestones are specific skills or behaviors that most children can do at a certain age range. They serve as checkpoints to monitor a child's progress and identify any potential delays or issues in development.

Motor Development: Motor development refers to the progression of movement skills in children. It includes both gross motor skills (e.g., walking, running) and fine motor skills (e.g., grasping objects, writing).

Physical Therapy: Physical therapy is a healthcare profession that focuses on improving physical function and mobility. In pediatric physical therapy, therapists work with children to address movement limitations, promote development, and improve overall quality of life.

Neurodevelopmental Theory: The neurodevelopmental theory emphasizes the influence of the central nervous system on a child's movement patterns and development. It highlights the importance of neurological factors in shaping motor skills.

Primitive Reflexes: Primitive reflexes are automatic movements that are present in infants and are essential for survival. As a child grows and develops, these reflexes should disappear or integrate into more sophisticated motor patterns.

Postural Control: Postural control refers to the ability to maintain a stable and balanced position during various activities. It is crucial for achieving motor milestones and performing everyday tasks.

Balance: Balance is the ability to maintain an equilibrium or stability while standing, sitting, or moving. It is an essential component of motor development and is necessary for activities like walking and running.

Coordination: Coordination refers to the ability to use different parts of the body together smoothly and efficiently to perform a task. It involves the integration of sensory information and motor responses.

Strength: Strength is the capacity of muscles to generate force. Adequate strength is necessary for performing physical activities, maintaining posture, and preventing injury.

Flexibility: Flexibility is the range of motion around a joint. Good flexibility enables children to move freely and efficiently, reducing the risk of musculoskeletal problems.

Endurance: Endurance is the ability to sustain physical activity for an extended period. It is essential for maintaining energy levels and completing tasks without fatigue.

Developmental Delay: A developmental delay is when a child does not reach developmental milestones within the expected age range. It may indicate a need for intervention or support to help the child catch up in their development.

Early Intervention: Early intervention refers to services and support provided to children with developmental delays or disabilities at a young age. The goal is to address issues early on and promote optimal development.

Individualized Education Plan (IEP): An IEP is a personalized plan developed for students with special needs to outline their educational goals, accommodations, and services. It is designed to support the child's learning and development.

Play-Based Therapy: Play-based therapy uses play activities to engage children in therapy sessions. It is an effective way to promote development, improve motor skills, and enhance social interactions in a fun and interactive manner.

Family-Centered Care: Family-centered care involves collaborating with families to make decisions about a child's therapy and care. It recognizes the importance of family involvement in a child's development and well-being.

Assessment: Assessment involves evaluating a child's strengths, weaknesses, and needs to determine their current level of functioning. It helps guide treatment planning and monitor progress over time.

Intervention: Intervention refers to the strategies, techniques, and activities used to address a child's developmental needs and promote growth. It may include physical therapy, occupational therapy, speech therapy, and other services.

Home Exercise Program: A home exercise program is a set of exercises and activities prescribed by a therapist for a child to do at home. It helps reinforce therapy goals, improve skills, and enhance carryover of skills into daily life.

Adaptive Equipment: Adaptive equipment refers to devices or tools that assist children with disabilities in performing daily activities. It can include wheelchairs, orthotics, walkers, and other aids to enhance function and independence.

Orthoses: Orthoses are custom-made or prefabricated devices worn on the body to support, align, or immobilize a body part. They are commonly used in pediatric physical therapy to address musculoskeletal issues.

Gait Analysis: Gait analysis is the assessment of a child's walking pattern to identify abnormalities or issues with their gait. It helps therapists understand how a child moves and guide treatment planning.

Constraint-Induced Movement Therapy (CIMT): CIMT is a therapeutic approach that involves restricting the use of one limb to encourage the use of the affected limb. It is used to improve motor function and promote recovery after neurological injuries.

Neuroplasticity: Neuroplasticity refers to the brain's ability to reorganize and adapt in response to learning, experience, or injury. It plays a crucial role in motor learning and rehabilitation.

Sensory Integration: Sensory integration is the process of organizing sensory information from the environment and the body to produce an appropriate response. It is essential for motor planning, coordination, and overall development.

Environmental Modification: Environmental modification involves adapting the physical environment to support a child's participation and engagement. It can include changes to the layout, equipment, or materials to facilitate motor skills.

Transdisciplinary Team: A transdisciplinary team is a group of professionals from different disciplines (e.g., physical therapy, occupational therapy, speech therapy) who collaborate to provide comprehensive care for a child. It promotes a holistic approach to therapy.

Telehealth: Telehealth is the use of technology to deliver healthcare services remotely. It allows therapists to conduct virtual assessments, consultations, and therapy sessions with children and families, improving access to care.

Challenges in Pediatric Physical Therapy: Pediatric physical therapy presents various challenges, including addressing individual differences, engaging children in therapy, coordinating care with other providers, and adapting to changing needs and environments.

Professional Development: Professional development involves continuing education, training, and skill-building to enhance the knowledge and expertise of pediatric physical therapists. It is essential for staying current with best practices and advancements in the field.