

## Clinical Exercise

### Paediatric exercise physiology

#### Abstract

Developing effective exercise programs for children requires a holistic understanding of their physical, neurological, and emotional wellbeing. This presentation explores the key components of designing targeted, evidence-based, and engaging exercise programs for children. We begin by identifying common areas of a child's wellbeing that should be considered when prescribing movement, including emotional regulation, sensory processing, and physical development.

A major focus will be on primitive reflexes—the automatic, early-life movement patterns that form the foundation for later motor skills. Drawing on current research, we will explore the developmental impact of retained vs. integrated reflexes and how reflex-based interventions can enhance children's coordination, attention, and postural control.

Incorporating recent findings on the positive effects of exercise on brain development, emotional wellbeing, and motor milestones, we'll discuss how programs can be structured to meet the child's individual developmental stage while ensuring they remain fun, playful, and engaging.

Special attention will be given to how movement milestones should inform program goals and exercise selection.

Finally, we will outline our structured assessment and program development process, which includes baseline movement testing, goal setting, and ongoing review to ensure a child-centred, responsive approach to physical development.

This session is designed for allied health professionals, educators, and therapists seeking to enhance their approach to paediatric movement programming through a blend of science, strategy, and creativity.

## Tanya Barnett

### Biography

**Tanya Barnett** is an Accredited Exercise Physiologist and the founder of Coordinated Fitness and Coordinated Kidz. She has over 20 years of experience in the Allied Health industry. Tanya is passionate about using movement as medicine to support individuals of all ages and abilities. She specialises in developing tailored exercise programs that promote physical and mental well-being, particularly for children and clients with chronic conditions, disabilities, or rehabilitation needs. Through her businesses, Tanya delivers inclusive, evidence-based services that empower clients to achieve health goals and improve their quality of life. She commitment to education, innovation, and compassionate care.

