

# Prevalence of Retained Primitive Reflex among Healthy Preschool going Children

**Yukta Sharma, MPT Student, Department of Physiotherapy, Maharishi Markandeshwar Institution of Physiotherapy and Rehabilitation, Maharishi Markandeshwar (Deemed to be University), Mullana, Ambala, Haryana, India.**

**Akanksha Saxena, Assistant Professor, Department of Physiotherapy, Maharishi Markandeshwar Institution of Physiotherapy and Rehabilitation, Maharishi Markandeshwar (Deemed to be University), Mullana, Ambala, Haryana, India.**

**Mandeep Jangra, Assistant Professor, Department of Physiotherapy, Maharishi Markandeshwar Institution of Physiotherapy and Rehabilitation, Maharishi Markandeshwar (Deemed to be University), Mullana, Ambala, Haryana, India.**

## NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:

Akanksha Saxena,

Assistant Professor, Department of Physiotherapy, Maharishi Markandeshwar Institution of Physiotherapy and Rehabilitation, Maharishi Markandeshwar (Deemed to be University), Mullana, Ambala, Haryana, India.

E-mail: akankshasaxena623@gmail.com

## ABSTRACT

**Introduction:** Primitive reflexes are brainstem-mediated involuntary movements, emerging around the 25<sup>th</sup> week of pregnancy and fading by six months, supporting motor development. Cortical maturation inhibits these reflexes via motor control pathways. Persistent reflexes may signal neurological conditions like cerebral palsy or milder issues such as learning difficulties. Improper integration can affect motor skills, coordination, behaviour, and learning.

**Aim:** To investigate the prevalence of persisting brainstem-mediated reflexes like Asymmetrical Tonic Neck Reflex (ATNR), Symmetrical Tonic Neck Reflex (STNR) and Tonic Labyrinthine Reflex (TLR) among preschool going children.

**Materials and Methods:** This observational study includes 240 school-going children of age 4-6 years from two different schools of Ambala and Punjab and they were screened for persistence of primitive reflex using the Sally Goddard Institute for Neuro-Physiological Psychology battery reflex test.

**Results:** This study showed the maximum persistence/prevalence of right ATNR (83%), whereas extension STNR had the low prevalence rate of (46%). Left ATNR had the prevalence of 78%, extension TLR had 47% prevalence rate, and flexion STNR and flexion TLR had 65% prevalence of persistence.

**Conclusion:** Persistence of ATNR is maximum where as persistence of STNR and TLR has low prevalence. Early screening and interventions to address persistent reflexes like reflex integration therapy can be used to avoid the neurological impairments like attention, reading, coordination, learning difficulties, inability to perform motor tasks and gait impairments which can prevent developmental delay.

**Keywords:** Abnormal reflex, Asymmetrical tonic neck reflex, Symmetrical tonic neck reflex, Tonic labyrinthine reflex.