

# PEDIATRIC POWER MOBILITY – AUGMENTED MOBILITY

## A NEW TREND

*Power wheelchairs can provide a means of independent mobility within the environment to people with motor impairments.* Research has demonstrated that even young children can benefit from the introduction of power mobility when other forms of mobility are limited or not possible. The onset of any form of independent mobility, whether crawling or using a power wheelchair, has been linked to cognitive, visual and visual perceptual, and psychosocial development.

Traditionally, power wheelchairs are provided to children who demonstrate the motor and cognitive skills to operate one with fair independence. Many funding sources will not purchase a power wheelchair for children under 5 years of age as this is when children start kindergarten. The assumption here is that children do not have anywhere to drive before starting school. Some funding sources may pay for a power wheelchair at age 3 years as some children begin preschool at this time. In reality, preschool is not an ideal or safe place to drive a power wheelchair!

Adults tend to move to get places, whether we are walking to our desk or driving to the grocery store. Children, particularly very young children, tend to move for the sake of movement. That very movement is clearly linked to development. Children who lack movement are missing out on developmental opportunities. Augmented power mobility is designed to provide mobility to very young children – not necessarily to help them get somewhere, but for the overwhelming developmental benefits. How young? Well, most children begin crawling between 7 and 10 months of age. If mobility is impaired, augmented mobility experiences should ideally begin when peers are up and moving.

Over the years, attempts have been made to bring power mobility to very young children. One study in the early 1990s was performed at the Rehabilitation Engineering Center at Lucile Salter Packard Children's Hospital at Stanford using the Transitional Positioning Mobility Device (TPMA, see Picture 1). The study included children from 15 months to 4 years of age. The TPMA placed children in a standing position and provided self-initiated mobility to augment development.

Many parents and clinicians have adapted commercially available ride-on toys to provide adequate postural support as well as alternative controls. Most ride-on toys require adequate motor control to use a small steering wheel and press a “gas” pedal. Some of these bases were made available for purchase after being adapted, such as the Cooper Car (RJ Cooper).

In more recent years, a renewed interest has been created through programs such as the GoBabyGo project out of Delaware. Beginning with custom mobility devices, Cole Galloway and his group have taken their show on the road with a series of workshops during which parents and others adapt popular ride-on toys, bringing inexpensive mobility to very young children (See Picture 2).



PICTURE 1

Transitional Powered Mobility Aid



PICTURE 2

Cole Galloway and the GoBabyGo project

The appeal and need of these adaptive ride-on toys is two fold. First, funding sources will not pay for augmented power mobility devices at this time. By adapting readily available toys, costs are minimal. Second, no pediatric power wheelchair looks as kid-friendly as these mobility bases. That isn't just fun for the kids – this makes early mobility options easier for young parents to accept.

For more information on the GoBabyGo Project, please visit [www.udel.edu/gobabygo](http://www.udel.edu/gobabygo)

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