Constraint-Induced and Bimanual Therapy
A Fairmount Rehabilitation Program at Kennedy Krieger Institute

Who We Are
The Constraint-Induced and Bimanual Therapy Program provides intensive therapy for children with hemiparesis caused by stroke, cerebral palsy, brain injury, or other conditions. The program uses an evidence-based understanding of the brain’s natural ability to form new connections to help increase function and independence in children and adolescents with hemiparesis. Our unique program combines traditional constraint-induced movement therapy with a period of intensive bimanual therapy to ensure carry-over of new skills.

Who We Serve
We treat children with hemiparesis caused by stroke, cerebral palsy, brain injury, or other conditions.

Our Treatment Approach
For children with hemiparesis, sometimes the greatest barrier to their improvement is their more functioning limb. To encourage use of the affected arm, the child’s functional arm is placed in a cast and therapy is provided to promote function of the affected limb. The casted arm is carefully monitored for proper circulation and skin integrity. A few days before the program ends, the cast is removed and the child practices using both arms for everyday activities.

Therapists encourage function of the affected limb by incorporating activities of gradually increasing difficulty in play and age-appropriate activities. A great deal of positive reinforcement is given throughout the process.

While the child’s arm is casted, caregivers need to provide greater assistance with self-care activities at home. Therapists teach families to help their children deal with any frustration.

Speech language pathologists, neuropsychologists, and other specialists are also routinely consulted.

Our Team
Our multidisciplinary therapeutic team provides each patient’s care. The team includes:
• Pediatric rehabilitation medicine specialist
• Occupational therapists
• Physical therapists
• Nurses

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as well as the best ways to assist their children. To help children maintain the progress they have made during therapy, therapists work with families to develop a customized home therapy program. Patients are also followed after the program, as needed, to monitor the progress of therapy.

We provide intensive therapy five days a week, for approximately five weeks. Appropriate patients ages 1 to 4 years old typically receive a partial day program of three hours, and those older than age 4 are usually scheduled for a full day of six hours of therapy. Treatment hours are usually from 8:30 a.m. to 2:30 p.m., Monday through Friday, with a shortened day on Wednesday. In addition to age, characteristics such as cooperation, endurance, vision, and balance may also help determine the most appropriate program.

Our Success
- 100 percent of family members reported overall satisfaction with our care.
- 90 percent of children met or exceeded the goals set at their admission.

“Thanks to the Constraint-Induced and Bimanual Therapy Program, my son now has increased movement, use of his left hand, and he has much more self-confidence.”

- Katherine Wilkerson, parent